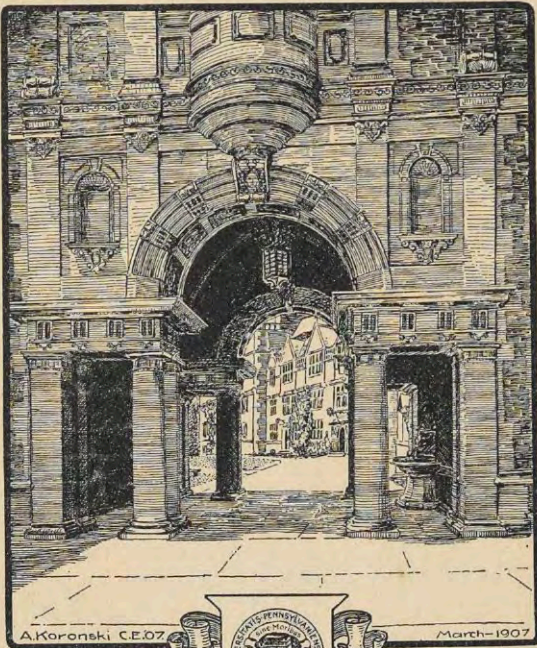
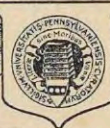


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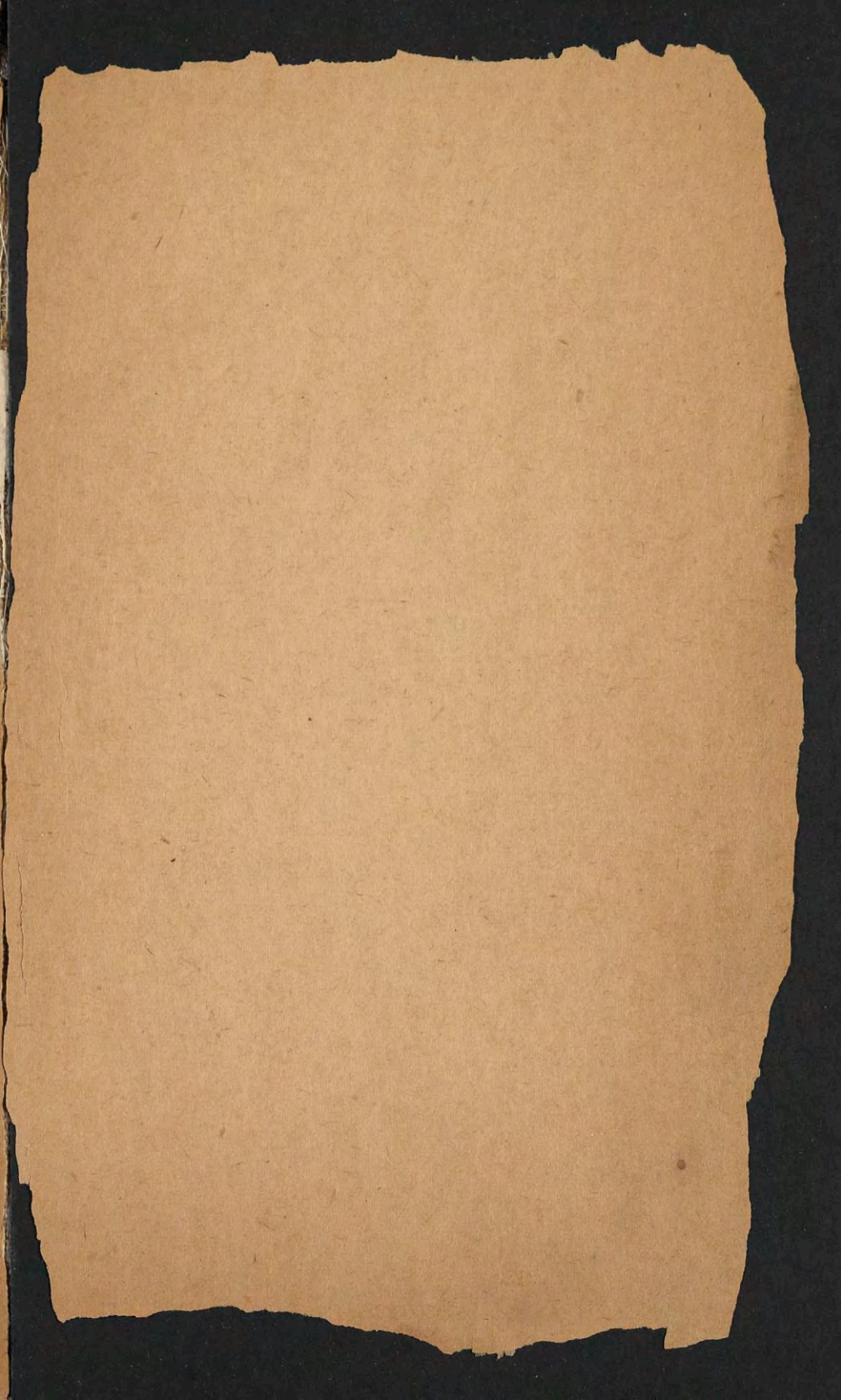
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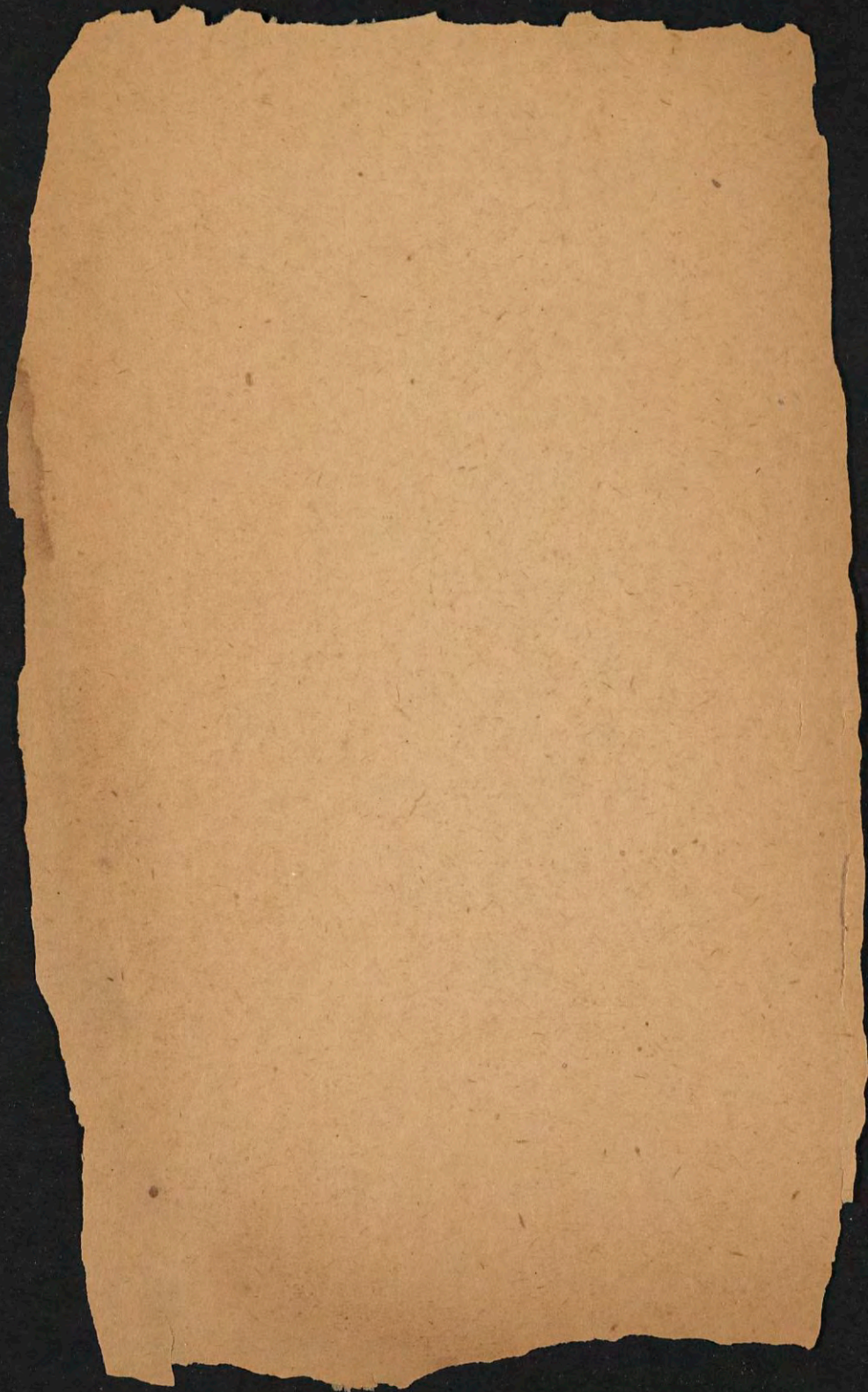
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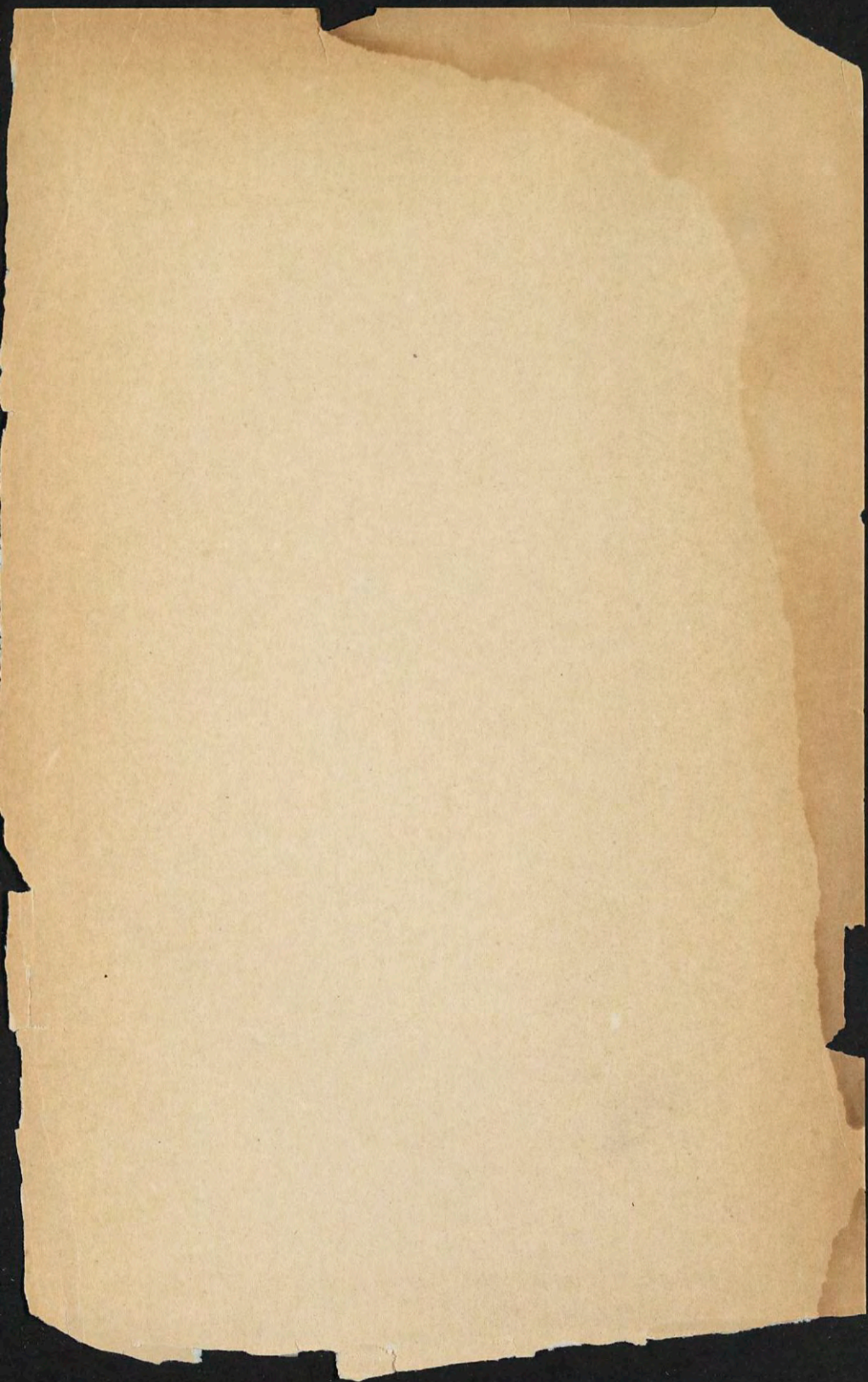
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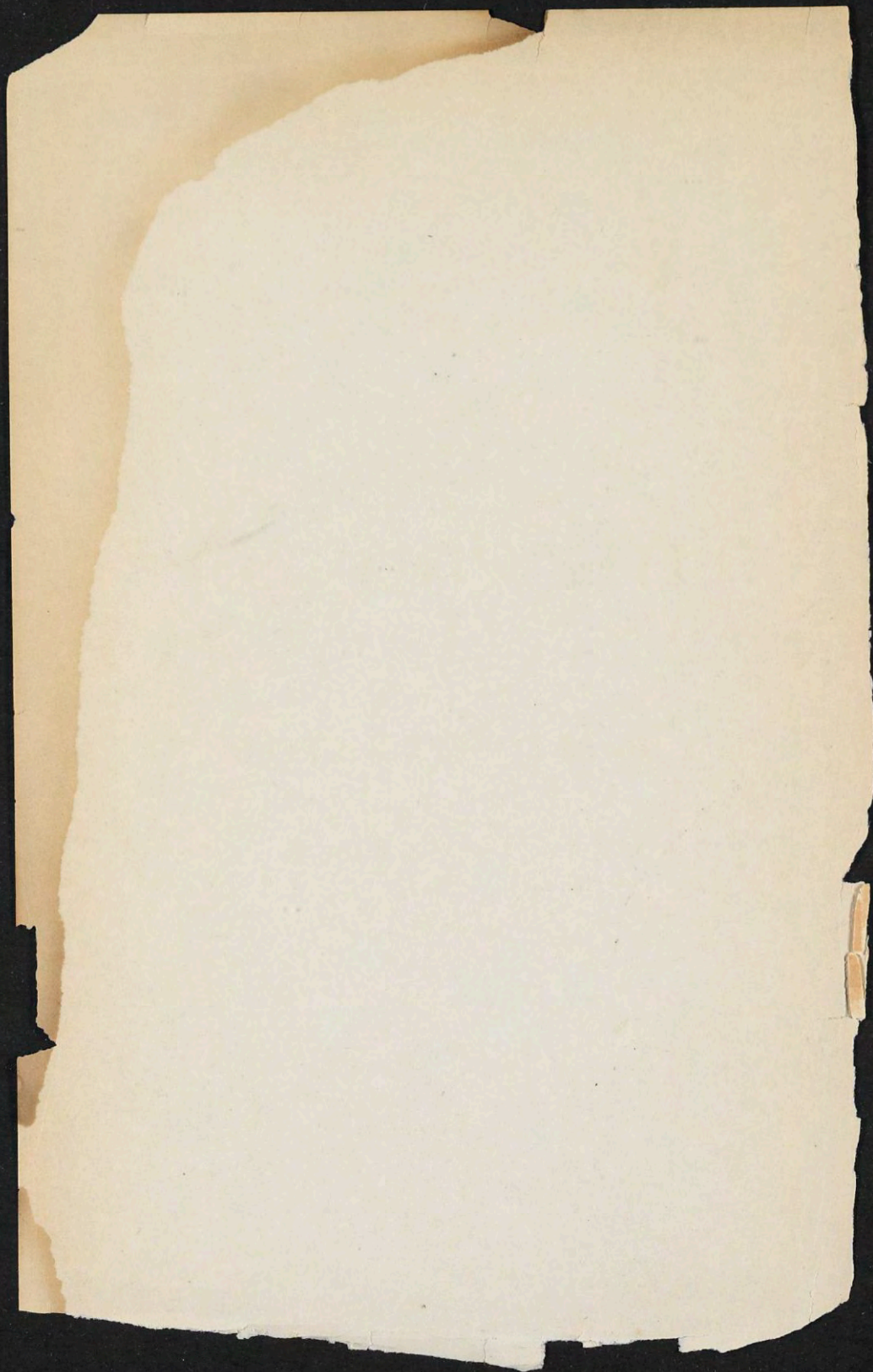
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PRESENTED BY
George E. Nitzsche









UNIVERSITY OF PENNSYLVANIA

Annual Report

OF

THE PROVOST

TO THE

BOARD OF TRUSTEES

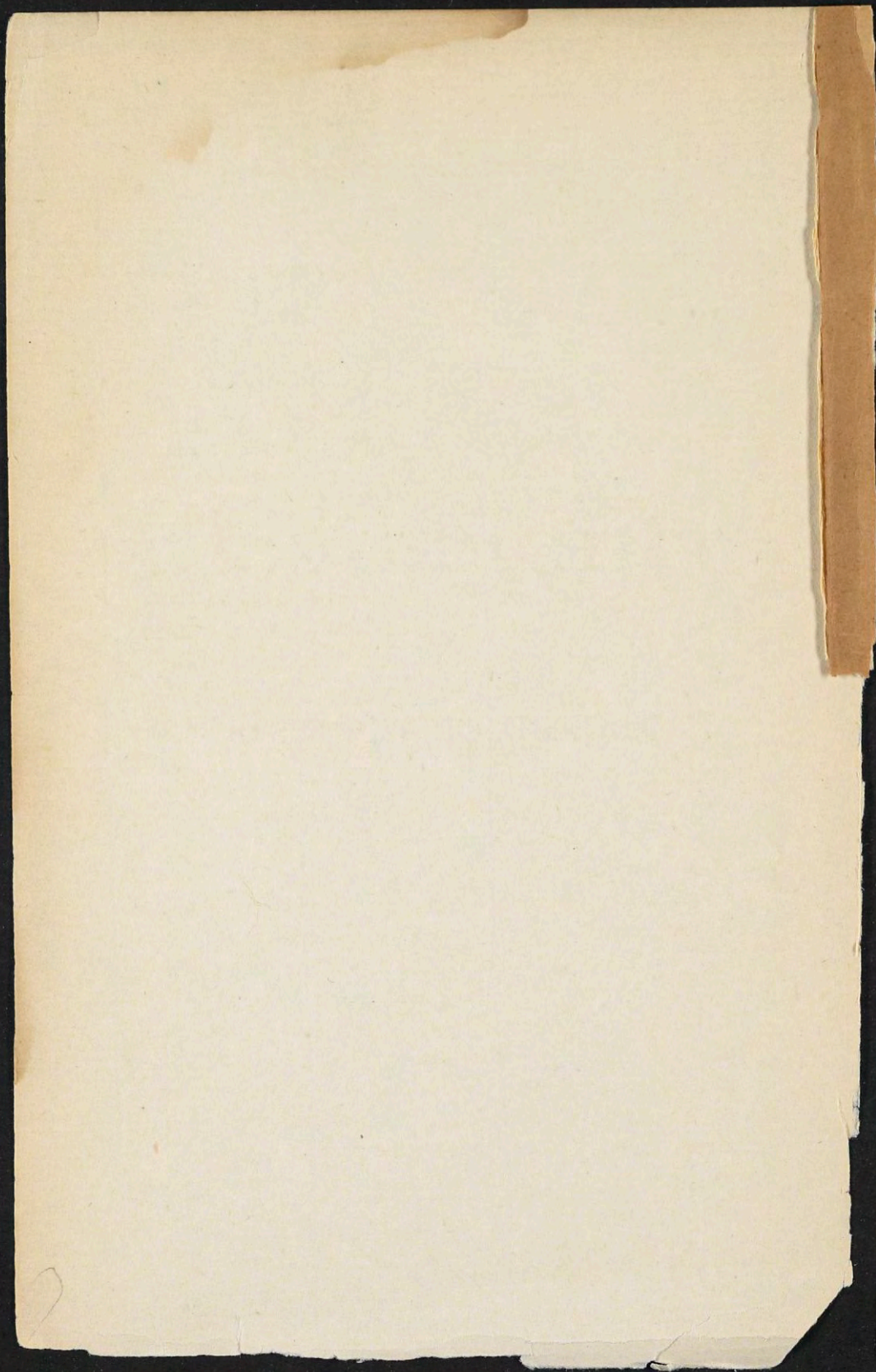
From September 1st, 1896, to September 1st, 1897

PHILADELPHIA

PRINTED FOR THE UNIVERSITY

1897

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To the Trustees of the University of Pennsylvania.

GENTLEMEN:—I beg herewith to submit to you the academic history of the University year which began on September 1, 1896, and ended upon August 31, 1897.

To the more important changes which have taken place in our University ranks—through death or resignation—I shall first call your attention. These losses, while not so numerous as those noted in my last Report, have yet been losses of grave moment to the University.

John Scott had served for twelve years as a member of your Board, and was in Committee conference within a few days of his death. His great legal ability and knowledge of affairs were united with conscientious devotion to whatever responsibilities he undertook. His colleagues on the Board, and on the Committee on Law and Legal Relations, of which he was Chairman, were accustomed to rely with implicit confidence on the wisdom of his judgment, and the thoroughness which marked his discharge of every duty. His memory is deservedly cherished by all who were associated with him in the service of the University. The beauty and purity of his character were shown in his countenance to a degree seldom seen amongst us. Probably no one who has ever been upon your Board will be longer or more gratefully remembered.

Immediately following the death of Mr. Scott, came that of Professor Theodore G. Wormley. Professor Wormley had for nearly twenty years conducted the courses in Chemistry in the Medical and Allied Schools. He had achieved a national reputation not only as a chemist, but also on account of his minute and exhaustive researches in

Toxicology, and in Histology. His testimony was in frequent demand as an expert in important legal cases. To a kindly disposition he added such manifest sincerity and such strict attention to the duties of his Chair, that the respect and affection of colleagues and of large classes of students, alike, went out to him yearly in greater measure. He died after a long illness, regretted by all; but particularly by those who had had the benefit of his example and instruction.

Dr. Edward D. Cope, Professor of Zoölogy and Comparative Anatomy, was a man of international reputation in his chosen fields of Science. A native of this City he was always warmly attached to it and to the University, in whose service the later years of his life were spent. His numerous memoirs on the Fishes, Batrachians, and Reptiles of America placed him in the front rank of the naturalists of the world. His published works on Philosophical Biology have profoundly influenced current Biological thought. As a teacher he gained the warm regard of his students by his wide knowledge, his clear and interesting style of teaching, and his genial disposition. His colleagues valued his conspicuous intellectual gifts and his earnest sympathy with progressive reform, and rejoiced in the honors which came to him from every quarter of the globe. It is a noteworthy fact, and one of the many indications that University service is not performed in a commercial spirit, that his bequests of books and collections to the University far exceed in money value all the emoluments he ever derived from it during his career as a Professor. It is to be hoped that some enduring memorial will be devised to keep in memory his connection with us.

After a service of twelve years, Dr. James MacAlister has resigned from membership in your Board. When he

was elected a Trustee, in 1885, he held the position of Superintendent of the Public Schools in Philadelphia, and it was felt that his election would go far to accomplish the wish of the Trustees that the University may always be in close touch with the Public School system. When the Drexel Institute was founded, Dr. MacAlister resigned his position as Superintendent, and accepted the presidency of that institution. Its development during the last few years has so taxed his time and energies that he no longer feels able to devote to the University the attention which the office of a Trustee demands. The minute recording the acceptance of his resignation pays a proper tribute to his services while a member of your Board.

The two vacancies in your Board remain yet to be filled, and I venture to express the hope that at least one appointment will now be made from outside of the City of Philadelphia. The interest of the whole State of Pennsylvania in the career and advancement of the University is becoming so marked that it seems to me a just and wise provision to have a Trustee representation in several parts of the State, as opportunity may offer.

There have been no important changes in the teaching force of the University during the year under review; but there have been several administrative changes. Professor Lamberton, than whom we have no more faithful officer nor sound and high-minded scholar, resigned the Deanship of the College, and the Vice Dean, Professor Penniman, has been elected by your Board in his stead. On account of the election of Dr. Marshall to the chair of Chemistry,—made vacant by the death of Professor Wormley,—Dr. Marshall resigned the Deanship of the Veterinary Department. This vacancy has been filled by the election of Dr. Leonard Pearson. There has been a

change, too, in the Treasurership, owing to the resignation of Mr. Arthur E. Newbold, who found that his business duties were too exacting to permit him to give the time necessary to those of the Treasurership. Mr. Thomas Robins was elected Treasurer and is able to devote himself to the duties of this trust.

A great improvement has taken place in the matter of University offices. These are now concentrated at No. 400 Chestnut Street, where the Provost, the Assistant to the Provost, the Treasurer, the Secretary, and others of our Staff are in close contact. The Board of Trustees is able now to hold its meetings in its own offices. It has depended hitherto for this accommodation upon the generous good-will of other Corporations.

STATISTICS OF TEACHERS AND STUDENTS.

There has been a slight decrease in the teaching force, but a marked increase in the number of students at the University during the past year. The statistics, classified as in my last Report and compared with those of the preceding year, are as follows:

PROFESSORS, LECTURERS AND INSTRUCTORS.

	1895-96.	1896-97.
The College	106	108
Department of Philosophy	44	49
Department of Law	13	10
Department of Medicine	80	82
Auxiliary Department of Medicine	5	5
Laboratory of Hygiene	4	4
Department of Dentistry	44	35
Department of Veterinary Medicine	17	17
Emeritus Professors	6	6
	<hr/>	<hr/>
	319	316
Duplications	68	74
	<hr/>	<hr/>
	251	242

STUDENTS.

	1895-96.	1896-97.
The College	871	917
Department of Philosophy	172	161
Department of Law	313	358
Department of Medicine	873	920
Auxiliary Department of Medicine	44	48
Laboratory of Hygiene	23	29
Department of Dentistry	323	373
Department of Veterinary Medicine	61	50
	<hr/>	<hr/>
	2680	2856
Duplications	48	45
	<hr/>	<hr/>
	2632	2811

The academic year 1896-97 thus shows a decrease of 9 teachers and an increase of 179 students.

As usual, a large proportion of students comes from the State of Pennsylvania. I subjoin, as before, a table giving the geographical distribution of our students for the year 1896-97:

Alabama	2	Iowa	13	Oregon	3
Alaska	1	Ireland	1	Pennsylvania	2022
Argentine Rep.	1	Jamaica, W. I.	2	Persia	1
Arkansas	1	Japan	4	Prince Edward	
Australia	6	Kansas	11	Island	1
Austria	2	Kentucky	2	Puerto Rico	2
Barbadoes	2	Louisiana	4	Rhode Island	11
Bermuda	2	Maine	11	Russia	6
Brazil	1	Maryland	14	Scotland	2
British Columbia	1	Massachusetts	45	South Carolina	2
Bulgaria	1	Mexico	1	South Dakota	1
California	12	Michigan	5	Spain	1
Canada	18	Minnesota	6	Switzerland	1
Colorado	3	Mississippi	2	Tennessee	10
Connecticut	24	Missouri	10	Texas	8
Cuba	3	Montana	1	Turkey	1
Delaware	59	Nebraska	4	U. S. of Colombia	1
Dist. of Columbia	9	Nevada	1	Utah	3
Ecuador	1	New Brunswick	4	Vermont	5
England	1	New Hampshire	5	Virginia	7
Florida	2	New Jersey	161	Washington	6
France	1	New Mexico	1	West Indies	2
Georgia	13	New York	106	West Virginia	17
Germany	7	New Zealand	1	Wisconsin	20
Hawaii	1	Nicaragua	6	Wyoming	1
Idaho	1	North Carolina	13		
Illinois	15	North Dakota	1		
India	1	Nova Scotia	2		
Indiana	13	Ohio	36		
				Total	2811

From this table it will be seen that of the 2811 students registered at the University last year, 2022 came from our own State, 702 from other States and Territories, and 87 from Foreign Countries.

SCHOLARSHIPS AND FREE TUITION.

During the year 1895-96, by remitting tuition fees in whole or in part, the University gave aid to 308 students, the amount of the aid given being \$36,855. Owing perhaps to the prevalent financial distress, the pressure to obtain scholarship aid during the past year, 1896-97, has been very great. This has been brought to bear especially on the Scholarship Committee in the College. To this cause and to the establishment of the Harrison Fellowships in the Department of Philosophy is due a large increase both in the number aided and in the amount given. In all, 331 persons received aid, to the amount of \$44,196.50. If there be added to this amount the sums granted to Fellows and Scholars in the Department of Philosophy, apart from tuition fees remitted, the total amount of aid given during 1896-97 reaches the, I think, excessive sum of \$52,371.50. Of the 331 persons aided, 71 had their fees remitted in part, and 260 paid no fees at all. Of the 331 persons, again, 50 held scholarships of the City of Philadelphia, 13 held scholarships under the appointment of the Governor of Pennsylvania, 25 were provided for by endowment, and the remaining 243 were aided by the University at its own direct expense, the amount of fees remitted to these 243 persons being \$29,956.50. The students aided during the year were distributed among five departments of the University; 169 in the College, 18 in the Medical Department, 21 in Law, 10 in Veterinary Medicine, and 113 in the Department of Philosophy.

As mentioned above, the totals for this year are swelled by the addition of the amounts granted for the first time under the George Leib Harrison Foundation, to holders of Fellowships and Scholarships in the Department of Philosophy, a full account of which appears in the Report of the Dean of that department. Twenty-one holders of Fellowships and Scholarships in that department, sixteen of them on the Harrison Foundation, received a remission of fees amounting to \$2100, and other aid amounting to \$8175.

In my last Report, I called attention to the fact that, of those aided in 1895-96, 62 per cent were from Philadelphia schools. This percentage was increased to 64 during 1896-97, and of the total of fees remitted, 63 per cent was help given to Philadelphians. This percentage excludes the aid given to students entered for graduate work, as these students have not entered the University directly from preparatory schools. It should be noted again that the University not only fulfilled its obligation to aid fifty holders of City Scholarships, remitting their fees to the extent of \$9030, but has granted free tuition in whole or in part to fifty other graduates of Philadelphia public schools, and to thirty-three persons from other schools in the City. There were thus aided in all 139 Philadelphians, who received remission of fees amounting to \$22,200.

I feel the question of granting free tuition to be a very serious one. The University now gives free tuition far beyond what the institution can afford, and, I think, beyond what is right and proper. Of course, it is right that there should be more aid voted in some departments of the University than in others. I think we are all of the opinion that the Graduate School merits the most generous consideration. Most of our students in this School

intend to become teachers or investigators; they have chosen a profession by no means remunerative, but of the utmost value to society. It is the duty of our Universities to encourage this work. Students, too, in the courses in Liberal Arts in the College, in most cases either intend to prosecute graduate studies or to enter professional schools. They are not in gain-producing courses of study. To these, too, we should be rather generous. There is not the same reason for liberality in granting aid to students in professional and technical courses, and I believe that an effort should be made carefully to restrict such aid.

Two questions have to be here considered: (1) What can the University do to help worthy students, in justice to itself and its work? It is carried on, as are all such institutions, at a large loss. The student pays but a fraction of the cost of his education, and the University needs all the revenue attainable to enable it to carry on its work. Yet there are able young men who should be helped. (2) What is the duty of the City and the State toward these needy and deserving students? It seems clear that the University, which is already doing more than it can afford, should receive aid from others, and that no application for a scholarship should be made so long as there is the least possibility that tuition fees can be paid by relatives or friends of the student.

THE BOARD OF DEANS.

The establishment of the Board of Deans has, I think, been more than justified, in the course of the past year, by the service which the Board has rendered in providing an effective solution of several problems in which the interests of two or more departments were equally involved.

The Board of Deans has considered and amended the

rules touching the scholastic standing of candidates for athletic teams in such a manner as to ensure a good standard of scholarship on the part of students engaged in athletics, and at the same time to provide rules which could be applied to the varying curricula of the several departments.

In accordance with a prior recommendation of the Board of Directors of the Houston Club, which went out of office at the close of the academic year 1895-96, the Board of Deans was constituted by the Board of Trustees the governing body of that Club, with the title "Board of Directors," and has administered the affairs of the Club during the academic year 1896-97. In like manner the government of the Dormitories has been placed in the hands of the Board of Deans. The details of administration, both of the Houston Club and the Dormitories, are, however, entrusted by the Board of Deans to the House Committee of the Club, and to the Parietal Committee of the Dormitories, respectively. The appointment of officers and the adjustment of matters of more serious import fall directly under the jurisdiction of the Board of Deans. Upon recommendation of the Board of Deans, Committees of Discipline have been constituted by your Board in the several departments, in accordance with a consistent plan; also a University Committee on Non-athletic Organizations has been appointed, which is to have over those organizations somewhat the same supervision exercised by the University Committee on Athletics over athletic organizations.

A system of co-operation has been introduced between the several departments of the University, by which any student who is regularly matriculated in one department as a candidate for a degree, is allowed to take work

in any other department, provided he secures the consent of the Deans concerned. Finally, several cases of discipline in which the students of more than one department were concerned, or which in an especial sense involved the credit of the University in the eyes of the community, have been referred to the Board of Deans, and have been acted upon by that body.

ATHLETICS.

The plans which were formed nearly three years ago for the oversight of the athletic interests of the students (and I here use the word "athletic" in a broad sense) found a partial completion in the appointment by your Board, last spring, of Dr. Caspar W. Miller as Director of Physical Education. Hitherto we have been able to claim but a small part of the time of our Director of Physical Education. We have, however, a claim upon the whole time and energies of the present incumbent, who will have a general supervision over the health and comfort of the students.

You will remember that somewhat more than a year ago a recommendation was made to your Board by the Academic Council of the College, to the effect that students in the College be compelled to undergo a careful physical examination. This action was taken by the Academic Council because it was found that a number of students in various courses in the College were physically incapable of properly fulfilling the requirements of their courses. Students with defective eyes entered courses in Architecture, and students with weak lungs undertook to perform the arduous duties required of those preparing to be mechanical engineers. It was felt that a student who had been physically examined might take advice as to the

course he could safely undertake, and might possibly, in some cases, be wisely dissuaded from undertaking work in any of the courses in the College.

It was not at that time possible to accede to the request of the Academic Council, but the appointment of a University physician, who would be enabled to give his whole time to the oversight of the health and well-being of students, was contemplated, as I have said, at the time of the reorganization of the University Athletic Committee, and it was only because it seemed impracticable to have the appointment made at once, that it was not urged long ago. Dr. Miller, who is a graduate of the College, of the Department of Philosophy, and of our own Medical School, and who has in addition spent two years in foreign study, seems well fitted to satisfactorily carry on this important work. He will have an oversight of those who are to serve upon the various athletic teams, that no injustice may be done to a student in allowing him to undertake athletic feats beyond his strength. This will, however, be the least part of his work, for the health of the whole body of the students is far more important than the high training of a few. Dr. Miller will not merely see to the physical examination of students and their athletic progress in the narrower sense, but he will arrange for medical advice to be had gratis by those who need it. It is a matter of some surprise to those unaccustomed to young men and their ways, to see how loth they are to expend even a small sum of money upon medical advice. They will suffer from serious colds and other minor maladies for weeks before they will go to a physician. Nor is this always due to poverty, for a student who has long been ill with a bad cold will pay a considerable sum to sit in the open air in inclement weather and watch a football game, which may

make his physical condition far worse than it was before. At the same time he will be unwilling to go to a physician for advice. It is of little use to combat this tendency. Students will not readily go to a physician unless he is easy of access, and they are not compelled to pay a fee. The fact that Dr. Miller will be regularly on the University grounds and that the students will get to know him personally as connected with a department of the University life in which they are much interested, will, I feel sure, result in their placing themselves under medical attendance in many cases, where neglect might result in serious illnesses.

The supervision of athletic sports by the University Athletic Committee is giving satisfactory results. The standard of scholarship is evidently kept up, and as the various athletic interests have adjusted themselves to the supervision to which they are subjected, there is more harmony among them than ever before. The members of the Athletic Committee are now appointed by the Board of Deans as a whole, and not by the individual Deans. This seems to be something of a check upon the idiosyncrasies of any individual, and is felt to be, both by the Deans and those interested in athletic sports, a wise measure.

THE DORMITORIES AND HOUSTON HALL.

The University Dormitories have been in operation for a year, and may now fairly be claimed to be a distinct success. During the past year a limited number of rooms were not taken, our experience being that of other institutions who have, for the first time, opened dormitories. The students have waited to see something of their workings, to understand under what restraints they would be placed, and whether their life would be quiet, or distracted by an unreasonable amount of noise.

At the present date it is evident that these questions have been answered satisfactorily, for the Dormitories begin their second year with a full complement of tenants. The students have certainly lived more hygienically, and in many ways more wholesomely in the Dormitories than they had been able to live outside of their walls.

Some apprehension was felt regarding the government of so large a group of students from so many different departments of the University, but these fears appear to have been groundless, for the government has been by no means difficult. The rules which have been made have been few and simple, and their only object has been to secure quiet and decency in the buildings, an object recognized as reasonable by the students themselves. Each house in the Dormitories was requested to elect from among its tenants a representative, to act, with the Parietal Committee, in the government of the community. The Parietal Committee has consisted of a professor and three proctors, the three proctors having their rooms in the three main blocks of the building: the Little Quadrangle, the north side of the Triangle, and the south side. After conference with the students it was decided, about the middle of the academic year, to try the experiment of instituting a system of student government as nearly as possible complete and independent. Under this government the students have been living during the past year.

The organization established is as follows: The fifteen houses each elect one member to the Board of Representatives. This Board elects an Executive Committee from among its own members. It is the duty of this Committee to take up and examine any case of discipline which may arise, and, provided the case seems to deserve attention, to refer it with an explanation of all the circumstances to the

Board. When the Board considers any case of discipline, the proctor, under whose supervision the student to be tried has been placed, is present at the meeting as a confidential guest, it being understood that he shall not mention, even to the Chairman of the Parietal Committee, what he hears at such a meeting. If the Board decides that a student is guilty it has the power to admonish him, or, if need be, to request him to withdraw from the Dormitories. If he voluntarily submits to the decision of the Board, no publicity is given to his case. If he decides not to do so, the Board will refer the case to the Parietal Committee, which has authority from the Board of Trustees of the University to enforce discipline in the Dormitories. The provision that a proctor shall be present at meetings of the Board was made in order that the Parietal Committee should be able to form an opinion as to the spirit in which the students undertook their own government. During the past half year it has not been found necessary to refer any case to the Parietal Committee, and the order has been, as I have said above, very good. The proctors are of the opinion that this form of government will be successful, and that the students will take a proper pride in their independence.

The presence of the proctors in the Dormitories is not merely that they may keep order; up to the present this has not even been their most important function. They are men of standing in the University, instructors or Senior Fellows, and respected and liked by the students. They are constantly consulted regarding all sorts of matters, and form a good medium of communication between the University authorities and the students. Their relation to the students has been a pleasant one, and it is to be hoped that the aspect of their work which requires them

to be officers of discipline, will never, in the future, be more prominent than it has been during the past year.

The same orderly spirit which has been observed in the Dormitories has shown itself among the students in their use of Howard Houston Hall. Although the number of students frequenting this building has been very great, averaging during the winter months more than 1500 daily, yet the building has been kept quiet, and the Club has been well managed. The Board of Directors of the Hall is now identical with the Board of Deans of the University. It has, it will be remembered, a general veto power, as well as the right to enforce discipline. The Board has, however, very little to do, the Club being governed by committees of students, and there being, apparently, no need for the intervention of the Deans.

It is gratifying to notice that the reading rooms in Houston Hall continue to be used as fully as those devoted to amusements. There are, indeed, no features of the building which appear to be abused so as to defeat their aim or to prove detrimental to the main purposes of the University.

THE COLLEGE.

In my last Report I stated that the division of the teaching force of the College into committees of instruction, and the government of the department by a Council consisting of representatives of these committees, appeared to be justified by the actual results of this representative government during the two years preceding. I have seen no reason to change my opinion, and the College, having become accustomed to the Academic Council and its committees, appears to carry on its work more smoothly under them than it could under the form of government

which obtained before these innovations. The members of the various committees of instruction appear to be drawn more and more closely together, and I think that even those who were not wholly convinced of the wisdom of changing the organization of the College have become satisfied that the plan is successful in practice.

It is, however, to be desired that the whole Faculty, including even the instructors, should be brought together more frequently for the discussion of matters of interest to the College. Each member of the teaching body should feel that he has a personal interest in the work done by the whole institution, and should become acquainted so far as possible, with all those with whom he is working. Perhaps it will be possible to introduce some such modification into our present form of organization, which is, indeed, most satisfactory in the transaction of business, but which appears to isolate to some degree the individual instructors, and prevent them from as fully appreciating the policy and plans of the Academic Council as they might were they present at occasional deliberations of the Faculty as a whole.

There have been certain modifications in the personnel of the Dean's office. That the Dean and the Vice-Dean should not be too heavily burdened with mere business details and should have their time free for consultation with and oversight of the students, a Registrar was appointed, in whose hands was placed the keeping of the records. This move appears to have been a good one, and yet it has not been possible to free the Dean from mere matters of business detail to the extent which I regard as desirable.

The students in the College are a very varied body. This Department is not composed, as are the professional

schools, of a limited number of large classes, but there is infinite subdivision, and consequently infinite complication of courses. Many questions arise in which the Dean must consult with the student, and go carefully into every detail of his work. This demands a great deal of time, and no little tact and patience. It is desirable that anyone to whom is committed this serious responsibility should be freed as far as possible, from labors of a kind that can be performed by others. In the gradual systematization of the work of such an office, it is not possible to make an ideal subdivision of duties at once, but I hope we may gradually approach to such a distribution as may place in the hands of the Dean only those matters which directly concern the supervision of the instruction and discipline of his department.

A number of new courses of instruction have been offered in the College. Perhaps the only one upon which it is necessary for me to comment is that on New Testament Introduction offered by Dr. Sailer. It has been arranged that Dr. Sailer should give two courses, in alternate years, one upon the Old Testament, and one upon the New. Dr. Sailer has pursued graduate studies in Semitics in our own University, graduating from the Department of Philosophy, and has been conducting undergraduate courses in Hebrew in the College. He has made a special preparation for the work which he is now undertaking, and has had it in view for a number of years. His courses are to be strictly non-denominational, and of a scientific character. I believe that they will be both interesting and profitable to our students. Heretofore we have had in the College no courses upon the Bible, a lack which has been recognized, but which, for various reasons, has not hitherto been made good.

It is fitting that I should mention the prizes founded by Mr. Henry C. Terry in memory of his son, Mr. Willis Terry, who, after graduating with much credit from the Course in Finance and Economy, died in the ensuing vacation after a brief illness. These prizes are known as the Willis Terry prizes. Four of them, of the value of \$20 each, are to be given to the students who have earned the best yearly record in the several classes in the Course in Finance and Economy. One, of the value of \$120, is to be given to the graduating student, in the same course, who shall present the best essay embodying the results of special research upon a subject to be assigned by the Committee on Economics.

The undergraduate courses for teachers, which have been for the past year under the control of the College Faculty, have been exceedingly prosperous, the number of students having risen from 181 to 286. It has been possible, as our knowledge of the needs of these teachers has increased, to adjust the courses more completely to their needs. I cannot too warmly recommend the continuation of this work. It is difficult for the teachers in our schools, who teach many hours a day, who are to some degree cut off from opportunities of special study, and who need to come in contact with living and active teachers and investigators, not to sink into a mere routine, deadening to them and most harmful to their pupils, unless something be done to inspire them with renewed interest. That we are succeeding in doing something of this kind, is, I think, evident from the continued interest of this class of pupils in the University's work. As the University promises no degree for this work, and indeed nothing but the good which may be gained by doing it, this interest must be regarded as a genuine and not a fictitious one.

The College has adopted, with some slight modifications, the recommendations of the New York Conference, held with a view to obtaining some approach to uniformity in entrance examinations. The great difference in the requirements of different colleges is a crying evil, and renders the work of the preparatory school exceedingly difficult. The sincere interest of our own Faculty in this endeavor to bring about uniformity is shown by the fact that it has adopted, with, as I have said, slight modifications, the report of the Conference, deciding that it should go into force in the examinations to be held in June, 1899, and that in June, 1898, applicants for admission coming from any school, may, on request of the school, offer the new requirements. As the Dean has pointed out, our own College has been the first to accept these requirements, although several others seemed most anxious to join in the effort to establish some uniform standard.

The examinations in the College have been conducted with strictness, and the work of the College has been severe. The results appear to be satisfactory to the Dean and to the Faculty. The statistics furnished by the Dean show very plainly that students admitted by examination do better work and are less liable to failure than those admitted under the old system.

I feel that I must once more insist upon the fact that the average age of our students upon entering College is too high. The average age of those entering in 1896-97 was 18 as against 18 and 7 months in 1895-96, and 18 and 6 months in 1894-95. This is a gain, but the age is still too high. The Dean suggests that a proper co-operation of parents with teachers in the schools may have no little influence in lowering it. This is probably true; but whatever be the cause, I feel sure that the present age at which

students must enter College has a tendency to turn students into professional schools without a preliminary college course. As you are aware, it has been suggested that our colleges reduce the length of their course from four years to three, counting what is now the Senior year as a year of graduate work. The recognition by the Faculty of our Department of Philosophy of "Mixed Courses" in the upper years of the College, which may be attended by both graduates and undergraduates, and which, when taken by graduate students, may count towards a higher degree, seems to be a step in this direction. But I am inclined to think that it might be even wiser to have the work of the college begin lower down. Where the work of the school shall end and that of the college begin, is, of course, a matter of convenience and of convention, and when we consider that many of the schools, particularly those not very well equipped, find it difficult to do well some of the work now required by our colleges for admission to their courses, and are compelled in many cases to furnish this teaching for a very few students, it may well be questioned whether this same work would not better be done by our colleges, which could in that case take students at least a year earlier. So close are the relations now obtaining between our higher institutions of learning, that I think it desirable that any change which may be made, shall be made as the result of a general conference and agreement. That a change should be made, I feel convinced.

THE GRADUATE SCHOOL.

As the Report of the Dean of the Department of Philosophy will show, a number of changes have been made in the organization and work of the department during the

past year. There has been a change in the Executive Committee, which has a general control of the policy of the department, and a constant oversight of its work. Heretofore, the Executive Committee has consisted of five members, chosen with a view to having several groups of cognate subjects of instruction fairly represented. The Dean has heretofore had a place on the Committee as representative of one of these groups. On the recommendation of the Faculty, your Board added to the Committee *ex-officio* the Vice-Provost and the Dean, providing, as before, for the appointment of five members, representative of the various groups of cognate subjects taught in the department. These changes were made to bring the Vice-Provost into close touch with the work of the department, and to enable the Dean, who is responsible for all groups of subjects alike, to devote his attention to the business of all, without being compelled to stand as the special representative of any one.

The Executive Committee, as thus constituted, was, in February, 1897, given power to authorize any professor, associate or assistant professor, lecturer or instructor, of the University to give instruction in the Department of Philosophy; professors thus authorized, to be members of the Faculty of Philosophy as long as the authorization shall continue. This action seems wise. There are teachers in the University who do not properly belong to the Department of Philosophy by virtue of the chairs which they occupy, and yet it may be desirable that they should give single courses of lectures to graduate students. Whether such courses are needed and for how long, the Executive Committee of the department can best decide. It seems just that those giving instruction in the department should be made to feel that they belong to it, and may have some influence in deciding its policy.

Heretofore there has been too strict a separation of the various departments of the University, and this has sometimes resulted in unnecessary duplication of work, or in a loss to the student, who has been unable to profit by advantages which the University has offered, though not to students in his department. The action of the Board of Deans, approved by your Board in November, 1896, making it possible for students regularly matriculated for a degree in any department of the University to be admitted to courses in any other department by the concurrent action of the respective Deans, was taken with a view of breaking down unnecessary barriers between departments. At the same time, it must be borne in mind that the aims of the various departments differ widely, as do their methods of instruction, and that the degree to which the Department of Philosophy may make use of the work done in the professional departments of the University, should be carefully limited, as it doubtless will be. The control of the student by the Dean, and the control of the general policy of the department by the Executive Committee, appear to be a sufficient check upon this liberty to take instruction elsewhere than in the Department of Philosophy itself.

Some important changes have been made in the conditions under which the degree of Doctor of Philosophy may be obtained. In addition to the general requirement of a Bachelor's degree before the student is allowed to matriculate, it has been decided that before obtaining his higher degree he must possess a good reading knowledge of at least two European languages besides English, one of which shall be a modern language. A minimum requirement in lecture work has also been fixed. This is in harmony with the policy, which has controlled the depart-

ment, of not recognizing work done *in absentia* as qualifying for a degree. It has seemed wise to fix the amount of actual attendance upon lectures. These changes have resulted in making a period of three years the shortest time in which the Doctor's degree can be obtained. As a matter of fact, the period has been three or more years in almost all instances in the past, for although students have been permitted to present themselves for examination within two years after taking up graduate studies, the amount and quality of the work required has been such as to demand a longer period of preparation. There are cases in which it may seem something of a hardship to hold strictly to the minimum requirement of attendance upon lectures, for a considerable number of those who would like to study for the Doctor's degree are men who cannot give their whole time to this work, but by teaching or in other ways partially or wholly support themselves while pursuing their studies. Such men find it difficult to attend many lectures, and yet some of them have sufficient time and energy to do thorough work in preparation. It is, however, impossible to legislate for the few exceptional men, and it has been the experience of the department that work done by the student at home will not take the place of that done in the lecture room and seminary by the student and teacher together.

The student's freedom to choose subjects of study in the department has also been materially enlarged. Heretofore the student has been compelled with us, as in the German Universities, to choose three from an authorized list of subjects. When our Graduate School was organized its general policy was outlined chiefly by professors who had been trained in the German Universities and were familiar with their requirements, and, as in Germany the

choice of three subjects is justified by the desire to attain some breadth of culture as well as special training, so here it was felt that excessive specialization should be avoided. It has long been felt, however, that a greater degree of freedom in the choice of subjects is desirable. Our students are college graduates, and whatever may be said as to the thoroughness of the courses which they have pursued, they have at least had a broader education than the graduate of a German Gymnasium. They are, moreover, more mature, and it seems safe to allow them to specialize under the control of the "Group Committees" mentioned by the Dean, that is, under the advice of those most familiar with the main subject with which they are to occupy themselves, and, hence, presumably the best qualified to decide the degree of specialization which it may be wise to permit.

The establishment of "Mixed Courses," or of courses open to both graduates and undergraduates, is a new departure. Heretofore no graduate students have been permitted to take undergraduate courses and have them counted among the requirements for a higher degree. Were our schools and our colleges uniform in their requirements and in their curricula, such courses would not be needed, but the fact that some colleges require more work than others which are still considered colleges in good standing, and the fact that the system of elective courses, which is coming to be so prevalent, makes college students at graduation prepared in very different degrees to take up this or that subject of graduate study, have made it necessary for us to compel some of the graduate students who come to us, to take certain of our undergraduate courses. They must do this, that they may be properly prepared for the higher work which they are to pursue afterwards. Cer-

tain of the courses which we class as undergraduate, are really advanced courses. For example, the Biological work done in the upper years of the four years' course in Biology, is more advanced than any that could profitably be taken up by the graduate even of a good college who had elected but a moderate amount of Biology. The same thing is true of certain courses of lectures given in our four years' course in Finance and Economy. It seems unwise to duplicate courses which are not over-crowded, when the few graduate students, who may enter them, may well profit by them as they are. I cannot but regard, however, this recognition of "Mixed Courses" by the Faculty of Philosophy as a step in the direction of shortening the college course proper, and counting its upper year as a part of the graduate work. The character of the work done in the Senior year in the College and that of the work done in the Graduate School are not, under the present system of electives, very different in kind.

Five new Fellowships have been established upon the George Leib Harrison Foundation, and these are not, as are those formerly established, appropriated to definite fields of instruction. They are awarded on the recommendation of the Executive Committee of the department either to students applying for a Fellowship in subjects for which no Fellowship has been provided, or to students applying for a Fellowship in a subject already provided for, but where the Fellowship has already been awarded. There may in any one year be several applicants for one Fellowship, and it may seem quite desirable to encourage two or more who are working in the same field. On the other hand there may be no eligible applicants in a particular subject. There are some subjects in which we can expect a desirable candidate only now and then. These

new Fellowships appear to make it possible for us to meet all the contingencies likely to arise.

In June, 1897, your Board, on the recommendation of the Executive Committee of the department, substituted two Fellowships for women for the five Scholarships formerly open to them. Fellowships appear to be much more sought after than Scholarships, and the number of able and well-educated women applying for Fellowships is large. The Fellowships for women can be established at a relatively slight expense, and it is desirable that more should be established. They could readily be filled with incumbents whose work would be a credit to the University and of benefit to the cause of education.

A new Fellowship for the year 1897-98 has been established through the generosity of Isaac W. Kemble, Esq., of Philadelphia. The incumbent, who is working in the field of Biology, has already published original work of value.

Our Graduate School now appears to be fairly well equipped with Fellowships and Scholarships. In all, there are thirty-nine, and if to the sum of money actually distributed to students be added the total amount of the fees remitted to Fellows and Scholars, it will be seen that the University is giving, for the encouragement of advanced work, the sum of \$20,425 a year.

It is obvious that the University is much more generous in granting pecuniary aid to students in the Department of Philosophy than to those in any of its other graduate schools. For this discrimination, however, there is ample justification. Those who graduate from the Department of Philosophy look forward either to teaching or to original investigation as their life-work. They are not entering upon a lucrative profession, nor one to which any-

thing can attract them save the love of the work itself. The work, moreover, which they are to do is of such enormous importance to the race that it is not only our privilege, but our duty to encourage its prosecution to the utmost of our ability. The remuneration given to teachers is small, and the work which they are called upon to do is exhausting. Men of ability and energy, even when they have the peculiar and decidedly rare gifts which make a successful teacher, are tempted to turn aside into professions in which the financial returns are more satisfactory. It is greatly to be deplored that we so frequently find in our schools men occupying the chair of the teacher for no other reason than that they have not been able to earn a good living in some other way. The work done by our own and other universities in encouraging men of high education and of ability to enter upon the profession of teaching, cannot fail to elevate the character of the teaching profession, and thus to raise our whole educational system. Of the desirability of encouraging research and of helping men with unusual gifts to devote their lives to the increase of human knowledge, I need say nothing, as it is universally admitted. I cannot think, therefore, that the Department of Philosophy grants more aid than it should to deserving students. Perhaps at some time to come, with an increasing competition for the attainment of Fellowships and graduate Scholarships, it may be desirable that the number of these foundations should be increased. The only evil to guard against is the appointment to these positions of men, who, either in character or in intellectual ability, are not up to the standard of those had in view when the Fellowships were founded.

The statistics given by the Dean show some diminution in the number of students in the department—a de-

crease accounted for by the increased rigor of the requirements for the attainment of the degree. It is, of course, desirable that the degree should not be lightly given, and the increase in requirements made during the past year seems to be well advised. At the same time, it is a question how far such a rise in our standards should be carried. As I have said just above, the department aims to produce teachers and investigators. It is not even every able man who can become a good investigator and produce original work of high value. The phrase "original work" is a very broad and loose one, and its significance varies with the field of research with which one concerns oneself, it being much easier to do work which may be called original in some fields than in others. Still, the proportion of our whole number of students who will, in any field, produce original work of high value and become authors of eminence, cannot, we fear, be large.

If the department is to fill its full measure of usefulness, one of its definite aims must be the thorough equipment of teachers who shall have a broad and exact knowledge of their special subject, a good comprehension of methods of investigation, and a sympathy with the scientific and scholarly spirit. The usefulness of such men cannot be overestimated, and their interests should not be overlooked. It is possible that there may be some danger that this will be done if the interests of those who are to be primarily investigators and original workers are held too exclusively in view. Our system of graduate Scholarships, Fellowships and Senior Fellowships, is especially adjusted to the encouragement of men of the latter class, and their needs are not likely to be forgotten. Indeed, they must never be forgotten. It is well to remember, however, that there is a much larger class who ought to

pursue graduate studies before entering upon the profession of teaching, and that the influence of men thoroughly trained and animated by the spirit of true scholarship is a thing greatly to be desired in all departments of our school system.

The material equipment of the Department of Philosophy has been added to more especially by rather large purchases of books. These have been of no little assistance in the work of the department. There is, however, room for extensive additions to the equipment of the department, and it is to be hoped that these will gradually be made.

THE GEORGE L. HARRISON FOUNDATION.

The endowment fund of this Foundation is now complete, and the purposes of the Foundation have begun to be accomplished. The system of Scholarships, Fellowships and Senior Fellowships, approved by your Board, has been, I am confident, of value to the University. A scholarly atmosphere is being created by our Fellows and Scholars, which cannot fail to react upon our whole body of students, and raise the standard of living and thinking among them. As the Dean of the Department of Philosophy states: "These selected men look forward either to teaching or to original investigation, as their life-work,—nothing can attract them to such a profession other than the love of the work itself." I am glad to think that the incumbents of our Fellowships will find their way into schools and colleges, and will in their turn encourage the spirit of scholarship and love of learning which we endeavor to foster.

As the income is now accumulating, and as the pur-

poses of the Foundation have not been generally known, I have been requested to append a brief statement (which will be found in the Appendices), with the hope that this publication may be helpful to others as well as to ourselves.

DEPARTMENT OF LAW.

In many ways the past year has been a successful one for the Department of Law. In the first place, it has had a Dean able to devote his whole time to the interests of the school and of the students, and this has, naturally, been found a great advantage. The students have had someone with whom they could at all times consult, and who has always been ready to enter into their affairs and to further their interests.

One of the first tasks undertaken by the Dean was an investigation of the excessive absences incurred by a number of the students. It seemed evident that in not a few cases no serious effort was made to attend all the exercises offered a given class. As no department of the University grants degrees for work done *in absentia*, this was felt to be wrong, and the Faculty passed a rule requiring an attendance upon at least 80 per cent of the lectures of each year. The traditions of the school having been that attendance was voluntary, this was at first felt by the students to be something of a hardship; but the rule has been in successful operation, and has justified its adoption. It will prevent certain abuses which have, from time to time, been brought to the attention of the Faculty, in the past.

There has been a considerable rise in the requirements for admission to the Law course, the requirements now being on a level with those for admission to the College Department. These requirements are still, I think, too low, but it was felt that it would not be wise just at this

time to make the standard higher than it has been made. While it is undoubtedly true that many students of unusual ability may succeed very well in a professional course without having had the advantages of a college education, yet, as is shown by the statistics furnished in the Report of the Dean, those who have had this previous preparation far outrank those of their classmates who have not enjoyed this privilege. A smaller proportion of them are conditioned, a smaller proportion have been dropped from one class to another, and a much larger proportion have carried off honors. There can be little doubt that a thorough previous education is of the highest advantage to those entering the legal profession. It is, however, a matter of regret that the advanced age at which students now graduate from college must cut off from pursuing undergraduate courses a considerable number who might otherwise be persuaded to enter them.

An excellent innovation is the introduction of a system of official quizzes. The system of teaching by formal lectures dates from a time when books were not readily obtainable, and when students were compelled to gain their facts from the lectures of the instructor. The best teachers at the present day do not confine themselves to formal lectures with a view of communicating what can be obtained more fully in print. The teaching of the lecture-room is becoming more and more an interchange of thought and the presentation of those aspects of a subject not readily seen by the solitary worker. But, however the lecture may be modified, it still remains true that the student does not gain all that he should gain unless important points are made clear and prominent to him, and his own knowledge or ignorance revealed to him, by a process of questioning. A considerable part of the actual

teaching of Medicine is done in this country by quiz-masters, who are not officials of the school to which they have attached themselves, but are paid by the students, just as at Oxford and Cambridge a considerable part of the teaching is done by coaches, who are not college officials, and who are similarly paid. I cannot consider it a satisfactory condition of affairs that an important part of the instruction of any school should be given by those who are not its officials nor selected by its officials. Moreover, as the aim of the private quiz-master is first of all to prepare students for examination, it is not likely that his methods of teaching will be completely adapted to another and higher aim. Where it is possible, it seems to me desirable that this work of quizzing should be in the hands of officers of the department; and this move on the part of the Faculty of Law is one with which I am in hearty sympathy. With a good system of lectures, supplemented by quizzes conducted by well-prepared instructors, our students of Law should be able, with proper industry, to secure a good knowledge of their chosen subject.

The additions to the Law Library have been large, this department of the University Library being much better provided for financially than most of the others. With the sums of money which can be expended upon it, and with the generous gifts which are being from time to time made to it, we may confidently expect our collection of Law books to become in the not distant future a very creditable one, and one useful, not merely to our students and professors, but to the members of the legal profession at large.

In my last Report I referred to the desirability of having our Law Department in West Philadelphia, and in close touch with the University. The Faculty of the Law

School has unanimously recommended such a removal, and steps are being taken to effect it. I feel that we must make provision for a large number of students, and must build upon a considerable scale; for I can see no reason why, if we do our duty by our Department of Law, it should not become exceedingly flourishing. There will doubtless be a temporary decrease in the number of students with the rise in our standards of admission, but such a decrease can be only temporary.

THE DEPARTMENT OF MEDICINE.

The total number of students who entered the Department of Medicine for the academic year 1896-97 was somewhat smaller than the number of the previous year. The Dean attributes this decrease, which was not a considerable one, to the two causes; first, that the entrance requirements were increased; and, second, that the tuition fee was raised from \$150 to \$200. Any loss of students which may be due to the first of these causes is by no means to be regretted, the present requirements for admission to the department being so moderate that no student unable to meet them is fit to be a candidate for the degree of Doctor of Medicine. Indeed, although it seemed prudent for the Faculty of Medicine to provide for a gradual rise in the entrance requirements, even the standard set as the final one for some time at least (that of examinations about equal to those for admission to the College) cannot be regarded as high, in view of the difficult and responsible work for which Medical students are in preparation. The ultimate effect of the increase in the tuition fee cannot be gauged with certainty. That it will have some effect in diminishing numbers may, of course, be expected.

The number of college graduates entering the Med-

ical Course is not large. I regard this as unfortunate, and yet it is something to be legitimately expected. The average age of graduation from college, the length of the Medical Course, and the fact that, after graduation, several years must be spent in hospital work and the building up a practice, before any considerable pecuniary returns may be expected, naturally tend to induce the student to shorten his course as much as possible. Moreover, when the examinations established for admission to a school are below the level of education indicated by the possession of a Bachelor's degree, it is natural that students who contemplate entering the school should not feel that it is essential to be the possessor of a degree or its equivalent.

The testimony of the Dean to the good scholastic standing of the members of athletic teams is gratifying, and indicates that we are succeeding in preventing some of the abuses which have brought athletic sports into bad odor both here and abroad. You will remember that the testimony of the Dean of the College was to the same effect.

The arrangement that the examinations for admission to the Department of Medicine should be conducted by the appropriate officers of the College is a good one. These men are officers of the University as a whole, and represent the various subjects which they are occupied in teaching. They alone can be trusted to conduct the examinations required with judgment and skill, and the Dean rightly remarks that the examinations will inspire in the public mind much more respect when it is known that they are conducted by professors in the College. This arrangement, which has effect also in the Department of Law, is one of the many indications of the increasing unification of the departments of the University.

The introduction of the elective system in the course of instruction in the Medical School has been, I am glad to note, successfully accomplished.

THE WILLIAM PEPPER CLINICAL LABORATORY.

The list of original investigations embodied in the Report of the Director of the William Pepper Clinical Laboratory indicates that its staff has been active during the past year. The equipment of the Laboratory has been materially increased, and it is now in a position to be an important factor in the advanced work in Medicine, which will, I hope, be a more striking feature of our activity in the future than it has been in the past.

UNIVERSITY HOSPITAL AND SCHOOL FOR NURSES.

Since my last Report, the Agnew Memorial Pavilion has been completed and is about to be formally dedicated. The University Hospital now contains 320 beds, and the management of such an institution is a great responsibility. The conduct of its affairs has been entrusted by you to a Board of Managers, and it would be ungenerous if I did not refer to the interest which this Board has evinced; indeed, the time, patience, and care which these Managers have taken in our Hospital are quite unusual. It seems to me that the Hospital should appeal with especial force to all who are interested in helping the sick, the wounded, and the suffering. The University, being non-sectarian, cannot make a special appeal for help to any one denomination; but it can and does make an appeal to all who are interested in the suffering. I sincerely hope that, before long, we may be aided by gifts and bequests, now much needed, to better embrace our enlarged opportunities.

The increase in the number of Hospital beds brings with it an increase in the number of nurses required, and this at once makes of pressing importance an enlargement of the Nurses' Home. I refer you to the Report of the Secretary of the Board of Hospital Managers for a detailed account of the needs of the Hospital.

I need not refer to the importance of the Hospital as one of the laboratories of the School of Medicine; nor to the fact which is becoming more and more recognized, that there is no more respectable and proper place for a sick person of whatever class than a well-ordered Hospital. There the patient has the benefit of the highest skill, under the most critical scrutiny, and has the equal benefit of the best nursing, by trained women. The profession of nursing is becoming more and more dignified, and young women of education and position are frequently seeking admission to it. This is often done, not merely as a means of livelihood, but rather as a vehicle of service. I feel sure that our Training School for Nurses will make further progress in character and efficiency, with the increasing interest which is now taken in the Hospital and in every other department of the University.

THE DENTAL DEPARTMENT.

The statistics furnished by the Dean of the Department of Dentistry show a surprising degree of prosperity in that department. I say surprising, because the Dental School had long outgrown the facilities for instruction at its command. It was greatly hampered for space, and its laboratories were wholly inadequate. Much credit is due the Dean and Faculty for having made so good a use of the scanty opportunities within their reach. The wisdom of providing, in the new dental building, for a much larger

number of students than have heretofore been enrolled in our courses is evident. With the facilities which the School will have hereafter, it seems certain that the University will have as large a number of dental students as it can well take care of.

The effect of broadening the course of instruction by the addition of Oral Surgery and the introduction of compulsory courses on Bacteriology has been satisfactory. We have excellent facilities for instruction in both of these branches, and it would be wrong not to take full advantage of them. The attitude of the Dental Faculty on the subject of requirements for admission to the course under their charge commands my hearty approval. The present requirements are too low, and should be raised, but changes should not be introduced without caution, and should, perhaps, be introduced gradually.

In this department, as in the College and in the Department of Medicine, the Faculty oversight of athletic sports appears to have been successful in preventing abuses.

DEPARTMENT OF VETERINARY MEDICINE.

I am very desirous that your Board shall take an especial and active interest in the Department of Veterinary Medicine. When we look at the agricultural statistics of our State and see the great value of the farm animals in the State; when we see further how serious are the yearly pecuniary losses from diseases which may be prevented,—it is evident at a glance how wide a field of possible usefulness is open to our Veterinary Department, a field which it has not as yet begun to occupy.

Quite one-half of our population depends for a livelihood upon the results of agriculture, and the results of

agriculture depend largely upon the productivity and immunity from disease of animals upon the farm. The whole subject is so important that I hope to call your attention, during the coming academic year, to such measures as will enable the University to begin a new work of service, and, at the same time, to raise the profession of Veterinarian to such a standing as will draw to it equally with other branches of Medicine, the attention of well-educated young men.

The purposes of the Veterinary Department have been limited in the past, and its influence has not been as great as it should be. It has, however, always done an important, though a limited work. Founded through the benefactions of Mr. Joseph E. Gillingham and the late Mr. J. B. Lippincott, its continuance has only been possible through the contributions of Mr. Lippincott's family. These gifts have been made annually and without solicitation. Is it not proper that even to the living who have supported this work for so many years, we should now tender the grateful thanks of the University?

DEPARTMENT OF HYGIENE.

The greatest need of the Department of Hygiene is still a large lecture-room, in which the Medical and Dental classes, which attend lectures on Bacteriology, may receive instruction. As I mentioned a year ago, to divide these classes and compel our teachers to repeat their lectures a number of times would be needlessly to waste their time. On the other hand, to give the lectures in certain large lecture-rooms in the Medical or Dental buildings, would be unsatisfactory. Lectures on such subjects are of little value unless the lecturer be amply provided with material

for demonstration, and it is practically impossible that apparatus and material should be carried from one building to another. The lecture-room now in the Hygiene building can contain but ninety students. A room is needed of at least double this size.

The department is of increasing service to a number of other departments in the University. It is to be hoped that this inter-penetration will continue and be carried still further. I should especially like to see the work of this department hold a more important place in the curricula of the Medical and Dental schools.

THE FLOWER OBSERVATORY.

Since my last Report, the Flower Observatory has been completed, and has for some time been in active operation. Professor Doolittle continues here the work on Latitudes, which he prosecuted for so many years at Lehigh University.

The equipment of the Observatory appears to give satisfaction. The series of observations which have been made upon double stars, furnish, as the Director points out, a severe test to the optical performance of the equatorial, and the result has been highly satisfactory.

The recommendation, made by the Director, that work done at the Observatory be published by the University, should meet with approval, and there is no reason why an astronomical series should not be issued under the supervision of the Publication Committee, which has now general charge of giving to the public the original work produced in the College and Department of Philosophy. I earnestly hope that those interested in the publication of original investigations will assist the work of the University by furnishing the means for having them printed. As yet

we have but inadequate provision for the printing of such contributions to science.

For purposes of instruction the force at the Observatory seems sufficient for our present needs. The Director has two assistants, and the number of students is not now so large that they cannot receive individual attention.

THE BOTANIC GARDEN.

Owing to the continued activity of the Director and his assistants, large additions have been made to the collections in the Botanic Garden. The ground, a part of which until this year lay fallow, has wholly been reclaimed, and the green-houses have become quite inadequate. Sufficiently large additions are now being made to these to relieve the congestion and to make possible a better arrangement of materials for teaching.

The interest in the Botanic Garden and its work shown by a number of persons outside of the University, has been gratifying, and several important gifts have been made to it. This public interest is justified, I think, by the increasing usefulness of the Garden to the teachers and schools of our City. From the first, the Director has maintained a generous policy toward the teachers of Botany in public and private schools, furnishing many thousands of cuttings for use as illustrative material. Heretofore there has been no place in Philadelphia where a teacher could go for such assistance.

The formation of a Botanical Society, which proposes to draw together at the University those interested in the subject of Botany in our City and elsewhere, will probably help to quicken the already very general interest in this science, and will perhaps open up new channels of usefulness.

THE DEPARTMENT OF PUBLIC LECTURES.

It has been felt for some years past that the University has not done its full duty in the endeavor to reach and instruct, as far as it can, the people of the State. It is the few who are able to attend any of the schools of a University, and yet there are great numbers who might profit by even very brief courses of instruction upon subjects of moment to them in their divers callings. The scientific information needed by those engaged in agriculture, horticulture, the raising of stock, the various mechanic arts, the applications of chemistry to the arts, etc., can be furnished by the University. So also can much information of value to those who are occupied with the education of the young. That there is on the part of the public an eager desire for instructive lectures from our professors has long been evident, and we have endeavored to meet this demand.

During the past spring our plans were matured. A Department of Lectures was created, and placed under the supervision of a committee of professors. This Committee has announced that the University will send, without any charge for their services, representatives of the University, to deliver brief courses of lectures in towns throughout the State. The lectures are to be under the auspices of the local educational authorities, and are to present in such a way as to be clear to busy men, who cannot, in the nature of the case, be exact students, the best results of scholarly research.

It is too early to form a judgment as to the exact value of this new form which our activity has taken, but the response that has been made to the circular issued, and the success of the lectures which, at the time of this writ-

ing, have already been delivered, lead me to feel that the step taken has been a wise one. It is our desire to supplement, and not to conflict with, agencies already established for doing work of a kindred nature.

THE MUSEUM OF ARCHÆOLOGY AND PALEONTOLOGY.

The sketch of the rise and development of the Museum of Archæology and Paleontology submitted by the Secretary of the department shows how rapid has been its growth. Its collections are now highly creditable to the University, and offer abundant evidence of the zeal and enthusiasm of those who have devoted themselves to this work. They represent a broad field, and in some departments are full and complete.

Although the University has given these collections all the room at its disposal in the Library building, they have been so crowded for space as to make it difficult for the curators to keep them in proper order, and this has, of course, diminished their value to the public. A few years since it would have been impossible to expect any such accession of material; but such has been our success in the past, that we have reasonable hopes of further rapid growth in the future. Fortunately the collections will soon be housed in a building much better adapted to containing them, the first section of our new Museum being now in course of construction. Although it is but a section, it will be of large extent, and will, for the present at least, furnish a reasonable amount of room for the objects we now possess. The University is to be congratulated upon the erection of the section in building, and it is to be hoped that the effect of a suitable and dignified home for our collections will be to impress the public with a fitting appreciation of their great value.

THE WISTAR INSTITUTE.

Important additions have been made during the past year to the Wistar Institute of Anatomy and Biology. A new wing, fronting on Woodland Avenue, and in dimensions, seventy feet by forty feet, has been constructed through the generosity of the founder of the Museum, General Isaac J. Wistar. The basement of the new wing contains a complete heating and lighting plant, and on the upper floors are apartments for the Assistant Director, Dr. Greenman, and additional Museum space.

The collections in the Museum are rapidly increasing in value. The gift by Dr. William H. Furness, 3d, of the extensive collections made by him and Dr. H. M. Hiller in Borneo and the Luchu Islands is especially worthy of mention.

The increase in the use of the Museum by students from the City and from the various departments of the University is a good indication of its growing usefulness. As in former years, a number of original publications have emanated from those connected with it. A list of these may be seen in the Report of the Director, printed as an Appendix to this Report.

THE UNIVERSITY LIBRARY.

There have been large additions to the Library of the University. Several important bequests and gifts of books and pamphlets have been made, among which the most notable are the fine collection of Italian, Spanish, Portuguese and other literature left to the University by the late Francis C. Macauley; and that of Mrs. Julia W. Biddle, who has bequeathed to the University the library of her husband, the late Thomas A. Biddle, containing a

large number of volumes of standard English and French literature, and many illustrated works.

The number of those who have given books of greater or less value to the University, is large. It is, however, very desirable that it should be generally understood by the public that works, even of comparatively slight value in themselves, may be of importance in completing collections; and that books and pamphlets of every description may have a historical interest, if they have none other. It is to be regretted that private libraries are not more often bequeathed to public institutions. Sold as they usually are, they bring but little return and the books are scattered; whereas placed in the care of some institution, they remain a permanent memorial to their collector, and a perennial source of usefulness.

The system of exchanging publications with other institutions of learning at home and abroad has resulted in our obtaining many publications of value. Some of these publications are not easily to be obtained in other ways, and others, unless obtained soon after their publication, may not be obtainable at all. Not only do these exchanges add to the collections in our Library, but they serve to bring our own University in touch with the scholarly work which is being done elsewhere. They have a distinct value from this point of view.

The statistics given by our Librarian, showing the increased use of the Library during the past year, are gratifying. They are, however, in some respects, unavoidably misleading. In looking over the tables giving the number of students from each department who have taken books out of the Library during the year, one would be tempted to believe that, while students in the College and Department of Philosophy use the Library a great deal, students in the Department of Law scarcely use it at all. The Law

Library is, however, in the building occupied by the Department of Law, the reading-room is open to students at all hours, and it is used by them constantly. This use of books does not, however, appear in the records. On the other hand, although we have a large number of Medical students, comparatively few of them have taken books out of the Library. This I would be inclined to attribute to two facts: (1) our Library is deficient in modern works on Medicine; and (2) our Medical students are so overloaded with the work of the class-room and the laboratories, that they have very little time indeed for outside reading. This I cannot consider a desirable condition of affairs. If we are to encourage advanced and specialized work in the various branches of Medicine, and the sciences cognate to them, we must have large collections of modern literature treating of these subjects. In this we have not as yet made a beginning.

ORIGINAL PUBLICATIONS.

Since my last Report provision has been made for the systematic publication, under the supervision of a Committee, of original contributions to science and literature made by professors and instructors in the University. For the present, the Committee concerns itself only with the College and Department of Philosophy.

There have been several series of publications connected with these departments, but there has been no adequate supervision of them as a whole, and there has been such a lack of pecuniary resources, as to seriously hamper our activity. At least a beginning has now been made toward providing funds for the publication of original productions, and the University will be able to encourage research as it has not up to the present.

The publications which have heretofore gone before the public with the official stamp of the University are no indication of the literary activity of our professors. As one of the Appendices to this Report I present our bibliography for the year.

BENEFACTIONS TO THE UNIVERSITY.

Under the head of gifts made during the past year, the Treasurer reports the cash receipts from all sources as amounting to the total of \$638,925.33. This includes both new gifts of the year and those due to earlier pledges.

Let us all hope that such benefactions as these may not only continue, but largely increase. We are practically without endowment, and if the University is to develop as it has of late we shall need very large contributions.

We may confidently look to the whole State of Pennsylvania, and, I hope, soon beyond the limits of the State, for the sums of money necessary to carry on our work. The needs of the University at this time are great in amount and pressing in their urgency. We need a building for our Graduate School; we need a Physical Laboratory; we need a University Gymnasium; we need a great Law School building; we need a building for our School of Architecture; we need a Commons Hall; we need to continue the Dormitories; to erect new and important Medical Laboratories; to remodel the Veterinary Department; we need Scholarships and Fellowships; we need means for the thousand and one minor matters, each one of which is of importance to some individual teacher at the University, and which should be provided. And last, but not least, we need a University Chapel. I have not spoken of the duty of the State of Pennsylvania to its University. The State has done relatively little for it up to this time.

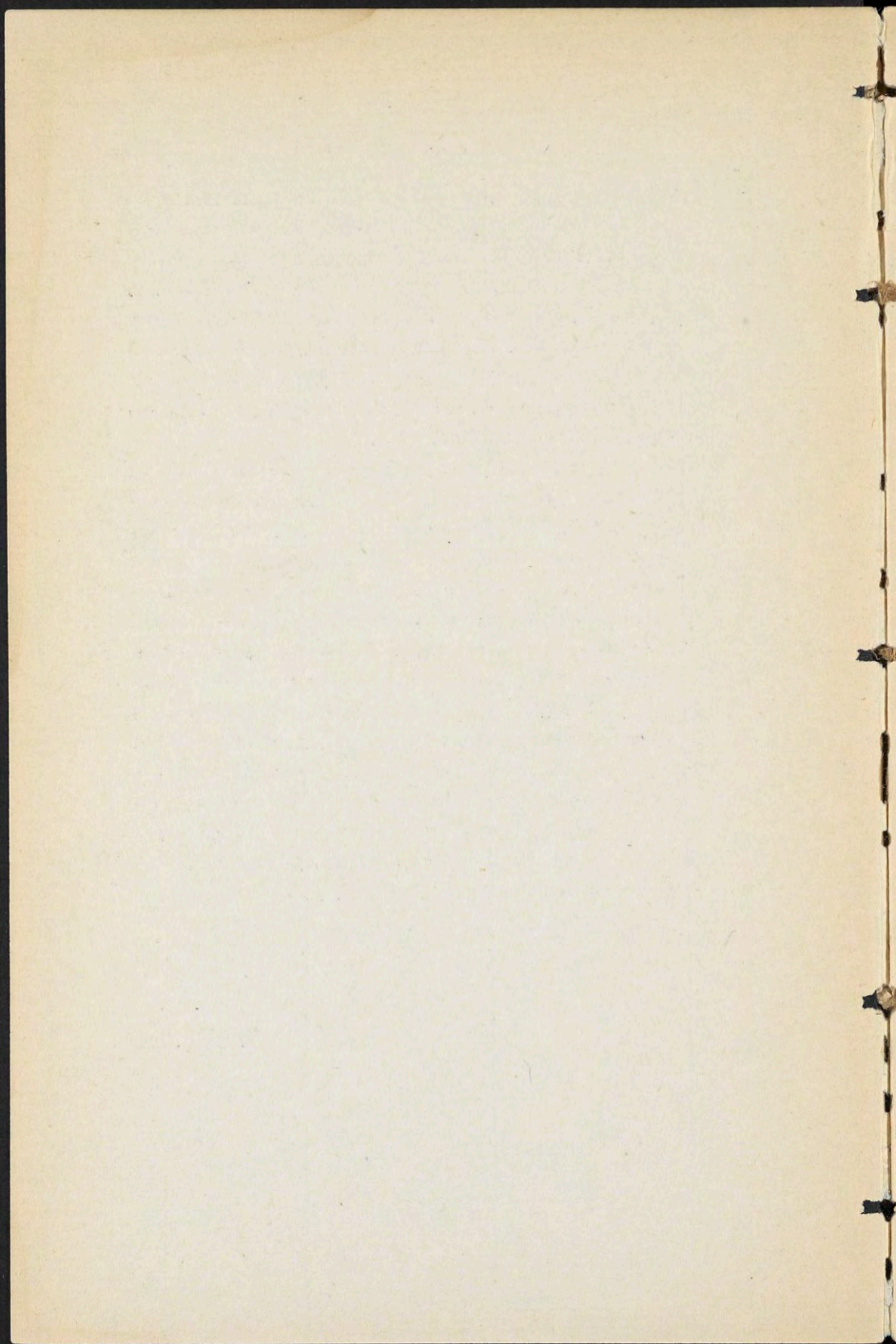
The community, however, has done an immense service to the State by founding and maintaining it. The relations between the University and the State of Pennsylvania are organic, and in my estimation so interesting that I add to our Appendices the history of this connection as traced by Judge Pennypacker. I am sure that nothing but lack of means prevented the Commonwealth from making a significant reply to the appeal for State aid which your Board made to the last Legislature.

During the year under review, we have had occasion more than once to ask for certain privileges from the City of Philadelphia. The City has in every case granted our desires,—which have been necessary and just,—and it has granted them graciously. The University has now outgrown its estate. Its fifty acres are either entirely covered, or where not covered, are finally dedicated for buildings about to be erected. We shall look to the City of Philadelphia to enlarge as soon as practicable the University's estate, so that we may have the opportunity of continued development which we feel is our right in view of our rapid growth in the past. I know that I express the feelings of every member of your Board, as I do my own, when I close this Report by tendering the thanks of the University to all those in civil authority.

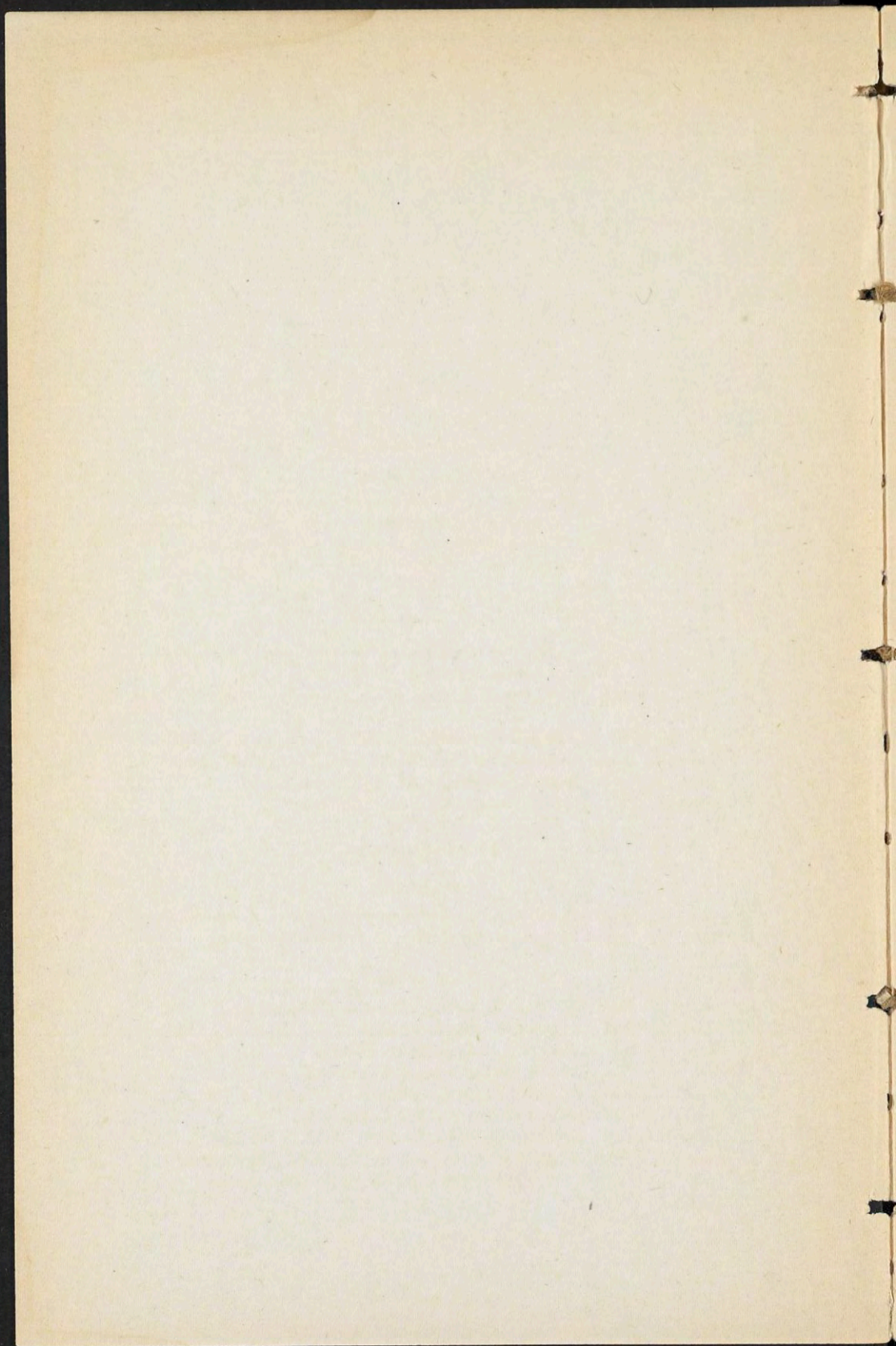
I have the honor to be, Gentlemen,

Very respectfully yours,

CHARLES C. HARRISON,
Provost of the University of Pennsylvania.



APPENDICES.



APPENDIX I.

PERSONAL CHANGES.

DEATHS.

- Nov. 30, 1896. Hon. JOHN SCOTT, Trustee.
Jan. 3, 1897. THEODORE G. WORMLEY, M. D., LL. D., Prof. of Chemistry and Toxicology in the Medical Department.
April 12, 1897. EDWARD DRINKER COPE, Ph. D., Prof. of Zoölogy and Comparative Anatomy.

RESIGNATIONS.

- Oct. 5, 1896. J. THOMAS LIPPINCOTT, D. D. S., Asst. Dem. of Operative Dentistry.
Nov. 5, 1896. RANDOLPH FARIES, M. D., Director of Physical Education.
Jan. 5, 1897. ARTHUR E. NEWBOLD, Treasurer of the University.
June 1, 1897. WILLIAM POWELL WILSON, Sc. D., Prof. of Botany.
June 1, 1897. JAMES PARSONS, A. M., Prof. of Law.
June 25, 1897. JAMES MACALISTER, LL. D., Trustee.

APPOINTMENTS.

GENERAL.

- Jan. 5, 1897. CAMPBELL EMORY MCMICHAEL, Asst. to the Provost.
Mar. 2, 1897. THOMAS ROBINS, Treasurer of the University.

IN THE COLLEGE.

- Oct. 5, 1896. WALTER S. TAGGART, Instr. in Chemistry.
Oct. 5, 1896. VICKERS OBERHOLTZER, Instr. in Technical Chemistry.
Feb. 2, 1897. WILLIAM A. LAMBERTON, Dean.
Feb. 2, 1897. JOSIAH H. PENNIMAN, Vice-Dean.
June 1, 1897. EDWARD P. CHEYNEY, Prof. of European History.
June 1, 1897. JOSIAH H. PENNIMAN, Dean.
June 1, 1897. EDWARD C. WESSELHOEFT, Instr. in German.
June 1, 1897. A. W. SCHRAMM, Instr. in Electrical Engineering.
June 1, 1897. C. W. SCRIBNER, Instr. in Mech. Engineering.

- June 1, 1897. W. N. BATES, Instr. in Greek.
- June 1, 1897. WILLIAM EASBY, JR., Instr. in Civil Engineering.
- June 1, 1897. MERRICK WHITCOMB, Instr. in European History.
- June 1, 1897. HERMANN FLECK, Instr. in Chemistry.
- June 1, 1897. FREDERICK M. PAGE, Instr. in French.
- June 1, 1897. CLARENCE G. CHILD, Instr. in English.
- June 1, 1897. DANIEL B. SHUMWAY, Instr. in Germanic Lang. and Lit.
- June 1, 1897. EDWARD H. WALDO, Instr. in Mech. Engineering.
- June 1, 1897. LUCIEN E. PICOLET, Instr. in Mech. Engineering.
- June 1, 1897. ARTHUR M. GREENE, JR., Instr. in Mech. Engineering.
- June 1, 1897. HENRY B. EVANS, Instr. in Astronomy.
- June 1, 1897. GEORGE H. HALLET, Instr. in Mathematics.
- June 1, 1897. JOHN JAY MOORE, Asst. Instr. in Mech. Engineering.
- June 1, 1897. J. BIRD MOYER, Instr. in Chemistry.
- June 1, 1897. OWEN L. SHINN, Instr. in Chemistry.
- June 1, 1897. ERIC DOOLITTLE, Instr. in Astronomy.
- June 1, 1897. GEORGE WALTER DAWSON, Instr. in Drawing.
- June 1, 1897. JAMES T. YOUNG, Instr. in Administration.
- June 1, 1897. HOMER SMITH, Instr. in English.
- June 1, 1897. HOBART CHARLES PORTER, Instr. in Botany.
- June 1, 1897. CHARLES MEREDITH BURK, Instr. in Zoölogy.
- June 1, 1897. JOHN PERCY MOORE, Instr. in Zoölogy.
- June 1, 1897. CASPAR W. MILLER, Instr. in Physical Education.
- June 1, 1897. JOHN W. HARSHBERGER, Instr. in Botany, Zoölogy and
General Biology.
- June 1, 1897. DANIEL L. WALLACE, Instr. in Chemistry.
- June 1, 1897. HUGH W. McCONNELL, Instr. in Mech. Engineering.
- June 1, 1897. CORNELIUS WEYGANDT, Instr. in English.
- June 1, 1897. GEORGE ROMMEL, JR., Instr. in Civil Engineering.
- June 1, 1897. FREDERICK EHRENFELD, Instr. in Geology and Miner-
alogy.
- June 1, 1897. WALTER S. TAGGART, Instr. in Chemistry.
- June 1, 1897. PHILIP P. CALVERT, Instr. in Zoölogy.
- June 1, 1897. T. H. P. SAILER, Instr. in Hebrew.
- June 1, 1897. ALBERT FERREE WITMER, Instr. in Physiology.
- June 1, 1897. CHARLES FRANCIS NASSAU, Lect. in Bacteriology.
- June 1, 1897. HORACE CLARK RICHARDS, Instr. in Physics.
- June 1, 1897. HERMAN V. AMES, Instr. in American History.
- June 1, 1897. J. A. SWITZER, Instr. in Physics.
- June 1, 1897. HARVEY NEWCOMER, Instr. in Physics.
- June 1, 1897. J. HARVEY DOUGHERTY, Asst. Instr. in Zoölogy.
- June 1, 1897. FREDERICK M. MANN, Instr. in Design.
- June 1, 1897. FRANK ALISON HAYS, Instr. in Pen and Ink Drawing.
- June 1, 1897. AMOS J. BOYDEN, Lect. on Building Construction.
- June 1, 1897. LEWIS FREDERICK PILCHER, Instr. in Architecture.
- June 1, 1897. ARTHUR EBBS WILLIAMS, Asst. Instr. in Architecture.
- June 1, 1897. WALTER COPE, Lect. in Architecture.

- June 1, 1897. FRANK MILES DAY, Lect. in Architecture.
 June 4, 1897. OLIVER P. CORNMAN, Asst. in Child Psychology.

IN THE DEPARTMENT OF LAW.

- Oct. 5, 1896. EDMUND JONES, Librarian and Bursar.
 Feb. 2, 1897. } WILLIAM DRAPER LEWIS, Dean.
 June 1, 1897. }
 April 6, 1897. WILLIAM E. MIKELL, Instr. in Law.

IN THE MEDICAL DEPARTMENT.

- Nov. 5, 1896. WILLIAM SCHLEIF, Instr. in Practical Pharmacy.
 Nov. 5, 1896. FREDERICK G. HERTEL, Instr. in Practical Pharmacy.
 Nov. 5, 1896. DAVID RIESMAN, Dem. of Pathological Histology.
 Dec. 8, 1896. ALOYSIUS O. J. KELLY, Instr. in Physical Diagnosis.
 Dec. 8, 1896. FRANK SAVARY PEARCE, Instr. in Physical Diagnosis.
 Dec. 8, 1896. JAMES MCKEE, Dem. of Physiology.
 Dec. 8, 1896. THOMPSON S. WESTCOTT, Instr. in Children's Diseases.
 Feb. 2, 1897. JOHN MARSHALL, Dean.
 Mar. 2, 1897. WILLIAM S. WADSWORTH, Asst. Dem. of Physiology.
 Mar. 2, 1897. JOHN P. ARNOLD, Asst. Dem. of Physiology.
 June 1, 1897. JOHN MARSHALL, Prof. of Chemistry, and Dean.
 June 1, 1897. ADOLPH W. MILLER, Lect. on Materia Medica.
 June 1, 1897. HENRY R. WHARTON, Dem. of Surgery.
 June 1, 1897. RICHARD H. HARTE, Dem. of Osteology.
 June 1, 1897. THOMAS R. NEILSON, Asst. Dem. of Surgery.
 June 1, 1897. EDMUND W. HOLMES, Dem. of Anatomy.
 June 1, 1897. JUDSON DALAND, Instr. in Clinical Medicine and Lect.
 on Physical Diagnosis.
 June 1, 1897. GWILYM G. DAVIS, Asst. Dem. of Surgery.
 June 1, 1897. JOHN K. MITCHELL, Lect. on General Symptomatology
 and Diagnosis.
 June 1, 1897. GEORGE H. CHAMBERS, Asst. Dem. of Normal Histology.
 June 1, 1897. JAMES K. YOUNG, Instr. in Orthopædic Surgery.
 June 1, 1897. HENRY W. CATTELL, Dem. of Morbid Anatomy.
 June 1, 1897. ROBERT FORMAD, Dem. of Normal Histology.
 June 1, 1897. ARTHUR A. STEVENS, Lect. on Medical Terminology and
 Instr. in Physical Diagnosis.
 June 1, 1897. BENJAMIN F. STAHL, Instr. in Physical Diagnosis.
 June 1, 1897. JOHN C. HEISLER, Asst. Dem. of Anatomy, and Prose-
 ctor to the Prof. of Anatomy.
 June 1, 1897. FREDERICK A. PACKARD, Instr. in Physical Diagnosis.
 June 1, 1897. RICHARD C. NORRIS, Instr. in Obstetrics, and Lect. on
 Clinical and Operative Obstetrics.
 June 1, 1897. MILTON B. HARTZELL, Instr. in Dermatology.
 June 1, 1897. CHARLES S. POTTS, Instr. in Electro-Therapeutics and
 Nervous Diseases.
 June 1, 1897. WALTER I. PENNOCK, Asst. Dem. of Anatomy.

- June 1, 1897. HERMAN B. ALLYN, Instr. in Physical Diagnosis.
 June 1, 1897. WILLIAM SCHLEIF, Instr. in Practical Pharmacy.
 June 1, 1897. JAMES M. BROWN, Instr. in Otology.
 June 1, 1897. M. HOWARD FUSSELL, Instr. in Clinical Medicine.
 June 1, 1897. SAMUEL W. MORTON, Instr. in Clinical Medicine.
 June 1, 1897. ALFRED C. WOOD, Instr. in Clinical Surgery.
 June 1, 1897. ELLWOOD R. KIRBY, Asst. Instr. in Clinical Surgery.
 June 1, 1897. CHARLES L. LEONARD, Asst. Instr. Clinical Surgery.
 June 1, 1897. GEORGE C. STOUT, Asst. Dem. of Histology.
 June 1, 1897. ROBERT S. J. MITCHESON, Asst. Dem. of Anatomy.
 June 1, 1897. DAVID B. BIRNEY, Asst. Dem. of Surgery.
 June 1, 1897. JOSEPH P. TUNIS, Asst. Dem. of Anatomy.
 June 1, 1897. ALFRED STENGEL, Instr. in Clinical Medicine.
 June 1, 1897. T. MELLOR TYSON, Instr. in Clinical Medicine.
 June 1, 1897. CHARLES W. DULLES, Lect. on the History of Medicine.
 June 1, 1897. DANIEL W. FETTEROLF, Dem. of Chemistry.
 June 1, 1897. HARRY TOULMIN, Instr. in Physical Diagnosis.
 June 1, 1897. DAVID RIESMAN, Dem. of Pathological Histology.
 June 1, 1897. CHARLES P. GRAYSON, Lect. and Instr. in Laryngology.
 June 1, 1897. HENRY D. BEVEA, Instr. of Clinical Gynæcology, and
 Asst. Dem. of Obstetrics.
 June 1, 1897. WILLIAM A. N. DORLAND, Asst. Dem. of Obstetrics.
 June 1, 1897. WILLIAM S. WADSWORTH, Asst. in Physiology.
 June 1, 1897. CLARENCE W. LINCOLN, Asst. Dem. of Pathological
 Histology.
 June 1, 1897. JOHN H. GIRVIN, Instr. in Clinical Gynæcology, and
 Asst. Dem. of Obstetrics.
 June 1, 1897. WARD F. SPRENKEL, Asst. Dem. of Obstetrics.
 June 1, 1897. LAWRENCE S. SMITH, Instr. in Clinical Gynæcology.
 June 1, 1897. JOHN M. SWAN, Asst. Dem. of Anatomy.
 June 1, 1897. CHARLES H. FRAZIER, Asst. Instr. in Clinical Surgery.
 June 1, 1897. WILLIAM R. HOCH, Instr. in Laryngology.
 June 1, 1897. JAMES P. HUTCHINSON, Asst. Dem. of Surgery.
 June 1, 1897. J. DUTTON STEELE, Asst. Dem. of Morbid Anatomy.
 June 1, 1897. WILLIAM S. CARTER, Dem. of Physiology.
 June 1, 1897. HOWARD MELLOR, Instr. in Ophthalmology.
 June 1, 1897. J. REX HOBENSACK, Prosector to the Asst. Prof. of
 Applied Anatomy.
 June 1, 1897. WILLIAM H. PRICE, Instr. in Children's Diseases.
 June 1, 1897. ALOYSIUS O. J. KELLY, Instr. in Physical Diagnosis.
 June 1, 1897. FRANK SAVARY PEARCE, Instr. in Physical Diagnosis.
 June 1, 1897. ALFRED HAND, JR., Asst. Dem. of Pathological His-
 tology.
 June 1, 1897. JAMES H. MCKEE, Asst. Dem. of Physiology.
 June 1, 1897. THOMPSON S. WESTCOTT, Instr. in Children's Diseases.
 June 1, 1897. JOHN H. JOPSON, Asst. Dem. of Surgery.
 June 4, 1897. HENRY D. BEVEA, Instr. in Gynæcology.

- June 4, 1897. DAMASO T. LAINÉ, Instr. in Clinical Gynæcology.
 June 4, 1897. BENJAMIN F. STAHL, Instr. in Food for the Sick.

IN THE DEPARTMENT OF DENTISTRY.

- Oct. 5, 1896. MATTHEW H. CRYER, Instr. in Oral Surgery.
 Nov. 5, 1896. MATTHEW H. CRYER, Asst. Prof. of Oral Surgery.
 Nov. 5, 1896. A. SWANTON BURKE, Asst. Dem. Mechanical Dentistry.
 Nov. 5, 1896. NEWTON C. HASSELL, Asst. Dem. Operative Dentistry.
 Dec. 8, 1896. J. A. DOWDEN, Asst. Dem. Mechanical Dentistry.
 Dec. 8, 1896. H. B. HICKMAN, Asst. Dem. Mechanical Dentistry.
 Dec. 8, 1896. WILLIAM C. MARSH, Asst. Dem. Operative Dentistry.
 Dec. 8, 1896. J. EDWARD DUNWOODY, Dem. of Crown and Bridge Work.
- Feb. 2, 1897. }
 June 1, 1897. } EDWARD C. KIRK, Dean.
- June 1, 1897. ROBERT HUEY, Lect. on Operative Dentistry.
 June 1, 1897. JOHN D. THOMAS, Lect. on Nitrous Oxide.
 June 1, 1897. NORMAN STURGES ESSIG, Lect. on Mechanical Dentistry.
 June 1, 1897. MEYER L. RHEIN, Lect. on Dental Pathology.
 June 1, 1897. FREDERICK A. PEESO, Lect. on Crown and Bridge Work.
 June 1, 1897. SAFFORD G. PERRY, Lect. on Operative Dentistry.
 June 1, 1897. WILLIAM DIEHL, Dem. of Operative Dentistry.
 June 1, 1897. JAMES G. LANE, Dem. of Mechanical Dentistry.
 June 1, 1897. JAMES E. LODER, Asst. Dem. of Operative Dentistry.
 June 1, 1897. JOSEPH W. WHITE, Asst. Dem. of Operative Dentistry.
 June 1, 1897. AMBLER TEES, Dem. of Platinum Ceramics.
 June 1, 1897. R. HAMIL D. SWING, Asst. Dem. of Operative Dentistry, and Dem. of Anæsthetics.
- June 1, 1897. FREDERICK AMEND, JR., Asst. Dem. of Mech. Dentistry.
 June 1, 1897. MILTON N. KEIM, JR., Asst. Dem. of Mech. Dentistry.
 June 1, 1897. J. EDWARD DUNWOODY, Asst. Dem. of Operative Dentistry.
- June 1, 1897. ROBERT J. SEYMOUR, Asst. Dem. of Mech. Dentistry.
 June 1, 1897. GEORGE G. MILLIKEN, Asst. Dem. of Operative Technics.
 June 1, 1897. A. SWANTON BURKE, Asst. Dem. of Mech. Dentistry.
 June 1, 1897. WILLIAM C. MARSH, Asst. Dem. of Operative Dentistry.
 June 1, 1897. JAMES A. DOWDEN, Asst. Dem. of Mechanical Dentistry.
 June 1, 1897. HARRY B. HICKMAN, Asst. Dem. of Mech. Dentistry.
 June 1, 1897. EDMUND W. HOLMES, Dem. of Anatomy.
 June 1, 1897. ROBERT FORMAD, Dem. of Normal Histology.
 June 1, 1897. GEORGE H. CHAMBERS, Asst. Dem. of Normal Histology.
 June 1, 1897. GEORGE C. STOUT, Asst. Dem. of Normal Histology.
 June 1, 1897. RICHARD H. HARTE, Dem. of Osteology.
 June 1, 1897. DANIEL W. FETTEROLF, Dem. of Chemistry.
 June 1, 1897. JOHN P. ARNOLD, Asst. Dem. of Physiology.
 June 1, 1897. WILLIAM S. WADSWORTH, Asst. Dem. of Physiology.

IN THE DEPARTMENT OF VETERINARY MEDICINE.

- Jan. 5, 1897. JOHN W. ADAMS, Prof. of Vet. Surgery and Obstetrics
Feb. 2, 1897. JOHN MARSHALL, Dean.
June 1, 1897. LEONARD PEARSON, Dean.
June 1, 1897. ALEXANDER GLASS, Lect. on the Theory and Practice
of Canine Medicine.
June 1, 1897. ROBERT FORMAD, Lect. on Vet. Sanitary Science, and
Dem. of Normal and Pathological Histology and
of Morbid Anatomy.
June 1, 1897. EDWIN S. MUIR, Instr. in Vet. Materia Medica and
Pharmacy.
June 1, 1897. B. FRANK SENSEMAN, Dem. of Vet. Anatomy.
June 1, 1897. JOHN W. HARSBERGER, Instr. in General Biology
Botany and Zoölogy.
June 1, 1897. MILTON E. CONARD, Lect. on Vet. Obstetrics, and Dem.
of Vet. Surgery.
June 1, 1897. CLARENCE J. MARSHALL, Dem. of the Theory and Prac-
tice of Vet. Medicine.
June 1, 1897. HERMAN A. CHRISTMANN, Asst. Dem. of Vet. Anatomy.
June 1, 1897. FRANZ ENGE, Dem. of Forging and Horseshoeing.

APPENDIX II.

REPORT OF THE DEAN OF THE COLLEGE FACULTY.

To the Provost of the University.

Sir:—I have the honor to submit the following report as Dean of the College Faculty for the year 1896-97:

As regards the machinery of administration no special remark or comment seems called for. The Academic Council, representative by its constitution of the various departments of instruction, together with the several standing committees, has continued to perform its functions of legislation and government with the same earnestness, in the same spirit of intelligent equity, and with the same success as in the preceding years.

One change only has been made: By action of the Board of Trustees, on the recommendation of the Board of Deans, the Committee of Discipline is henceforth to be composed of the Dean, who is to be ex-officio its Chairman, and two Professors to be appointed annually by the Dean. This was done primarily with a view to giving it the same constitution as in the other departments of the University, but also because, in the nature of things, the responsibility for the maintenance of discipline rests chiefly upon the Dean, and two advisers and assistants, if judiciously chosen, seemed amply sufficient to guarantee the necessary tact in dealing with more serious and delicate cases. This change, however, only goes into effect in the present year, so that no test of its merits is forthcoming as yet.

The appointment of an entirely new official, the Registrar,

has caused a redistribution of the work of the Dean's office. The Board of Trustees committed to this official all the financial details pertaining to collection of tuition and other fees, current expenses for repairs of the College building, etc.; a welcome relief to the Dean and his assistant the Vice-Dean. By delegation of the Dean the same officer was charged with the assignment of rooms in the College building for teaching purposes, and the more mechanical details in connection with the keeping of the records, issuance of reports and excusing of absences; such cases as seemed to call for special discretion in the decision of them being reserved for the Dean or the Vice-Dean. The extent and variety of these duties can hardly be appreciated by one who has not tried his hand at them. The office was new; the incumbent was new to the office; much of the work, in the nature of it, did not admit of equable distribution, but was massed at those most critical periods, the beginning and closing of the terms: when this is remembered, it may, I think, be fairly claimed that the duties were discharged with invariable zeal and commendable accuracy.

The following changes and additions have been authorized in the College courses during the past year:

A course in Archæology, to be given by Dr. Bates, covering two hours per week, to be open as a free elective to Juniors and Seniors in the courses in Arts and Science.

A course in Sociology, to be given by Assistant Professor Lindsay, covering two hours per week, to be open as a free elective to Juniors and Seniors in the courses in Arts and Science.

A course in Pedagogy, to be given by Professor Brumbaugh, covering two hours per week, to be open to Juniors and Seniors in the courses in Arts and Science.

A two years' course in Introduction to the New Testament, to be given by Dr. Sailer, covering two hours per week, to be open to Juniors and Seniors in the courses in Arts and Science.

A course in Political Science, to be given by Assistant Professor Rowe, covering two hours a week, to be open to Juniors and Seniors in the courses in Arts and Science.

Courses in Elocution were authorized as follows:

A course of one hour a week in the Freshman Class to be required of all students in the courses in Arts and Science, in Science and Technology and in the course in Finance and Economy.

An optional course of one hour in the Sophomore year; to be required, however, of all Sophomores who propose to compete for the prize in Declamation.

A course of two hours a week, to be open as a free elective to Juniors and Seniors in the courses in Arts and Science, but to be required of all Juniors who propose to compete for the Junior Prize in oratory.

For Seniors in Civil Engineering, whether in the four-year course or in the course in Science and Technology, the hours per week in Astronomy in the second term were increased from two to three, and the hours in Geodesy in the same term reduced from three to two.

The course in Metallurgy given to Chemists, Civil Engineers and Mechanical Engineers was increased from one hour per week to two in the second term, and the courses in Mineralogy given to Chemists and Civil Engineers was reduced from four hours a week to three in the same term.

In the courses in Science and Technology the following additions were made with a view to strengthening and at the same time broadening and enriching the curriculum of the Freshman and Sophomore years, which had hitherto been weak by comparison with other parallel courses:

In the Freshman year one hour a week was added in Rhetoric and Composition, one hour a week in French or German, and four hours a week in Chemistry, transferred from the Sophomore year.

In the Sophomore year one hour a week was added in Composition, one in French or German. A course of one hour a week in Free Hand Lettering was also added, except for such students as propose to take the courses in Civil and Mechanical Engineering; these latter will be required to take a course of two hours a week in Analytic Mechanics in the second term, and such of them as elect Descriptive Geometry,

to take further a course of two hours per week in Free Hand Lettering in the first term.

In the four-year courses in Civil and Mechanical Engineering a course in Analytic Mechanics was introduced, to be given by the Department of Physics and to occupy two hours per week in the second term of the Sophomore year and two hours per week in the first term of Junior year. To make room for this, Physics in the Junior year is to be reduced to two hours per week and Calculus to be increased from three to four hours per week in the first term of the Junior year and omitted altogether in the second term.

It was decreed that the requirement of a graduating thesis be abolished for all graduates in the courses in Arts and Science.

A few other minor changes have been made, particularly in the courses in Finance and Economy; but as these in no respect affect the content of the courses concerned, but only provide for a more judicious and logical distribution of the subjects, they seem to call for no special mention or comment here.

Mr. Henry C. Terry, whose son Mr. Willis Terry, after graduating with credit from the course in Finance and Economy, died in the ensuing vacation after a short and sudden illness, has founded a series of prizes to be known as the Willis Terry prizes.

Four of these of the value of \$20 each, are to be given to the students who have the best yearly record in the several classes in the course in Finance and Economy; one, of the value of \$120, is to be given to the graduating student in the same course, who shall present the best essay, embodying the results of his own special research, upon a subject to be assigned by the Committee on Economics.

At the close of the academic year 1895-96, as has already been reported by my predecessor, the Committee on Teachers' Courses, previously appointed and loosely hanging on the skirts of the College, was made one of the standing committees working under the Academic Council. By this action what had resulted from spontaneous expression of need on the

part of individual teachers in our Public Schools and from equally spontaneous and voluntary response thereto on the part of our College teachers, was brought into organic relation with our College and made a part of our system. The newly constituted Committee has endeavored to systematize the courses offered, arranging them as far as might be, considering the limited time of attendance possible, into cycles covering from two to four years. The fragmentary character of the instruction, which was inevitable in the incipiency of the movement, has thus been largely corrected, and a graded system of successive years is now offered. The scope of the work has been largely increased, as demand arose: indeed the development has been so great and of late so rapid that it would be impossible to set forth in a report such as this all the details of it. I must be content with calling your attention to the facts as they appear plainly and simply set forth in our last circular number 3; and the end is not yet. I may by anticipation be allowed to state here that since September, 1897, new courses have been asked for and new courses have been added. This statement would fall far short of completeness, were I not to add that the Committee in charge of this work acts also as a Committee of advice to applicants for admission, and has been seriously, and with a gratifying measure of success, endeavoring to secure for each of them a rational combination of courses such as their needs would seem to demand and the limitations of time, which are strait, would permit. I might call attention to the growing numbers in these Saturday Classes: it is most gratifying to see this: but the development of the work itself appears even better evidence of the need that existed and of the fruitfulness of our attempt to supply it.

In the early part of the academic year 1895-96 a call was issued by President Low, of Columbia University, for a conference to meet in New York to consider the vexed question of Entrance Requirements to College. The call was addressed to the Universities of Harvard, Yale, Columbia, Cornell, Princeton and Pennsylvania. To this Conference were called also representative principals and teachers of leading prepara-

tory schools in New England and the Middle States. The subjects that were to be considered at the Conference were History, Mathematics (as required for non-technical courses) Greek, Latin, French and German. English was not included as that subject had been worked over and satisfactorily arranged at special conferences held in a previous year. The question of entrance requirements in Science was omitted; it was thought best to attack the problem piecemeal and to begin with that portion where the discrepancies were greatest and most serious. It had long been felt that the diversity in amount of requirements and the difference in the manner of testing the qualifications of applicants for admission, had come to be an exceedingly oppressive evil. It was practically demanding of the preparatory schools, that in the upper portions of their work they have as many classes as there may be colleges which their graduates proposed to enter. For in most cases at least the differences in the published and exacted requirements for admission to different colleges did not correspond either to a year or even to a term of school work: had that been the case the problem for the schools would have been much simplified, as pupils desiring to go to a college with higher requirements would merely stay a year longer in school: as things were, the students had to be brought simultaneously to quite different levels of attainments. Consequently the school teacher was compelled to do his work under conditions the worst possible for his efficiency and the boys came out as best they might. The task of the conferences was by joint action of the representatives of the colleges and the schools to recommend a uniform system of requirements in the subjects mentioned: uniform in method of application, and uniform in maximum amount, though admitting of differences between college and college by some multiple of a year of school work. The attempt was one that deserved to be made, and though it has not accomplished as much as was perhaps expected, it has not been altogether fruitless; it has at least contributed to the discussion. The conferences reported their recommendations to President Low and by him these were transmitted to the various colleges. The College of the Uni-

versity of Pennsylvania adopted the suggestions with but slight modifications and has published them in its catalogue as to be enforced in June, 1899; in June, 1898, the applicants for admission coming from any school may, on the request of that school, offer the new requirements. No other college has as yet adopted the recommendations, though the examinations in some are not far removed from them. Our adoption of them is at least a proof that we desire to do what we can to remove the unfortunate existing differences and that we stand ready to join again in any further attempt to remedy the evil.

The material equipment of the College remains about what it was. Some slight addition has been made in the Mechanical Engineering building, by which a sort of alley-way was roofed over and made useful for that growing Department of our work; in the College building proper it has been possible by a slight shifting of rooms to improve somewhat the accommodations given to the work in Civil Engineering and in Mineralogy. But we still are in many directions much cramped for room: several of our classes lead a peripatetic existence, and although at the hours needed there is always a room available, it would be an unquestionable advantage if this room could be always the same. In his report of last year, my predecessor suggested that relief might come through providing a separate building for the Architectural work: I would repeat this suggestion, but would add to it the further and, as I think, at least equally necessary one of separate quarters for the Department of Physics, although this latter suggestion trenches perhaps somewhat upon the grounds of the Dean of the Department of Philosophy.

It has been the endeavor of the Library Committee, in conjunction with the corresponding Committee of the Board of Trustees, to secure a regular annual appropriation of moderate amount which shall be at the disposal of the heads of departments for purchase of the most important publications as they appear from time to time. This matter is so important, so vital for the instruction in the undergraduate courses in the College, no less than for the development of our post-graduate courses in the Department of Philosophy, that I may

be pardoned for insisting upon it here and for expressing the hope that means may soon be found to make this heretofore perennial wish and prayer a solid and everlasting reality. The constant acquaintance with the latest literature in his subject is indispensable to the College teacher, if he is to be kept intellectually alive: he may not and will not have occasion to introduce much of this new matter in most subjects (though this may not be true of all) into his undergraduate teaching, but the spirit of it he needs, and the stimulus, if his teaching is not to degenerate into a dead routine. It is what is not directly communicated, but exists and makes its presence felt as a solid background for the work in class, that is after all most effective in teaching; it is this that makes the teacher a visible, flesh and blood incarnation as it were of his subject. We have had in the past year, thanks to the appropriation so generously made by the Commonwealth, large additions to our Library of works, primarily of direct service in our graduate courses, and secondarily and indirectly of great value to the College as such; and for these we are, as is due, properly thankful. But, we should have besides this, if possible, some "assurance of things" at present "hoped for," in an established system of annual departmental appropriations for library purposes.

A delicate and difficult task is that of the Committee on Scholarships. The function of this Committee, as its name indicates, is to direct the financial aid intended for needy and deserving students to those persons who have some just claim to be so classified. It is its duty to defend the treasury of the University against unjustifiable demands and equally to defend the really needy and deserving student against the speculative applicant. The discrimination is not easy: the responsibility is heavy. The policy of the College has been so liberal in the past in allowing almost any claim that was made; and the rules and limits that have been established for the guidance of the Committee in its action have been so few, that it is exceedingly difficult for the Committee to know when the concessions it is making are approaching the excessive, and doubly difficult for it to give reasons, when asked, for its re-

fusals. There has been in short no system at all in the matter. The Committee has, it is true, of its own motion, prepared blanks, which must be filled out by all applicants, and included in these blanks questions upon all matters that seemed necessary to enable it to take intelligent action upon any given case. But it has constantly felt that, even supposing, a thing very hard to be quite sure of, that each case individually considered fully warranted the favorable decision had upon it, it was constantly in danger of overstepping the limit of reasonable financial assistance viewed as a whole: it is entirely in the dark as to the total sum the College is warranted by its financial condition in spending in this way. Were there established Scholarship funds from the income of which such aid was to be granted, the case would be different: the peculiar merits of each applicant would alone call for examination. Were the financial authorities of the University to say what amount could properly be granted for this purpose annually, the Committee would at least know when and how fast it was approaching the limit set. With no fixed regulation of either sort, why should the one hundred and first applicant be rejected, if otherwise eligible, when the one hundredth has been favorably considered? I would earnestly suggest that this subject receive the serious consideration of the Board of Trustees, and that, if possible, some regulations be formulated which shall enable the College to be generous, but wisely and not lavishly generous, in dispensing this assistance to its students.

The Committee on Discipline had very little work to do, as compared with previous years. The improvement, already noted in the report of my predecessor, in the matter of unexcused absences was still more marked this year, and was the chief reason for the comparative infrequency of the meetings of this Committee. One student was dismissed by action of the Committee for handing in copied work, and one, who was before the Committee on a serious charge, was, before action was taken by the Committee, stricken from the rolls by the Dean for non-payment of fees. In this connection I desire to call attention to the table as to absences (Table VIII) ap-

pended to my report. It will there be seen that the total average of all absences per student was in the first term but 21.19 and in the second 24.09, an average of less than 10 per cent, at the lowest count of all the exercises in either term. These figures speak for themselves and call for no comment. They are but another evidence of the earnest seriousness with which, as a rule, our students regard their work in College.

During the last year athletics have been conducted under the provisions of the "Eligibility Code," that was adopted on March 30, 1896, and revised on September 30, 1896. In this code it is ordered that no student shall represent the University of Pennsylvania in any public athletic contest or exhibition, if he shall have been dropped from his class into a lower class or from a first-year class out of the University, or if he shall be conditioned in more than one subject at the time of the contest or exhibition in which he may desire to take part. The latter provision is modeled after the rule adopted by the Committee in charge of students' organizations other than athletic, a rule which under this Committee has been found to be an excellent defence of the standard of scholarship against extra-collegiate temptations. There is, however, one important difference. The rule as administered by the last named Committee excluded students who were burdened with more than one condition from membership in these organizations and not merely from taking part in their exhibitions; under it, moreover, a decision was final for the College term in which it was rendered. For this there are very good and substantial reasons. In the rule as laid down for the government of athletics, a separate decision may be (as it has been) called for on the approach of an exhibition or contest, no account being taken of the effect that conditions just removed are very sure to have upon the current work of the term.

As regards the effect of athletics, regulated as above, on scholarship, a comparison of Tables III and IV will give us the only certain light we can get. From these we find that the

number of conditions per student conditioned was in the *first* term:

For all students:—

Regulars.	Specials.	Partials.
1.69	1.7	1.6

For members of athletic teams:—

Regulars.	Specials.	Partials.
1.7	1	2.5

In the *second* term the same tables show:

Average of all students:—

Regulars.	Specials.	Partials.
1.9	3.1	2

For members of athletic teams:—

Regulars.	Specials.	Partials.
2.1	0	2

The number of special and partial students on the athletic teams was so small (a glance at the tables will show this) that no conclusions touching them can safely be drawn. The figures for regular students seem to show a tendency, one is hardly justified in calling it more, to fall below the standard of the students taken as a whole. This tendency will be weighted further, when it is remembered, that the maximum limit of conditions allowable, for the students as a whole, is one-third of the total work; that, moreover, students who had been dropped to the class below are included in making up the average: for athletic purposes, no student who has been dropped can be counted for at least one year afterward, nor can any student figure in a contest who has at the time more than a single condition. In other words the athletic students are a sifted body, from a scholastic point of view, to begin with; they start out under more favorable auspices, and the end is as above shown.

If we compare again the number of students conditioned with the total number of students, we find, confining our attention to regular students only:

In the first term 155 conditioned out of a total of 499.

In the second term 135 conditioned out of a total of 457.

Of athletes, we find in the first term 24 conditioned out of a total of 45; and in the second term 16 conditioned out of a total of 45.

These figures again represent the most favorable enumeration for the athletic class of students, as no attempt has been made to sift out of the total number of 45, those who may have figured solely in the contests peculiar to either term.

The record of students who figured in non-athletic organizations, as may be seen by consulting Table V, does not appear to make quite as good a showing; for, while the percentage of conditions is somewhat less, this is offset by the dropping of three students at the close of each term.

I call special attention to the tables of statistics appended to this report, upon which I shall comment where it seems called for.

In Table I are given the statistics of admission to College. The total number of applicants was 312, or 40 less than for the corresponding period in 1895-96 and 22 less than for the year 1894-95. In this year the certificate system was for the first time abandoned, as had been predicted in my predecessor's report. It might be thought at first sight that in this fact alone is to be found the sufficient reason for this noticeable difference: but there are other facts in the table, which show that this can hardly be. In 1894-95, 76 and in 1895-96, 80 presented, as credentials entitling them to admission, diplomas of public high schools: in the past year these numbers have fallen off to 62. Diplomas of Normal Schools were offered by 9 in 1894-95, by 2 in 1895-96, last year by but 1. Certificates from other colleges were offered by 37 in 1894-95, by 17 in 1895-96, by but 3 in 1896-97: as to this last item, I should add that if these numbers, as is likely, in the report of last year, include applications for advanced standing, the number in 1896-97 must be increased by the last item in the table, so that it will be 17 instead of 3. It is plain from this, that the number of applicants for all categories shows a falling off as compared with each of the preceding two years, and that the cause must be sought not in the reintroduction of examinations for admission, but elsewhere. What the cause is,

remains obscure. The number that applied for preliminary examinations, though not large, is still more than double last year's contingent.

If we examine the number admitted to College, it appears that the total of admissions falls below that of 1894-95 by 68, and of 1895-96 by 79; but the number of regular students admitted shows an increase of 17 as compared with 1894-95 and a decrease of 73 as compared with 1895-96. The number of special and partial students shows a loss in this class of 85 as compared with 1894-95 and of 6 as compared with 1895-96.

An examination of the conditions of the students admitted upon examination shows a noteworthy improvement: the average number per student so admitted was in 1894-95, 2.2; in 1895-96, 2.4, and in 1896-97, 1.1.

Table II. In the first term 14 regular students were dropped, the figures for 1895-96 are 34. Of specials and partials 6 were dropped in 1896-97, in the previous year 3. Of the 14 regular students 8 were Freshmen; 22 of this class had thus fallen out in 1895-96. What is, however, more interesting is the fact that five of these eight had not been admitted by examination, and that four of these five had been dropped back a year in 1895-96; these four were thus an inheritance and were only repeating their previous achievements. It is in the first term particularly that the quality of previous preparation tells most in a student's college standing; the figures here given may, in so far as a single test permits a judgment, be regarded as a vindication of the change that was this year instituted in the method of admission. The partial students, it will be observed, fall, as might be expected, considerably below the special students in proficiency. In the second term, as regards the totals, and as regards the Freshmen, the records of this year and of last year are practically on a par; this was to be expected, after the bulk of the insufficiently prepared had been weeded out.

The total number of regular students in the first term falls 38 below that of last year; in the second term but 6 below it: special students in the first term are 28 less and in the second term 9 less than in 1895-96; there were 11 more partial stu-

dents in the first term and 4 less in the second term than the year before.

Table III. No special comment upon this table seems needed: the figures speak for themselves.

Tables IV and V have already been quite sufficiently considered.

Table VI shows that the number of women in College has slightly diminished. The number of women who are entered as regular students has, however, slightly increased; there were 5 in 1895-96, there were 7 in 1896-97.

Table VII shows that the number of students from a distance, though it has been diminished actually, has yet increased in proportion to the total number in College. Not much more than one-third of these were in the University Dormitories.

Table VIII is interesting and calls for no comment beyond what has been elsewhere already said.

The average age of the Freshman Class of 1896-97 at the time of its admission to College was 18 years, in 1894-95 it was 18 years and 6 months and in 1895-96 it was 18 years and 7 months. The age is still, I am sure, higher than is at all necessary. Lack of intelligent interest on the part of parents in the studies of their children, and consequent lack of cooperation with the work of the teacher in school, seem to me to be among the causes of the advance in the age of applicants for admission to College that has of late been so widely commented upon. It is certain that the age has increased out of all proportion to the additions that have been made to the requirements for admission.

I must in conclusion, and I do it with pleasure, record my conviction that the year just closed has shown a most gratifying spirit of earnest and intelligent application on the part of our students. This can hardly be made visible in tables of statistics, but the instructors who meet them day by day have felt it.

Respectfully submitted,

W. A. LAMBERTON,

Dean.

COLLEGE STATISTICS FOR 1896-97.

TABLE I.

ADMISSION TO COLLEGE.

Number of applications, June 1 to May 1	312
Number applying upon examination	119
Number applying on certificate from private schools	13
Number applying upon diploma from public high schools	62
Number applying upon diploma from normal schools	1
Number admitted on certificate from other colleges	3
Number applying for partial or irregular courses	53
Number applying for preliminary examinations	35
Number applying for advanced standing	14
Number of former students readmitted	12

312

TABLE II.

STUDENTS WITHDRAWN OR DROPPED.

	With- drawn.	Dropped or Put Back.		Dismissed.
		1st Term.	2d Term.	
Post-Seniors	1	—	—	—
Seniors	1	—	1	—
Juniors	5	1	—	—
Sophomores	10	5	7	1
Freshmen	11	8	11	—
Total Regulars	28	14	19	1
Special, third year	—	—	—	—
Special, second year	1	—	—	—
Special, first year	1	1	1	—
Total Specials	2	1	1	—
Partials	13	5	3	—
Grand Totals	43	20	23	1

Note, 1 died.

STUDENTS IN COLLEGE.

	First Term.	Second Term.
Regulars	499	457
Specials	91	88
Partials	45	27
	635	572

TABLE III.
CONDITIONS.

(I) NUMBER OF STUDENTS CONDITIONED AND NUMBER OF
CONDITIONS IMPOSED.

FIRST TERM.	Number of Students Con- ditioned.	Number of Con- ditions.	Number of Conditions per Stu- dent Con- ditioned.
Post Seniors	—	—	—
Seniors	22	33	1.5
Juniors	19	32	1.7
Sophomores	58	101	1.7
Freshmen	56	96	1.7
Total Regulars	155	262	1.69
Special, third year	4	8	2.
Special, second year	6	9	1.5
Special, first year	3	5	1.6
Total Specials	13	22	1.7
Partials	11	20	1.8
Grand Totals	179	304	1.6
SECOND TERM.			
Post Seniors	—	—	—
Seniors	12	19	1.6
Juniors	20	28	1.4
Sophomores	56	110	2.0
Freshmen	47	108	2.3
Total Regulars	135	265	1.9
Special, third year	5	20	4.
Special, second year	—	—	—
Special, first year	2	2	1.
Total Specials	7	22	3.1
Partials	14	28	2.
Grand Totals	156	315	2.

(2) NUMBER OF STUDENTS ADVANCED WITH CONDITIONS AND NUMBER OF CONDITIONS CARRIED.

FIRST TERM.	Number of Students Allowed to Continue with Conditions.	Number of Conditions Carried by these Students.	Number of Conditions per Student Conditioned.
Post Seniors	—	—	—
Seniors	21	32	1.5
Juniors	22	35	1.5
Sophomores	54	91	1.6
Freshmen	55	93	1.6
Total Regulars	152	251	1.7
Special, third year	5	10	2.
Special, second year	6	9	1.5
Special, first year	4	6	1.5
Total Specials	15	25	1.6
Partials	12	23	1.9
Grand Totals	179	299	1.67
SECOND TERM.			
Post Seniors	—	—	—
Seniors	11	15	1.3
Juniors	23	34	1.4
Sophomores	37	63	1.6
Freshmen	41	77	1.8
Total Regulars	112	189	1.5
Special, third year	5	20	4.
Special, second year	—	—	—
Special, first year	2	2	1.
Total Specials	7	22	3.1
Partials	11	17	1.5
Grand Totals	130	228	1.8

TABLE IV.

STATISTICS REGARDING COLLEGE STUDENTS BELONGING TO UNIVERSITY ATHLETIC TEAMS.

(Football, Baseball, Crew, Track, Gymnasium and Cricket.)

NUMBER OF STUDENTS ON THESE TEAMS.

Regulars	45
Specials	8
Partials	3

Dropped.
First Term. Second Term.

Regulars	—	1
Specials	—	—
Partials	—	1

FIRST TERM.	Number of Students Conditioned,	Number of Conditions.	Number of Conditions per Student Conditioned.
Regulars	24	42	1.7
Specials	2	2	1.
Partials	2	5	2.5
Totals	28	49	1.7
SECOND TERM.			
Regulars	16	35	2.1
Specials	—	—	—
Partials	2	4	2.
Totals	18	39	2.1

TABLE V.

COLLEGE STUDENTS BELONGING TO ORGANIZATIONS OTHER THAN ATHLETIC (DRAMATIC CLUBS AND THE GLEE, BANJO AND MANDOLIN).

NUMBER OF STUDENTS IN THESE ORGANIZATIONS.

Regulars	72
Specials	3
Partials	3
Totals	78
Dropped at the end of the first term	3
Dropped at the end of the second term	3

FIRST TERM.	Number of Students Conditioned.	Number of Conditions.	Number of Conditions per Student Conditioned.
Regulars	39	69	1.8
Specials and Partials	2	2	1.
Totals	41	71	1.7
SECOND TERM.			
Regulars	28	53	1.8
Specials and Partials	1	2	2.
Totals	29	55	1.9

TABLE VI.
WOMEN IN COLLEGE.

			Conditions.	
			First Term.	Second Term.
Regulars	7	Senior	2	1
Specials	10	Freshmen	1	—
Partials	4	First-year Specials .	—	1
Totals	21			

TABLE VII.
RESIDENCE OF STUDENTS.

Number of men in College	614
Number of men from a distance living in Dormitories .	47
Boarding Houses	77
Number of women from a distance boarding in Philadelphia	3

TABLE VIII.
STUDENTS' ABSENCES.

	First Term.	Second Term.
Average number of absences, per student	21.19	24.09
Average number excused absences, per student . .	16.56	17.
Maximum absences for a single student	173.50	178.
Average number absences, unconditioned students .	13.50	18.10
Average number excused absences, unconditioned students	10.81	14.01
Average number absences, conditioned students . .	26.10	27.13
Average number excused absences, conditioned students	19.10	24.01

APPENDIX III.

REPORT OF THE DEAN OF THE DEPARTMENT OF PHILOSOPHY.

To the Provost of the University.

Sir:—I have the honor of presenting to you the following report upon the progress of our graduate work during the year ending August 31, 1897, its present condition and imminent needs.

THE FACULTY AND ITS COMMITTEES.

By action of the Faculty and Board of Trustees taken toward the close of the last year, the number of members of the Executive Committee was increased from five to seven. It will hereafter consist of the Vice-Provost and Dean *ex-officio*, and five members of the Faculty, to be appointed, as heretofore, by the Provost, annually. The members of the Executive Committee for the year 1896-97 have been:

George Stuart Fullerton, Vice-Provost,
William Romaine Newbold, Dean,
William A. Lamberton,
Edgar F. Smith,
Simon N. Patten,
John M. Macfarlane,
Marion D. Learned.

Professor H. A. Rennert has represented this Department during the past year on the University Athletic Committee.

Professor E. P. Cheyney has performed the same duty on the University Committee on Non-Athletic Organizations.

The constitution of the Faculty in future will be determined in accordance with the provisions of a resolution passed by the Faculty, December 17, 1896, and approved by the Board of Trustees, February 2, 1897.

The Executive Committee will have power to authorize any professor, associate or assistant professor, lecturer or in-

structor of the University to give instruction in the Department of Philosophy. Any professor, associate or assistant professor so authorized will be a member of the Faculty of Philosophy as long as this authorization shall continue, and will bear in the Department of Philosophy the title borne by him in his proper Department.

Any lecturer or instructor so authorized will have the title of "Lecturer" in the Department of Philosophy.

The following gentlemen, instructors in the College, have been authorized to give instruction in their several topics under the above named provisions:

- J. Percy Moore, Ph. D., Lecturer in Zoölogy.
- John W. Harshberger, Ph. D., Lecturer in Botany,
General Biology and Zoölogy.
- Homer Smith, Ph. D., Lecturer in English.
- Philip P. Calvert, Ph. D., Lecturer in Zoölogy.
- George H. Hallett, A. M., Ph. D., Lecturer in
Mathematics.
- Hobart C. Porter, Ph. D., Lecturer in Botany.
- James T. Young, Ph. D., Lecturer in Administration.
- Clarence G. Child, Ph. D., Lecturer in English.

We have also authorized the Senior Fellows on the George Leib Harrison Foundation: Edgar A. Singer, Jr., Ph. D., Senior Fellow in Philosophy; Willett L. Hardin, Ph. D., Senior Fellow in Chemistry; Charles L. Lincoln, Ph. D., Senior Fellow in Political Science, to give a limited amount of graduate instruction in the title subject of their respective Fellowships.

This Department has suffered an irreparable loss in the death of Professor Edward D. Cope, than whom no man on our Faculty was better qualified for the instruction of advanced students, as well by the wide range and inestimable value of his discoveries as by the contagious enthusiasm which distinguished him as a teacher. It had been our hope and expectation to see his work in this Department much enlarged in the course of the next few years.

INSTRUCTION.

By action of the Board of Deans taken November 23, 1896, and afterwards duly approved by the Board of Trustees, it was decided that hereafter students regularly matriculated for a degree in any department of the University may be admitted to courses in any other department by the concurrent action of the respective Deans.

This decision will not, in all probability, make any considerable change in the practice of this Department at present. It is true that the organic relation existing between certain branches of the graduate work and the instruction given in other departments of the University is very close. Thus certain branches of History, Political and Social Science have many points of contact with Law; Experimental Psychology with Neurology and Psychiatry; Mathematics and Physics with certain courses in Science and Technology; Botany and Zoölogy with Anatomy, Physiology and Bacteriology; Organic Chemistry with many branches of Hygiene. Yet the aims which control the instruction given in the schools of Applied Science, and the methods based upon them, differ so widely from those of this Department, the primary aim of which is to train the student, scholar and teacher rather than the man of affairs, that it will be found necessary to avail ourselves of these facilities with caution. But although a large part of the instruction given in other departments is at present not adapted to our purposes, there are individual courses to which our students will be directed and there seems to be no good reason why this provision might not in future lead to closer co-operation between the various departments of the University, and to a consequent increase in the efficiency of all.

ORGANIZATION.

Early in the year it was deemed necessary to make certain changes in the organization and rules of the Department. Many of these changes aimed at incorporating into the written rules customs which had grown up in the course of experience and had been thoroughly tested and found of value.

Others aimed at the removal of certain disadvantages which had been found to attend our former methods. Among the former may be mentioned the requirement that all candidates for the Doctor's degree should possess a good reading knowledge of two European languages besides English, one of them being a modern tongue, and, the introduction of a minimum requirement in the matter of lecture work which will at once tend to make equal the demands made upon the students in the various subdivisions of the Department and will also fix at three years instead of two the shortest time in which a Doctor's degree may be obtained. Among the latter changes the more important are those intended to provide for the student a more flexible method of selecting his studies, and for the instructors, both more thorough control over the student, for whose final success they are responsible to the Faculty, and also a more effective means of co-operation and consultation among themselves.

Our rules were last thoroughly revised in 1888, but at that time no important changes were made in the relatively simple method of electing studies which was adopted at the foundation of the Department, in 1882. All the instruction offered was at that time subdivided into "authorized subjects" of which the student was required to elect three. The principle of division was mainly found in the logical relations of the topics, but the requirement that the student should elect three and only three, with the further tacit assumption that he must do all the work offered in each, tended to impose a limit upon the amount of instruction which could be given in any one "authorized subject." In the early days of the Department, when instructors were few and the amount of instruction given was necessarily limited, this tacit restriction was not felt as burdensome, but with the growth of the Department, difficulties arose. The addition of new lecture courses made many of the "authorized subjects" so comprehensive that no student could do all the work required, and thence sprang a demand for further subdivision, the granting of which was further facilitated by the pardonable ambition of the individual instructors to see their several branches of study attain the dignity of "authorized subjects." The final grouping in which

this process terminated, whether viewed from the logical or the practical point of view, was far from satisfactory. Thus, the three original "subjects," Philosophy, History, Political and Social Science, as recognized in 1882, were represented in 1896 by ten, with two others under consideration. The Languages in 1896 comprised thirteen subdivisions with two under consideration. But the vast field of the Physical and Biological Sciences comprised all told only eight topics. Since under our former system opportunities of specialization varied with the degree of subdivision allowed, the students of the Physical and Natural Sciences found themselves at a serious disadvantage as compared with students of the Languages or the Humanities. The latter could specialize at will: the former were compelled to devote half their time to subjects less directly related to their main end. Having developed well-equipped departments for advanced research we were forbidding our students to avail themselves of the opportunities offered.

While fully recognizing the importance of a broad and liberal training to ultimate success in any branch of intellectual labor, we nevertheless believe that in the Graduate School, the students of which have already had the advantage of a collegiate education,—the right of the student to specialize should be acknowledged. The precise degree of specialization which will prove best for any given student will vary with his preparation, with the end which he has in view and with the time at his disposal. We are of the opinion that the student's welfare can not be adequately subserved by any such fixed provisions as the "three course" and "authorized subject" rules adopted in 1882. No matter how great the care with which the "authorized subjects" are arranged, many students will find themselves compelled in electing three only to omit cognate lines of study which they should have been free to take, nor has it been found possible to develop any clear principles by which to govern the further subdivision of "subjects." Moreover, the multiplication of such "subjects" has tended to break the Department up into small groups between which no effective system of co-operation existed.

These difficulties have been met as follows:

The twenty-nine "authorized subjects" have been abolished and the instruction given has been arranged in sixteen "groups." These "groups" are in no sense elements out of which the student's course is to be constructed, as were the "authorized subjects." They are simply administrative units and nothing more. The main principle of division is the logical, with which of course the practical is inseparably associated.

Each group comprises those courses of study which are so closely related in theory and practice that a student taking any one would probably wish to do some work in the others. To some extent, however, the accidents of location and other subordinate considerations have influenced us in the constitution of the groups. All professors and instructors giving instruction in the group constitute a "group committee" with power, subject to the consent of the Executive Committee, to determine upon the amount, character and further subdivision of the instruction offered within the group, and to control, with due regard to the student's wishes, the work of every student taking a major in the group. The Group Committee has power also, not only to direct the student to any work given in this Department, but also, through the Dean, to any work given in any department of the University. To guard against the development of *imperia in imperio* ample provision is made for continuous and effective supervision of the work of the Group Committees by the Executive Committee through the Dean.

COURSES.

The development in the College of relatively specialized courses of study leading to the degrees of B. S. in Biology, in Economics, in Chemistry and in other branches of Science, has made it necessary to offer undergraduate courses of a more advanced character than usually marks undergraduate work. Many graduate students, therefore, who have pursued liberal, non-specialized courses of study during their undergraduate years, are compelled to enter upon their graduate work at a point below the level attained by students who graduate from those specialized courses. Three alternatives then present themselves:

- (1) We may duplicate the courses in question.
- (2) We may allow them to be accounted both as undergraduate and as graduate courses,
- (3) We may compel such students to pursue them as conditions before undertaking graduate work.

The first alternative imposes a heavy burden upon instructors without any compensating advantages. The third tends to discourage students from pursuing while undergraduates a liberal course of study, which we believe to be a necessary foundation for the best specialized work. The second alternative is regarded by many as tending to degrade the standard of graduate work.

The Executive Committee has, however, adopted the second alternative as a temporary means of meeting the difficulty and has authorized the designation of certain specified courses as "mixed courses" open both to graduate and to undergraduate students.

The entire problem as well as that cognate problem which concerns the degrees which are to be accepted as affording evidence of the student's fitness to enter this Department, is now receiving consideration at the hands of the Faculty, and I hope to be able to report to you at the close of the next year a more permanent solution.

EQUIPMENT.

The most noteworthy additions to our equipment have been derived from the expenditure of \$25,000 of the sum of \$50,000 granted the University by the Legislature in 1895.

This sum has been expended mainly in the purchase of books and increase of our library facilities. The Department of Zoölogy has been enriched by the generous provisions of Professor E. D. Cope's will by which his scientific library, valued at from \$10,000 to \$12,000, and his entire osteological collection, valued at about \$10,000, became the property of the University. The latter collection is believed to contain the most complete series extant of the Fishes.

The reports which I have received from the Group Committees all make mention of increase in laboratory facilities, the purchase of new apparatus, the acquisition of new speci-

mens and material for demonstration. It is clear that in all directions there has been substantial gain in the matter of equipment, although there is no need of incorporating all the details into this report.

FELLOWSHIPS.

By action of the Board of Trustees taken June 4, 1897, five additional Fellowships for men were established upon the George Leib Harrison Foundation, to be granted upon the same conditions as those already established. The title subjects of these five Fellowships remain, however, undetermined. They will be assigned to the several groups from year to year by the Board of Trustees upon recommendation of the Executive Committee. The establishment of these five unassigned Fellowships will enable us to appoint two or more Fellows in the same subject when several desirable applicants present themselves for the same Fellowship, and also to assign Fellowships from time to time to subjects in which as a rule little interest is felt, and for which therefore a permanent Fellowship would be superfluous.

For some years past the income of the Bloomfield Moore Fund has been devoted to the maintenance of five free Scholarships for women, yielding free tuition only. It was found that relatively few applications were made for these Scholarships, while the applications for the three Fellowships for women were numerous.

In June, 1897, the Board of Trustees resolved, upon recommendation of the Executive Committee, to substitute for the five Scholarships two Fellowships for women, to be granted upon the same terms and to carry the same privileges as those already established upon the Bennett and Pepper Foundations, with the restriction that only women who intend to teach can be candidates for the Bloomfield Moore Fellowships.

Through the generosity of Isaac W. Kemble, Esq., of Philadelphia, an additional Fellowship has been established for the Academic year, 1897-98. It will be known as The University Fellowship in Invertebrate Zoölogy and will yield \$500 in cash and free tuition. I feel that we may point with pride

to our equipment in the matter of Fellowships, in which not more than two or three American Universities can vie with us.

We have upon the George Leib Harrison Foundation five Senior Fellowships yielding \$800 each; nineteen Fellowships yielding \$500 each; eight Scholarships yielding \$100 each.

Upon the Hector Tyndale Foundation one Fellowship yielding \$600.

The University Fellowship in Invertebrate Zoölogy, yielding \$500.

Upon the Joseph M. Bennett Foundation two Fellowships for women, yielding board, lodging, and \$25 in cash for the Academic year.

Upon the Bloomfield Moore Foundation two, and upon the Frances Sergeant Pepper Foundation one of the same value.

In all we have thirty-nine Fellowships or Scholarships yielding to the student \$16,525.

It should further be noted that the University exempts her Fellows and Scholars from the payment of all fees save laboratory and graduation fees, a generous policy in which she is almost alone among American Universities. The total value of our Fellowships and Scholarships therefore amounts to \$20,425.

FEEES.

Upon the establishment of the Department in 1882 all fees were made payable to instructors. During the six years in which this provision was in force, the instructors frequently remitted the fees owed by needy students. In January of 1888 the fees were made payable to the University but the power of remission or reduction was granted to the Executive Committee. In January, 1897, this power was withdrawn by the Corporation and was transferred to the Provost.

During the nine years in which the Executive Committee exercised this function an extremely liberal policy was pursued towards needy students, and a very large proportion of the fees nominally due were remitted.

While we are of the opinion that it is for the best good of any university to encourage graduate students in every way possible, our policy in this respect stands in need of revision and systematization.

The University's aid should be given freely, but not merely on the ground of poverty. To ensure the best results every Scholarship offered should be thrown open to free competition.

Plans based upon these conceptions are now under consideration and will probably be put in force early in the coming year. Their precise character will be embodied in the next report which I shall have the honor of presenting to you.

STUDENTS.

NUMBER OF STUDENTS.

The number of students on our rolls has fluctuated considerably. All told 193 have recorded their names during the year. Eleven withdrew without doing any work, leaving 182 bona fide students. Of these 8 have withdrawn in the course of the year, leaving 174 now on the rolls.

The 182 students who have worked in the Department during the year may be classified as follows:

Senior Fellows	3
University Fellow in Botany	1
Fellows	13
Scholars	4
Other Regular Students	81
Doctors of Philosophy carrying on special work	7
Other Special Students	73
	<hr/>
	182
Senior Fellows and Fellow in Botany	4
Regular	98
Special	80
	<hr/>
	182

Deducting the Senior Fellows and the University Fellow in Botany, who are engaged only in private research and in instruction, we have the total number of 178.

	Regular.	Special.	Total.
Old Students	70	32	102
New Students	28	48	76
Senior Fellows and University Fellow in Botany			4
	<hr/>	<hr/>	<hr/>
	98	80	182

Comparing these figures with those of last year we find a net gain of 14; there having been 168 students in the Department in 1895-96. Seventy-six new students have been added: 102 old students have returned and 66 have left. Those who have left may be thus classified:

Having taken Degrees, 1896	16
Notified the Dean of withdrawal	30
Withdrew without notification	20
	66

In 1895-96 there were 108 regular and 60 special students, as against 98 regular and 80 special this year—a loss of 10 regular and a gain of 20 special students. This is in part due to the more rigorous enforcement of the policy adopted to some extent in previous years, of requiring holders of technical degrees, graduates of institutions whose degrees are not accepted as equivalent to our own and other students whose qualifications are in any way defective, to work as special students for one or more years before making application for full standing. Fourteen of our special students belong to this category. Another cause for the relative increase in the number of special students is found in the growing popularity of Dr. Brumbaugh's work in Pedagogy and Dr. Witmer's in Experimental Psychology among the teachers of the city. Twenty-three special students have taken Dr. Brumbaugh's work this year as against 9 last year, and 17 have taken Dr. Witmer's as against 6 last year. During the two years of Dr. Lamberton's incumbency of office much was done in the way of establishing better standards and we feel that we can do the Department no better service than by making those standards traditional. We feel, therefore, that the relative increase in the special as compared with the regular students indicates rather a gain than a loss in the seriousness and earnestness of the work which is being done.

Of the 98 regular students 12 were women, and the University Fellowship in Botany was held by a woman. Fourteen of the 80 special students also were women. Twenty-seven women, therefore, worked in the Department during the year; in other words nearly 15 per cent of all our students were women.

This represents, however, a decrease as compared with the two preceding years. In 1894-95, of 161 students 34 or 21 per cent were women; in 1895-96, of 168 students 30 or not quite 18 per cent were women. The loss, however, is found almost wholly among the special students. Of the 34 women in 1894-95, 24 were special students and only 10 regular; of the 30 in 1895-96, 17 were special students and 13 regular. The percentage of women among the regular students was 10 per cent in 1894-95, 12 per cent in 1895-96, and 12 per cent in 1896-97. Among the special students it was 40 per cent in 1894-95, 28 per cent in 1895-96, and 17½ per cent in 1896-97.

Among the regular students the proportion of women remains approximately constant while it has fallen among the special students. This is probably due to the opening of the Courses for Teachers, which were expressly designed to relieve the pressure brought to bear upon the Graduate School by teachers and others who desired special work not leading to a degree. Women constitute the overwhelming majority of these persons and in the Courses for Teachers they have found what they needed.

COLLEGES REPRESENTED.

Amherst	1	Gammon Seminary	1
Augustana College	1	Gymnasium of Breslau	1
Bryn Mawr	1	Harvard	7
Buffalo	1	Haverford	5
Brown	1	Indiana	2
Boston University	1	Johns Hopkins	2
Brooklyn Polytechnic Institute	1	Juniata College	1
Beloit	1	Lehigh	4
Buchtel	1	Lebanon Valley College	1
Central College, Fayette, Mo.	1	Leland Stanford	1
Cornell	3	Massachusetts Institute of Technology	1
Columbia	1	Michigan	1
Collège de Bouxvillier	1	Munich	1
Colgate	1	Newnham College, England	1
Colorado	1	Oberlin	2
Chicago	1	Pennsylvania	48
Dickinson	5	Pennsylvania State College	1
Franklin and Marshall	2	Princeton	2
Gallaudet	1	Rochester	1

Rutgers'	1	University of Georgia	1
Swarthmore	1	Urmia, Persia	1
Syracuse	1	Ursinus	4
Shepardson College	1	University of the South	1
St. Joseph's	1	University of Edinburgh	1
Smith College	1	Wesleyan	2
Tübingen	1	Wittenberg	1
Tulane	1	Washington and Jefferson	1
Toronto	3	Women's College, Baltimore	1
Trinity	2	Yale	2

PREPARATION OF STUDENTS.

Of the 98 regular students, 17 are Bachelors in Arts or Science of our own University, 13 of other Pennsylvania Colleges, while 24 come from other institutions. Fifty-four therefore hold the regular degree. Six hold the degree of Ph. B. (Penn.) and 4 hold the same degree from other colleges. It might also be mentioned that 17 regular students hold the further degree of A. M., 4 that of B. D., 1 Ph. D., 1 D. D. Deducting repetitions we find that 63 students hold the Bachelor's degree in Arts, Science or Philosophy. Seven holders of technical degrees have been admitted upon more or less rigorous conditions. Of these 5 are Bachelors of Science in Chemistry, 1 in Electrical Engineering and 1 holds the degree of Electrical Engineer. Fourteen have been admitted as having obtained the equivalent of an undergraduate course in a more or less irregular manner. Six of these hold certificates in Chemistry, Biology, or Finance and Economy (Penn.), 2 are graduates of German gymnasia; 2 of French colleges (1 of these holds also the degree of A. M. from Leland Stanford Jr. University); 1 of Newnham College, Cambridge, England; 1 studied for three years at the University of Edinburgh; 2 took irregular courses in American colleges. Fourteen students remain who have had no collegiate training whatever. This disproportionately large number of students who have had no collegiate training calls for a word of explanation.

In 1893, 27 men, all Supervising Principals of Schools or Superintendents of Public Instruction of this city, organized for the purpose of pursuing advanced work and applied to

this Faculty for the opportunity of obtaining it. They were men of experience and education, but with the exception of two had had no collegiate preparation. After much deliberation the Faculty decided to waive consideration of their technical lack of qualification and to admit them to the Department, with the distinct understanding that no relaxation was to be made in the standard required of candidates for the higher degrees. Of these 25 students, 11 after one, two or three years of study, found themselves unable or unwilling to meet the requirements of the Faculty and withdrew without taking degrees. Three took their degrees in 1896, after two and one-half years of study. The 11 remaining are included in the 14 above mentioned. Of these 4 took degrees in 1897, after three and one-half years of study, leaving 7 to complete a fourth year.

In making this experiment the Faculty was aware that it was departing from the traditions which govern the administration of graduate work in our best universities, although not from the spirit which those traditions express. On the whole the experiment has been justified. The fact that 11 out of 27, or above 40 per cent withdrew without taking degrees shows that the standard for the higher degree has not been lowered, and many earnest and able men have been given opportunities of advanced work which they would not otherwise have enjoyed. Yet it is an experiment which will never be repeated. The last four years have witnessed a rapid growth in the sense of fellowship among those interested in higher education and we are rapidly approaching the time when all our graduate schools will be closely affiliated by common standards, by reciprocal lecture courses, and by constant migration of students. To further that end every University must have due regard for the traditions and methods of others and must refrain from taking steps, however justifiable intrinsically considered, which are inconsistent with those traditions.

The class termed special students comprises all those who for any reason are not candidates for a degree. Some have already taken the degree of Ph. D., others, although qualified to become candidates for a higher degree, are unable, by reason of outside occupation or distance from the University, to

do enough work to be accounted in residence, others are on probation, by reason of defective preparation, others yet are merely taking the special courses of study for which they possess the necessary qualifications and have no intention of ever becoming candidates for a degree.

Of the 80 special students, 7 hold the degree of Ph. D.; 4, A. M.; 2, M. E.; 4, M. D.; 2, Ph. B.; 4, B. S.; 21, A. B. Deducting repetitions, 36 are found to hold some degree. Eleven have studied in colleges but have taken no degrees. Thirty-three have had no collegiate training.

DISTRIBUTION OF COURSES.

The tables subjoined will show the distribution of courses among the 182 students; Senior Fellows and the University Fellow in Biology being omitted from this enumeration.

The seven candidates for the Master's degree each elected three subjects, making a total of 21. The choice of subjects seems quite impartial, with a slight preference for English Literature and Philosophy.

Ninety-one students were candidates for the Doctor's degree. An examination of the topics elected as compared with the electives for the two preceding years, shows no very marked change save in Philosophy, Pedagogy and Political Economy, all of which have lost ground heavily. The reason for this lies in the fact that the body of teachers above mentioned nearly all elected Philosophy or Pedagogy as a major, with Pedagogy, Philosophy or Political Economy among their minors. This caused an abnormal increase in the number of students electing those topics, and we are now returning to the normal level.

The 80 special students elected 137 subjects. With the exception of Pedagogy and Experimental Psychology, as already mentioned, and of Chemistry, the figures present no noteworthy change when compared with those of the two preceding years.

ELECTIONS OF REGULAR STUDENTS.

	FOR THE DOCTOR'S DEGREE.						FOR THE MASTER'S DEGREE.		
	'94-'95	'95-'96	'96-'97	'94-'95	'95-'96	'96-'97	'94-'95	'95-'96	'96-'97
	Minor.	Minor.	Minor.	Major.	Major.	Major.			
Comparative Philology and Sanskrit	2	3	3	1	—	—	—	—	—
Greek	6	7	7	2	1	2	—	2	1
Latin	2	2	2	1	2	3	2	2	—
Romantic	2	3	2	—	2	2	—	1	2
Germanic	1	2	1	—	1	1	—	—	2
English Philology	6	7	6	1	1	—	—	2	—
English Literature	6	7	10	3	5	4	1	2	3
Assyrian	2	3	1	3	4	4	—	—	—
Hebrew	7	7	6	7	2	3	—	—	1
Syriac	2	—	—	—	—	—	—	—	—
Arabic	3	2	2	—	—	—	—	—	—
Ethiopic	—	—	—	—	—	—	—	—	—
American Languages	—	—	—	—	—	—	—	—	—
Philosophy	31	29	26	16	14	9	2	5	3
Experimental Psychology	7	8	10	6	7	2	1	2	2
Ethics	9	8	9	1	3	4	2	2	1
Pedagogy	12	15	7	13	11	11	—	—	1
American History	3	6	11	7	8	4	2	2	1
American Constitutional History	—	2	3	—	1	2	1	1	—
European History	9	12	8	5	5	6	3	6	2
Political Science	7	9	7	4	6	4	—	1	—
Economics	27	24	14	3	4	6	1	2	—
Statistics	—	4	2	—	—	—	—	1	—
Mathematics	4	2	2	5	4	4	1	—	—
Astronomy	—	1	4	—	—	—	—	—	—
Physics	6	6	3	1	—	1	—	—	—
Chemistry	2	2	3	11	12	13	—	1	—
Geology	11	10	11	—	—	—	1	1	—
Mineralogy	8	7	7	—	1	1	—	—	—
Botany	3	2	1	3	1	2	—	2	—
Zoölogy	7	4	3	4	3	3	—	2	2
Italian and Spanish	—	—	2	—	—	—	—	—	—
Old Norse	—	—	1	—	—	—	—	—	—
Minors not yet elected (not specified)			10						
	185	194	182	97	98	91	17	37	21

ELECTIONS OF SPECIAL STUDENTS.

	1894-95.	1895-96.	1896-97.
Comparative Philology and Sanskrit . . .	1	—	—
Greek	1	1	1
Latin	1	3	2
Romantic	1	1	2
Germanic	—	3	2
English Philology	2	—	2
English Literature	8	9	8
Assyrian	2	5	1
Hebrew	4	7	6
Syriac	—	—	—
Arabic	2	3	1
Ethiopic	—	—	—
American Languages	1	—	—
Philosophy	16	11	14
Experimental Psychology	6	6	17
Ethics	2	5	6
Pedagogy	8	9	23
American History	7	9	6
American Constitutional History	5	5	6
European History	7	7	6
Political Science	—	1	3
Economics	2	4	3
Statistics	—	—	1
Mathematics	5	3	4
Astronomy	—	1	1
Physics	—	1	3
Chemistry	1	1	7
Geology	1	3	3
Mineralogy	1	1	2
Botany	2	2	3
Zoölogy	2	3	1
Biology	—	—	2
Sociology	—	—	1
	88	104	137

DEGREES.

At the annual Commencement held June 9, 1897, degrees were granted to students of this Department as follows:—

MASTER OF ARTS.

William Hamilton Jefferys; Ethics, Experimental Psychology, Zoölogy.

Joseph Stancliffe Kratz; American History, English Literature, Philosophy.

DOCTOR OF PHILOSOPHY.

The following students took the degree of Ph. D. In connection with each name will be found the title of the thesis presented, and also the student's major and two minor subjects:—

THESES.

- Robert Judson Aley ; Mathematics, Astronomy, Pedagogy.
Thesis : *Some Contributions to the Geometry of the Triangle.*
- William Lybrand Balentine ; Philosophy, Economics, Pedagogy.
Thesis : *The Concept.*
- James Lynn Barnard ; Political Science, Economics, European History.
Thesis : *History of Factory Legislation in Pennsylvania.*
- Thérèse Fornachon Colin ; Romanics, Italian, English Philology.
Thesis : *Archaisms in Modern French.*
- Watson Cornell ; Pedagogy, Economics, Philosophy.
Thesis : *Waste in Education.*
- William Fairley ; European History, Psychology, Philosophy.
Thesis : *The First Epoch of English Monasticism, A. D. 597 to 750, Considered with Special Reference to the Rule Observed.*
- George Washington Flounders ; Philosophy, Pedagogy, Economics.
Thesis : *Monism.*
- John Palmer Garber ; Pedagogy, Economics, Philosophy.
Thesis : *The Will in Character Building. A Practical Inquiry.*
- Joseph Francis Xavier Harold ; Chemistry, Geology, European History.
Thesis : *Derivatives of Silicon Tetrachloride.*
- Harry Burr Harris ; Chemistry, Mineralogy, Geology.
Thesis : *The Volumetric Determination of Cobalt.*
- Robert Hope ; Hebrew, Philosophy, Arabic.
Thesis : *Moab and the Moabites.*

Arthur Charles Howland; Mediæval History, Modern European History, Political Science.

Thesis: *The Interdict. Its Rise and Development to the Pontificate of Alexander III.*

William Albert Korn; European History, American History, Economics.

Thesis: *The Ransom of Richard the First of England.*

Théodore Charles Guillaume Lorenz; Romanics, Spanish, Italian, English Philology.

Thesis: *Molière et ses Emprunts; Aperçu Général.*

Clarence Stanley McIntire; American Constitutional History, American History, English Literature.

Thesis: *The Eighteenth Century Constitutions.*

Charles Reed Miller; Germanics, French, Old Norse.

Thesis: *The Prepositions in Hans Sachs.*

Leon Alonzo Ryan; Chemistry, Mineralogy, Geology.

Thesis: *The Derivatives of Pyrroacemic Acid.*

Adelina Frances Schively; Botany, Zoölogy, Psychology.

Thesis: *Contributions to the Life-History of Amphicarpæa Monoica.*

Fred Strong Shepherd; Political Science, Economics, Statistics.

Thesis: *Government and Regulations of Railroads in Massachusetts, through a Board of Railroad Commissioners.*

Stanislas John Shoomkoff; Political Science, Ethics, Philosophy.

Thesis: *The Future of the Balkan States.*

Walter Edward Weyl; Economics, Political Science, European History.

Thesis: *Railway Passenger Travel in Europe.*

Merrick Whitcomb; European History, German, Economics.

Thesis: *Commerce in South Germany about the Year 1500, with Especial Reference to the Effects of Da Gama's Voyage.*

Lucy Langdon Williams Wilson; Botany, Zoölogy, Chemistry.

Thesis: *Some Observations of the Life-History and Histology of Conopholis Americana.*

NEEDS.

Our needs in all branches of the work are most pressing. Easily first is our need of books. To the work of this Department a well-equipped library is absolutely essential, and in many of our departments our Library is far from well equipped. It is impossible for me to exaggerate the importance, the pressing character of this need.

In the second place our teaching force needs to be strengthened. Nearly all our instructors are giving undergraduate as well as graduate work, and a tendency has manifested itself in some quarters to regard their graduate work as a mere labor of love assumed in addition to the undergraduate instruction which is their primary duty. A careful examination of the courses offered reveals the fact that of all the instruction they give, one-half, measured in hours per week, is given to graduate students; if it could be measured in labor and pains it would be found that our graduate work costs the teachers three, four or five fold what the undergraduate costs.

It is much to be desired that some of our instructors who have shown marked aptitude for original research should be relieved of undergraduate work altogether and be allowed to devote themselves to graduate students.

Again, in nearly every group we need new instructors to open new courses of study. We need a Professor of Classical Archæology, a Professor of the History of Ancient and Mediæval Philosophy, a Professor of Classical History, and a Professor of the French Language and Literature, who, by relieving Professor Rennert of that part of his work would allow him to develop more extensively his courses in Spanish, Italian and Provençal.

It is true that at present there is no pressing demand on the part of our students for such work. But the students we have were attracted by the work we offer: the students who wanted what we do not offer have gone elsewhere. If we wish to develop our Graduate School to its highest point of efficiency and usefulness we must remember that our success depends solely upon the actual value of the work we are able to offer. We

have been wise in establishing Fellowships. Without them we could never attract and hold the very best students, to whom other universities offer similar inducements. But, on the other hand, the best students will not be attracted by Fellowships to us if better work is offered elsewhere. Our first care in the future must be to provide able teachers, to grant them sufficient leisure to enable them to maintain, by original research, a high rank in the scientific world and to devote a large part of their time to advanced students, to provide adequate library and laboratory facilities.

We are very much in need of a suitably equipped physical laboratory. Our present laboratory is too small and lacks much important apparatus.

Our work in Comparative Anatomy of the Vertebrata has altogether ceased pending the appointment of a successor to Professor Cope. One of our greatest needs is a suitable collection of material for carrying on this work. While our students have free access to the rich collections of the Academy of Natural Sciences and are aided also by Professor Cope's collections, it is much to be desired that the Department be provided with material sufficient for purposes of class demonstration.

The Department of Zoölogy is also much crippled by lack of floor space and of apparatus. The laboratories are too small to accommodate the large number of students at work in them, graduate students cannot be supplied with private laboratories, and the collections cannot be properly exhibited or even stored. The apparatus now in hand is insufficient to the demands upon it and many new pieces are urgently needed.

The Psychological Laboratory is also cramped in its three small rooms in the Biological building. It needs, for the satisfactory conduction of the courses that are now being given to graduate and undergraduate students and to teachers and for prosecution of original work, extended floor space divided up into from twelve to fifteen rooms. A suite of these rooms ought to be expressly adapted for statistical work in Psychophysical Anthropometry. Without such provision for rooms,

it would hardly be desirable to increase the apparatus to an extent sufficient to place the laboratory among those of the leading universities in facilities offered to students for experimental demonstration and investigation.

These varied material needs would best be met by the erection of a building expressly for the graduate students. It should contain not only lecture-rooms and private laboratories, but also working-rooms equipped with suitable department libraries. These would provide students of Philosophy, History, Philology and Literature with the conveniences which the student of science finds in his laboratory.

These are the needs which are most pressing. But to one who looks further there appear in the future opportunities of usefulness so great that they assume the guise of imperative duties.

Much as our work has grown there still remain whole fields of research in which we are doing nothing whatever.

We have no graduate work in Animal Physiology, none in the Fine Arts, none in Anthropology, none in Comparative Jurisprudence, none in the History and Philosophy of Religion. Of these I regard the first as a matter of immediate importance.

At present students who desire to carry on advanced work in Anatomy and Physiology usually go abroad to find the facilities which cannot be had at home. With our great Medical School, with the unrivaled opportunities for the study of Anatomy offered advanced students through the generosity of General Isaac J. Wistar, there is every reason for believing that we can develop here a great centre for advanced research in the sciences akin to Medicine.

There is yet another opportunity for further usefulness lying at our doors in Bennett House. Through the generosity of Colonel Joseph M. Bennett, this house was presented to the University, and the nucleus of an Endowment Fund provided. The house would accommodate twenty or more Fellows,—we now have but five. There is a great demand at present among women for higher education, but few can obtain it owing to lack of means. Every great university is well pro-

vided with Fellowships for men, but few possess any for women. Bennett House makes it possible for us to meet this demand at a minimum outlay. We have at present five Fellowships and for every one we receive many applications. A relatively small sum of money would be sufficient to endow Bennett House and to lay the foundation for a work of far-reaching influence and of great value.

In the course of the past few years we have done much in all these directions. We have developed in a very brief time and at considerable personal cost to the teaching staff an excellent Graduate School of which we have reason to be proud. But much remains to be done and it is to the points which I have mentioned that our attention should be directed.

In conclusion I wish to call your attention to the admirable spirit which animates our instructors. In their relation to their students, the official reserve which in some institutions effectually parts professor and student, is wholly lacking. Their work is indeed a labor of love, and the lecture and seminary courses which are announced give no true conception of the amount of personal influence which each one brings to bear upon his graduate students. In many cases cordial social relations are established between professor and student, and in all the professor is at all times easily approached and anxious to help. I regard this thorough disinterestedness on the part of our teaching staff as one of our strongest features and believe that it will prove a main factor in the maintenance and extension of our work.

I desire also to acknowledge my personal indebtedness to my colleagues. In undertaking the responsibilities of administration I was profoundly sensible of the fact that in point of years, ability and experience many of my colleagues were better qualified than I to deal with the problems that confronted us. I have met with the most earnest and hearty support from all and desire to express my gratitude for their wise counsel in framing, and their cordial aid in executing, the somewhat important modifications in our organization which the past year has seen adopted. I must in particular acknowledge my obligations to my predecessor, Dr. W. A. Lamber-

ton, who has given me invaluable assistance at every step in my endeavor to carry out to their logical conclusion the principles of his wise administration.

Respectfully submitted,

WILLIAM ROMAINE NEWBOLD,
Dean.

Aug. 31, 1897.

APPENDIX IV.

REPORT OF THE DEAN OF THE DEPARTMENT OF LAW.

To the Provost of the University.

SIR:—The number of students in a department of a university is by no means a sure indication of its success. But where the entrance examinations and the standard of tuition remain unchanged from year to year, a constant growth indicates that the work which is being done is acceptable to those who seek the class of instruction given. For a number of years past the Law School has been increasing in numbers. Last year was no exception to the rule. The students on the rolls during 1895-96 numbered 313; last year 358, or an increase of over 14 per cent. In 1895-96 the first-year class numbered 139; the second-year class, 89; and the third-year class, 73. This year the first-year class contained 161; the second-year class, 116; and the third-year class, 81; of whom 70 received the degree of LL. B. The geographical distribution of our students was as follows:

From Philadelphia	237	or 66 per cent.
From Pennsylvania, outside of Philadelphia,	97	“ 27 “
From places outside of Pennsylvania	24	“ 07 “
	<hr/>	
	358	

RECEIPTS AND EXPENDITURES.

This increase in numbers has been followed by an increase in the revenue of the department. Since September 1, 1896, we have paid into the University treasury \$46,784.88 as com-

pared with \$40,279.38 during the session of 1895-96. This is an increase in revenue of 15 per cent. The number of persons holding scholarships, as stated later, are 19; while the partial remission of fees amounts to \$550, and fees returned to \$121.87. As the tuition fee was \$150 for the year, and the matriculation fee \$5 to each member of the first-year class, the gross revenue from fees should have been \$53,725. The actual revenue from these sources was \$6,940.12 less than this amount. This great difference is not peculiar to the last year. Each year of which we have any record shows a large percentage of loss. As is shown by the fact that the revenue increased 15 per cent while the membership increased 14 per cent, the differences are somewhat less this year than usual. The cause of the loss is the withdrawal of students, especially of the first-year class, after matriculation, without paying their fees, or paying them only in part, and the very large withdrawal of students after the midwinter examinations, who, in this event, do not feel it incumbent on them to pay the second term fee. The net result is unfortunate. The number in our department at the beginning of the scholastic year gives us no certain indication of the amount of prospective revenue from fees.

The expenses chargeable to the current revenue of the department from September 1 to August 31 have been as follows:

1. Amount paid out by Treasurer not chargeable to Library fund	\$27,039 75
2. Unpaid bills due of same character	1,273 19
3. Twelve per cent of the gross receipts paid to Library fund	5,614 18
	\$33,927 12
Total receipts	46,784 88
Balance to credit of Department	12,857 76

The expense, exclusive of Library account, may be divided as follows:

Salaries of Professors ¹	\$19,399 99
Administration	8,912 95
	\$28,312 94

The expenses under the head of Administration may be divided as follows:

Salaries in Library and Dean's office	\$2,784 26
Permanent improvements which will be available to new building	700 00
Permanent improvements to buildings at present occupied by the Department	750 00
Current expenses	4,678 69
Total	<u>\$8,912 95</u>

All expenses under the head of permanent improvements to buildings, which are usually plumbing and carpenter work, as also the current repairs, have recently been under the immediate supervision of the person employed by the College, with the result that we have effected a considerable saving. The expenses under the last head, current expenses, are, in part, the purchase of current supplies. These supplies, as also perhaps the printing of the department, could with advantage be placed under the control of a purchasing agent for the whole University. Such a person could, I believe, obtain better discounts than we are able to do. The saving of time now spent in obtaining separate bids on each article purchased would also be a great gain.

SCHOLARSHIPS.

When I entered the duties of my office last September there were seven persons holding Faculty scholarships, or scholarships granted by the Faculty for excellence in special entrance examinations in Blackstone and Latin. The candidate was also required to produce certificates to the effect that he needed financial assistance. Three of these scholarships were in each class. The holders were expected to render assistance in the Library. Only one Faculty scholarship was awarded to the incoming class last fall. We therefore had eight Faculty scholarships throughout the year. There were also one Governor's scholarship and two granted by the Trustees. The holders of City scholarships in the department numbered three. In six cases, with your approval, there have been

partial remission of fees. Under the old financial arrangement between the Faculty and the Board of Trustees my predecessor and the Faculty had the power to grant scholarships. Six students in the school held scholarships granted in this way. Of these, two graduated last June; the rest are in the Class of 1898. The partial remission of fees originally granted by my predecessor amounted to \$225.

A résumé of the help given by the department is as follows:

Nineteen Scholarships at \$150	\$2,850 00
Amount of fees remitted	688 60
Total	<u>\$3,538 60</u>

The change which we have made in the Faculty scholarships will, I believe, prove beneficial. We expect to award them to the three persons passing the three best entrance examinations, irrespective of their financial condition. A scholarship will be a badge of honor, not of poverty. Besides the City and Governor scholarships, I do not think that we should grant in the future any free tuition or any partial remission of fees, unless the department is in the receipt of funds donated to it for that purpose. This is not because there are not many deserving cases. As long as we remit fees in any case, we can never expect to receive donations with which to aid deserving poor students. If we take a firm stand, however, and refuse all aid, we will in time be the recipients of sufficient moneys to enable us to give assistance in those cases where we really can aid with no fear of pauperizing.

COURSES OF INSTRUCTION.

During the year the course of instruction has remained substantially what it has been during the last few years, the additions being Professor Carson's course on Practice in Pennsylvania, and my own courses on Elementary Law to the first-year class, and my partial course on Principles of the Common Law to the third-year class, besides voluntary courses in Elocution with Mr. Hynson. During the coming year, however, a great addition is to be made to the courses

of instruction given. To the elective courses of the second- and third-year classes, courses on Trusts and Admiralty are to be added; the time devoted to the courses on Domestic Relations, Agency, Contracts, Torts, Insurance, Bills and Notes, and Property (with special reference to Wills and Administration) is to be increased, the total increase of instruction amounting to over 33 per cent. This increase has been made possible by the increased duties assumed by the professors. The retirement of Professor Parsons, and the contemplated election of Mr. Brown, the leave of absence granted Professor Graham, and the appointment of Mr. McCarthy as lecturer for the ensuing year, leaves the number of the teaching force engaged in the regular courses unchanged.

Besides this increase in the regular courses, two radical experiments are to be made. One is the establishment of the systematic teaching of practice. This department is to be under the charge of Professor John W. Patton, who has been nominated by the Trustees for the purpose, and is to devote his time to the interests of the department. It is the intention of the Faculty to leave the method of instruction to be pursued entirely to Professor Patton, the thought being that either through a moot court or in other ways he shall teach each man individually the theory and mechanics of practice. All the members of our Faculty are alive to the necessity of so training those who are to become future members of the Bar, that they may be familiar with the ordinary forms of legal documents and legal procedure. We believe that the experiment to be tried by Professor Patton will be a success, and mark a distinct advance in systematic education.

The other radical departure is the establishment for the first-year class of a system of quizzing. We have determined to divide the incoming class into sections not exceeding fifteen in a section, giving each section at least one hour of quizzing for every four hours of lectures attended. The quiz-classes will be under the direction of the three Fellows connected with the department, and of Mr. William E. Mikell, who has been elected instructor for that purpose, and who will devote his

entire time to the work. The reason which induced the Faculty to recommend to the Trustees this step was the increase in the size of our classes. It is impossible for the professor to examine each student on his progress. Even where the system pursued by the professor is entirely Socratic it is impossible for him to call up one man more than once a month. It is, therefore, out of the question for him to tell the relative standing of the men except in the most general way. The students themselves recognizing the necessity of individual quizzing, hired, when they could afford to do so, what are known as "quiz-masters." This seemed to us to give an unfair advantage to the richer members of the class, and to indicate the existence of a real want on the part of the student which the University should supply. This want we are attempting, in part at least, to meet; if successful, the system will doubtless be extended to the upper classes.

ENTRANCE EXAMINATIONS.

Last year was the first in which the department undertook to conduct its own entrance examinations. Heretofore we have accepted the certificate of the various local Boards of Examiners certifying that the student had passed his preliminary examination on the common branches of an English education. The examination given by us this year covered the same ground. Those who produced certificates from colleges, high schools, and private schools in good standing showing an equivalent amount of education were admitted without examination; the result being that out of the 161 members of the first-year class, all but 30, or 19 per cent, entered on certificates.

The results of the examinations during the year showed, as such results have always done, the necessity of a higher standard of requirements for admission. Of the 318 who took the examinations last year, 100 were college graduates, 150 high school graduates, and 68 below the grade of high school graduates. The total number of men conditioned during the past year was 109; 50 in the first class, 40 in the second class, and 19 in the third class. Out of the 109 conditioned men

22 were college graduates, 41 high school graduates, and 46 had not an education equivalent to graduation from a high school in good standing, i. e., would not have been admitted into the College Department of our University, of Harvard, or of Yale. Thus we can see that 22 per cent of the college graduates, 27 per cent of the high school graduates, and 67 per cent of those below the grade of high school graduates, received one or more conditions. Of those receiving three or more conditions (which indicates a total failure) 5 were college graduates, 13 were high school graduates, and 16 below the grade of high school graduates. The percentage of total failures in each class was: college graduates 5 per cent; high school, 8 per cent; below high school, 20 per cent. Looking at the matter on the other side: out of the 59 men receiving honors for the year, 32 were college graduates, 20 high school graduates, and 7 below the grade of high school. That is, 32 per cent of the college graduates received honors, 13 per cent of the high school class, and 10 per cent below the grade of high school. This autumn, the new entrance requirement of an examination equivalent to entrance into the Freshman Class of the College Department, is in effect. It is to be hoped the result will be a reduction of the proportion of failures in course. There is no question, however, but that the degree of LL. B. from the University, besides indicating a legal training of at least three years, should stand for an amount of general education greater than that required to enter the college. We must therefore contemplate in the near future an advance in our present standard of admission. At the same time it must not be forgotten that the taking of any step which would exclude all but college graduates means that a large class of persons will come to the Bar without either college or law school training. A system of legal education which would prevent the average man who enters college at eighteen from being admitted to the Bar until he is twenty-five, and which requires the man without college training who first determines to study law when he is over twenty to take a course extending over at least seven years, does not fit in with the present requirements of our American life. On the other hand, one does not need long

experience as a teacher to realize the impossibility of doing effective work where the members of the class differ widely, as they do now with us, in preliminary mental training. The heterogeneous mental character of our classes is, I believe, the chief obstacle in the way of our progress as an institution. Whatever may be the way out, the difficulty is a pressing one, and I earnestly hope that next year will witness a serious effort upon our part to find a satisfactory solution. To this end we need the co-operation and advice of the College Faculty.

THE GEORGE BIDDLE AND ALGERNON SYDNEY BIDDLE
LIBRARY.

During the year the Faculty have urged upon the Trustees the importance of creating a great law library in connection with the School, as a necessary step towards making the University a recognized home of legal research. The Trustees responded to the demand and have enabled us to expend on the purchase of books, besides the usual 12 per cent of the receipts, which this year amounted to \$5614.18, the sum of \$6500. Last year there was a balance in our Library fund from the year before of \$2351.77. This made the total amount at the disposal of our Library Committee \$14,465.95. Of this amount we have spent \$6625.08 and have ordered books to absorb the unexpended balance of \$7840.87.

On the first of September, 1896, we had a library of 10,864 books, containing practically all the State Reports, most of the English Reports, and a fair number of text-books. During the year we have been able to add or order the remaining English Reports, and most of the Scotch, Irish, and English Colonial Reports; also a large number of text-books and many sets of law periodicals, besides a complete set of United States, State and English Statutes and a complete set of case Digests. We have also received large and valuable donations of books from the members of the Philadelphia Bar. In all, 980 volumes have been received as gifts. The most notable being some 400 volumes of English Reports from the family of the late Joseph B. Townsend; a complete set of Govern-

ment Records from 1789 to 1861, from Mr. Francis Shunk Brown; and some rare editions of English Reports and text-books from Professor Hampton L. Carson. The total additions to the Library from all sources were 3705. An equal effort during the ensuing year will give us a library of the common law and legislation of the English people as complete in all essential particulars as any law library in the country, with the single exception of the Library of the New York Bar Association.

Heretofore the Library has not had a card catalogue. This want has been supplied by our librarians during the past summer.

STUDENTS USE OF LIBRARY.

The use of the Library by the students has greatly increased. To a large portion it is the only place of study. Formerly the Library was opened at 9 o'clock in the morning and closed at 10 in the evening and on Saturdays at 5. We have now found it necessary, however, to keep open every day, except Sunday, from 8 in the morning to 11 at night, and in the summer from 9 a. m. to 10 p. m.

BOOKS REFERRED TO BY THE PROFESSORS.

The great difficulty in the students use of books, as in all Law school libraries, comes from the excessive demand for one report or text book referred to by a professor in his course. That a class of over a hundred men should read the same case, during the same week, out of the same book, is impossible. To meet this evil we have determined to try next year an experiment. It is found that a professor uses either a text-book, a case-book, or simply refers the class to cases. In the first and second instances it is proposed to buy a sufficient number of books amply to supply the needs of the students working in the Library. In the last case it is proposed to print large numbers of copies of the cases referred to and distribute them in different parts of the reading room. For the next year the experiment is to be confined to the books and cases used by the incoming class. As the Library is constantly open, the

arrangement will render it unnecessary, except as a matter of luxury, for any student to spend any money on books, a saving which may be safely estimated, in the average case, of over \$30 per year.

RULES GOVERNING THE FACULTY AND STUDENTS.

One of the most important undertakings during the year was to provide rules which should govern the relations of the Dean and the Faculty of the department and its students. These rules, while they will need modifications from time to time, as conditions change, render it possible to conduct the department without the friction which would arise did we attempt to dispose of particular cases without predetermined settled principles of action.

THE LAW SCHOOL BUILDING.

We have reached a period in the development of the School where it is generally recognized that a permanent home is necessary. We can never hope to make Philadelphia a centre for legal research, until we dignify the study of the science of the law with a permanent abiding place which shall meet in all respects the wants of graduate and under-graduate students. Heretofore we have been deterred from finally selecting a site for the home of the department because of the doubt in the minds of many as to whether West Philadelphia or a more central portion of the city would more nearly satisfy the future needs of the School. This question has settled itself. The proportion of the students who come from outside of Philadelphia is increasing, and these naturally prefer to be near the dormitories, the Houston Club, the Athletic Field, and other features of the life of the University in West Philadelphia. The advantage of being near the offices of the members of the Bar to those students who live in Philadelphia grows less every year, because the law student has, in the great majority of cases, practically ceased to work in the office of a practicing attorney during the years he is attending the Law School. West Philadelphia too, with the building of Walnut

street bridge over the Schuylkill, and the introduction of the trolley, is as near to the courts of the city in point of time of transit as our present location. All think, therefore, that the Law School building should form part of the group of University buildings in West Philadelphia. We are confident that you agree with us in believing that the erection of a suitable home for the department is the paramount duty of the coming year.

Respectfully submitted,

WM. DRAPER LEWIS,
Dean.

APPENDIX V.

REPORT OF THE DEAN OF THE DEPARTMENT OF MEDICINE.

To the Provost of the University.

SIR:—I have the honor of submitting the following report of the Department of Medicine for the academic year 1896-97:

During the session of which this report treats (1896-97) the students in attendance upon instruction in the Department of Medicine numbered 926. This total number of students in attendance is greater by 48 than the total number of students during the session 1895-96, and is the greatest number of students in attendance upon instruction in the Department of Medicine during the entire period of its existence, and it is probable that no medical school in America has ever had as great a number of students in attendance as were in attendance at this school during the session of which this report treats.

The first-year class which entered during the session 1895-96 numbered 331 members. The first-year class which entered during the session 1896-97 numbered 285 members, showing a decrease of 46 students entering the first-year class. Two principal causes may be assigned for this decrease in the number of students entering the first-year class—First, the increased entrance requirements which went into effect with the session 1896-97, and which are strictly enforced, and second, the increase in the tuition fee from \$150 to \$200 per annum.

The students in attendance during the session, arranged in classes and geographically, show the following distribution:

ARRANGED BY CLASSES.

Students of the Fourth-year Class	149
Students of the Third-year Class	241
Students of the Second-year Class	250
Students of the First-year Class	285
Special Student	1
Total	<hr style="width: 10%; margin-left: auto; margin-right: 0;"/> 926

ARRANGED GEOGRAPHICALLY.

Alabama	1	Maine	6	Oregon	1
Australia	3	Maryland	7	Pennsylvania	570
Austria	1	Massachusetts	21	Prince Edward	
Barbadoes	1	Mexico	1	Island	1
Brazil	1	Michigan	4	Puerto Rico	1
California	8	Minnesota	2	Rhode Island	7
Canada	2	Mississippi	2	South Carolina	1
Colorado	2	Missouri	5	Tennessee	7
Connecticut	7	Nebraska	4	Texas	5
Cuba	1	Nevada	1	United States of	
Delaware	20	New Brunswick	3	Colombia	1
Dist. of Columbia	4	New Hampshire	2	Utah	1
Florida	2	New Jersey	72	Vermont	2
Georgia	8	New Mexico	1	Virginia	3
Germany	1	New York	47	West Indies	1
Illinois	7	Nicaragua	4	West Virginia	7
Indiana	8	North Carolina	7	Wisconsin	12
Iowa	10	North Dakota	1	Wyoming	1
Ireland	1	Nova Scotia	1		
Kansas	8	Ohio	18	Total	926

The number of students who were required to undergo examination for admission to the first-year class was 99. Of these, 88 successfully passed the examination for admission, and 11 failed.

The number of students possessing academic degrees entering the first-year class numbered 43, which shows a gratifying increase in the number of students possessing such qualifications over the number who entered the first-year class at the beginning of the preceding session.

In addition to the 43 members of the first-year class possessing academic degrees there were 20 members who had been in attendance during one or more academic years in colleges of standing.

The following table shows that the percentage of members of the first-year class holding college degrees was greater during the session 1892-93 and 1893-94 than during subsequent sessions. There was a decided decrease in the number in the session 1894-95 and in the session 1895-96 there was an

increase. The session just passed shows a decided increase in the percentage above the percentage of 1895-96:

Session.	First-year Class.	Degrees.	Per cent.
1892-93	311	78	25.3
1893-94	188	40	21.2
1894-95	242	24	9.9
1895-96	331	39	11.5
1896-97	285	43	15.8

Seventeen college graduates presented certificates covering the requirements in Science and Biologic studies for admission to the second-year class and were admitted to that class at the beginning of the session. The number of candidates for admission to the second-year class under the Science and Biologic conditions in the preceding session numbered 30, a decrease this session of 13 candidates. If these candidates were considered as members of the first-year class, the percentage of College graduates in the first-year class would be 21.9 per cent, whereas last session under the similar conditions the percentage was 19.2.

The status in point of preliminary education of the first-year class which entered the department this session is as follows:

Candidates who passed the entrance examinations	88
College graduates	43
Graduates of approved High Schools and Academies	40
Graduates of approved Normal Schools	22
Candidates who had been members of the Senior Class in a College of standing	1
Candidates who had been members of the Junior Class in a College of standing	4
Candidates who had been members of the Sophomore Class in a College of standing	7
Candidates who had been members of the Freshman Class in a College of standing	8
Dropped from the preceding First-year class and repeating the studies of that year	72
Total	285

Students of the Department of Medicine have for years past taken prominent part in the athletic games, contests and

exhibitions in which students from the University as a whole, have been concerned. The table which follows shows that during the session 1896-97 there were 926 students in attendance upon instruction in the Department of Medicine, and of these, according to a report furnished by the Secretary of the University Committee on Athletics, based upon the records of the Committee up to April 7, 1896, 211 students were candidates for positions on athletic teams under control of the University Committee on Athletics, and 714 students of the department were not candidates for positions on the various athletic teams. The table shows the number of students in each of the four classes during the session of 1896-97 who were candidates for positions on the teams. The table also shows the average scholastic standing of the candidates in each of the four classes and the average scholastic standing of the 211 candidates for the athletic teams as compared with the average scholastic standing of the 714 students who were not candidates for positions upon the teams. It will be observed that the average scholastic standing of the students who were not candidates for positions exceeded by 3.1 the scholastic standing of those who were candidates for positions upon the teams. In this connection, however, it should be stated that it is the experience of the Department of Medicine that with few exceptions, during the past several years, the students who were actually athletes and were recognized as such by the Committee on Athletics, were diligent students and held good scholastic standing in their classes.

TABLE SHOWING THE SCHOLASTIC STANDING OF CANDIDATES AND NON-CANDIDATES ARRANGED BY CLASSES, FOR POSITIONS ON ATHLETIC TEAMS.

	Number of candidates.	Scholastic standing of candidates. Per cent.	Number of non-candidates.	Scholastic standing of non-candidates. Per cent.
First-year Class . . .	70	73.2	215	76.3
Second-year Class . . .	76	75.2	174	80.3
Third-year Class . . .	50	71.8	191	76.8
Fourth-year Class . . .	15	73.5	134	70.8
Scholastic standing of 714 non-candidates 76.5 per cent.				
Scholastic standing of 211 candidates 73.4 "				

The plan adopted by the Faculty of Medicine by which the questions should be prepared and the examinations for admission to the first-year class of the Department of Medicine should be conducted by members of the teaching staff of the Faculty of Arts and Science, went into effect at the beginning of this session. The operation of the plan has been admirable. The feeling—whether just or unjust—prevailing among many of the members of the medical profession and of the laity that when the entrance examinations to a medical school are conducted by persons directly connected with the school, they are conducted with extreme leniency, cannot, according to the above plan, apply to the Department of Medicine of the University.

The major part of the appropriation by the Board of Trustees for the purchase and construction of apparatus for the Physiological Laboratory, was expended during the session in the purchase of apparatus in Europe and for the construction of apparatus in sets of twenty-five, to be used by the members of the first- and second-year classes in receiving instruction in experimental Physiology during the session 1897-98 in the first floor room in the Laboratory building to be vacated by the Department of Dentistry. During most of the winter of 1896-97 and during the entire summer of 1897 four expert mechanics were employed in the machine shop of the Physiological Laboratory constructing sets of apparatus to be used by the students in their experimental work. At the time of writing this report the staff of mechanics is still engaged in constructing apparatus and it is expected that the apparatus still to be constructed may require the services of the mechanics during the greater part of the session 1897-98.

During this session the compulsory elective system went into effect for the first time with a regular fourth-year class. The system is an admirable one and is a very important part of the instruction given to the members of the fourth-year class. With the exception of instruction in one of the electives—Pædiatrics, all of the instruction in the electives was given in the dispensaries of the University Hospital and in other University buildings. The practical working of the sys-

tem during the session was successful. Owing to the fact that the clinics, ward classes and the dispensary service in the University Hospital are held during the mid-day hours, great difficulty was experienced in constructing a roster of hours for instruction in the electives that would not conflict with the hours for instruction scheduled in the general roster. In consequence of this the arrangement of hours for instruction in the electives was unsatisfactory to many individual members of the class. Whenever, however, a member of the class reported a conflict in hours, a strong attempt was made to rearrange the hours assigned him and in most cases an arrangement of hours, although perhaps not altogether satisfactory, was accomplished. In order to arrange hours for the electives which would not conflict with hours on the general roster, it would necessitate a rearrangement of the hours of the clinics and the ward classes, or of the dispensary service. The following are the elective studies—each member of the fourth-year class is required to select from among the number, one major or two minor studies and pursue the study of the subject or subjects as special studies:

Major Electives.

Nervous Diseases and Electro-
Therapeutics
Skin Diseases.
Advanced Hygiene.
Laryngology and Rhinology

Minor Electives.

Orthopædic Surgery.
Ophthalmology(including Ophthal-
moscopy.
Otology.
Genito-Urinary Surgery.
Advanced Anatomy.
Advanced Physiology.
Advanced Pathology.
Advanced Medical Chemistry (in-
cluding Toxicology).
Pædiatrics.
Experimental Psychology.
Medical Jurisprudence.

The hours to be devoted to the study of the electives are two hours per week for at least half the session for a major subject and one hour per week for at least half the session in

each of the two minor subjects. The hours to be devoted to the clinical electives are shown by the following table:

CLINICAL ELECTIVES.

- Nervous Diseases and Electro-Therapeutics.*—Two hours per week practical instruction for at least one-half the session.
- Skin Diseases.*—Two hours per week practical instruction for at least one-half the session.
- Laryngology and Rhinology.*—Two hours per week practical instruction for at least one-half the session.
- Otology.*—One hour per week practical instruction for at least one-half the session.
- Ophthalmology including Ophthalmoscopy.*—One hour per week practical instruction for at least one-half the session.
- Orthopædic Surgery.*—One hour per week practical instruction for at least one-half the session.
- Genito-Urinary Surgery.*—One hour per week practical instruction for at least one-half the session.
- Pædiatrics.*—One hour per week practical instruction for at least one-half the session.

It may be remarked that the hours per week allotted the clinical electives continue only during half the session, whereas, the hours per week allotted the non-clinical electives continue throughout the entire session.

The electives chosen by the members of the fourth-year class are shown by the following table:

<i>Major Electives.</i>	<i>Minor Electives.</i>
Nervous Diseases and Electro-Therapeutics 23	Orthopædic Surgery 13
Skin Diseases 18	Ophthalmology (including Ophthalmoscopy) 11
Advanced Hygiene 0	Otology 5
Laryngology and Rhinology . 31	Genito-Urinary Surgery 48
	Advanced Anatomy 4
	Advanced Physiology 0
	Advanced Pathology 3
	Advanced Medical Chemistry (including Toxicology) 4
	Pædiatrics 56
	Experimental Psychology 0

The requirements for entrance to the Department of Medicine having been increased it was resolved by the Faculty of Medicine to correspondingly increase the requirements in the annual competition for the three scholarships granted in the Department of Medicine. In consequence of the above resolution it was decided that beginning with the competitive examination scheduled to be held in September, 1898, the following shall be required:

To write a brief autobiography, of about 300 words in length, which will serve as a test of his qualifications in orthography and grammar.

In addition to passing the examinations for admission to the first-year class to undergo examinations in the following subjects:

- (a) Latin (first book of the Odes of Horace).
- (b) Greek (first four books of the Iliad).
- (c) Physics.
- (d) Solid Geometry.

The much needed refrigerating plant to be used in connection with the Anatomical Room, the construction of which was authorized by the Board of Trustees, is in process of installation, and it is believed will be ready for use by September, 1897.

Respectfully submitted,

JOHN MARSHALL,
Dean.

APPENDIX VI.

REPORT OF THE DIRECTOR OF THE WILLIAM PEPPER CLINICAL LABORATORY.

To the Provost of the University.

SIR:—During the year the associates working in the Pepper Clinical Laboratory have been the following: Drs. Samuel S. Kneass, Alonzo E. Taylor, George S. Woodward, Joseph Sailor, William G. Spiller, J. Dutton Steele, David L. Edsall and Charles L. Leonard. Besides these, Drs. Charles H. Frazier and C. Y. White have pursued original investigations; and a number of post-graduates have received special instruction.

Among the contributions to science which have come from the Laboratory the following may be mentioned:

Dr. Samuel S. Kneass: The Clinical Value of the Widal Test for Typhoid Fever.

Dr. A. E. Taylor: The Study of the Blood. Beiträge zur Verwerthung der Krüger-Wullfschen Methode zur Bestimmung der Alloxurkörper im Harn.

Dr. George S. Woodward: On Cholostrum Milk, a Chemical Study.

Drs. Joseph L. Sailor and A. E. Taylor: The Condition of the Blood in the Cachexia of Carcinoma.

Dr. W. G. Spiller: The Neuromuscular Bundles. A Contribution to the Study of Spinal Syphilis.

Dr. J. Dutton Steele: The Etiology and Distribution of Cardiac Hydrothorax.

Dr. David L. Edsall: On the Estimation of Hydrochloric Acid in the Gastric Contents. The Gastric Conditions in Chlorosis and Pernicious Anæmia (unpublished).

Dr. Charles L. Leonard: A New Physical Phenomenon of the X-Ray.

Dr. S. M. Hamill: The Saliva in Anæmic Patients (unpublished).

Dr. Charles H. Frazier: The Physiological Effects of Dry Heat.

Dr. C. Y. White: The Condition of the Blood after Operations Involving the Peritoneum (unpublished).

Dr. Alfred Stengel: Gonorrhœal Endocarditis. The Nature and Varieties of Anæmia, The Pathology of the Red Blood Corpuscles (unpublished).

Drs. William Pepper and Alfred Stengel: Diagnosis of the Stomach.

Dr. William Pepper and Dr. David L. Edsall: Tuberculous Occlusion of the Œsophagus with Partial Cancerous Infiltration.

Dr. William Pepper: Skiagraphy in the Diagnosis of Thoracic Aneurisms.

The equipment of the Laboratory has been considerably enlarged by the purchase of various instruments, and during the past summer the Assistant Director, Dr. Alfred Stengel, inspected various laboratories in Europe and made further purchases of instruments and supplies. The practical working of the Laboratory has now become established and the useful results obtainable from an institution of this kind, in which advanced original work is encouraged, have been demonstrated.

Yours respectfully,

WILLIAM PEPPER,
Director.

APPENDIX VII.

REPORT OF THE DEAN OF THE AUXILIARY DEPARTMENT OF MEDICINE.

To the Provost of the University.

SIR:—I have the honor to submit the following report of the Auxiliary Department of Medicine for the year 1896-97:

During the past year the department met with a great loss in the death of Edward Drinker Cope, M. D., Professor of Zoölogy and Comparative Anatomy. His successor has not yet been appointed.

All the courses of instruction have remained practically the same as stated in the Catalogue of the University for 1896-97 and in the Report of the Provost for 1894-96.

The total number of students registered for 1896-97 was 49.

During the college year 10 students took courses in Practical Bacteriology and 8 students courses in Practical Hygiene at the Laboratory of Hygiene.

A special certificate of the department was granted to one student who had filled the prescribed course of work in Comparative Anatomy, Zoölogy, Botany, Medical Jurisprudence, Mineralogy, Geology and Hygiene.

At the commencement held in June, 1897, certificates of attendance and proficiency in Medical Jurisprudence were granted to 6 students and graduates in medicine.

CHARLES K. MILLS,
Dean.

APPENDIX VIII.

REPORT ON THE UNIVERSITY HOSPITAL AND THE SCHOOL FOR NURSES.

THE HOSPITAL.

The twenty-second year of the existence and operation of the Hospital of the University of Pennsylvania shows more than the usual increase in its service and usefulness to the public, at the same time demonstrating correspondingly that its ability to accomplish greater results is limited only by need of adequate means to meet the ever widening and peculiar demands made upon it.

During the year, 1496 patients have been treated. Of these 95 remained in the Hospital December 31, 1896, 91 died, and the remaining 1310 were discharged cured, or in various stages of recovery. Of the 1496 patients, 704 are recorded as residing in Philadelphia, 564 in Pennsylvania (outside of the city), 100 in New Jersey, 36 in Delaware, and 92 in other States. The number of cases treated in the various Dispensaries was 9056, in the Receiving Ward 1023, and in their homes by District Physicians 64, making a total of 11,639.

In the course of the year the Agnew Wing has been essentially completed, the money for such completion having been subscribed by friends of the Hospital, including certain members of the Board of Managers and Medical Staff. This important addition to the Hospital, capable of accommodating 160 patients, remains, however, unfurnished. It is hoped that there are still other friends who will be willing to come forward and complete the good work.

Among the improvements of the year must be enumerated the enlargement of the laundry building to about double

its former capacity, with the necessary equipment of improved modern machinery.

New floors of fine quality and superior finish have been put in the first and second stories of the Gibson Wing. The electric lighting has been extended into the wards and cellars, by which means it is expected that the cost of lighting will be materially reduced. Steam heating has been introduced into the Nurses' Home and the Maternity wards, and improved in other parts by re-jacketing the benches, taking the air directly from the outside, and by relaying the exhaust returns in large iron pipes, so that there is almost no loss of heat. The toilet room in Ward B has been modernized by tiling the walls, putting in marble floors, and other accessories, and by the introduction of improved plumbing. The flagging between the old pavilion and Gibson Wing has been relaid and graded. The Hospital is indebted to the energy and liberality of Mrs. C. C. Harrison, together with a number of other generous women, who contributed for a much-needed improvement, which consists in a granolithic pavement the entire two squares from Thirty-fourth to Thirty-sixth streets, grading and sodding the intervening spaces, planting trees, etc., thus giving the whole Spruce street front an imposing and dignified appearance corresponding with the importance of the buildings and the large plot of ground which they occupy.

The Nurses' Home, originally erected in memory of Mrs. Richard D. Wood, and subsequently enlarged by members of that family, exhibits traces of age and of the continuous service to which it has been subjected. It has for some time been found inadequate to accommodate the nursing staff required, and will be absolutely insufficient for the additional force made necessary by the proposed opening of the Agnew Wing.

The life of a nurse is necessarily an exacting and fatiguing one. She should, when off duty, therefore be able to retire to convenient, cheerful, and well-appointed rooms, with facilities for bathing and other personal hygiene.

Nothing is more calculated to secure the best class of women for this important work than comfortable and home-like surroundings.

The Training School consists of a staff of 42, of whom 15 are in their third year of training, 15 in the second, 9 in the first, 2 of the Class of 1896 completing their course, and one graduate acting as Night Superintendent.

Miss Helena Barnard, Assistant Superintendent, who was appointed to succeed Miss Jane A. Delano, resigned her position in March, and Miss Roberta M. West was appointed to succeed her. Miss West resigned in the spring and Miss Richards was appointed in July as her successor.

The older parts of the building have now been in active use for more than twenty-two years, and show the effects of wear and tear in a greater degree than might be expected, owing to the daily tramp of hundreds of students through the wards to obtain that bedside instruction which makes this Hospital so efficient a branch of the Medical School. Many parts of the interior require a thorough renovation and extensive alterations. The rapid strides in hospital construction which are constantly being made soon leave behind that which was considered almost perfect when constructed, and a comparison with the recently completed Agnew Wing makes the defects more apparent.

The Hospital during the year has lost the valuable services of Dr. John S. Billings, who resigned the Directorship to accept the office of Librarian of the Consolidated Libraries of New York. Since then the duties of Director have been assumed by an Executive Committee.

The Hospital is deeply indebted to the Board of Women Visitors for its indefatigable and unceasing exertions in behalf of the institution, and to the Medical and Dispensary Staffs and to the other officers of the Hospital for their faithful services during the year.

THE NURSES' TRAINING SCHOOL.

In presenting the report of the tenth year of the Training School the most notable thing to mention is the completion of the first term of the three years' course.

The venture of lengthening the course from two to three

years was begun in 1893. That it has successfully passed beyond the stage of experiment is demonstrated by the fact that it has been found advantageous both to School and nurse, also that ten general hospitals have already adopted it in their schools, and a number are seriously considering the advisability of following in the same direction.

On account of adding a year it became necessary to make changes in the rules for admission, such as taking nurses on two months' probation instead of one, grading the allowance for necessary expenses, arranging for longer vacations, and adding to and extending the curriculum over the additional year.

The curriculum for the third year is substantially as follows:

Theoretical and practical application of massage.

Theoretical and practical electro-therapeutics.

Theoretical hospital management and equipment.

Modifications of diet in special diseases.

The purchase, preparation, and distribution of food in institutions.

Invalid cooking.

Household sanitation as applied to hospitals.

Special opportunities are offered to women who desire to fit themselves for positions in other institutions by taking responsible positions in this, such as head nurses in charge of wards, nurses in charge of clinics, and ward classes, and the like.

The report for 1896 shows statistically that on December 31 the Nursing Staff consisted of:

Graduate nurse, acting as night superintendent	1
Completing their third year	2
In the third year, comprising the Class of '97	15
In the second year	15
In the first year	9
	<hr/>
Making a total of	42

Requests for rules for admission	442
Rules sent	429
Applications filled out and returned	66
Applications accepted and filed	44
Applications rejected	22
Probationers leaving for various reasons	5
Probationers accepted	9

During the year the Assistant Superintendent, Miss Roberta West, resigned her position, and Miss L. Richards was appointed to succeed her.

The Nurses' Home is entirely inadequate to house the increased number of nurses demanded by the enlargement of the Hospital. An extension of the present building is urgently needed.

B. C. HIRST, Secretary,
Board of Managers, University Hospital.

APPENDIX IX.

REPORT OF THE DEAN OF THE DEPARTMENT OF DENTISTRY.

To the Provost of the University.

SIR:—I have the honor to submit to you the following report of the condition of the Department of Dentistry, showing the extent and character of the work done therein since my last annual report and covering the session of 1896-97.

The following statistics furnish a detailed exhibit of the number of students matriculated for the session, the countries from which they came, the method of their admission, and in the case of advanced students, the institutions in which they have obtained their previous training. A statement is also appended showing the amount and character of infirmary work which has been done:

The number of students matriculated, 1896-97	373
Of these, there were students of the third year	105
Of these, there were students of the second year	108
Of these, there were students of the first year	157
Special students	3
	373
Number of new matriculates, including those admitted to advanced standing	175
Of these, there were admitted upon presentation of certificates	142
Admitted upon examination	5
Admitted to advanced standing	28
	175

Those admitted to advanced standing presented certificates from the following institutions:

Atlanta Dental College	2
Indiana Dental College	1
New York College of Dental Surgery	5
New York College of Pharmacy	1
Pennsylvania College of Dental Surgery	2
Philadelphia Dental College	1
Ontario, Canada, College of Pharmacy	1
Royal College of Surgeons, Edinburgh	1
University of California, Dental Department	1
" " Freiburg, Germany	1
" " Havana, Cuba	1
" " Koenigsberg, Germany	2
" " Leipzig, Germany	1
" " Madrid, Spain	1
" " Melbourne, Australia	1
" " Pennsylvania, Biological Department	1
" " " Medical Department	3
" " Vienna, Austria	1

The countries represented in the department are as follows:

Middle States	232
New England States	48
Western States	24
Southern States	17
Pacific States	9
Australia	3
Austria	1
Barbadoes	1
Bermuda	1
Canada	14
Cuba	2
Ecuador	1
France	1
Germany	6
Hawaii	1
Jamaica	2
New Zealand	1
Nicaragua	2
Puerto Rico	1
Russia	2
Scotland	1
Spain	1
Switzerland	1
Turkey	1

SUMMARY.

United States and Canada	345
Foreign countries	28

The amount of work performed in the operative and mechanical branches has been as follows:

OPERATIVE.	
Number of operations	18,911
Number of patients	7,694
MECHANICAL.	
Number of operations, including crown-and-bridge and technic work	2,348
Amount of gold used for filling, exclusive of that used in mechanical work	75 oz.
Number of students in Graduating Class	105
Number of students who received the degree	98

It will be seen by a comparison of these figures with those submitted in my previous report that the total number of matriculants for the past session shows an increase of forty-nine with a proportionate increase in the number of infirmary operations. This increase in the number of students occurring at a time when the department was already overtaxed for lack of space made it necessary to secure additional laboratory facilities pending the completion of Dental Hall. Happily a suitable room in the basement of the Library building was placed at the disposal of the department through the courtesy of the Librarian, Mr. Keen. This room was immediately equipped for purposes of class instruction in laboratory work and relieved somewhat the crowded condition of the general laboratory of the department. The use of the temporary laboratory during the session served further to demonstrate the value of special class or section laboratories where more thorough individual instruction can be given. Another, and by no means the least, important feature developed by the use of this laboratory has been the training afforded to several of the demonstrator corps in methods of systematic teaching which are only possible when such facilities are available. The ample provision made for this class of work in Dental Hall cannot fail to be of much benefit not only to the students by reason of the better opportunities afforded for individual instruction, but also to the demonstrators in developing their teaching abilities.

Reference was made in my previous report to the addition of oral surgery and bacteriology as obligatory branches of the dental curriculum and I am glad to note that the systematic study of these branches has been productive of decided benefit to the students.

The teaching of oral surgery includes also special dental anatomy and its surgical relationships. Hitherto there has been a tendency upon the part of no inconsiderable portion of the class to regard the study of the fundamental dental branches, e. g., anatomy, chemistry, physiology, bacteriology, etc., as having but a remote relationship to their needs as practitioners of dentistry. The teaching of oral surgery and special dental anatomy has served to establish a more intimate relationship between general anatomy and dental practice in the minds of the class of students alluded to and consequently to create a more active interest in the study of anatomy as a whole. Similarly the obligatory study of bacteriology has served to stimulate a greater interest in the study of dental pathology and of clinical dentistry; the work in the bacteriological laboratory has given the emphasis of reality to the didactic teaching of dental pathology and enforced the practical application of its underlying principles in relation to infirmary practice.

A study of the previous academic training of the new matriculants of the session of 1896-97 indicates a somewhat improved general average of preliminary culture, but there is every reason to believe that this grade can be further improved by revising the standard of matriculation requirement for the department. It has been deemed inexpedient to make any material change in this regard until the department has passed through at least one session in its new quarters. When the change has been successfully accomplished the matter of increasing the admission requirement will then be definitely considered by the Faculty and a plan adopted for the gradual betterment of the matriculation standard.

The athletic factor in its relation to the academic standing of those in the department who are participants has, during the past session, developed no features which tend to alter

the conclusions set forth in my previous report on that point, viz., that it is quite possible for a student to achieve success both as a student of dentistry and as an athlete. The rule making the standard of athletic eligibility and academic standing uniform has worked satisfactorily and harmoniously. The Department of Dentistry has been and continues to be an important contributor to the athletic successes of the University, as statistics show that not less than 51 per cent of all athletic winnings of the University are to be credited to this department. Aside from other considerations the athletic interests of the department have in no small degree tended to the development of a university spirit in the Department and among the whole body of its students.

The general increase in the number and character of its students, the extent of the work done, the thoroughness of the educational work accomplished are indications of the increasing prosperity of the school which argue favorably for a continuance of its usefulness in a corresponding or greater degree in the future, and are evidences of the general appreciation of its merits as a dental educational institution.

Respectfully submitted,

EDWARD C. KIRK,
Dean.

APPENDIX X.

REPORT OF THE DEAN OF THE DEPARTMENT OF VETERINARY MEDICINE.

To the Provost of the University.

SIR:—I have the honor of submitting the following report of the Department of Veterinary Medicine for the academic year 1896-97:

The total number of students in attendance upon instruction in this department during the session 1896-97 was less by 11 than the number of students in attendance during the session 1895-96. The report of this department for the session 1895-96 showed a decrease in the total number of students in attendance upon instruction of 17 compared with the total number of students in attendance during the session 1894-95. This marked annual decrease in the number of students in attendance upon instruction during the past few years has not been confined solely to the Department of Veterinary Medicine of the University. The other prominent Veterinary Schools throughout the country have similarly experienced a decrease in the number of students in attendance upon instruction in the Veterinary branches. As stated in the preceding report of this department, the decrease in the number of students entering upon the study of Veterinary Medicine in this country may be largely attributed to the improved methods of locomotion in vogue at present, namely, the electric cars and the bicycle. Many persons who heretofore have found it needful to employ horses for locomotive purposes, have dispensed with the use of the horse and instead use the electric cars and the bicycle. This has, at least to a certain extent in cities, deprived the veterinarian of professional work among animals of traction which he had previously possessed. However, the

decrease throughout the country in the number of animals used for traction purposes does not correspond with the idea that possibly exists among young men who may have in mind the study of Veterinary Medicine, that the opportunities for gaining a livelihood by the practice of Veterinary Medicine had materially decreased. Among thoughtful veterinarians it is believed that a larger field awaits the veterinarian in this country in the inspection of foodstuffs of animal origin and in the investigation of the various cattle plagues which have been the source of such serious loss to the animal industries of this country. It would therefore be well to enlarge the facilities and give greater attention to the latter subjects in the curriculum of the Department of Veterinary Medicine in the University.

It may be remarked, however, that the students who have entered the department during the past few years, have, as a whole, been better prepared scholastically to begin the study of Veterinary Medicine than those of previous years.

The practical work in Bacteriology which heretofore had been given in the Laboratory in the Department of Medicine was this session given in the Bacteriological Laboratory in the Laboratory of Hygiene. The course was longer in hours than was practicable heretofore and was altogether successful.

Unofficial courses of lectures on Anatomy and Horseshoeing, with practical instruction in the Extremities of the Horse, were given by Professors Harger and Adams several times a week during the larger part of the session to members of the Masters' and Journeymen's Horseshoers' Association of Philadelphia. These courses of instruction have been well attended and it is believed that they will have an influence in improving the methods of horseshoeing in the city. The success of these unofficial courses would seem to make it desirable to inaugurate a school of horseshoeing in connection with the Department of Veterinary Medicine.

Respectfully submitted,

JOHN MARSHALL,
Dean.

APPENDIX XI.

REPORT OF THE VETERINARY HOSPITAL.

To the Provost of the University.

SIR:—The work of the Veterinary Hospital has grown during the past year and more sick and disabled animals have been relieved than in any previous twelve months. The statistics of the year ending August 31, 1897, are as follows:

Cases treated in the dispensary.....	2098
Cases treated in the hospital.....	958
Total	<u>3056</u>

This work is carried on with three principal objects in view:

First.—It is desired to relieve ailing and suffering animals and restore them to health and usefulness. The important character of this work from the standpoint of the humanitarian is not sufficiently appreciated. Many animals are allowed to linger in pain when their ailments could be cured in a short time by appropriate treatment. In some cases a horse constitutes the chief resource of a poor family, and when this faithful servant is ill the suffering is not confined to the animal, but those dependent upon it are deprived of their means of support.

Most of the freight that is brought to Philadelphia over the numerous railroads centring in this city is transported to its ultimate destination by horses; much of it, merchandise particularly, is thus moved several times before it reaches the consumer. Moreover, a large part of the food supplies of the city are hauled in by horses from neighboring districts.

Hence, the horse as a motive force is of the highest importance, and, from the standpoint of the public welfare, it is important that he should be maintained in such a condition that his work can be done with comfort and economy.

The facilities of the Veterinary Hospital have been generously devoted to work in this direction, but as much of its work has been wholly gratuitous, our activities have necessarily been limited by the funds which have been available.

Second.—It is desired to furnish instruction to students.

The animals treated in the dispensary service and in the Hospital are seen by the students of the Veterinary School, who examine them and assist in their care and treatment, but always under the observation and direction of a member of the clinical staff or the resident surgeon. In this way the animals constantly receive the best possible attention, and students gain experience that enables them to treat animals successfully immediately after graduation.

Third.—It is desired to gain new facts in reference to the diseases of animals, their prevention and treatment.

Animals treated in a hospital can be observed more closely, and more can be learned about their ailments, than when they are treated under ordinary conditions. All of the cases that come to the Veterinary Hospital are the objects of special study as a result of which new and important facts are from time to time disclosed.

This work is of value to the entire public and is made use of directly or indirectly, by all interested in the live stock industry.

The Veterinary School aims to prepare young men not only to combat the diseases of animals, but also to improve the live stock of the country and the conditions under which animals are kept. Our graduates should be thoroughly grounded in Comparative Pathology, but they should also possess a good knowledge of healthy animals and live stock economics—of the best methods of breeding, rearing and utilizing animals.

Our facilities for instruction are better planned for the study of animals suffering from disease than for that of animals in health. The graduates of Veterinary schools have, heretofore, been called upon merely to cure diseased or disabled animals. Their education has, therefore, been confined chiefly to subjects directly useful in this work. Now, however, the field of the veterinarian is broadening, he is being recognized as a general live stock expert, and also as having an important duty in connection with the protection of public health. Hence, it is necessary that our course of instruction be broadened and facilities provided for the most thorough training in animal husbandry. Such an extension of our work will necessitate the equipment of a farm, where animals may be reared and a working dairy maintained. Information acquired under such practical conditions could not but be of the greatest advantage to all who own or use animals—whether as breeders, farmers, horse or cattle owners, or consumers of animal products.

THE SHOEING FORGE.

The proper shoeing of horses is essential to their economical employment. This subject is, however, an exceedingly difficult and complicated one, and there is much need of information regarding it.

The expert horseshoer requires a knowledge of the anatomy and physiology of the hoof and adjacent parts, of the action of horses, of the defects of gait, of the mechanics of the hoof and limb and of the handicraft of the blacksmith.

Although this knowledge is so important, although the enjoyment of so many horsemen is interfered with, and so many thousands of dollars worth of horses are destroyed each year by defective shoeing, there is at the present time not one school in the United States to which an ambitious mechanic can go to obtain instruction in this subject.

The Veterinary Hospital has a well-equipped shoeing forge under the direction of Dr. John W. Adams and Mr. Franz Enge, where horseshoers could be given the instruction they need.

That there is a demand for such instruction is shown by the numerous letters of inquiry that are received at the University, and by the fact that the Master Horseshoers' Association has, for two years past, requested members of our staff to lecture before its members on subjects related to their work.

A slight increase in equipment would enable the Veterinary School to give this needed instruction and to establish a course that could not be conducted elsewhere without the outlay of much more money than is needed by us under our conditions.

In Germany, France, Russia, Austria and some other countries, schools of horseshoeing are maintained at government expense, and in connection with Veterinary colleges.

JOSEPH E. GILLINGHAM.

APPENDIX XII.

REPORT FROM THE LABORATORY OF HYGIENE.

To the Provost of the University.

SIR:—I have the honor to present for your consideration the following report from the Laboratory of Hygiene, for the twelve months ending with August 31, 1897.

During the period named practical instruction in the Laboratory has been given to, approximately, 400 students, as follows:

In the class of Practical Hygiene there were 8 students from the Department Auxiliary to Medicine; in the regular course in Practical Bacteriology there were 20 students, graduates of this and other institutions. Under very great difficulties we succeeded in giving courses of instruction with practical exercises in Bacteriology to 247 students of the second-year Medical class, 100 students of the third-year Dental class, and 13 students of the third-year Veterinary class.

The didactic work of the Laboratory staff has consisted in the regular course of lectures (continuing throughout the academic year) on General Hygiene to the Senior Medical class; of two courses of lectures, ten each, on Ventilation and Heating, Water Supply, and Sewage Disposal, to students of Architecture and Engineering of the College Department; and of two courses of lectures on Prophylactic Measures against Infectious Diseases, to the nurses of the University Hospital.

In addition, we have done the usual amount of work in the way of analyses and examinations of materials suspected of being harmful to health. This work was done for physicians and for citizens of Philadelphia, and comprised investigations upon sputum, water, urine, milk, beer, disinfectants, and pathological fluids and tissues. At the opening of the present

session we will have, in addition to our usual work, about 470 students to whom practical instruction is to be given. Bearing in mind the point that I made in my last report to you from this Laboratory, it is manifest that the teaching of such large numbers of students, with our inadequate facilities, is surrounded by the greatest difficulties and inconvenience, not to mention the fact that with our present facilities it is impossible for us to give such classes more than the merest elementary introduction to this work that is of so much practical importance to them. If the teaching of these large classes is to be permanently under my direction I must again take the liberty of inviting your attention to our conditions, with the hope that some plan may be devised by which additional classroom facilities can be supplied to us.

In consequence of the small size of our lecture-room my lectures to the Senior Medical class are almost entirely didactic, for the reason that I am obliged to give these lectures at Medical Hall, and it is impossible for me to convey and arrange models by which my teaching could be made more demonstrative, at such a distance from the Laboratory. The lecture-room of the Laboratory has seating capacity for ninety students—too great for the small classes of about twenty that receive instruction in that room, and too small for the larger classes that it is my desire to meet there. If the means could be found of increasing my facilities it would greatly advance the efficiency of the department, and place the amount and character of the teaching given on a plane equal to that of other reputable institutions in this country.

Notwithstanding the facilities that are offered for the pursuance of studies in Practical Hygiene and Sanitation, you will observe that this department of our laboratory work has enjoyed but little popularity among the students.

The obvious reason for this is the lack of demand for the services of men especially trained in this particular branch. Under existing conditions the career of teacher is about all the inducement that can be offered; and, as you are aware, such positions are not numerous.

It is manifest that something should be done to stimulate an interest in this important work, and I believe that, with the co-operation of the State Board of Health and the various local boards, something can be done to create opportunities, in connection with the work of the Boards of Health, for the practical application by trained men of a knowledge of the laboratory methods of Hygiene, which will prove of great benefit to the public.

Without entering into the details of such a plan, it suffices to say that it would contemplate the establishment at various centres throughout the State of Laboratories of Hygiene in connection with the work of the local health authorities. These laboratories should be presided over by salaried officers who are certified to have received the practical training necessary to the proper investigation of such questions bearing upon the public health as may be referred to them by either the Board of Health or the citizens of the districts in which they are located. Furthermore, it would be desirable to establish a permanent connection between such laboratories and the University Laboratory, in order that the former may be free to confer with the staff of the University Laboratory upon any and all questions in which such consultation might be desirable.

The establishment of such laboratories would ensure to the local health authorities prompt and important aid in the elucidation of many vital problems; would obviate the delay and uncertainty incidental to securing assistance from a distance; and would afford to a class of trained men opportunities for the utilization of that special knowledge which has played such a conspicuous rôle in the evolution of modern sanitation.

I cannot but believe that a proposition somewhat of this nature, if properly brought to public notice, would receive the hearty support of all who are interested in the question of the public health.

Respectfully submitted,

A. C. ABBOTT, M. D.,
Director.

APPENDIX XIII.

REPORT OF THE DIRECTOR OF THE FLOWER OBSERVATORY.

To the Provost of the University.

SIR:—I have the honor to submit the following report of the Flower Observatory:

Since the last report the instrumental equipment of the Observatory as contemplated in the original plan has been practically completed. The Zenith Telescope and broken Transit were the first instruments received, and were placed in position during the month of September, 1896. Before the end of November the large Equatorial of eighteen inches aperture was in place, and finally in April of the present year the Meridian Circle was installed. On May 12 took place the formal dedication of the Observatory.

Since they became available some or all of these instruments have been in use on nearly every favorable occasion, either in the work of instruction or in scientific research. Visitors are admitted to the Observatory on Thursday evening of every week, when the large telescope is given up to their use. Admission is by ticket, obtained at the office of the Dean of the College. At times the number present has been embarrassingly large as no limit has been fixed to the number of tickets issued. Since February 28, when the system was first inaugurated, about 1000 visitors have availed themselves of the opportunity.

The position of the centre of the dome of the Equatorial building is as follows:

Latitude, $39^{\circ} 58' 2''.06$.

Longitude, $7^m 5^s.04$ east of Washington.

The latter value is only an approximation. An accurate determination is desirable and we hope to take up the problem in the near future. For this purpose it will be necessary to connect the Observatory with the telegraph lines so that signals may be exchanged directly between this point and Washington. The expense of this connection ought not to be great.

The Zenith Telescope has been in use on almost every favorable evening since October 1, 1896, in a series of observations for investigating the variation of terrestrial latitude. About 2000 determinations have been made. It is the purpose to continue this work for some years.

The Equatorial has been employed in a series of observations of double stars. About 500 such measurements have been obtained. This work furnishes one of the severest tests of the optical performance which can be applied. The result has been highly satisfactory though occasions have been somewhat rare when atmospheric conditions allowed the instrument to exhibit its full power.

It seems desirable that the results of work done here should be published under the auspices of the Observatory, thus furnishing something to offer in exchange for the publications which we are receiving from other institutions. Before the close of another year we shall probably have material enough for 200 or 300 pages of printed matter.

The buildings are in good condition, though the illumination with oil is dangerous and unsatisfactory. Arrangements could probably be made with the trolley company to supply the current for electric illumination but this would require the use of accumulators which are somewhat expensive.

The water supply has at times been inadequate, though of late there has been an improvement. In case of fire we should be helpless. The officials of the Springfield Water Company are quite ready to extend their mains along the turnpike but sufficient encouragement does not seem to be forthcoming.

During March and April a force of men was employed in improving the grounds. About 150 trees and shrubs were

planted, most of which have had a vigorous growth, the season having been more than usually favorable. The few which did not survive will shortly be replaced.

The library now contains 298 volumes and 434 pamphlets, the property of the University. There are about four times this number deposited here, the property of Professors Kendall and Doolittle. Since the last report accessions have been received as follows:

From the general library of the University, 177 volumes and 55 pamphlets.

From various observatories, 7 volumes and 24 pamphlets.

Office of the American Ephemeris and Nautical Almanac, 15 volumes and 13 pamphlets.

The Weather Bureau, Washington, The Monthly Weather Review.

From the Austrian government, monthly meteorological reports.

International Geodetic Commission, one volume.

Imperial Academy of Sciences, St. Petersburg, 42 memoirs.

American Academy of Arts and Sciences, 20 pamphlets.

Allegheny Observatory, 42 pamphlets, 1 volume.

Various sources, 7 pamphlets, 2 volumes.

Respectfully submitted,

C. L. DOOLITTLE.

APPENDIX XIV.

REPORT OF THE DIRECTOR OF THE BOTANIC GARDEN.

To the Provost of the University.

SIR:—During the past year the Botanic Garden has satisfactorily advanced, and the need for its existence as a part of our University organization has been amply demonstrated. In Spring of the present year a considerable collection of trees and shrubs was set out, and nearly all have succeeded well, owing largely to the favorable season that succeeded.

Mrs. Conard, of Sharon Hill, and Mr. Theodore Rand, from both of whom rich donations have already been received, presented several cases of hardy herbaceous and shrubby plants. From Horticultural Hall came a representative collection of ferns, and this has just been added to by the gift of some luxuriant specimens from Mr. Roberts LeBoutillier. When traveling through Mexico last year, Dr. Harshberger collected a case of orchids and succulent plants, which arrived safely, and are now well established. Lieutenant Willoughby secured for us some epiphytic orchids in the everglade region of Florida, which have grown well in the hothouse. During the present summer, Mr. Williamson, one of the staff of Girard College, collected extensively in the South Central States, and forwarded several cases for the Garden.

In April the Director, with Messrs. LeBoutillier, Githens, McKenney and Welsh, spent ten days in Georgia and South Carolina. Twelve large cases of plants were obtained and shipped free to Philadelphia through the generosity of the Adams Express Company. They formed a noteworthy addition to our collection, and include types of great botanical interest.

By exchange with European botanic gardens, seeds of many species were obtained at the beginning of this year, and the resulting plants are filling up gaps in our representative collection.

In the gradual completion of the Director's plans, two additional features have this year been added. Behind the ponds a shaded miniature cascade has been arranged, with pockets of soil for the reception of mosses and hepatics. When fully stocked, our "Bryarium" will accommodate at least seventy species, which will be of special value in advanced and graduate studies. A varied collection of bulbs has recently been purchased, and these are now planted in a series of beds that will be sheltered from the colder winds. While most of these bulbs flower in spring, a succession of blooms from Irids, Lilies, Montbretias and Gladioli will be kept up during a considerable part of the year.

The practice of supplying material to other teaching institutions in the City or State has been kept up, and several thousand living or cut specimens have been sent during the year to the Girls' High and Normal Schools, to West Chester Normal School, Wagner Free Institute of Science, Philadelphia College of Pharmacy, Barnard College, N. Y., etc.

Two papers have just appeared in "Contributions from the Botanical Laboratory," No. 3, both of which were directly dependent for their origin on the facilities offered by the Garden. These are (1) A Chemico-Physiological Study of *Spirogyra nitida* (59 pp.), by Dr. Mary Pennington, and (2) Contributions to the Life-History of *Amphicarpaea monoica* (93 pp. and 16 plates), by Dr. A. Schively. Five additional papers are now in preparation on material supplied directly from the Garden. Three of these are by teachers who are engaged during at least half the day in our city schools and colleges.

The recent addition to our botanical library of a large suite of valuable works like the "Botanical Magazine," "Gardeners' Chronicle," "Buitenzorg Contributions," etc., has enabled the Director to identify many of the specimens that came to the Garden unnamed. In this he was ably assisted by Mr. R. E. B. McKenney.

Through your continued interest and representations, the means were obtained for adding to our glasshouses, and at present a palm house, fernery, and succulent house are in process of erection. The overcrowded condition of our present houses will thus be relieved, and facility given for the addition of types necessary to a complete course of botanical teaching.

In furtherance of Mrs. Harrison's efforts to improve and beautify the entire University Campus, the Director has planned and superintended the laying out, by the garden staff, of the grounds round University Hospital, Harrison Chemical Laboratory, Dental Hall and Medical Hall. The greatly improved appearance of the Campus during the past year has been generally and favorably commented on, and is alike a tribute to the generous interest shown by Mrs. Harrison and a demonstration of the value of a permanent garden staff.

Quite recently definite steps have been taken toward establishing an organization that the promoters have named "The Botanical Society of Pennsylvania." The equipment and facilities now presented by the Garden are such that a large body of the general public should be interested in it, while the members of the teaching staff believe that by lectures, exhibitions and excursions persons in the City and throughout the State can be brought together and instructed in the principles of plant life. The generous promise of support already given is a sure guarantee that such a society is desired, and it will be the constant aim of its promoters to bring it into full touch with every phase of botanical science.

Yours very respectfully,

JOHN M. MACFARLANE,
Director.

APPENDIX XV.

REPORT OF THE SECRETARY OF THE DEPARTMENT OF ARCHÆOLOGY AND PALEONTOLOGY.

To the Provost of the University.

SIR:—I beg that I may be permitted to incorporate in this my yearly report a brief sketch of the history of the Museum up to the present.

The Museum of Archæology and Paleontology was organized in 1889 to provide for instruction and original research in these branches, and for the incidental formation of illustrative collections. In 1891, in consequence of the great interest manifested in this Museum, and the successful extension of its work, it was constituted a Department of the University.

In January, 1893, its development had assumed such proportions as to outgrow the space allowed it by the University in the Library. A Building Committee was then formed and a building fund started.

By ordinance approved March 30, 1894, the City of Philadelphia transferred to the University a tract of eight acres of land, in trust, to maintain as a park and botanic garden, and to erect thereon a museum of science and art. By ordinance of City Councils, October 29, 1895, an additional piece of ground, measuring one and two-sevenths acres, was made over by the City to the Trustees upon the same terms as the former grant.

By action of the Board of Trustees of the University of Pennsylvania this land was placed under the direction of the Department of Archæology and Paleontology, with the under

standing that the funds necessary for the carrying out of the work shall be secured by the said department.

In 1895 the Trustees of the University secured from the Legislature an appropriation, \$150,000 of which was to be devoted to the erection of a Museum building.

This grant from the State is coupled with a condition that an equal amount be raised from private sources. This condition has been more than complied with, and owing to generous contributions, \$250,000 have been secured.

The Building Committee having engaged the services of Messrs. Wilson Eyre, Jr., Frank Miles Day, Walter Cope and John Stewardson, architects, plans were drawn, which, after careful study and consultation with leading museum men in the country, were approved by the Board of Managers of the Department, and by the Board of Trustees of the University. These call for an extensive group of buildings, so arranged as to be capable of construction in sections, and which will ultimately cover about twelve acres of ground. The total cost is estimated at about \$2,500,000. The contract for the erection of the northwestern section, situated at Thirty-fourth and Spruce streets, has been awarded to Messrs. Stacy Reeves & Sons, and the building is advancing rapidly. The cost of constructing this section, together with the power house to contain the boilers, engines and dynamos (which will be located on the line of the Junction railroad at the eastern boundary of the Museum site), will be about \$450,000.

Owing to lack of funds, the Rotunda, of which the foundation has been laid, has not been included in the present contract, although it is of the utmost importance that it should be built without delay. Its estimated cost will be about \$100,000.

The rapid growth of the collections already demands the prompt extension of the space supplied by this building, and it is imperative that additional parts should be erected in the near future.

The serious proportions assumed by the work made it desirable that the relations of the Board of Managers of the Department to the Board of Trustees of the University should be clearly defined. This was done by a plan approved by

resolution of the Board of Trustees, dated January 8, 1897, which, whilst securing to the University all rights of ownership, leaves to the Board of Managers the freedom of action indispensable to the development of the institution.

Meantime, the scientific activities of the Museum have spread in various directions.

The Museum is divided into seven sections, each in charge of a Curator.

The American Collection, in the large hall on the third floor of the Library building, very thoroughly illustrates the prehistoric antiquities of the United States. The exhibition space is at present chiefly occupied with the Hazzard Collection from the Cliff Dwellings of Mancos Cañon, in Southwestern Colorado. This very perfect and important series contains almost every object used by one of the most highly advanced of the early American peoples, and is supplemented by extensive collections of modern Indian specimens arranged for the purpose of comparison. The results of the explorations conducted by the Department in Florida, the caves of the Ohio Valley and in Yucatan, with a large general collection of American antiquities, are here accessible to students.

The Section of Asia and General Ethnology contains series of objects from Eastern Asia, Africa and Polynesia, and a special collection of the games of all parts of the world. Many important accessions have been recently made to this collection, and special series have been undertaken in many lines by specialists, which are intended to illustrate the usages of various countries and periods. Owing to lack of space, these collections are not at present on exhibition.

The Babylonian Section contains a large and extremely valuable collection of antiquities, the greater portion of which are the result of extensive excavations of the ruins of Niffer, in Central Babylonia. Much time and labor have been expended in a thorough exploration of the principal mound of these ruins, which covers the temple of Bêl, presumably the oldest sanctuary in Babylonia. Among the most important objects thus secured may be mentioned about thirty-five thousand cuneiform documents in clay. The Babylonian Museum is the

most important in America, and ranks immediately after the British Museum and the Louvre. The cuneiform documents of the fourth and second millennium B. C. can nowhere be studied to greater advantage. Hundreds of terra-cotta and glass vases, Hebrew and Syriac bowls, about 700 fragments of the most ancient inscribed stone vases and votive tablets, nearly 600 seal-cylinders, clay coffins, charms, a large amount of gold and silver jewelry and other objects of art, all serve to illustrate the life and customs of the ancient inhabitants of Mesopotamia, and of the Semites in general. The disturbed condition of the Turkish dominion last year made it desirable to suspend operations and to give the explorer a much-needed rest. This year has therefore been employed by him in preparing his notes for publication.

The Section of Casts has thus far been devoted only to America, and has acquired valuable reproductions of important Central American monuments, two of which are exhibited in the reading room of the Library. The section was compelled to discontinue its efforts for lack of space wherein even to store its purchases. Having a surplus on hand, however, the Committee in charge assisted the Mediterranean Section in securing an important collection of marble statuary found in the neighborhood of Lake Nemi, on the site of a temple of Diana Arcina. This collection included an exquisite statue of a faun in a state of perfect preservation. For lack of room, the collections are not exhibited.

The Egyptian and Mediterranean Section, on the first floor of the building, comprises two halls. One of these is devoted to a sepulchral series of Egyptian antiquities of great historic interest, among which is a fine double coffin containing the mummy of a high priest of the XXI Dynasty. In the opposite hall is shown an historical and industrial series of Egyptian objects from the IV Dynasty down to the Ptolemaic times. The XIX Dynasty is represented by a quartzite statue of Rameses II. of heroic dimensions. Large sculptured blocks of syenite from the festival hall of King Osorkon II., XXII Dynasty, B. C. 900, are also shown; and in the reading room is a fine column with palm-leaf capital, from the temple of Har Shefi at Herakleopolis.

The Committee in charge co-operates with the Egypt Exploration Fund and with the Egypt Research account, and each year receives a fair share of the objects discovered. From Koptos important historic fragments of the X Dynasty have been obtained. An extensive collection of objects was brought to the Museum from Ballas and Nagada in 1895, including pottery and stone implements of remarkable workmanship, the discovery of which has raised so serious a problem. The results of the exploration conducted in 1896, although less startling in their character, yielded many objects, and some fine slabs or fragments covered with paintings and colored hieroglyphs from the neighborhood of the Ramesseum were added to the collections.

This year the Museum has been enriched by a fine seated Ka-statue of an Egyptian nobleman called Nenkheftok, who lived under the V Dynasty, and whose unopened tomb at Deshasheh was opened last winter. With it has come the skeleton of the original. Two rough coffins with their occupants, and other valuable sepulchral deposits of the old Egyptian Empire, were received from the same site. From Behnesa an interesting collection of objects of the Roman period was obtained, but the most important part of the acquisitions from this site is a proportion of the rich find of Greek papyri discovered there.

The Mediterranean Collection comprises an important series from Cyprus, and interesting Greek, Etruscan and Roman antiquities. The exploration of some Etruscan tombs at Narce, Chiusi, Cervetri, etc., undertaken by this section, resulted in a splendid series containing a number of unique specimens. In addition to this, the Coleman Collection purchased this year has helped to complete the series and contributed to make it quite unparalleled on this continent. The collection cannot be displayed for lack of space, but it will prove one of the important features of the new Museum.

Two large halls on the third floor are devoted to the extremely valuable collection of engraved gems and amulets formerly deposited by Professor Maxwell Sommerville, and now made over by him to the Department to form the Section

of Glyptics. This collection has been enlarged by Professor Sommerville during the past year, and is of remarkable interest and value.

The operations of the Department during the year (from October, 1896, to October, 1897) have been conducted at a cost of over \$20,000. This fund has been contributed by friends of Archæology. It has sufficed to cover the scientific work of the sections, as well as to meet the calls upon the general expense account.

In the course of the year a number of scientific lectures were delivered by noted men under the auspices of the Department, and the Museums were several times thrown open to the general public by special invitation.

This year it is proposed to deliver weekly lectures on Archæology and Ethnology every Wednesday.

Respectfully submitted,

SARA Y. STEVENSON,
Secretary.

APPENDIX XVI.

REPORT OF THE DIRECTOR OF THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY.

To the Provost of the University.

SIR:—The progress of the Institute during the year ending August 31, 1897, may be conveniently considered under the heads of Building, Museum and Laboratories.

Building.—To the generosity of General Isaac J. Wistar the Institute is indebted for a handsome and most important extension of its building in the form of a wing fronting on Woodland avenue. The new building, which corresponds in style and structure to the original Museum building, is seventy feet long and forty feet deep. It contains in the basement a complete heating plant, rooms for coal storage, for the dynamos, and for shop work. In the first and second floors the north half of the building is fitted up as a residence for the Assistant Director; the south half and the greater part of the third floor are designed for museum, laboratory and library purposes.

Museum.—Marked progress has been made during the year in the Wistar Institute Method of displaying preparations of human anatomy for study. This method aims at nothing less than the presentation, in suitable cases, of an exhaustive text-book on human anatomy; the elaborate labels constitute the text, and the preparations themselves are the illustrations. Two new cases on the anatomy of the sphenoid bone have been added to the series. The preparation and printing of the text, the selection of specimens and the arrangement of both in cases have taken an amount of time and care which only those familiar with the work can properly

understand. It is most gratifying, therefore, to note that since this method of display has been introduced, the Museum has become virtually a study room, and that many students from the different schools of the city are daily availing themselves of the peculiar opportunities here offered. The Museum now contains nine cases of these self-explanatory exhibits, which comprise over three hundred and fifty accurate preparations.

The most important addition to the Museum was the gift by Dr. William H. Furness, 3d, of the extensive collections made by him and Dr. H. M. Hiller in Borneo and the Luchu Islands. This collection numbers several thousand specimens of skins, skeletons, and entire animals in alcohol. It is particularly rich in vertebrates, and contains examples of almost every mammal found in Borneo, including four skins and skeletons of the orang utan. The value of this collection as a means of illustrating comparative morphology can be scarcely overestimated; it furnishes rare types of structure, some of which cannot be purchased. It is, moreover, an object-lesson in the proper methods of scientific collection and preservation of museum material.

The Institute has purchased recently a collection of human skulls and a few skeletons, for use in the general cases.

Laboratories.—During the year, from seven to ten men have been regularly at work in the Laboratories, principally upon original investigation. The nature of this work, and the field of publication, are shown in part in the following list:

The Director:

Mammalian Anatomy. A text-book. Part I; pp. 750, 600 illustrations. (J. B. Lippincott Co.)

The Director and Assistant Director:

The Anatomy of the Human Sphenoid Bone. (In the cases.)

Dr. Thomas H. Montgomery:

(1) Comparative Cytological Studies, with particular reference to the Nucleus. 10 plates. *Journal of Morphology*.

- (2) Two New Exotic Species of Gordiacea. 1 plate. American Naturalist.
- (3) New Species of Gordiacea, with particular reference to North American Fauna. 15 plates. Bulletin of Museum of Comparative Zoölogy, Harvard College.
- (4) The Reduction of the Chromatin in the Spermatogenesis of Pentatoma. Zoölogischer Anzeiger.
- (5) Review—Apáthy's recent views on the structure of the nervous system. Journal of the Neurological Society, Philadelphia.

Dr. William G. Spiller:

- (1) A Study of Secondary Degeneration following Sclerosis of the Cortex supplied by the Sylvian Artery. Journal Nervous and Mental Diseases.
- (2) Microcephaly and Little's Disease, with remarks by Dr. W. W. Keen on the advisability of operating in Microcephaly. Journal Nervous and Mental Diseases.
- (3) Examination of the Gasserian Ganglions removed from seven cases of Trefacial Neuralgia. Festschrift, Rome.
- (4) Clinical Report of three cases of Adiposis Dolorosa. Medical News.

Among the additions to the equipment of the Laboratories may be mentioned a new celloidin microtome for sectioning entire human brains, and a novel form of metal water bath. These apparatus were designed by the Assistant Director, and constructed in the shops of the Institute under his supervision. The dissecting rooms have been remodeled and the floor and ceilings painted with enameled paint. A very complete apparatus for macerating and degreasing bones has been introduced.

Respectfully submitted,

HORACE JAYNE,
Director.

APPENDIX XVII.

REPORT OF THE CUSTODIAN OF HOWARD HOUSTON HALL.

To the Provost of the University.

SIR:—I have the honor of submitting the following report upon the status of Howard Houston Hall and the Houston Club for the year ending August 31, 1897:

At the time the last annual report was submitted, the Club had yet to experience the results of a change in the membership fee from one to two dollars. This change took effect at the beginning of the present college year—that is, on September 1, 1896. It seemed to meet with the disapproval of many of the original members from the mistaken idea that the change meant an increase of dues. They failed to realize that the one dollar paid at the opening of the Club, January 1, 1896, covered but the fraction of the active year which ended with the Commencement season in June, whereas the present membership fee holds good for an entire year. Being handicapped by this misapprehension, the renewals of membership were more tardy than had been expected. This, however, was in good part made up by the Freshmen, who hastened to join the Club in large numbers, while many of the previous members came in from time to time during the year. At this date the entire membership is 1701, made up as follows: Active members, 1203; associate members, 227; active sustaining, 131; associate sustaining, 97; life, 43.

The average daily attendance up to April 1, 1897, which was the close of the Club's fiscal year, was 1514. During the ensuing months to July 31, the daily attendance averaged 1052, while for the present month it was 150 daily.

About January 1, a Lunch Counter was opened in the Club. This became immediately popular, and up to the present time the sales have continued to increase. The quality of food served is of the best, and thus far no complaints have been received regarding the inadequate accommodations which now exist. Plans for a very considerable enlargement of the present quarters and for the general improvement in appointments of the lunch room have now been perfected. It is intended that the department shall be in complete working order at the beginning of the active period of the Club's year, within the next fortnight. The patronage given last year furnished strong evidence of the need for this feature of the Club.

The News Stand has continued to do well. During the main part of the season there is a large demand for periodicals, photographs, souvenirs, etc., and the applications were greatly increased during the football season, when the attendance at the Club is enlarged by the presence of many visitors from other cities.

After many requests, the House Committee decided to set aside again the first and third Saturday afternoons of each month as Ladies' Days. A provision was adopted to limit the number of tickets for any one occasion to 250, with a farther restriction that the ladies should be in all cases accompanied by members. Under these arrangements, the Ladies' Days have been very desirable and interesting features of the season.

The Camera Club has made a distinct advance during the past year. The spacious and well-equipped dark-room, enlarging apparatus, as well as the monthly talks on photography, have attracted the attention of many members of the University who are interested in photography. Their membership includes not only students, but several of the professors.

A new and most important feature of the Club has been the organization of the Co-operative Association. This is filling a long-felt want in student life. Many leading firms in Philadelphia, representing almost every line of merchandise,

are now granting discounts to members of the Houston Club which they could not secure by individual effort. A book is issued to members which contains a list of the firms interested and the rates of discount which each house is willing to make for purchasers who present the book. Nearly one thousand of these books have already been applied for, and many testimonials have been received from students as to the individual savings effected. Special attention has been given to the enlargement of these concessions for the next year. A number of leading firms have voluntarily applied for admission to the Association. A new book will be issued to every member, containing the names of about one hundred reputable houses, and the advantages to every member of the Club must be apparent without further comment.

The success of the Co-operative Association has suggested the advantage of establishing a book store where text-books can be furnished to members at the lowest possible rates. This design is now nearly completed. Arrangements with the leading publishers of Philadelphia and New York have been made by which they will furnish books directly to the Club from all their catalogues, making it highly desirable for members to secure their text-books from the Club book store.

By these and other various attractions and advantages it is intended to make membership in the Houston Club so desirable that every student of the University will wish to become a member.

The following societies have found our committee rooms so convenient and satisfactory that they have continued to hold in them their meetings throughout the college year: The Christian Association; Camera, Glee, Banjo and Mandolin Clubs; Daland, Guitéras, Stillé, Ashhurst, Penrose, Tyson and Hirst Medical Societies; the Agnew Surgical; the Truman, Darby and Kirk Dental Societies; the Southern, Pittsburg, West Virginia and Graduate Clubs. In addition to the above, the following dances were given: The Phi Kappa Sigma Fraternity, Delta Upsilon, the Junior and Sophomores of the College Department and the Newman Club, while Fac-

ulty teas and other functions too numerous to mention have been held in the Club building from time to time.

The University Branch of the Y. M. C. A. occupies two rooms on the second floor of Houston Hall, where all of its business affairs have been transacted. Numerous meetings of its members have been held there. Regular services have also been held on Sundays in the Auditorium. Prominent speakers were invited to address the Y. M. C. A. and Club members on these occasions, and the meetings have been largely attended.

During the month of July the Summer School held its sessions in the building. There were eminent lecturers engaged from different parts of the country, and the audiences, composed of teachers, expressed very great satisfaction at the opportunities for study and improvement which were thus afforded. The attendance was large at this series of meetings. A Kindergarten School was also held during the entire month, and brought together a large number of children to profit by the instruction afforded.

This report should not be closed without expressing the belief that Houston Hall and the Houston Club are fulfilling the conditions for which they were established. They form a central gathering place for the students of the University, and there is continued evidence that the students who are members of the Club fully appreciate the advantages which are thus afforded. From the details herein presented, it must be apparent that these advantages should induce every student to become a member. Under such conditions, the Houston Club would enlarge its influences and increase its usefulness to the great satisfaction of its members and friends.

Respectfully submitted,

A. PEARSON CLIME,
Custodian.

APPENDIX XVIII.

REPORT OF THE LIBRARIAN.

To the Provost of the University.

SIR:—I have the honor to make the following report of the Library of the University for the academic year of 1896-97:

The total number of bound volumes in the Library is 141,902, of which 121,450 are in the main Library building, and 20,452 are distributed among departmental and seminary libraries as follows:

The George Biddle and Algernon Sydney Biddle Memorial Library (in the Department of Law) . .	14,095
The Biological Laboratory	1,748
The John Harrison Laboratory of Chemistry	753
The Mechanical Engineering Laboratory	429
The Laboratory of Hygiene	734
The Seminary of English Literature	350
The School of American History	623
The Seminary of Municipal Government	822
The School of Civil Engineering	479
The School of Architecture	184
The Flower Astronomical Observatory	235
Total	20,452

The unbound volumes and pamphlets number over 50,000.

The total number of accessions during the past year amounted to 13,151 bound volumes and 7889 unbound volumes and pamphlets.

Of the former, 3278 were added to the Biddle Memorial Library in the Department of Law, 370 to the J. B. Lippincott Library, 132 to the Isaac Norris Library, 99 to the Tobias Wagner Library, 82 to the William Pepper Library, and 11 to the B. B. Comegys, Jr., Library; 1829 were purchased out of an appropriation from the State, and 496 out of current funds

of the University; and the remainder, numbering 6854, were acquired by gift or bequest.

One of the most valuable additions to the Library was the very fine collection of Italian, Spanish, Portuguese and other literature, formed by the late Francis C. Macauley, bequeathed by him to the University. It consists of 3400 bound volumes and 1100 unbound volumes and pamphlets, and includes one of the three best Dante and Tasso libraries in the country.

Another munificent bequest was that of the late Mrs. Julia Biddle, comprising the library of her husband, the late Thomas A. Biddle, embracing 1764 volumes of standard English and French literature and many handsomely illustrated works.

Mr. John C. Sims presented the Library with 200 French novels and nearly a hundred other works.

Mr. Joseph G. Rosengarten gave an interesting collection of pamphlets concerning the late civil war, as well as many other books.

Dr. S. Weir Mitchell presented numerous works on medicine and other subjects.

Mrs. John Scott gave a large collection of public documents from the library of her husband, the late Hon. John Scott, Trustee of the University.

Valuable gifts were also received from Professor John W. Harshberger, Dr. Walther Koenig, Dr. H. C. Wood, Dr. Edward A. Singer, Dr. Daniel G. Brinton, Mr. Henry C. Baird, Dr. Ewing Jordan, Miss Elizabeth W. Allen, Miss Mary Crew and others.

With the efficient co-operation of Mr. J. Hartley Merrick, Assistant Secretary of the Trustees, a satisfactory system of exchange with other institutions of learning and learned societies has been inaugurated, by which, in return for our own issues, we have obtained a large number of publications of great value. In this manner we have received 144 volumes put forth by the *École des Hautes Études* (University of Paris), and as many as 1579 theses and other publications of other foreign institutions and societies. Among those to whom we are thus indebted are the following universities: Basle, Berlin, Berne,

Bonn, Breslau, Dorpat, Erlangen, Freiburg, Geneva, Giessen, Göttingen, Halle, Heidelberg, Innsbruck, Jena, Kiel, Königsberg, Leyden, Louvain, Lund, Marburg, Moscow, Nancy, Pisa, Prague, St. Petersburg, Strasburg, Upsala, Utrecht, Vienna, Würzburg and Zürich. Also the following Technische Hochschulen: Aachen, Braunschweig, Brünn, Karlsruhe, Darmstadt, Dresden, Gratz, Hanover, Munich, Stuttgart and Vienna. And the following societies: Académie des Inscriptions et Belles-Lettres of the Institut de France, Asiatic Society of Bengal, Royal Dublin Society, Stavanger Museum and Kgl. Gesellschaft der Wissenschaften zu Göttingen. A similar arrangement has been effected with institutions of our own country, and besides catalogues received from nearly all universities and colleges, we obtain special publications of the Catholic University of America, Chicago, Columbia, Cornell, Harvard, Johns Hopkins, Princeton, Leland Stanford Jr., Wisconsin and Yale Universities, Hartford Theological Seminary, the Peabody Museum, the Bureau of American Ethnology (Smithsonian Institution), University of Chicago Press, American Catholic Historical Society, American Jewish Historical Society, Kansas Historical Society, and the Office of the Minister of Justice of the Dominion of Canada.

The number of periodicals regularly received the past year was 643, of which 496 were deposited in the main Library building, and the remainder were distributed as follows: 24 in the Department of Law, 13 in the Laboratory of Hygiene, 21 in the Laboratory of Chemistry, 39 in the Biological Laboratory, 16 in the Laboratory of Mechanical Engineering, 14 in the School of Civil Engineering, 5 in the Flower Observatory, 12 in the School of Architecture, and 3 in the Seminary of English Literature.

Professor Warren P. Laird reports that the Library of the School of Architecture contains 184 bound volumes and 155 unbound volumes (inclusive of 7 loaned), 12 periodicals subscribed for, about 650 lantern slides, about 1800 photographs and blue prints, 387 mounted plates, about 10,000 unmounted plates from technical journals, 7 original drawings (inclusive of 3 loaned), 49 models and 86 casts.

Professor C. L. Doolittle reports that the Flower Observatory contains 235 bound volumes, 63 paper-bound volumes and 434 pamphlets and separate numbers of periodicals.

The cataloguing of books in the main Library has advanced more rapidly. During the past year 32,101 cards have been written, representing 13,179 works, in 18,081 volumes.

The number of professors and instructors who took books out of the main Library during the year was 140, of whom 110 were connected with the College, as against 101 and 89, respectively, during the previous year.

The number of students who took books out of the Library during 1896-97, as compared with those who took books out during 1895-96, is as follows:

Departments.	1895-96.	1896-97.	Increase.
College	496	617	121
Philosophy	83	185	102
Medicine	94	178	84
Auxiliary Department of Medicine,	4	16	12
Dentistry	15	53	38
Veterinary Medicine	12	20	8
Law	7	28	21
Total	711	1097	386

Besides the usual large use of books and current periodicals deposited in the reading-room and alcoves, and (by professors and privileged students) in the stack, of which no account is taken, the following number (distributed by subjects) have been taken out of the stack for use in the reading-room and elsewhere:

Subject.	Used in Reading-room.	Taken Out.	Total.
Periodicals and General Works . . .	547	332	879
Philosophy	450	578	1,028
Religion	466	467	933
Sociology	1,839	1,550	3,389
Philology	392	481	873
Science	574	577	1,151
Useful Arts	284	252	536
Medicine	363	273	636
Fine Arts	306	235	541
Literature	1,759	3,783	5,542
History	2,511	2,174	4,685
Total	9,491	10,702	20,193

The smaller use of books on some of these subjects is accounted for partly by the existence of departmental and seminary libraries, and partly from the lack of recent publications, through want of funds to purchase them.

The main Library is kept open, as heretofore, while the University is in session, from 8.30 A. M. to 6 P. M., and from 9 A. M. to 5 P. M. the rest of the year.

Respectfully submitted,

GREGORY B. KEEN,
Librarian.

APPENDIX XIX.

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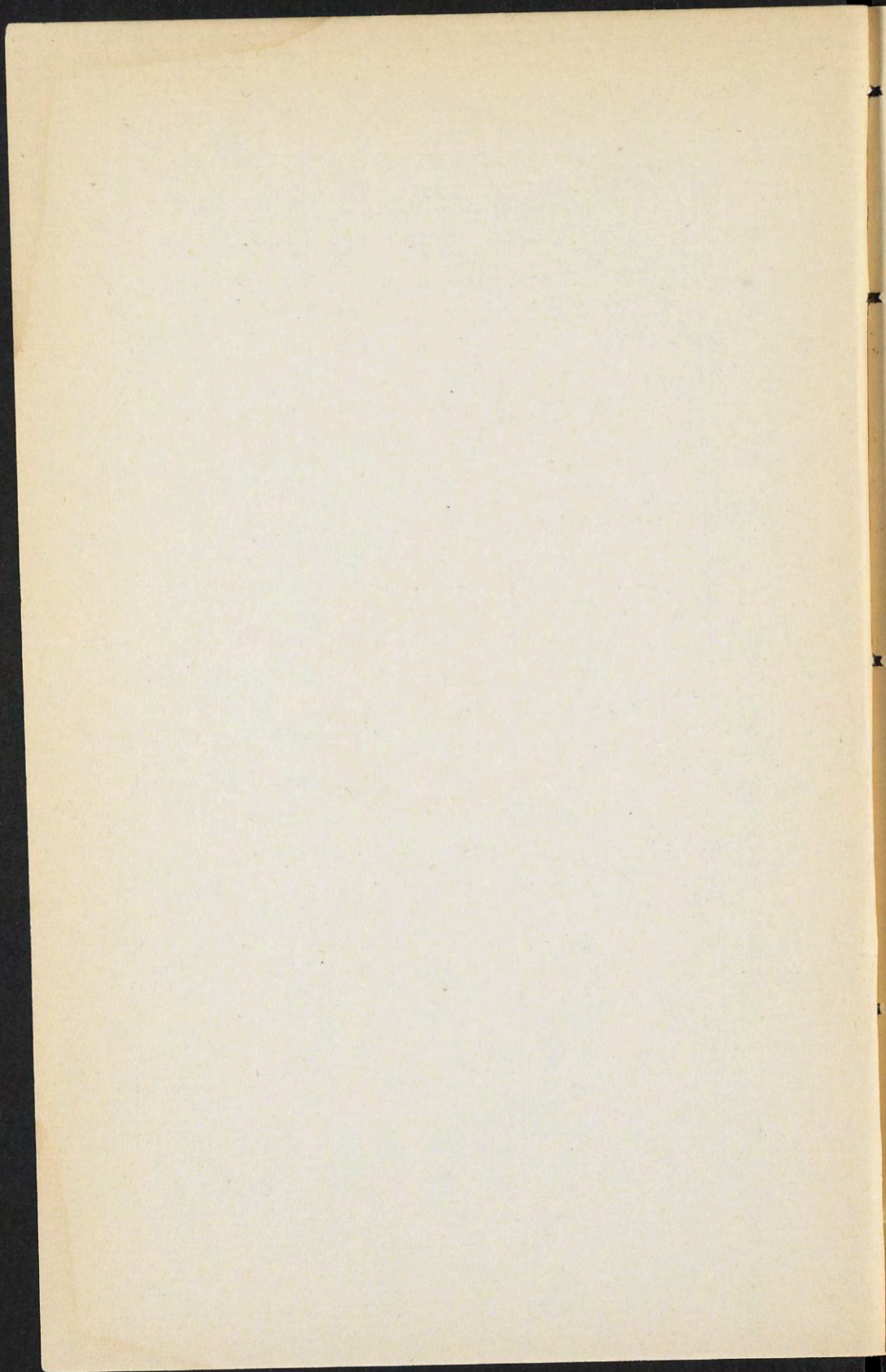
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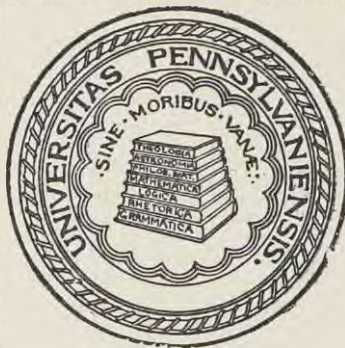
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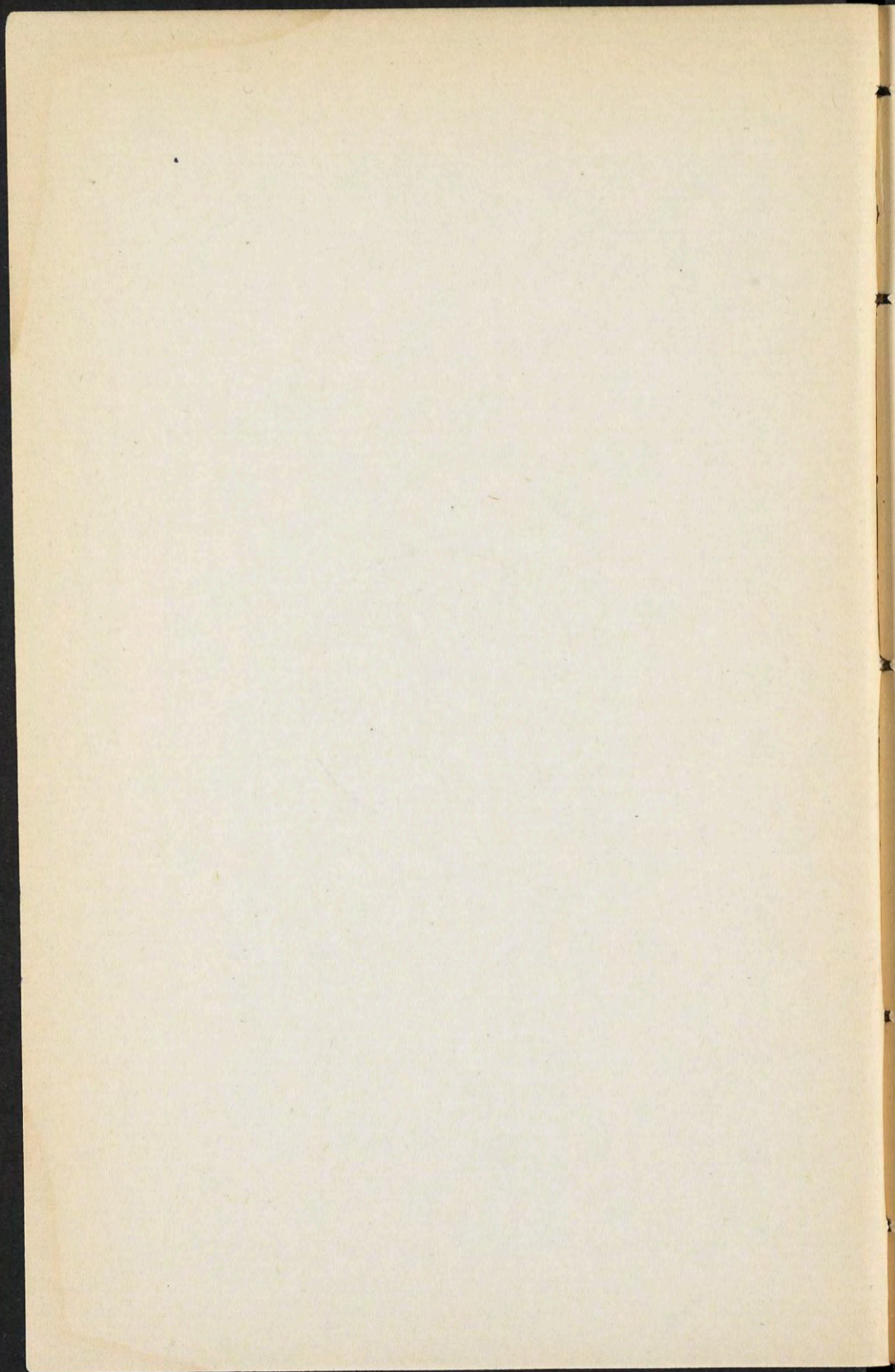
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TREASURER'S REPORT.



August 31, 1897.



APPENDIX XX.

REPORT OF THE TREASURER OF THE UNIVERSITY OF PENNSYLVANIA.

THE PROPERTY OF THE UNIVERSITY OF PENNSYLVANIA
(part of it being held in trust and part in fee) is composed as follows,
viz.:

I. Real Estate.....		\$3,573,028 06
II. Libraries, Museums, Apparatus, Furniture and Perpetual Insurance.....		514,392 05
III. Securities:		
Railroad and Corporation Bonds...\$874,748 17		
Stocks	129,102 00	
		1,003,850 17
IV. Mortgages:		
On property in Philadelphia and vicinity	\$382,903 33	
Coupon, on property in Chicago and Western cities.....	524,500 00	
		907,403 33
V. Ground Rents, Philadelphia and vicinity		120,620 20
VI. Cash Balances in various Trust Companies:		
	Income. Principal.	
Trusts	\$155,073 65 \$33,390 98	
Administration	1,512 34	
Hospital	11,309 31 2,543 39	203,829 67
		\$6,324,123 48

THE OBLIGATIONS.

Current Loans and Bills Payable.....		\$201,414 06
Obligations of the General Fund, etc.....		137,878 70
Bonds on Central Light and Heat Plant, etc.		67,400 00
Mortgage on 3451 Woodland Avenue.....	5,500 00	
		\$412,192 76

REAL ESTATE.

IN WEST PHILADELPHIA.

Plot of ground between Thirty-fourth and Thirty-sixth Streets, Spruce Street and Woodland Avenue, with College Buildings and Medical Hall.....	\$643,799 27
Medical Laboratory.....	69,414 15
Plot of ground between Thirty-sixth, Spruce, Woodland Avenue, Woodland Cemetery and Guardian Street, known as the Scholarship Purchase.....	250,000 00
Library Building.....	209,142 08
Veterinary Building.....	40,358 56
Biological Building.....	36,844 98
Plot of ground between Connecting Railroad and Thirty-fourth Street, known as Almshouse Purchase.....	250,000 00
Armory Lot, Thirty-third and Master Streets.....	12,764 46
Plot of ground between Thirty-sixth and Spruce Streets, Woodland Avenue and Police Station.....	20,000 00
John Harrison Laboratory of Chemistry.....	113,607 82
Henry Howard Houston Hall.....	134,544 57
Dormitory Building, paid to August 31, 1897.....	331,573 91
Central Light and Heat Station.....	186,050 83
Hygiene Building.....	50,000 00
Dog Hospital, Veterinary Department.....	11,771 30
Building Nos. 3348 and 3350 Walnut Street (Bennett Hall).....	17,500 00
Building No. 3451 Woodland Avenue.....	5,500 00
New Dental Building, paid to August 31, 1897.....	61,657 60
New Dining Hall, paid to August 31, 1897.....	14,799 58
Hospital Lot, Thirty-fourth to Thirty-sixth and Spruce to Pine Street.....	125,000 00
Hospital Building.....	243,743 92
Gibson Wing.....	65,000 00
Nurses' Home.....	20,000 00
Mortuary Building.....	11,000 00
Maternity Building.....	29,000 00
Agnew Memorial Pavilion, paid to August 31, 1897.....	166,645 57
William Pepper Clinical Laboratory Building.....	25,000 00
Museum of Arts and Science, paid to August 31, 1897....	37,340 50

IN FIRST WARD.

Twenty-three and one-half acres on Delaware River....	100,000 00
Two and eighty-seven one-hundredths acres on Moore Street.....	20,000 00

Treasurer's Report.

201

IN FIFTH WARD.

Building No. 131 South Fifth Street.....	\$17,000 00
Dwelling No. 224 Stampers Street.....	1,800 00

IN SIXTH WARD.

Store No. 58 North Fourth Street.....	20,000 00
Store No. 62 North Fourth Street.....	18,800 00
Store No. 64 North Fourth Street.....	14,600 00
Store No. 66 North Fourth Street.....	20,000 00
Academy Building, No. 60 North Fourth Street.....	30,000 00
Charity School Building, No. 66 North Fourth Street....	6,000 00
Stores Nos. 29 and 31 North Seventh Street.....	20,980 00

IN ELEVENTH WARD.

Store No. 549 North Second Street.....	9,000 00
Stores Nos. 429 and 431 North Second Street.....	7,239 76

IN TWENTY-NINTH WARD.

Dwelling No. 3011 Girard Avenue.....	5,300 00
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IN DELAWARE COUNTY, PENNA.

Reese Wall Flower Farm.....	30,000 00
“ “ “ Observatory	12,796 84
“ “ “ Professor's Residence and Library..	11,808 25

IN SEA ISLE CITY, N. J.

Marine Biological Laboratory and Grounds.....	7,525 98
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IN ELK AND MCKEAN COUNTIES, PENNA.

About seven hundred acres.....	5,054 71
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MANCHESTER-BY-THE-SEA, MASS.

About seventy-five acres.....	33,063 42
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Total Real Estate.....	<u>\$3,573,028 06</u>
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LIBRARIES, MUSEUMS, APPARATUS, FURNITURE
AND PERPETUAL INSURANCE.

University Libraries.....	\$123,500 00
College Apparatus.....	50,000 00
Museum of Archæology and Paleontology.....	97,000 00
Wistar and Horner Museum.....	40,000 00
Dr. George B. Wood Museum.....	25,000 00
Museum of Biology.....	5,000 00
Laboratory of Hygiene.....	19,874 28
J. H. Towne Collection of American Fossils.....	4,975 00
Flower Observatory.....	24,098 78

Furniture:

Medical Hall.....	10,302 90
Medical Hall Ventilating Apparatus.....	24,086 90
Veterinary Building.....	3,867 38
Hospital	15,511 43
Biological Department.....	883 22
Library Building.....	10,511 62
College Building.....	7,500 00
Houston Hall.....	22,891 21
Dormitory	6,747 91
Dining Hall.....	522 42

Perpetual Insurance:

On College Buildings and Medical Hall.....	9,651 50
“ Veterinary Building and Dog Hospital.....	870 00
“ Hospital	4,747 50
“ Gibson Wing.....	825 00
“ Biological Building.....	285 00
“ Central Light and Heat Station.....	1,000 00
“ Hygiene Building.....	875 00
“ Chemical Laboratory.....	1,300 00
“ Dental Building.....	2,565 00

\$514,392 05

SECURITIES.

RAILROAD AND CORPORATION BONDS.

5,000	Chicago Gas Light & Coke Co., 1937.....	\$5,000 00
21,000	Philadelphia & Reading R. R. Gen. Mtg. 4's.....	21,000 00
3,000	“ “ “ Car Trust, “C”.....	3,000 00
47,000	“ “ “ Car Trust, “D”.....	47,000 00
3,000	“ “ “ Cons. 7's, 1911.....	3,000 00
25,000	“ “ “ Cons. 4's, 1937.....	25,000 00
12,000	Elmira & Williamsport R. R. Co. 5's.....	12,000 00
2,000	Pennsylvania R. R. Co. Cons. Mtg., 1905, reg.....	1,924 00
1,000	Susquehanna Coal Co. 6's, 1911.....	1,000 00
5,000	Union Pacific R. R. 6 per cent Bonds, June, 1896...	5,000 00
5,000	Pittsburg, Cincinnati & St. Louis R. R. 7's, 1900...	5,000 00
25,000	Toledo, Ohio, Electric St. Ry. Co. 5's.....	25,000 00
32,000	Duluth St. Ry. Co. 5's, 1920.....	32,000 00
5,000	Metropolitan St. Ry., Kansas City, Mo., 5's, 1909..	4,894 17
30,000	Evansville & Terre Haute R. R. Co. 1st Mtg. 5's, 1942	30,600 00
17,000	Bethlehem Iron Co. 1st Mtg. 5's.....	17,000 00
5,000	Erie & Western Transportation Co. 5's.....	5,000 00
55,000	International Navigation Co. 6's, 1906.....	55,000 00
13,000	Norfolk & Western R. R. Co. 6's, 1932.....	13,000 00
50,000	Atlanta Gas Light Co. 5's, gold, 50-year.....	48,750 00
2,000	Catawissa R. R. Co. extended 6's.....	2,000 00
101,000	San Antonio & Aransas Pass R. R. Reorg. Cfts....	60,000 00
5,000	Bloomsburg & Sullivan R. R. 1st Mtg. 5's, 1920....	5,000 00
1,000	Millville Manufacturing Co. 7's.....	1,000 00
2,500	County of St. Louis, Minn., 6's, 1907.....	2,500 00
2,500	Wilmington, Columbia & Augusta R. R. 6's, 1910..	2,500 00
10,000	Lehigh Navigation Co. gold 6's, 1897.....	10,000 00
1,350	Lehigh Coal & Navigation Co. 4½'s.....	1,471 50
5,000	Columbus & Indianapolis Central R. R. 2d Mtg. 7's	5,000 00
13,000	Wabash R. R. Co. 2d Mtg. 50-year gold Bonds....	13,000 00
2,000	Saltzburg Coal Co. Gen. Mtg. 6's, 1914.....	2,000 00
3,000	Pittsburg, Shenango & Lake Erie R. R. 1st Mtg. gold 5's, 1940.....	3,000 00
5,000	Fairmount Coal & Coke Co. 1st Mtg. 4's, 1919....	5,000 00
150,000	Philadelphia & Reading Coal & Iron Co. 5's, 10-year gold Certified Indebtedness.....	152,500 00
22,000	City of Galveston, Texas, 5 per cent 40-year Lim- ited Debt Bond, 1954.....	22,000 00

University of Pennsylvania.

500 Philadelphia Country Club 1st Mtg. 5's, 1940.....	\$ 500 00
18,000 Buffalo & Susquehanna R. R. 1st Mtg. 5's, 1913....	17,910 00
21,000 Second Ave. Traction Co. (Pittsburg, Pa.) 1st Mtg. 5's, 1934.....	21,000 00
15,000 Chicago & Erie R. R. Co. 1st Mtg. 5's.....	16,575 00
2,000 Brooklyn, N. Y., Union Gas Co. Cons. 1st Mtg. 5's.	2,000 00
40,000 Lehigh Valley R. R. Car Trust 5's.....	40,000 00
30,000 Central Light & Heat Station Bonds.....	30,000 00
30,000 Lehigh Valley Coal Co. 1st Mtg. 5's.....	29,850 00
25,000 St. Louis (Mo.) Merchants' Bridge Co. 1st Mtg. 6's, 1929.....	25,000 00
10,000 Sunbury, Hazleton & Wilkesbarre R. R. Co. 1st Mtg. 5's, 1928.....	9,380 00
400 Sunbury, Hazleton & Wilkesbarre R. R. Co. 2d Mtg. 6's, 1928.....	393 50
25,000 St. Louis Terminal Cupples Station Property Bonds	25,000 00
10,000 Oregon & Pacific R. R.....	10,000 00
	<hr/>
	\$874,748 17

STOCKS.

16 shares Lehigh Valley R. R. pfd.....	\$800 00
120 " Wm. Cramp & Sons' Ship and Engine Building Co	6,000 00
55 " Norfolk & Western R. R.....	5,330 00
Norfolk & Western Assessment.....	220 00
507 " Lehigh Valley R. R. Co.....	15,690 00
5 " American Dredging Co.....	500 00
10 " Lehigh Coal & Navigation Co.....	500 00
500 " Delaware & Bound Brook R. R. Co.....	75,000 00
15 " Wilmington, Columbia & Augusta R. R.....	1,500 00
242 " Pennsylvania R. R. Co.....	12,766 00
27 " Brooklyn Union Gas Co. pfd.....	2,160 00
238 " Philadelphia & Reading R. R. 2d pfd.....	2,856 00
578 " Philadelphia & Reading R. R. com.....	5,780 00
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	\$129,102 00

MORTGAGES,

PROPERTY IN PHILADELPHIA AND VICINITY.

No. 2449 Nicholas Street.....	\$1,600 00
No. 707 Lydia Street.....	700 00
Nos. 752 and 754 South Eighth Street.....	4,000 00
Walnut Street, east of Sixth Street.....	13,333 33
Wallace Street, west of Nineteenth Street.....	6,000 00
Lancaster Avenue and Rockland Street.....	2,750 00
Cheltenham, Montgomery County, Penna.....	10,000 00
Gray's Ferry Road and Thirtieth Street.....	2,000 00
Cheltenham, Montgomery County, Penna.....	3,000 00
Jenkintown, Montgomery County, Penna.....	4,320 00
No. 2131 Park Avenue.....	4,000 00
No. 2133 Park Avenue.....	4,000 00
Tenth and Auburn Streets.....	9,000 00
Twenty-first Street and Washington Avenue.....	35,000 00
No. 4044 Powelton Avenue.....	3,000 00
Nos. 2262, 2318 and 2320 North Front Street.....	8,000 00
Northeast corner Thirty-fourth Street and Woodland Ave.	5,000 00
No. 1343 Mount Vernon Street.....	2,700 00
No. 825 North Forty-first Street.....	4,000 00
Camden, N. J.....	10,000 00
No. 2977 Frankford Avenue.....	4,000 00
No. 2987 Frankford Avenue.....	4,000 00
Thirty-fifth Ward, Philadelphia.....	70,000 00
No. 1730 Pine Street.....	10,000 00
No. 1806 De Lancey Place.....	12,000 00
Glenwood Avenue and Sixth Street.....	28,500 00
Glenloch, Chester County, Penna.....	38,000 00
Sixty-second Street and Woodland Avenue.....	70,000 00
City Line Station and Washington Lane.....	14,000 00
	\$382,903 33

COUPON MORTGAGES ON REAL ESTATE.

Chicago, Illinois	\$20,000 00
“ “	8,500 00
“ “	8,500 00
“ “	7,500 00
“ “	50,000 00

Chicago, Illinois.....	\$30,000 00
“ “	8,000 00
“ “	2,500 00
“ “	8,500 00
“ “	10,000 00
“ “	25,000 00
“ “	25,000 00
“ “	50,000 00
“ “	10,000 00
“ “	27,500 00
“ “	6,000 00
“ “	6,500 00
“ “	20,000 00
“ “	10,000 00
“ “	6,000 00
“ “	6,000 00
“ “	12,000 00
“ “	10,000 00
“ “	6,000 00
“ “	2,500 00
“ “	2,500 00
Dallas, Texas.....	25,000 00
Kansas City, Mo.....	20,000 00
“ “ “	25,000 00
Olympia, Washington.....	6,000 00
Lincoln, Nebraska.....	30,000 00
Des Moines, Iowa.....	35,000 00
Duluth, Minnesota.....	5,000 00
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	\$524,500 00

GROUND RENTS IN PHILADELPHIA.

29 North Sixth Street.....	\$2,500 00
533 North Second Street.....	426 67
535 North Second Street.....	426 67
537 North Second Street.....	426 67
Green and New Market Streets.....	111 11
Moore and Otsego Streets.....	3,750 00
Moore and Otsego Streets.....	3,000 00
Twenty-second and Oakford Streets, 16 at \$800 each.....	12,800 00
Stiles Street, east of Nineteenth Street.....	900 00
Gray's Ferry Road.....	47,649 58
“ “ “	1,050 00
“ “ “	12,950 00
“ “ “	9,719 00

Treasurer's Report.

207

Gray's Ferry Road.....	\$18,000 00
" " "	800 00
429 North Second Street.....	2,400 00
110 Spruce Street.....	1,866 67
13 and 15 Parkham Street.....	400 00
618 South Seventh Street.....	444 50
128 North Water Street.....	1,133 33
Lebanon, Penna.....	66 00
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	\$120,620 20

THE VARIOUS TRUSTS HELD BY THE UNIVERSITY ARE INVESTED IN THE REAL ESTATE AND SECURITIES ENUMERATED IN THIS REPORT, AND THE INCOME APPLIED IN ACCORDANCE WITH THE DIRECTIONS OF THE DIFFERENT TRUSTS.

The following is a list of the same:

Endowment Funds.	Amount Uninvested.	Amount Invested.
General Fund.....		\$2,013,554 85
J. Herman Raht.....		250 00
Phi Kappa Sigma.....		400 00
Keble Fund.....		13,614 41
Elliott Cresson Fund.....	\$1 63	6,700 00
Tobias Wagner.....		5,300 00
Bloomfield Moore.....		15,000 00
Thomas A. Scott.....		50,000 00
J. H. Towne Estate.....	137 40	418,190 63
J. H. Towne Collection of Fossils.....	25 25	4,975 00
John Welsh.....	22 24	51,775 00
A. Whitney.....	43 93	51,394 00
Scholarship Fund.....	48 96	19,400 00
A. Seybert.....	4,299 29	98,770 00
Dr. George D. Boardman.....	15 15	
Alumni Hall.....	592 16	
H. Tyndale Scholarship.....	149 20	11,543 50
S. W. Roberts.....	63 95	1,050 00
Wharton School.....	11 11	157,190 00
Assyrian Fellowship.....	186 95	
Pepper Professorship of Hygiene.....	5,665 76	88,175 00
J. Rhea Barton.....	20 20	60,080 00
J. Gillingham Fell.....		1,100 00
Auxiliary Faculty of Medicine.....	7 07	36,269 00
Leidy Chair of Anatomy.....	3 12	2,180 00
Botanic Garden.....	2 96	5,207 44
Department of Biology.....	10 10	47,013 20
I. V. Williamson.....		47,500 00
George S. Pepper Residuary Legatee.....	580 75	4,925 00
Francis S. Pepper Scholarship.....		7,500 00
Chair of Pedagogy.....		250 00
John C. Ropes Prize Fund.....		250 00
Henry Reed Prize Fund.....	42 54	700 00

Treasurer's Report.

209

Endowment Funds.	Amount Uninvested.	Amount Invested.
Latin Prize.....	\$25 45	\$1,000 00
Oratory Prize.....	10 66	350 00
English Composition Prize.....		200 00
J. Warner Yardley Prize.....		500 00
Class of 1880 Prize Fund.....		1,000 00
Allen Memorial Prize Fund.....		1,000 00
Prize Fund, Law School.....		1,000 00
Rev. C. P. Krauth Library.....	86 59	1,570 00
Agricultural Library.....		500 00
Pepper Medical Library.....	511 88	7,700 00
Tobias Wagner Library.....	219 09	15,449 17
J. B. Lippincott Library.....	55 73	7,000 00
Isaac Norris Library.....	403 65	5,000 00
Reese Wall Flower.....	371 72	117,563 87
Department of Applied Organic Chemistry.		72,215 81
John Harrison Laboratory of Chemistry...	67 41	42,714 01
Veterinary Fund.....		64,945 94
J. M. Bennett Endowment for Women....	1 01	17,500 00
Howard Houston Hall.....	2 00	160,435 78
Houston Hall Endowment.....		500 00
Dormitory Building.....	264 88	370,799 04
New Dining Hall.....		14,951 53
Dental Building.....	231 77	117,610 59
Wistar and Horner Museum.....	109 75	40,000 00
Department of Law.....	34 61	7,700 00
John F. Frazier.....	42 06	6,290 00
Department of Hygiene.....	114 28	188,859 28
Thomas A. Scott Fellowship.....		10,000 00
J. M. Bennett Endowment, Graduate De- partment of Women.....		15,000 00
A. S. Biddle, Law Department.....		22,000 00
Eckley B. Coxe, Jr.....		5,000 00
Simon Muhr Scholarship.....	25 25	13,500 00
George L. Harrison Foundation.....	19,445 12	494,252 35
John Stewardson Memorial.....	5,077 02	6,000 00
'87's House Dormitory.....	415 50	2,000 00
Sinking Fund, Central L. and H. Sta.....	1,423 49	
Hospital General Fund.....		774,843 53
Hahn Ward.....	39 75	55,689 75
Alumni Ward.....	25 25	10,025 25
Mrs. G. W. Norris.....		10,000 00
Bement Fund.....		5,000 00
Ward for Chronic Diseases.....	4 55	186,149 55
I. V. Williamson Hospital Fund.....		47,500 00

University of Pennsylvania.

Endowment Funds.	Amount Uninvested.	Amount Invested.
Children's Ward.....	\$7 07	\$32 07
Henry Seybert.....		60,317 31
George S. Pepper.....		69,533 77
Recto-Genito-Urinary Diseases.....	40 39	4,100 39
Anna M. Powers Bed Fund.....		6,000 00
Mary W. Eskens Bed Fund.....		5,000 00
Harriet Porter Bed Fund.....		3,000 00
Dr. D. Hayes Agnew Hospital.....	16 40	171,667 97
Dr. D. Hayes Agnew Bequest for Care of Sick Children.....		50,000 00
Dr. D. Hayes Agnew Bequest to Mater- nity Hospital.....	100 44	1,100 44
Molton H. Forrest Bed Fund.....	300 50	300 50
Trusts not for Investment.		
	Amount Unexpended.	Amount Expended.
Hovenden Students' Aid.....	\$8 20	
Mrs. E. W. Harrison Fund for Improve- ment of Grounds.....	3 97	\$1,230 44
Mrs. E. W. Harrison Fund for Collec- tion of Casts.....	206 02	
Department of Architecture Traveling Scholarship	2,531 34	
Franklin Field Improvement.....	666 67	234 25
Department of Civil Engineering, Equip- ment	1,941 49	
Department of Architecture, Lecture Course	6 57	315 05
State Appropriation for Advanced Work...		113,561 82
Department of Archæology and Paleon- tology	134,695 80	29,826 23
Auxiliary Faculty of Medicine Fees.....	27 89	
School of Architecture Equipment.....	2,156 76	350 00
University Publication.....	1,201 14	686 13
Professorship of Assyriology.....	375 62	375 00
W. W. Frazier Special Library.....	2,500 00	
Primary Election Inquiry.....	105 77	4 50
Lecture Course, State of Pennsylvania....	1,001 39	
B. B. Comegys Prize Fund.....		50 00
Architecture Library.....	7 75	
Library Special Appropriation.....	49 58	
Comegys Library Fund.....	110 03	

TRUST ACCOUNT.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1896, TO
AUGUST 31, 1897.

Balance, August 31, 1896.....	\$37,163	
Receipts:		
Income from Invested Funds (Table A)...	78,092	71
Donations for Endowment (Table B).....	385,994	16
Donations for Trusts not for Investment (Table C).....	139,691	70
Securities Sold and Redeemed.....	131,674	44
Loan to Dental Building Fund.....	102,823	60
Advances to Trusts by Administration....	94,213	98
From Hospital Department, on account Sinking Fund, Central Light and Heat Station	1,130	50
		\$970,784
		51
Expenditures:		
Investments made	\$351,085	44
Buildings and Grounds (Table E).....	328,032	03
Sundries in Trusts (Table F).....	7,678	13
Taxes on Investments.....	2,119	48
Transfer of Income Funds to Administra- tion	71,810	54
Transfer of Trusts not for Investment to Administration	5,674	45
Advances to Trusts repaid to Administra- tion	15,919	81
		782,319
		88
Balance deposited in Bank August 31, 1897.		\$188,464
		63

TRUST ACCOUNT.

RECEIPTS OF INCOME FROM INVESTMENTS.

Table A.

Invested Funds:

General	\$400 55
A. Whitney	2,426 19
J. H. Towne Estate.....	12,541 30
John F. Frazier.....	249 17
Keble	990 64
John Welsh.....	2,015 89
Scholarship	822 88
Joseph Leidy.....	47 43
I. V. Williamson.....	2,906 95
S. W. Roberts.....	28 63
Tyndale Scholarship.....	681 73
Wharton School.....	7,683 11
Thomas A. Scott.....	2,750 00
Adam Seybert.....	1,771 67
Elliott Cresson.....	298 31
Oratory Prize.....	19 70
English Composition Prize.....	11 21
Latin Prize.....	56 28
Henry Reed Prize.....	39 64
J. W. Yardley.....	28 02
Simon Muhr Scholarship.....	401 89
Class '80 Prize.....	50 00
Phi Kappa Sigma Prize.....	8 00
P. P. Morris Prize.....	41 66
John C. Ropes Prize.....	14 00
Allen Memorial Prize.....	52 50
Tobias Wagner.....	106 00
J. Rhea Barton.....	2,377 10
J. Gillingham Fell.....	1 00
Department of Hygiene.....	6,123 63
George S. Pepper Professorship of Hygiene.....	4,868 54
Thomas A. Scott Fellowship.....	335 30
J. M. Bennett.....	840 00
Bloomfield Moore.....	712 76
F. S. Pepper Scholarship.....	377 50
Department of Law.....	154 34
A. Sydney Biddle.....	1,026 82
Isaac Norris Library.....	279 93
T. Wagner Library.....	453 76
Pepper Medical Library.....	387 69

Treasurer's Report.

213

J. B. Lippincott Library.....	\$384 90
C. P. Krauth Library.....	57 63
J. H. Raht Library.....	5 00
Agricultural Library.....	20 00
Special Library.....	15 22
A. Seybert Library.....	22
B. B. Comegys Library.....	1 40
Pott Library.....	05
Architecture Library.....	14
Reese Wall Flower Estate.....	2,026 86
Auxiliary Faculty of Medicine.....	1,122 43
G. S. Pepper Residuary Legatee.....	255 75
George L. Harrison Foundation.....	17,338 87
Botanic Garden.....	90 03
Dormitory Building.....	1,184 00
Department of Biology.....	30 10
Chair of Pedagogy.....	14 02
Endowment, Houston Hall.....	28 02
Eckley B. Coxe, Jr.....	190 00
Wistar and Horner Museum.....	1 08
Auxiliary Faculty of Medicine Fees.....	27
Department of Archæology and Paleontology.....	211 09
Sinking Fund.....	3 25
Dental Building.....	48 76
Veterinary Building.....	176 57
Towne Fossils.....	25
John Stewardson Memorial.....	27 02
Bennett Hall.....	01
G. D. Boardman.....	15

Income from Trusts not for Investment:

Hovenden Students' Aid.....	8 47
State Appropriation.....	349 21
Architecture Traveling Scholarship.....	77 03
Primary Election Inquiry.....	27
Architecture Equipment.....	6 76
University Publication.....	4 82
Professorship of Assyriology.....	62
Civil Engineering Equipment.....	9 32
Franklin Field Improvement.....	8 92
Architecture Lecture Course.....	1 27
Mrs. E. W. Harrison Fund for Collection of Casts.....	5 85
Mrs. E. W. Harrison Fund for Improvement of Grounds	3 97
Lecture Course, State of Pennsylvania.....	1 39

Total\$78,092 71

TRUST ACCOUNT.

DONATIONS FOR ENDOWMENT.

Table B.

George L. Harrison Foundation.....	\$220,000 00
Dormitory Building Fund.....	35,500 00
Dormitory Furnishing Fund.....	27 00
Franklin Field Improvement.....	135 00
Dental Building.....	15,000 00
Department of Archæology and Paleontology.....	99,366 66
W. W. Frazier Special Library.....	2,500 00
John Stewardson Memorial.....	11,050 00
'87's House Dormitory.....	2,415 50
Total	<u>\$385,994 16</u>

TRUST ACCOUNT.

DONATIONS FOR TRUSTS NOT FOR INVESTMENT.

Table C.

Architecture Traveling Scholarship.....	\$2,500 00
Architecture Lecture Course.....	325 00
Architecture Collection of Casts.....	60 00
Professor of Semitic Department.....	100 00
Maintenance of Babylonian Museum.....	437 50
Publication Fund, College Department.....	632 48
State of Pennsylvania, for Advanced Work.....	125,000 00
Department of Architecture.....	250 00
Department of Architecture, Equipment.....	2,500 00
University Publication.....	1,882 45
Primary Election Inquiry.....	110 00
Professor of Assyriology.....	1,562 50
Lecture Course, State of Pennsylvania.....	1,000 00
Comegys Prize Fund.....	100 00
Comegys Library Fund.....	50 00
Mrs. E. W. Harrison Fund for Improvement of Grounds..	1,028 39
Veterinary Department Special Fund.....	500 00
Alumni Prize Fund.....	47 00
Class '80 Prize Fund.....	50 00
E. Delano Prize Fund.....	50 00
Inquiry into the Social Condition of the Colored People...	506 38
Civil Engineering Equipment.....	1,000 00
Total	<u>\$139,691 70</u>

TRUST ACCOUNT.

EXPENDITURES FOR BUILDINGS, GROUNDS, ETC.

Dormitory	\$111,542 33
Houston Hall.....	1,069 68
Flower Observatory.....	26,840 50
Central Station.....	13,427 31
Dining Hall.....	6,575 22
Dental Building.....	115,110 59
Library	11,507 16
Franklin Field.....	855 30
Grounds	3,763 44
Museum Arts and Science.....	37,340 50
Total	\$328,032 03

TRUST ACCOUNT.

SUNDRY EXPENDITURES.

Veterinary Fund, Interest on Loan.....	\$519 98
Veterinary Department, Special Fund.....	150 00
University Publication Fund.....	586 13
Architecture Lecture Course.....	312 61
Architecture Equipment.....	350 00
Primary Election Inquiry.....	4 50
Houston Hall Expenses.....	4,000 00
Bennett Endowment, Graduate Department Women.....	50 00
F. S. Pepper Scholarship.....	25 00
Alumni Prize.....	101 00
Allen Memorial Prize.....	50 00
A. J. Drexel Prize.....	50 00
Phi Kappa Sigma Prize.....	16 00
H. Reed Prize.....	24 00
English Composition Prize.....	8 00
P. P. Morris Prize.....	50 00
Publication Fund, College.....	716 42
Architecture Collection of Casts.....	97 68
Miscellaneous	316 81
Comegys Prize.....	50 00
Class '80 Prize.....	50 00
Eugene Delano Prize.....	50 00
Publication Fund, Babylonian Museum.....	100 00
Total	\$7,678 13

ADMINISTRATION ACCOUNT.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1896, TO
AUGUST 31, 1897.

Receipts:

Tuition Fees.....	\$321,697 10
Rents of Dormitories.....	24,210 67
Donations for Current Expenses.....	75,368 51
Income from Trust Investments.....	71,810 54
Trust Funds not for Investment, transferred	5,674 45
Loans on Collateral paid off.....	756 00
Bills Payable.....	23,000 00
Advances to Trusts repaid.....	15,919 81
Hospital Department, on account Current Expense Central Light and Heat Station	8,278 66
Interest on Balance in Bank.....	411 91
Returned Insurance Premium.....	73 75
Miscellaneous	296 16

Total Receipts..... \$622,341 56

Expenditures:

Salaries	\$331,141 11
Current Expense Accounts.....	130,719 63
Loan on Collateral.....	50,000 00
Interest	9,254 50
Bills Payable.....	5,500 00
Advances to Trusts.....	94,213 98

Total Expenditures..... 620,829 22

Balance, August 31, 1897..... \$1,512 34

ADMINISTRATION ACCOUNT.

DONATIONS FOR CURRENT EXPENSE.

Table D.

Department of Biology.....	\$75 00
Income, Veterinary School.....	4,000 00
Houston Hall.....	6,190 66
University	64,131 60
Library	971 25
Total	\$75,368 51

ANALYSIS OF ADMINISTRATION ACCOUNT.

FROM AUGUST 31, 1896, TO AUGUST 31, 1897.

		Surplus.	Deficit.
University:			
Inc. from Inv. Funds....	\$458 80		
Salaries and Current Exp.	45,009 10		
	<hr/>		\$44,550 30
College:			
Tuition Fees.....	\$83,878 52		
Inc. from Inv. Funds....	36,379 25		
	<hr/>	\$120,257 77	
Salaries and Current Exp.	178,723 79		
	<hr/>		58,466 02
Department of Medicine:			
Tuition Fees.....	\$132,324 50		
Inc. from Inv. Funds....	2,378 90		
	<hr/>	\$134,703 40	
Salaries and Current Exp.	101,960 67		
	<hr/>	\$32,742 73	
Department of Law:			
Tuition Fees.....	\$46,784 88		
Inc. from Inv. Funds....	1,218 32		
	<hr/>	\$48,003 20	
Salaries and Current Exp.	36,853 34		
	<hr/>		11,149 86
Department of Dentistry:			
Tuition Fees.....	\$45,397 15		
Salaries and Current Exp.	32,663 94		
	<hr/>		12,733 21
Department of Hygiene:			
Tuition Fees.....	\$135 00		
Inc. from Inv. Funds....	9,362 94		
	<hr/>	\$9,497 94	
Salaries and Current Exp.	7,363 61		
	<hr/>		2,134 33
Veterinary School:			
Tuition Fees.....	\$3,497 24		
Receipts from Donations.	4,000 00		
	<hr/>	\$7,497 24	
Salaries and Current Exp.	7,041 56		
	<hr/>		455 68
Veterinary Hospital:			
Receipts	\$7,179 81		
Receipts from State of Pa.	2,500 00		
	<hr/>	\$9,679 81	
Salaries and Current Exp.	7,926 10		
	<hr/>		1,753 71

		Surplus.	Deficit.
Library:			
Inc. from Inv. Funds....	\$6,664 68		
Salaries and Current Exp.	19,591 35		
	<hr/>		\$12,926 67
George L. Harrison Foundation:			
Inc. from Inv. Funds....	\$5,957 49		
Salaries	5,957 49		
	<hr/>		
Dormitories:			
Rents and Charges.....	\$24,210 67		
Salaries and Current Exp.,			
Dormitory	\$16,129 69		
Salaries and Current Exp.,			
Bennett Hall.....	2,640 10		
	<hr/>		
	18,769 79		
	<hr/>	\$5,440 88	

SYNOPSIS.

Deficits:			
University	\$44,550 30		
College	58,466 02		
Library	12,926 67		
	<hr/>		115,942 99
Surplus:			
Department of Medicine.....	\$32,742 73		
Department of Law.....	11,149 86		
Department of Dentistry.....	12,733 21		
Department of Hygiene.....	2,134 33		
Veterinary School.....	455 68		
Veterinary Hospital.....	1,753 71		
Dormitories	5,440 88		
	<hr/>		66,410 40
Net Deficit.....			<hr/>
		\$49,532 59	

HOSPITAL.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1896, TO
AUGUST 31, 1897.

Balance, August 31, 1896,		\$10,431 08
Receipts from Investments applicable to Hos- pital General Fund, including:		
Mary W. Eskins Bed Fund		
H. Ingersoll Bed Fund		
Mrs. J. F. Smith Bed Fund		
Susan Birney Bed Fund		
Anna M. Powers Bed Fund		
C. R. Galli Bed Fund		
H. C. Newbold Bed Fund		
W. Weightman, Jr., Bed Fund		
Mrs. H. W. Rawle Bed Fund		
E. P. Baugh Bed Fund		
Harriett Porter Bed Fund		
Murphy Free Bed Fund		
Elizabeth Porter Willard Bed Fund for De- formed Children.....	\$14,322 11	
Henry Seybert Fund.....	3,619 84	
Ward for Chronic Diseases Fund.....	6,123 40	
Recto-Genito-Urinary Diseases Fund.....	191 00	
Hahn Ward Fund.....	3,014 15	
Bement Fund.....	350 00	
Agnew Hospital Fund.....	943 33	
Agnew Bequest Fund.....	1,702 50	
Alumni Ward Fund.....	600 00	
I. V. Williamson Fund.....	2,375 75	
Mrs. G. W. Norris Fund.....	432 62	
Children's Ward Fund.....	50	
G. S. Pepper Fund.....	2,031 87	
Patients' Board.....	28,146 25	
Interest on Deposits.....	177 66	
State of Penna., Maintenance of Hospital...	25,104 58	
State of Penna., Maintenance of Maternity Hospital	2,789 40	
		\$91,924 96
Donations for Current Expense:		
A. M. Powers Bed Fund, No. 2, per Mary Powers Harris.....	\$300 00	
Moulton H. Forrest Bed Fund.....	300 00	
Deformed Children's Annual Bed Funds...	5,000 00	
General Bed Funds.....	1,948 96	
		7,548 96

Donations for Endowment:

Agnew Professors' Furnishing Fund.....	\$8,222 00	
Nurses' Home.....	250 00	
Agnew Room.....	400 00	
Maintenance Maternity Hospital.....	200 00	
Estate of Sarah Marshall Bed Funds.....	15,200 00	
Estate of Mary M. Johnson Bed Funds.....	7,000 00	
		<u>\$31,272 00</u>

Total Receipts..... \$141,177 00

Total Receipts\$141,177 00

Total Expenditures 127,324 30

Balance \$13,852 70

HOSPITAL.

RECEIPTS AND EXPENDITURES FROM AUGUST 31, 1896, TO
AUGUST 31, 1897.

Expenditures:

Current Expense, Hospital.....	\$72,461 19
Maintenance Maternity Hospital.....	1,944 87
Buildings, Agnew Hospital.....	14,527 41
Interest on Bonds.....	805 00
Bonds paid off.....	2,000 00
Central Light and Heat Station.....	9,409 16
Amount returned, account Agnew Room and Nurses' Home	1,050 00
Legal Expenses.....	200 00
Investments	22,849 81
Insurance and Taxes on Investments.....	2,076 86

Total Expenditures.....\$127,324 30

DONATIONS TO THE UNIVERSITY.

From August 31, 1896, to August 31, 1897.

ARCHITECTURE—DEPARTMENT OF.

Merrick, J. Vaughan \$250 00

ARCHITECTURE—COLLECTION OF CASTS.

Biddle, Mrs. Alexander	\$25 00	
Ellison, Mrs. Rodman B.	10 00	
Hart, Miss Mary A.	25 00	
	<u> </u>	60 00

ARCHITECTURE—EQUIPMENT FUND.

Bodine, Samuel T.	\$500 00	
Borie, Beauveau	500 00	
Burk Brothers	500 00	
Coxe, Eckley B., Jr.	500 00	
Harris, Joseph S.	500 00	
	<u> </u>	2,500 00

ARCHITECTURE—LECTURE COURSE.

Fitler, Mrs. Josephine R.	\$50 00	
Harrison, Mrs. C. C.	250 00	
Rosengarten, Miss Fanny	25 00	
	<u> </u>	325 00

ARCHITECTURE—TRAVELING SCHOLARSHIP.

Architecture Traveling Scholarship Fund,		
E. Delano, Treasurer	\$2,000 00	
Burk, Henry	500 00	
	<u> </u>	2,500 00

BIOLOGY—DEPARTMENT OF.

Board of Education, City of Philadelphia 75 00

CIVIL ENGINEERING—EQUIPMENT FUND.

Prevost, S. M.	\$500 00	
Pugh, Charles E.	500 00	
	<u> </u>	1000 00

DENTAL BUILDING FUND.

Harrison, Alfred C. 15,000 00

DONATIONS TO THE UNIVERSITY.

DORMITORY BUILDING FUND.

Brill, J. G., Co.	\$500 00	
Cash (W. W. F.)	10,000 00	
Este, Charles	500 00	
Disston, Horace C.	250 00	
Frazier, George H.	250 00	
Foerderer, Robert H.	5,000 00	
Harris, Joseph S.	1,000 00	
Ivins, William	500 00	
McKean, Thomas	12,500 00	
Pardee, C.	1,000 00	
Pepper, John W.	500 00	
Roberts, Edward, Jr.	500 00	
Rorke, Allen B.	2,500 00	
Wood, George	500 00	
	<hr/>	\$35,500 00

DORMITORY BUILDING FURNISHING FUND.

Stengel, Dr. Alfred	27 00
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'87's HOUSE DORMITORY.

Amram, D. W.	\$10 00
Ashbrook, W. S.	15 00
Benkert, W. C.	5 00
Biddle, A. T.	5 00
Boyer, W. N.	10 00
Colladay, T. F.	5 00
Cowperthwaite, Charles T.	25 00
Dunn, E. S.	1 00
Earle, E. P.	10 00
Fetterolf, George	1 00
Frazier, George H.	50 00
Griscom, Clement A.	25 00
Hawkins, J. D.	6 00
Houston, S. F.	2,000 00
Huckel, Oliver	10 00
Kenney, E. F.	7 50
Latta, Thomas L.	15 00
Lee, C. R.	2 50
Lee, Leighton	5 00
Magee, C., Jr.	10 00
Magee, James F.	7 50
Martin, G. L.	2 50
Pepper, D., Jr.	2 50
Pepper, George Wharton	25 00

Treasurer's Report.

223

DONATIONS TO THE UNIVERSITY.

Reath, Theo. W.	\$10 00	
Redifer, S. S.	2 50	
Richards, Howard S.	10 00	
Seyfert, H. H.	5 00	
Smaltz, Henry N.	30 00	
Smith, J. Somers, Jr.	25 00	
Townsend, Charles C.	25 00	
Weaver, John W.	2 50	
Whitaker, J. G. N.	25 00	
White, L. P.	5 00	
Wilson, Dr. R.	10 00	
Wagner, Joseph C.	10 00	
	<hr/>	\$2,415 50

FRANKLIN FIELD IMPROVEMENT.

Dickson, Hazard	\$10 00	
Patterson, J. H.	25 00	
Potter, Thomas C.	100 00	
	<hr/>	135 00

GROUNDS—IMPROVEMENT OF.

Griscom, Clement A.	\$50 00	
Harrison, Mrs. E. W.	853 39	
Patterson, James W.	100 00	
Welsh, John Lowber	25 00	
	<hr/>	1,028 39

GENERAL FUND.

Allen, Edmund	\$500 00
Athletic Association	2,500 00
Bailey & Co.	500 00
Bailey, Christopher	250 00
Baird, Thomas E.	1,000 00
Blanchard, The Misses	1,000 00
Bushnell, Charles E.	250 00
Carson, R. N.	500 00
Clark, E. W.	1,000 00
Clothier, Isaac H.	1,000 00
Clyde, B. F.	500 00
Colburn, A.	500 00
Colton, S. W., Jr.	250 00
Cook, Richard Y.	500 00
Cramp, William	500 00
Cash	1 60
Disston, Horace C.	250 00
Disston, William	500 00
Fletcher, George A.	1,000 00

DONATIONS TO THE UNIVERSITY.

Frishmuth, E. H.	\$500 00
Garrett, W. E., Jr.	10,000 00
Gest, John B.	500 00
Gest, John M.	100 00
Grant, W. S.	1,000 00
Griscom, Clement A.	1,000 00
Harris, Jos. S.	500 00
Harrison, Mitchell	2,500 00
Heebner, Samuel Y.	250 00
Kemble, Isaac W.	500 00
Leisenring, John	500 00
Lippincott, J. Dundas	500 00
Little, Amos R.	1,000 00
Lloyd, Malcolm	500 00
Loper, R. F.	3,500 00
Maloney, Martin	1,000 00
Martin, Estate of Jos. J.	1,000 00
Massey, Walter S.	1,000 00
McCahan, W. J.	1,000 00
McKean, Thomas	12,500 00
Merrick, J. Vaughan	500 00
Miller, William H.	100 00
Morgan, Randal	1,000 00
Morris, Effingham B.	500 00
Patterson, James W.	500 00
Paul, Mary W.	250 00
Pepper, John W.	500 00
Philler, George	1,000 00
Rawle, James	500 00
Robins, Thomas	30 00
Roberts, Edward, Jr.	250 00
Roberts, Thomas	250 00
Rosengarten, Frank H.	1,000 00
Rosengarten, H. B.	250 00
Scattergood, Thomas	500 00
Shelmerdine, W. H.	250 00
Smith, Winthrop	250 00
Snyder, W. Fred.	500 00
Strawbridge & Clothier	1,000 00
Sullivan, Jeremiah J.	500 00
Thompson, Mrs. John Edgar	1,000 00
Thompson, S. S.	50 00
Van Schaick, B. C.	100 00
Wyeth, Frank H.	500 00
Warren, E. B.	1,000 00

 \$64,131.60

DONATIONS TO THE UNIVERSITY.

GEORGE L. HARRISON FOUNDATION.

Harrison, Charles C. \$220,000 00

HOUSTON HALL BUILDING AND EQUIPMENT.

Faries, E. D.	\$24 00	
Houston, Mrs. H. H.	1,000 00	
Wood, Dr. H. C.	166 66	
	<hr/>	1,190 66

EXPENSES HOUSTON HALL.

Houston, Mrs. H. H. 5,000 00

LIBRARY.

Archæological Association	\$405 00	
Carson, Hampton L.	175 00	
Comegys, B. B.	50 00	
Keen, G. B. (sundries)	81 49	
Potter, William	28 21	
Rosengarten, J. G.	281 55	
	<hr/>	1,021 25

LECTURE COURSE—STATE OF PENNSYLVANIA.

Cash 2,500 00

SPECIAL LIBRARY FUND.

Spear, James 1,000 00

MAINTENANCE OF BABYLONIAN MUSEUM AND
PROFESSORSHIP OF ASSYRIOLOGY.

Clark, Clarence H.	\$250 00	
Clark, E. W.	250 00	
Harrison, Charles C.	250 00	
Pepper, Dr. William	250 00	
<i>Sunday School Times</i> and H. C. Trumbull	1,000 00	
	<hr/>	2,000 00

MUSEUM OF ARTS AND SCIENCE.

DEPARTMENT OF ARCHÆOLOGY AND PALEONTOLOGY.

Clark, Clarence H., Treasurer	\$49,366 66	
Sparhawk, John, Jr., Treasurer	50,000 00	
	<hr/>	99,366 66

PRIZE FUNDS.

Alumni Association	\$47 00	
Comegys, B. B.	100 00	
Cash	100 00	
	<hr/>	247 00

University of Pennsylvania.

DONATIONS TO THE UNIVERSITY.

PRIMARY ELECTION INQUIRY.

Burnham, Williams & Co.	\$10 00	
Bushnell, Charles E.	100 00	
	<hr/>	\$110 00

SEMITIC DEPARTMENT—PROFESSORSHIP OF.

Sultzberger, Mayer		100 00
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PUBLICATION FUND—COLLEGE DEPARTMENT.

Cash	\$518 62	
Ginn & Co.	13 86	
Newbold, Clement B.	100 00	
	<hr/>	632 48

SOCIAL COLORED INQUIRY.

Cash	\$481 38	
Montgomery, Thomas H.	25 00	
	<hr/>	506 38

JOHN STEWARDSON MEMORIAL.

Per Brown Bros. & Co.	\$11,000 00	
Smith, E. B., & Co.	50 00	
	<hr/>	11,050 00

UNIVERSITY PUBLICATION FUND.

Alumni Association	\$100 00	
Cohen, Charles J.	100 00	
Comegys, B. B.	100 00	
Cuyler, Thomas De Witt	100 00	
Doran, Joseph J.	100 00	
Duane, James May	100 00	
Ely, Theodore N.	100 00	
Erringer, J. L.	100 00	
Ginn & Co.	32 45	
Gowen, Francis I.	100 00	
Janney, Spencer M.	50 00	
Jones, Thomas F.	100 00	
Lex, William Henry	100 00	
McFadden, J. Franklin	100 00	
Magee, Horace	100 00	
Mercer, H. C.	100 00	
Rosengarten, J. G.	200 00	
Sailer, John.	100 00	
Vaux, J. Waln	100 00	
	<hr/>	1,882 45

UNIVERSITY ADVANCED WORK.

State of Pennsylvania		125,000 00
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✓ DONATIONS TO THE UNIVERSITY.

VETERINARY DEPARTMENT PUBLISHING FUND.

Caner, Harrison K. \$500 00

VETERINARY SCHOOL.

Goodwin, Mrs. Josephine S.	\$1,000 00	
Lippincott, Mrs. Josephine.	1,000 00	
Lippincott, Craige.	500 00	
Lippincott, J. Bertram	1,000 00	
Lippincott, Walter	500 00	
	<hr/>	4,000 00

DONATIONS TO THE HOSPITAL.

FROM AUGUST 31, 1896, TO AUGUST 31, 1897.

AGNEW BUILDING—PROFESSORS' FURNISHING FUND.

Frazier, Dr. Charles H.	\$1,015 92	
Norris, Dr. W. F.	159 25	
Penrose, Dr. C. B.	918 48	
White, Dr. J. William	5,000 00	
Children's Orthopædic Ward Committee	1,128 35	
	<hr/>	\$8,222 00

DEFORMED CHILDREN'S ANNUAL BED FUND.

Austin, Mrs. James S.	\$400 00	
Bergner, Mrs. C. W.	400 00	
Collins, Mrs. H. H.	400 00	
Conrad, Mrs. T. K.	400 00	
Clark, Mrs. E. W.	200 00	
Dana, Mrs. E.	200 00	
Dickson, Mrs. Samuel	400 00	
Freedley, Mrs. J. R.	400 00	
Freedley, W. G.	400 00	
Lynam, William	400 00	
Porter, Mrs. William W.	400 00	
Reed, Mrs. Anna L.	200 00	
Saturday Club of New Jersey	400 00	
Townsend, Mrs. J. W.	400 00	
	<hr/>	5,000 00

GENERAL FUND.

Allison Manufacturing Company	\$300 00	
Estate of Jane Hunter	1,648 96	
	<hr/>	1,948 96

HOSPITAL BED FUNDS.

Marshall, Estate of Sarah	\$15,200 00	
Johnson, Estate of Mary M.	7,000 00	
	<hr/>	22,200 00

MATERNITY HOSPITAL—MAINTENANCE OF.

Coles, Edward	\$100 00	
Saunders, W. B.	50 00	
"In Memoriam"	50 00	
	<hr/>	200 00

MOULTON H. FORREST BED FUND.

Forrest, Mrs. Emma L.		300 00
		<hr/>
Total Donations		\$638,925 33

APPENDIX XXI.

THE UNIVERSITY AND THE STATE: AN OPEN LETTER FROM THE HON. JUDGE PENNYPACKER.

CHARLES C. HARRISON, LL. D.,

Provost of the University of Pennsylvania.

DEAR SIR:—An intelligent correspondent writes in a spirit of entire friendliness to the University of Pennsylvania to inquire upon what basis an appropriation can be legally made to that institution by the Legislature, and what are the grounds for regarding it in any broad sense as a charitable institution which ought to be so favored by the State? It gives me great pleasure to answer these proper queries, and I do it in the hope that the information furnished may lead to a more general and a more exact knowledge of the relations between the University and the State, and thus prove to be of benefit to the community.

Section 17 of Article III of the Constitution of 1874 provides that “no appropriation shall be made to any charitable or educational institution not under the absolute control of the Commonwealth . . . except by a two-thirds vote of all the members elected to each House.” This section authorizes the Legislature by a vote of two-thirds of its members to make an appropriation to institutions which are either charitable or educational, and it is, therefore, not necessary to show that the University is a charity in order to prove the power of the Legislature to make such appropriation, if deemed wise. The propriety of the exercise of the power is, of course, an entirely different question. The University is, however, technically a “charity.” It has had four stages of develop-

ment, beginning as a charitable school and continuing as an academy, a college, and a university; but through all of its successive charters the provision for a charitable school is maintained. Thus its earliest charter, of July 13, 1753, sets forth its objects to be "as well to instruct youth for reward as poor children whose indigent and helpless circumstances demand the charity of the opulent part of mankind," and its latest charter, of September 30, 1791, provides "that charity schools shall be supported, one for boys and the other for girls."

These provisions are now carried into effect by a settlement under the terms of which a certain proportion of students are educated free of charge. In the broader sense, and this fact ought to be generally made known, the whole of the work of this venerable and potent institution is essentially charitable. Its most recent report shows that its entire receipts from fees for the last year amounted to \$289,761.94, while its current expenses and salaries, without any reference to the larger sums involved in the ceaseless additions to the University's plant and equipment, were \$433,109.69, thus leaving a balance of \$134,347.75 to be provided for by contributions and otherwise, in order that the youth of Pennsylvania may be educated.

The correspondent further inquires whether the State has any control, "even indirect," over the affairs of the University? An answer to this inquiry involves an examination of the early history of the University, since all the legislation upon the subject was enacted during the last century. All of the facts show that the purpose was, at its foundation and throughout its course as an academy and a college, that it should bear the closest relation to the government of the province, somewhat akin to the universities of England, which sent representatives to Parliament. Thomas Penn, the proprietor of the province, was its patron, and he gave to it not only time and attention, but large sums of money and grants of land at Perkasié. The earliest written constitution of Pennsylvania was adopted in 1776. It provided (Section XLIV) that "A school or schools shall be established in each county

by the Legislature, for the convenient instruction of youth, with such salaries to the masters, paid by the public, as may enable them to instruct youth at low prices; and all useful learning shall be duly encouraged and promoted in one or more universities." This fact is most creditable to the State, because it is the first time in American history that higher education was made a part of the fundamental law. It will be observed that no discretion is allowed to the Legislature. Their duty is plainly defined to be to establish a school in each county, and to promote at least one university. While the language of the section is "one or more universities," it was well known at the time that the purpose was to protect and provide for the College and Academy, and in fact that was the only institution in behalf of which the Legislature recognized the obligation and performed the duty. The act of November 27, 1779, under this clause of the Constitution, erected "The University of the State of Pennsylvania," and vested in it the property of the College and Academy. The preamble of this act sets forth its object to be "to alter the charter thereof, conformable to the Revolution, and to the constitution and government of this Commonwealth, and to erect the same into an University." In order to provide funds the act directed that confiscated estates should be reserved "to create a certain fund for the maintenance of the Provost, Vice-Provost, masters and assistants, and to uphold and preserve the charitable school of the said University." In pursuance of this act the estates of many of the loyalists of the Revolutionary period were conveyed to the University. No legislation could more plainly recognize the duty of the Legislature, and the rights of the institution under the Constitution. These rights, conferred by that Constitution and by the act of 1779, were preserved by the act of September 30, 1791, which was an act to unite the College, Academy and Charitable School, whose property and privileges had in the meantime been restored to it, and the University of the State of Pennsylvania, under one title and charter, as the "University of Pennsylvania," which is the existing institution.

This act recognized the duty and responsibility of the

State with respect to the institution in two ways. It provided that the Governor for the time being should always be President of the Board of Trustees, with the purpose, doubtless, that he should represent the State, and exercise care and supervision. Governor Thomas Mifflin gave notice to the Trustees of the first meeting, which he called November 8, 1791, at the office of the Secretary of the Commonwealth, and he aided in the organization. The act also provided that "the Trustees shall annually lay a statement of the funds of the institution before the Legislature of the Commonwealth." It will be observed that the statement is to contain only an account of the "funds," and that nothing is said about the disbursements. The object then was not to enable the Legislature to supervise the acts of the Trustees. The purpose could only have been to give information to the Legislature by means of which it could see whether there were sufficient resources to meet the requirements, and thus implies a duty. These provisions were no doubt inserted in view of the fact that the University of the State of Pennsylvania so merged had been incorporated under the Constitution of 1776 and the act of 1779. It is true that the later Constitutions of Pennsylvania have not contained the clause for the promotion of universities, but since each of them was adopted since the Constitution of the United States went into effect, it is a grave question whether any rights and privileges conferred before can be affected by a change in the Constitution of the State. At all events, there has been no repeal of the essential clauses of the act of 1779. It is, therefore, clear that the College, Academy and Charitable School were enlarged into a University by the Legislature, under the constitutional direction, and that the duty to provide the necessary funds was conceded.

During the present century, while the State has repeatedly made generous appropriations in aid of the work of the University, they have nevertheless gradually drifted apart. The successive Governors have neglected their duties as Presidents of the Board of Trustees; the Trustees have failed to present annually their needs to the Legislature; the State

has lost in some degree the reputation due to it because of the establishment and maintenance of this time-honored and influential institution of learning, and the University has lost to a great extent the support and strength it ought to have derived from that most vigorous of American Commonwealths, whose name it bears.

SAMUEL W. PENNYPACKER.

PHILADELPHIA, March 15, 1897.

APPENDIX XXII.

A MEMORIAL TO THE LEGISLATURE FROM THE BOARD OF TRUSTEES.

*To the Honourable the Senate and House of Representatives of the
Commonwealth of Pennsylvania:*

GENTLEMEN:—The University of Pennsylvania, projected in the year 1740, chartered as an Academy and Charitable School in 1753, and as a University in 1791, has been from its inception so closely identified with the Province and State as in effect to constitute it an integral part of the government. Thomas Penn, the proprietor of the Province, was its early patron and endowed it with money and lands. Undoubtedly, it was his thought, and that of its founders, that it should occupy somewhat the same organic and intimate relation to Pennsylvania as Oxford and Cambridge held towards the Government of England. For this reason the Pennsylvania Constitution of 1776—the earliest of our constitutions, and the first in America to contain such a regulation—provides for its maintenance and makes its support a part of the fundamental law of the State.

In accordance with the act of 1791, which provides “that pursuant to the ninth article of the terms of union the Trustees shall annually lay a statement of the funds of the institution before the Legislature of the Commonwealth,” the Trustees of the University have now the honor of submitting to you a

statement of its funds. This statutory provision was included so that, as occasion arose, the needs of the chief seat of learning in the Commonwealth may be provided for. By the same legislative act (1791) the Governor of the State was made President ex-officio of the Board of Trustees, and has always maintained and exercised that function, and with increasing interest, with the advance in the scope and character of the University's work.

In the report of a Committee of the Assembly of the Commonwealth of Pennsylvania to inquire into the state of the College of Philadelphia it is said:

"Your Committee are of opinion that a Bill should be brought in effectually to provide suitable funds for the said College to secure to every denomination of Christians equal privileges, and to establish the said College on a liberal foundation, in which the interests of American liberty and independence will be advanced and promoted and obedience and respect to the Constitution of the State preserved." Whereupon the act of 1779 was passed, constituting "the University of the State of Pennsylvania," and conferring upon it estates to the amount of £25,000.

It is true that the Trustees of the University have not hitherto brought the needs of this seat of learning to the attention of your Honorable Bodies, as it was their clear duty to have done. Upon rare occasions the State has made appropriations to the University of Pennsylvania; but, until 1895, almost exclusively to the charitable work to which its Hospital ministers. Owing to the great increase in the number of its students—from Pennsylvania alone there are now more than two thousand—the Trustees of the University, in the fulfillment of their trust, need the earnest consideration and help of your Honorable Bodies at this time. The University already ranks second in point of numbers among the universities of America. It is the desire and purpose of the Trustees and Faculties to make it first in dignity, efficiency and usefulness. The Trustees desire to call your attention to the efforts which they have made to interest private charity in the higher education of the State, and to the remarkable results which

these efforts have achieved. A reference to the condition of the University's funds will show that during the last fiscal year the total of tuition fees received from students was \$289,761.94; whereas the total payments in the same period, in return for these tuition fees, were nearly nine hundred thousand dollars. This extraordinary difference represents entirely private contributions towards the higher education of the State, and this statement does not include the investments of the George L. Harrison Foundation of \$500,000 for the encouragement of liberal studies and the advancement of knowledge.

The Trustees of the University feel, therefore, that they have the most distinct claim upon the State of Pennsylvania. They have practically without aid carried the University, which the State bound itself to maintain, to a point at which it can soon be made to rank with the distinguished universities of the world. The work of the University should now be made to include every department of knowledge, and to open every avenue of welfare to the whole State and Nation. To develop their plans for study, commensurate with the demands of such a University, in Preventive Medicine, in the science of Veterinary Medicine, in facilities for the University training of teachers, in Law, and in the whole field of Science and of Art, will require for some years to come an expenditure of at least one million of dollars annually, against, probably, tuition fees of about one-third of that amount.

Outside of the Harrison Foundation, and exclusive of the State appropriation made in 1895, the Trustees have recently raised one million of dollars. With this fact as the earnest of their efforts, they now submit to your Honorable Bodies their need of immediate and commensurate assistance, and in doing so they propose to couple with this their respectful petition for an appropriation of one million of dollars, the condition that they themselves will raise an equal amount and pay the same in cash according to the terms of the Acts now submitted to your Honorable Bodies for your considerate approval.

Finally, the Trustees desire to congratulate you upon the

rapid growth and unusual success of an institution which, in the field of learning, represents the State and bears its name, and in whose long and prosperous career all Pennsylvanians take a commendable pride.

We have the honor to remain,

Very respectfully, your obedient servants,

THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA,

Per CHAS. C. HARRISON,

Provost.

APPENDIX XXIII.

THE GEORGE L. HARRISON FOUNDATION FOR THE ENCOURAGEMENT OF LIBERAL STUDIES AND THE ADVANCEMENT OF KNOWLEDGE.

The object of this announcement is to call the attention of universities, learned societies, scholars and students to the purposes of the George L. Harrison Foundation, and to the opportunities in connection therewith, which have now been opened at the University of Pennsylvania.

This Foundation, of the capital sum of \$500,000, was established June 4, 1895, as a filial memorial of George Leib Harrison, LL. D., a citizen of Philadelphia, whose philanthropic work and civic virtues largely contributed to the honor and prosperity of his native city and State.

The purposes of the Foundation are:—

1. The establishment of scholarships and fellowships intended solely for men of exceptional ability.
2. The increasing of the Library of the University, particularly by the acquisition of works of permanent use and of lasting reference, to and by the scholar.
3. The temporary relief from routine work, of professors of ability, in order that they may devote themselves to some special and graduate work.
4. The securing men of distinction to lecture, and for a term, to reside at the University.

Very careful provision is made in the deed of trust for the perpetual maintenance of the capital of the endowment; for in case of any depreciation a portion of the interest is transferred to the capital account until the latter be reinstated.

The principal of the endowment fund being thus carefully safeguarded, the donor desired to make the use of the income

as flexible as might be consistent with the general purposes of the Foundation, with the feeling that if too rigid conditions were imposed they might of themselves lessen the value of the fund in future years. It was his especial wish that the income should at all times be available to the University as needs arise and opportunities offer within the general scope of the Foundation. No part of the income can be used in the erection of buildings, the endowment of professorships, or in any permanent appropriation.

Under the first provision of the Foundation, there have been established eight scholarships, nineteen fellowships and five senior fellowships. Of the nineteen fellowships five are not limited to any special field, so that there may be the opportunity of appointing more than one Fellow in the same subject; and also that Fellows may be assigned from time to time to subjects in which, as a rule, great interest is not felt, and for which, therefore, a permanent fellowship would be superfluous.

The assignment of scholarships and fellowships at the present time is shown by the following statement:—

SCHOLARSHIPS.

These are assigned to the following groups of subjects:—

1. History and Economics.
2. Classical Languages.
3. Modern Languages (German and French).
4. History and Philosophy.
5. Mathematics and Physics.
6. Chemistry and Physics.
7. Biology and Chemistry.
8. English and History.

They are open to those who have taken a baccalaureate degree in the University of Pennsylvania in the courses in Arts and Science, and who have been resident students of the University for at least two years prior to graduation. They are not renewable, but the holder of a scholarship may, on the

completion of his term, become a candidate for a fellowship. He is required to continue in resident graduate study at the University for one full academic year; he will receive free tuition from the University, and \$100 from the Foundation.

FELLOWSHIPS.

The Fellowships are assigned severally to the following subjects:—

1. Classical Languages.
2. Semitic Languages.
3. Germanic Languages.
4. Romanic Languages.
5. English.
6. American History.
7. European History.
8. Political Science.
9. Economics.
10. Philosophy.
11. Pedagogy.
12. Chemistry.
13. Biology.
14. Mathematics and Astronomy.
15. Assigned for the academic year 1897-98 to Mathematics.
16. Assigned for the academic year 1897-98 to American History.
17. Assigned for the academic year 1897-98 to Indo-European Philology.
18. Assigned for the academic year 1897-98 to Sociology.
19. Assigned for the academic year 1897-98 to Semitics.

A fellowship has a value of \$500 and free tuition; and \$100, the amount of the tuition fee usually exacted in the Department of Philosophy, is added and applied to increasing and improving the equipment of the department. There may

be one reward. There is, however, no exemption from laboratory fees.

The applicant must hold a baccalaureate degree of non-technical character; must have pursued graduate work successfully for at least one year in residence at an acceptable college or university; must have a good reading knowledge of French and German, and must not already have taken the doctor's degree. Certificates establishing these facts must accompany applications.

A Fellow must be entered in the Department of Philosophy as a candidate for the degree of Ph. D. His major subject must be the title subject of his fellowship; if the title of the fellowship includes more than one subject, the major and minor must be chosen from them. He will be required to devote his whole time to the prosecution of his studies in residence at the University; no teaching, or other outside work, will be permitted.

SENIOR FELLOWSHIPS.

The Senior Fellowships, five in number, are not designated by subjects. They are open only to men who have taken the degree of Ph. D. at the University of Pennsylvania. Applicants will specify the particular subject in which they propose to work.

A Senior Fellow will be required to devote himself to some work of original research in the line of his specified subject. He will also do such teaching or lecturing in his subject as may from time to time be required by the head of his department, to a maximum of four hours a week. No other teaching or other occupation will be permitted. Residence is imperative. The income of a senior fellowship is \$800 per annum, and it is tenable for three years by annual renewal.

As the income of the fund is now beginning to accumulate, the authorities of the University are preparing to give

their thoughtful attention to the three other purposes of the Foundation.

Any additional information may be obtained by reference to the

SECRETARY OF THE TRUSTEES OF THE UNIVERSITY
OF PENNSYLVANIA,

400 Chestnut Street, Philadelphia.

INDEX.

	PAGE
PROVOST'S REPORT	3
APPENDICES.	
PERSONAL CHANGES	53
REPORTS:	
Dean of the College	59
Dean of the Department of Philosophy.	78
Dean of the Department of Law	102
Dean of the Department of Medicine.	113
Director of the William Pepper Clinical Laboratory	121
Dean of the Auxiliary Department of Medicine	123
The University Hospital and School for Nurses	124
Dean of the Department of Dentistry	129
Dean of the Department of Veterinary Medicine	134
The Veterinary Hospital	136
The Laboratory of Hygiene	140
Director of the Flower Observatory.	143
Director of the Botanic Garden	146
Secretary of the Department of Archæology and Paleontology	149
Director of the Wistar Institute	155
Custodian of Howard Houston Hall	158
The Librarian	162
BIBLIOGRAPHY	167
TREASURER'S REPORT	197
DONATIONS TO THE UNIVERSITY	221
THE UNIVERSITY AND THE STATE	229
MEMORIAL TO THE LEGISLATURE FROM THE BOARD OF TRUSTEES.	234
THE GEORGE L. HARRISON FOUNDATION FOR THE ENCOURAGEMENT OF LIBERAL STUDIES, ETC.	238

