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WITH THE COMPTROLLER'S REPORT, AND REPORTS OF THE DEANS
OF COLLEGES, THE REGISTRAR, THE LIBRARIAN, THE
SECRETARY, AND OTHER OFFICERS

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Forms for bequests to Cornell University will be found at the close of the Comptroller's Report, page 79.

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PRESIDENT'S REPORT

FOR 1915-1916

TO THE BOARD OF TRUSTEES:

The President of the University has the honor to submit to the Board of Trustees the following Report for the year 1915-16.

THE TRUSTEES

In November, 1915, Charles M. Schwab was elected a Trustee to fill the vacancy caused by the death of Henry B. Lord. The terms of the following members expired in June: Andrew Carnegie, George C. Boldt, Frank H. Hiscock, James H. Edwards, Herbert D. Mason, and Frank H. Miller; all have succeeded themselves, the first three through re-election by the Board, the next two through re-election by the Alumni, and the last through re-appointment by the Governor, all for a term of five years. The Governor also appointed Horace White of Syracuse of the class of 1887 to succeed John N. Carlisle whose term expired in 1915. The new president of the State Agricultural Society, Fred W. Sessions, succeeded John J. Dillon, the former president, as an *ex-officio* Trustee of the University.

FACULTY REPRESENTATION ON THE BOARD OF TRUSTEES

A new, radical, and highly important change has been made in the government of the University. In the autumn of 1912 the President recommended in his annual Report that the Board should confer upon the Faculty the privilege of participating with the Trustees in the government of the University through representatives on the Board to be elected by them who "should preferably be members of the Faculty." And besides this injection of professorial Trustees into the Board who would represent the Faculty of the University as a whole the President also recommended the establishment for the benefit of each college of the University (except the state colleges for which other provision had already been made) of a joint conference committee or council consisting of the President and two or three Trustees and the dean and two members elected by the faculty of each college whose function it should be to consider the business

affecting each college and to make recommendations thereupon to the Board of Trustees, somewhat after the analogy of the existing Library Council and the Council of the Medical College in New York City. Discussing these recommendations, the President said in his annual Report of 1911-12:

"This is a plan of partnership between Trustees and professors for the government and administration of the University. It is not the German system, which has no board of trustees, nor the English system, in which the professors are the corporation, but it is a modification of the American system in which the trustees voluntarily invest the professors with a share of their own powers and functions (devolving on them corresponding responsibilities) and guarantee them the maximum of authority, independence, and institutional control which seems compatible with the American idea of university organization and government."

And, again, defending the idea of professorial participation in the government and control of the University, the President said:

"What is needed in American universities to-day is a new application of the principle of representative government. The faculty is essentially the university; yet in the governing boards of American universities the faculty is without representation. The only ultimately satisfactory solution of the problem of the government of American universities is the concession to the professoriate of representation in the board of trustees or regents, and these representatives of the intellectual, which is the real life of the University must not be mere ornamental figures; they should be granted an active share in the routine administration of the institution."

The recommendations of the President were referred by the Board at their meeting on January 17, 1913, to a committee of which Judge Hiscock was chairman. But as the President of the University, after twenty years of uninterrupted service in the office, had been given a year's leave of absence, it was felt by the members of the committee that the matter should not be seriously considered until his return. During the academic year 1913-14, however, the President and Trustees were absorbed in the problem of the business reorganization of the University, to which precedence over all other business was given by general tacit consent. In his Report for 1913-14 the President while recognizing this situation of affairs "once more earnestly expressed the hope that Cornell University will lead the way in the further democratization of the University through the admission of

the Faculty, by means of professorial representatives duly chosen, to responsible participation in the control of the institution."

The subject received thorough consideration in the year 1914-15. Not only was it considered by the committee appointed by the Board of Trustees, but it was thoroughly discussed by the University Faculty and, in certain of its aspects, by the faculties of the several colleges. The longer the subject was debated and the more carefully it was considered, the greater the approach to unanimity on all sides in favor of the adoption of the President's recommendations, with some modification in details, it is true, but with no modification either of the idea of faculty representation on the Board or of a joint conference committee or council for each of the colleges of the University. And Judge Hiscock's committee presented to the Board of Trustees at their meeting in June, 1915, a report with two recommendations embodying this programme. This report was received, ordered printed, and sent to each member of the Board and action thereupon deferred to a later meeting. It was again taken up at the meeting of the Board of Trustees on January 15, 1916, when approval was voted of the committee's recommendation regarding the establishment of joint conference committees or advisory councils for the different colleges of the University, after which the Board referred back to the committee the report for further conference with the faculty committee with a view to ascertaining once more the sentiments of the University Faculty on the subject of professorial representation on the Board of Trustees. This the committee did in the course of the next few months, and at the meeting of the Board of Trustees on April 29, 1916, they presented their final report which was adopted by the Board. The resolutions were as follows:

"A. *Resolved*, That the faculty of each college located at Ithaca, except the state colleges, be invited from time to time to select two of its members who, with the dean of such faculty, shall constitute a committee to meet as often as desired with the Committee on General Administration, the Committee on Finance, or the Committee on Buildings and Grounds (according to the nature of the matter) for the consideration of questions affecting the welfare of such college; that the members of such committee other than the dean shall be selected by ballot and for definite terms or as each occasion for conference arises and under such conditions as may be provided by the faculty selecting them.

"B. *Resolved*, That the University Faculty be authorized and invited for and during the period of three years commencing June 1 next to select delegates who shall represent it in the Board of Trustees. Said representatives shall not at any time exceed three in number. They and their successors shall be selected by ballot and for such terms respectively, not extending beyond the period above mentioned, as shall be fixed by the faculty. They shall have the right to meet with the Board of Trustees and the Committee on General Administration and shall possess the usual powers of Trustees except the right to vote."

The professorial Trustees could not have been given the right to vote without a change in the charter of the University. In practice the limitation is not likely to make the slightest difference in the status or influence of the representatives of the Faculty, as the decisions of the Board are actually settled by discussion. The University Faculty accepted the provision without hesitation, but expressed the hope that experience would indicate the desirability of giving at some later time the right to vote also to faculty representatives.

At a special meeting of the University Faculty on June 5 on ballot duly had the following professorial Trustees were elected: Professor Walter F. Willcox, Professor Dexter S. Kimball, and Professor John H. Comstock. The terms of these representatives were fixed by ballot.

The President believes with the Secretary of the University Faculty (see Appendix I), that this new and radical departure in the method of university government in this country "is likely to have a far reaching influence on university management and on the status of the professoriate." It is likely to develop a new professorial consciousness towards the University including a keener sense of independence, a stronger feeling of power and authority, a readier recognition of responsibility, and a heightened appreciation of the work and calling of the professor.

Many objections were originally urged against the change. Two of them, which were strongly felt, may be mentioned here. It was feared that professorial representatives would tend to push too exclusively the interests of their own departments or colleges without just regard for the welfare of the University as a whole. The conferences, however, which were held between the committee of the Board of Trustees and the committee of the University Faculty on this very subject of faculty representation on the Board largely dispelled that apprehension; for it was observed that in the consideration of the subject the professors showed not less comprehensiveness of view and objectivity of judgment than the Trustees.

The other objection was that faculty representation on the Board of Trustees would tend to undermine the presidential office. This is not an imaginary danger in a complex system of government and administration like that of a great modern university. No doubt any member of the Board of Trustees who is in a position whether in virtue of his office, residence, or influence to take a hand in the administra-

tion of the University and can not refrain from doing so, undermines to that extent the office of the chief executive and introduces friction into the normal workings of the administrative machinery. The remedy, however, is an exceedingly simple one, as both government and business organizations demonstrate. That remedy is the complete divorce between legislation on the one hand and administration on the other. The Board of Trustees is the supreme legislative authority of the University; the functions of Trustees are exhausted when they act as a Board. The President, on the other hand, is the chief executive of the University; it is for him to carry out the policies and resolutions of the Board. He is appointed by the Board and has no powers except those conferred upon him by the Board; if he is inefficient or incompetent he may be dismissed by the Board; but so long as he holds office the chief executive powers of the University are vested in him, and through and by him and the other administrative officers (like the Comptroller, Deans, Treasurer, Registrar, *et al.*) the entire business of the University must be carried on. This distinction, which is fundamental to good administration, being clearly realized and scrupulously observed, the presidential office would not seem to be put in jeopardy by the special character, vocation, residence, power, or influence of any Trustee or group of Trustees.

Every new policy is attendant with some risk. After a consideration and discussion extending over three and a half years the Trustees and Faculties with practical unanimity adopted the President's recommendation that the Faculty should be taken into partnership with the Trustees in the government of the University. No doubt it is a momentous step in the democratization of Cornell University. And what may now be called the Cornell idea of university government is likely to have a considerable influence on the colleges and universities of the country. Already, indeed, it has been adopted in a more or less modified form by the University of Pennsylvania and Bryn Mawr College, in each case as the solution of an acute, practical problem. The more the plan is considered and discussed on its merits the sounder and more natural will it appear. The policy of recognizing in the supreme government of the University its all-essential constituent is so just and proper that no institution should hesitate to adopt it even if the risks involved were vastly greater than any that have hitherto been described or imagined.

THE FACULTY

The university community was shocked on April 22 by the untimely death of Howard D. Hess, Professor of Machine Design in Sibley College. A graduate of Lehigh University of 1896, he was called to Cornell as assistant professor in 1905 and promoted to a professorship in 1910. A good teacher, an investigator and writer, a man of high ideals and of engaging qualities of mind and heart, the loss of Professor Hess was deeply felt by his students, his colleagues, and his friends. Another death in the active faculty was that of Miss Alice G. McCloskey, Assistant Professor of Rural Education in the College of Agriculture, who passed away in October, 1915. She was well known throughout the State as a writer and lecturer in the field of nature study, in which she was one of the pioneers. Three retired professors also died during the year: James Morgan Hart, Emeritus Professor of English Literature; and in the Medical College in New York City Dr. Austin Flint, Emeritus Professor of Physiology, and Dr. Rudolph A. Witthaus, Emeritus Professor of Chemistry.

Frank Irvine, having been appointed by the Governor Public Service Commissioner of the State of New York, resigned his deanship and professorship in the College of Law on March 4 after fifteen years of valuable and successful service. His withdrawal was the occasion of deep regret among his colleagues alike in the Faculty of Law and in the University Faculty. As justly described by his successor, Dean Irvine was a learned teacher, a quiet, forceful administrator, and a sagacious and friendly counsellor. Beverly T. Galloway, who two years ago resigned the office of Assistant Secretary of Agriculture of the United States to take the deanship of the State College of Agriculture, on June 20 resigned this position to take up work again with the Department of Agriculture at Washington. During his brief tenure of office as Dean of the College of Agriculture Dr. Galloway showed himself an administrator of unusual talents and he has made an impress which is likely to be enduring on the business organization of the College. It is a misfortune that the State of New York should not have had for a longer time the great advantage of his expert and efficient service. But his resumption of national work in the interest of agriculture is some consolation to the many friends and admirers he leaves here. The special leave of absence granted to Professor Alvin S. Johnson for the year 1915-16 to enable him to do editorial work in the city of New York was followed by a change in his plans and he resigned his chair of economics at Cornell, in which he

had been a learned and a stimulating teacher, to take the chair of political science in Stanford University. Professor Irving P. Church retired under the age limit with a pension from the Carnegie Foundation. For forty years as a teacher in this University Professor Church had distinguished himself alike as an excellent teacher, an authoritative investigator and writer, and a high-minded, loyal, and honorable gentleman. He has been appointed Professor of Applied Mechanics and Hydraulics, Emeritus. Lieutenant Bull, Professor of Military Science and Tactics, was in November ordered by the War Department to give up his work at the University and join the 5th U. S. Cavalry at Fort Leavenworth. The services of Lieutenant Bull have been recognized in previous Reports. But it is proper here to repeat that he has been a most efficient Commandant and Professor of Military Science and Tactics, that he has thrown himself heart and soul into his duties, that he has stimulated and quickened the interest in military affairs and in military training throughout the entire student body and, indeed, the entire academic community, and that in all directions he has carried to a noteworthy stage of advancement the work done by a line of able predecessors. Mrs. Gertrude S. Martin, after seven years of service, retired from the office of Adviser of Women to accept the position of executive secretary of the Association of Collegiate Alumnae. Alike on the business, social, practical, and intellectual sides Mrs. Martin has proved a capable and efficient official and her ideas and efforts have energized into new importance the office of Adviser of Women. H. Wallace Peters resigned the office of Secretary of the University in order to accept an attractive position in the business world. Mr. Peters was a very efficient and successful Secretary and during the two years of his term he thoroughly organized the work of the office which he made a useful instrument in the administration of the regular business of the University and in the establishment and extension of relations with alumni organizations and of individual service to former students and graduates.

Professor Edwin H. Woodruff was appointed Dean of the College of Law *vice* Judge Irvine, resigned. He had already been acting Dean, and his record as an administrator combined with his high standing as a legal thinker, writer, and teacher manifestly marked him out for the appointment, which was cordially approved by his colleagues in the Faculty of Law and also by the members of the university community, in the life of which he has so long taken a prominent part. The professorship left vacant by the retirement of

Dean Irvine was filled by the appointment of Oliver Leroy McCaskill, an academic graduate and also a Doctor of Law of the University of Chicago. After some years of practice at the bar Dr. McCaskill abandoned it for teaching with the deliberate aim of improving methods of instruction in procedure and practice. Since 1914 he has been professor of law in the University of West Virginia and his work has attracted the favorable attention of legal scholars and educators. Professor Alfred Hayes being absent on Sabbatic leave in 1916-17, his place has been temporarily filled by the appointment of Henry White Edgerton, A.B. (Cornell, 1910), LL.B. (Harvard, 1914). Assistant Professor Bogert on the expiration of his term was advanced to a professorship in recognition of his valuable services as a teacher and his growing reputation as a legal scholar and writer.

Herbert Joseph Davenport, head of the department of political economy of the University of Missouri, has been appointed Professor of Economics *vice* Alvin S. Johnson, resigned. The new professor began his career as a practicing lawyer, having received a legal training at the Harvard Law School. His interest in economics, however, drew him away from the legal profession, and he devoted himself to a special study of economics in Europe and also in the University of Chicago, from which he received the degree of Doctor of Philosophy in 1898. He was a member of the faculty of the University of Chicago from 1892 to 1907, when he resigned to become head of the department of political economy in the University of Missouri. He has won marked distinction as a teacher, a thinker, and a writer. His principal works are "Outlines of Economic Theory," "Value and Distribution," and "Economics of Enterprise." In his own field of economic theory Professor Davenport is recognized as one of the foremost American thinkers.

Robert Morris Ogden, a Cornell graduate of the class of 1900, and a Doctor of Philosophy of the University of Würzburg of 1903, has been called from a professorship in the University of Kansas to the chair of Education recently left vacant by the superannuation of Professor De Garmo. Dr. Ogden has filled successively positions in the University of Missouri, in the University of Tennessee, and in the University of Kansas, in which he was professor at the time of his appointment. His field of work and interest embraces philosophy, psychology, and education. While holding his professorship in the University of Tennessee he was associate supervisor of the Summer School of the South, 1911-14. Professor Ogden has been a con-

tributor to the *Psychological Review* and other journals and he is also the author of a work entitled "An Introduction to General Psychology," published in 1914. Professor Ogden's interest in education is from the side of philosophy and psychology. His courses will be on the principles and theory of education. This is the side which it is desired to emphasize in the department of education at Cornell, which is one of the departments of the College of Arts and Sciences.

The following Assistant Professors have been promoted: George L. Hamilton to be Professor of the Romance Languages; Frank O. Ellenwood to be Professor of Power Engineering; Calvin D. Albert to be Professor of Machine Design; Albert E. Wells to be Professor of Machine Construction; Sidney G. George to be Professor of Mechanics of Engineering; and Ora M. Leland to be Professor of Astronomy and Geodesy. The following promotions have been made in the New York State College of Agriculture: Ralph W. Curtis to be Professor of Landscape Design; E. Gorton Davis to be Professor of Landscape Design; and Lewis Knudson to be Professor of Botany. In the extension division Ralph W. Rees, a graduate of the Oregon Agricultural College, was appointed Professor of Pomology and Frank L. Griffin, a graduate of the Oregon Agricultural School, later an instructor and assistant professor of agricultural education in the University of California, and since 1914 professor of agricultural education in his alma mater, was appointed Professor of Rural Education. Claude B. Hutchison, head of the department of farm crops in the University of Missouri, was appointed Professor of Plant Breeding. He graduated from the University of Missouri in 1908 and received the degree of M.S. in Agr. from Cornell in 1913. William H. Chandler, formerly Research Professor in Pomology, was appointed Professor of Pomology and head of the department.

Lieutenant (now Captain) Charles F. Thompson was in November appointed Professor of Military Science and Tactics *vice* Lieutenant Bull, who was ordered back to active service by the War Department. The satisfactory progress made by the military department under Lieutenant Bull and his predecessors has been continued by Captain Thompson so that he has already won the confidence and the firm support alike of students and of teachers.

Harry A. Hitchcock of the class of 1900 was appointed Secretary of the University *vice* H. Wallace Peters, resigned. Mr. Hitchcock entered upon his new duties in May. By his devotion and helpfulness he has already won for himself a place in the confidence of the officers

and members of the University and of the Alumni and former students.

In the Medical College in New York City Dr. R. Weil, Assistant Professor of Experimental Medicine, was promoted to a professorship.

The lecturer on the Jacob H. Schiff Foundation for the Promotion of German Culture was Professor Moritz J. Bonn of Munich, who had given a short course of lectures on this Foundation during the year 1914-15. Professor Bonn was in residence throughout the first term of the year, offering regular courses of instruction like other members of the faculty, his subjects being International Economics and Modern Social Legislation. A man of wide outlook and great knowledge of his subject, Professor Bonn, whether he spoke German or English, proved himself a lucid, interesting, and stimulating lecturer.

The lecturer on the Goldwin Smith Foundation was ex-President Taft. He gave a course of lectures in February on the International Relations and Duties of the United States and a similar course in May on The Presidency and its Relations to the other Branches of the Government and the People. Mr. Taft's unique experience, his thorough mastery of his subjects, his skill and effectiveness as a lecturer, his winning manner, and the rare charm of his personality all combined to make his lectures richly instructive and unusually attractive, and, as in the preceding year, thousands of students turned out to hear him, many of them "cutting" their regular classes.

The question of conferring honorary degrees having again been raised in connection with the programme for the celebration of the University's Semi-Centennial in 1918, the matter was specially considered by the University Faculty on June 5, when it was decided with virtual unanimity that "it is unwise for the University to depart from its fixed policy of not conferring honorary degrees."

The University Faculty consists of all professors and assistant professors to whom have also been added the Librarian and Assistant Librarians, the Registrar, and the Secretary of the University. By the action of the Board of Trustees at the June meeting membership in the University Faculty was also conferred upon the Adviser of Women, whose qualifications for office and whose functions were defined as follows:

"Resolved, That the Adviser of Women be ex-officio a member of the University Faculty and that she shall be equal in qualifications and rank to a full professor, and that she shall have the general charge of the interests of women students and advise them in regard to all matters, subject to the statutes and rules and regulations of the Trustees, and of the general and special faculties."

The following table gives the number of members of the instructing staff in the entire University at Ithaca during the year 1915-16. The whole number of teachers in each college is also given, and where a teacher is in more than one faculty he has been counted in the college in which most of his work is done.

	Physical and Military Education	Arts and Sciences	Law	Medical (1st year at Ithaca)	Architecture	*Civil Engineering	*Mechanical Engineering	Veterinary Medicine	*Agriculture	Total
Emeritus Professors . . .	—	8	—	1	—	1	—	1	2	13
Professors	3	52	5	3	6	5	11	7	54	146
Assistant Professors . . .	—	37	2	2	4	13	12	7	59	116
Lecturers	—	5	—	—	—	—	—	—	3	8
Instructors	2	55	—	4	3	13	46	4	72	199
Assistants	20	71	—	7	—	—	14	6	84	202
	25	228	7	17	13	32	83	25	254	684

*Work of the first two years mainly in Arts and Sciences.

In the Medical College in New York City the number of members of the instructing staff during the year was as follows:

Emeritus Professors	3
Professors	16
Clinical Professors	18
Assistant Professors	15
Lecturers	2
Instructors	57
Assistants	25
	136

STUDENTS

The total number of different persons who received instruction in the University in 1915-16 was 7,143. Excluding those enrolled in the Summer Session of the University and in the Summer and Winter Schools and Summer Term in Agriculture, the number of regularly matriculated students pursuing courses leading to degrees was 5,656, an increase of 311 over the preceding year.

These 5,656 regularly enrolled students were distributed among the several courses of instruction as indicated in the following table, which for purposes of comparison covers the three preceding years.

It will be noted that the largest increase over the enrollment of the preceding year is in the College of Arts and Sciences in which the numbers have grown from 1,294 to 1,424. Still more remarkable is the increase in the enrollment in the Graduate School, 482 in 1915-16 as compared with 394 in 1914-15. The nation-wide phenomenon

DISTRIBUTION OF STUDENTS

of diminished attendance in engineering schools seems to be passing by at Cornell, as the total enrollment in Civil, Mechanical, and

Year	Graduate School	Arts and Sciences	Law	Medicine	Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical and Electrical Engineering	Total Exc. Duplicates
1912-13	382	1112	297	150	120	1263	144	503	956	4803
1913-14	383	1194	271	141	131	1462	149	487	902	5015
1914-15	394	1294	245	205	123	1670	163	480	927	5345
1915-16	482	1424	243	216	159	1704	166	450	942	5656

Electrical Engineering is almost the same as last year. The attendance in Agriculture exceeds by 34 that of the preceding year. The marked rise in the enrollment in Veterinary Medicine is largely due to the large class which entered in September in anticipation no doubt of the inauguration of the four-year course in 1916-17.

Of the 5,656 regularly enrolled students, 4,922 were men and 734 women. Of the women, 699 were registered in Ithaca during the first term, and 669 during the second.

The enrollment of women, which had been almost stationary during the first decade of the twentieth century, was in 1910-11, 428; 1911-12, 447; 1912-13, 466; 1913-14, 534; 1914-15, 630; 1915-16, 734. In 1910-11 there were 90 women students in the College of Agriculture, most of them, of course, in the department of home economics. In 1915-16 this enrollment had increased to 290. During the same period the enrollment of women in the College of Arts and Sciences rose from 262 to 345.

The residences of the women students in Ithaca were as follows:

	1st Term	2d Term
Sage College.....	175	175
Prudence Risley Hall	151	151
Total in Halls	326	326
At home	112	105
In approved houses.....	139	140
In private families (working).....	33	36
With relatives	25	16
Scattered	64	46
Total outside Halls.....	373	343
Totals	699	669

It has been decided hereafter to reserve Sage and Risley for the freshmen and senior women on the ground that the new students are

most in need of the protection of the university halls, and that, of former students, the seniors have the best claim to recognition and are also best qualified to train the freshmen in the ways of self-government. It is a misfortune that the women of the sophomore and junior classes are deprived of the privilege of living in university halls and the President earnestly hopes that the wealthy friends of co-education will come to their relief. A third residential hall for women is needed at once and a fourth will be needed in the near future.

STUDENT AFFAIRS

The records of the Faculty's Committee on Student Affairs show an appreciable rise in recent years in the standard of conduct among undergraduates. It will require constant vigilance to maintain this improvement. There are also minor evils, especially in the form of excessive social activities, which call for regulation and curtailment. Careful investigations show that controlled and regulated activities, athletic, musical, and journalistic, interfere less with scholarship than miscellaneous activities of a social nature. The Committee on Student Affairs, of which Professor Kimball has been retained as chairman for an extra year, is at present grappling with a plan of reform in social matters, which will include not only the functions of Junior Week and Senior Week but also house parties and even private entertainments. These social excesses occasionally violate the standards of good taste and manners and so demand disciplinary treatment. But the main ground of the indictment brought against them is that they engross too large a share of the students' time and menace the standards of study which the University must scrupulously maintain. The number of persons concerned is relatively not large and the occasions of social preoccupation are relatively not numerous. But the effect on the work of the participants is serious enough and even a very small number of laggards in a class may interfere with its proper progress. A university is a place of study; Cornell has a reputation for hard work; and the holding of students to their studies is a duty which the University owes to itself and to them. Hard work is also the best protection there is against those temptations to which young men are especially exposed. In contrast with the problem created by excessive social activities it is satisfactory to note that the various branches of athletics have not militated against scholarship and that, so far as is known, there has been no breach of the rules either in letter or spirit. "It is a matter of

reasonable pride," says Secretary Hammond, (Appendix I) "that the committee, by a long history of insistent scrutiny, has kept undergraduate sports at Cornell clean and fair."

The health of the students was quite good during the year. In the spring communicable diseases—measles, etc.,—caused some concern but were controlled without serious outbreak. The chief causes of loss of time were colds and digestive troubles, both of which are largely due to personal disregard of the laws of health. In his lectures the Medical Adviser emphasized the subject of prevention of disease and endeavored to convince the students that attention to the details of personal hygiene was well worth while. Details regarding the work of the Medical Advisers and the operations of the Infirmary will be found in the report of the chairman of the committee, C. D. Bostwick (Appendix XVI).

RESIDENTIAL HALLS

The figures in the preceding section show that in 1915-16 out of 5,656 regularly enrolled students in Cornell University 5,000 in round numbers were young men. About 1,000 of these live in fraternity houses, of which there are some three score. With the exception of these fraternity members the young men of Cornell have hitherto had to shift as best they might in private boarding and lodging houses. Whether from the social, economic, or educational point of view, the situation was deplorable, and the President in annual Reports had for many years earnestly pointed out the need of a system of residential halls.

Thanks to the munificence of George F. Baker of New York City, that system has now been inaugurated. Mr. Baker's gift provided for the construction of three buildings forming an open quadrangle which have been designated respectively Baker Tower, North Baker Hall, and South Baker Hall and the quadrangle as a whole Baker Court. The site, part of the campus, lying between the two gorges with their palisades and waterfalls and commanding an uninterrupted view of the lake and valley and western hills, is invested with a charm and beauty that can not easily be surpassed. The style of the buildings is English collegiate architecture. They are constructed of the local stone found upon and beside the site, which makes substantial walls of varied shades of agreeable color. The art and skill of the architects, Day and Klauder, have been at their highest; the Chairman of the Building Committee, James H. Edwards, has

studied and revised all plans with the practical knowledge of an engineer; and George C. Boldt, Chairman of the Committee on Residential Halls, has not only given expert advice, but has devoted no little of his time, energy, and enthusiasm to the enterprise. As a result the completed Baker Court is one of the most serviceable and useful as well as one of the most beautiful and delightful architectural creations to be found in this or any other country. The halls are so substantially built that there is no reason why, like the similar halls of the old English universities, they should not endure for hundreds of years. In this connection it may be mentioned that the charges for the shields of South Baker Hall were taken from the arms of Oxford University and its colleges and the charges for the shields on North Baker Hall were taken from the arms of Cambridge University and its colleges. On Baker Tower the Cornell arms have been placed on both sides of the gateway.

It has been stated that Baker Court was completed during the summer of 1916. One of the group, however, Baker Tower, was occupied by students during the year 1915-16, as was also Founders Hall, the gift of the Alumni. The four buildings together accommodate 255 students. This is, indeed, a small proportion out of the 5,000 young men now in the University. But the field set aside for residential halls, on the northeast corner of which Baker Court stands, is of ample area for many more such structures, the location and general arrangement of which have already been fixed by the Board of Trustees. The President believes that, along with endowments for professorships or for schools and colleges in the University, there is no other object for which gifts are so greatly needed or would confer so much benefit and service as for residential halls providing safe, economical, and suitable homes for the young men whom the University educates. Are there not other men and women of wealth who are ready to follow the example set by Mr. Baker? It would be a handsome part to take in the Semi-Centennial Celebration of the foundation of the University in 1918.

MILITARY TRAINING

Cornell University is a community with universal required military service. The requirement extends to all undergraduates during the first two years of their course. For the past few years sophomores have been exempted owing to the lack of space in the Armory to accommodate them along with the freshmen. With the

completion of the capacious Drill Hall, for which the State has made an appropriation of \$350,000, there will be adequate facilities for drilling both classes. As there were nearly 1,400 students enrolled in the corps in 1915-16, there will certainly be an enrollment of over 2,000 in 1916-17.

The preceding figures show that Cornell University was in a thorough condition of military preparedness before the nation-wide movement in favor of it began. As in the latter part of the nineteenth century the University anticipated the needs of American manufacturing and transportation by its schools of applied science and engineering, and as in the beginning of the twentieth century it met the pressure of new conditions on the farmers and allied producers by the establishment of a State College of Agriculture, so it had long been awake to the necessity of national defense, and, with no support from public opinion, it put into practice in the academic community and recognized it as an important concomitant of general and professional education that system of universal required military training which statesmen and generals are to-day holding up as a theoretical ideal and practical necessity for the Nation. In this work Cornell and similar universities have been rendering the Nation a very important and distinctive military service. However large the regular army the defense of the country in case of war would call for a great volunteer army. But officers for such an army cannot be improvised. It is the aim of Cornell University to give undergraduates military training enough to qualify them to become lieutenants of volunteers. And the annual inspections of the War Department show that this task is being accomplished successfully.

Captain Thompson has continued and extended the work of his predecessors in the three directions of practical drills, rifle practice, and theoretical instruction. Contrary to common opinion, drills, though requisite for disciplinary and exhibition purposes, are only a small part of the entire work of the department. The broad object of military training is to prepare men for field service. And with that object in view year after year the scope of the work is enlarged. In 1915-16 a number of new subjects were introduced, including machine gun drill and firing, field intrenching, bayonet fencing, temporary bridge construction, first aid to injured, tent pitching, target designation, etc. Shooting is, of course, the essential business of the soldier, and during the past year more men were engaged in rifle practice and better scores made than ever before. The theoretical instruction has

covered the same military topics as it has during the past two years, but maps and diagrams have been introduced for the solution of problems in illustration of the subject matter of the lectures. This method of illustration and demonstration was also used for the solution in advance on the map of the problems and exercises scheduled for the period of outdoor instruction. In this way the student got in his mind a picture of the work contemplated so that when he came to undertake it he acted intelligently and lost no time.

The total registration in the first term was 1,386 and in the second 1,378. Of these, 154 in the first term and 152 in the second were excused—one-third approximately for athletics, another third for self-supporting labor, and the rest as aliens or as physically disqualified.

The War Department has continued to show the greatest interest in the military work of the University and to aid it by wise advice and practical assistance, with a liberal extension of all facilities at their disposal. For three years in succession Captain Schindel of the General Staff has inspected the corps with great detail and thoroughness on behalf of the War Department; and it is a great satisfaction to report that he has been able to compliment the institution on the good results achieved. This year, as in the two preceding years, the War Department included Cornell University in the list of the "ten distinguished colleges" selected for excellence in military training from among those throughout the United States at which officers of the regular army are detailed. This continuous distinction now entitles the University to an issue by the War Department for the use of the cadets of U. S. rifles, cal. 30, model 1903, being the Springfield rifles now supplied to the regular troops.

Captain Schindel's inspection was made on the two afternoons of May 5 and 6. His report to the War Department states that at Cornell University the military spirit is developed and nurtured "to an extent not otherwise to be found in colleges of this size," that military duty is performed "with the highest zeal on the part of the students," that the military instruction is "of such an extent and thoroughness as to qualify the average graduate for a commission as a lieutenant of volunteers," and that "the great stimulation of interest among all persons at the university is most marked, and the prospects for a brilliant future for the work of the cadet corps are assured."

American universities are in the habit of receiving gifts for the encouragement and maintenance of different branches of study. But

a gift for the benefit of the military department is rare if not altogether unique. During the past year, however, Cornell University has received a gift of \$10,000 for the purchase of supplementary equipment and other objects necessary or suitable for the improvement of military instruction and training. The generous and patriotic benefactor is Willard Straight of the class of 1901, recently elected by the Alumni as a Trustee of the University.

It is earnestly hoped that the new Drill Hall may be ready for occupancy in 1916-17. The temporary exemption of sophomores from military drill was terminated by the Faculty on the understanding that facilities hitherto lacking for the drilling of both freshmen and sophomores would hereafter be available. The addition of the sophomores next year is certain to raise the strength of the corps from less than 1,400 to more than 2,000 men. And Captain Thompson, with the assistance of a committee of the Faculty, has completed plans for the reorganization of the corps. These plans contemplate drilling not only as hitherto on Monday, Wednesday, and Friday afternoons but on Tuesday and Thursday afternoons also. The students in Arts, Agriculture, Law, and Veterinary Medicine would drill on Tuesday, Thursday, and Friday and those in Engineering, Architecture, and Chemistry on Monday, Wednesday, and Friday afternoons. The men drilling in the first year would be organized into ten companies of infantry; those drilling in the second year into four companies of infantry, one company of engineers, one company of signal troops, one machine gun platoon, and one detachment of sanitary troops; and in each group there would be a band of twenty.

The maintenance of the military department of Cornell University will hereafter involve some additional expense. Officers and equipment are furnished by the federal government. The University spends about \$10,000 a year for the payment of student officers, for supplementing the pay of the federal officers, for supplies and other purposes. The State of New York, before the national agitation in favor of military preparedness was dreamt of, made at the request of Cornell University an appropriation of \$350,000 for the building of the new Drill Hall. In view of the great military service which the University is rendering the State and the Nation it is hoped and confidently expected that the State will make an appropriation for the annual maintenance of its Drill Hall and for such supplementary equipment as will be necessary to make the work effective.

GENERAL AND PROFESSIONAL EDUCATION AND RESEARCH

The modern American university is a very composite organization. It contains in one institution what in other countries is divided among many. It is as different from Oxford and Cambridge as it is from the universities of the European continent, whether in the Germanic or the Latin countries. But it has grown up out of American conditions, embodies American ideals, and meets American needs. Concentrating in one organism a great diversity of educational energies and functions, it is characterized both by economy and efficiency of operation; though it is probable that in practice the best results of which the system is capable have not yet been achieved.

In the best developed type of the American university there is a core known as the college of arts and sciences devoted to general or liberal education; about it cluster a congeries of professional and vocational schools with the special object of preparing students for the different callings in life which have a basis in science or scholarship; and above all is the graduate department whose members take all knowledge for their province, each specialist aiming to master what is known in his own narrow field and undertaking independent research with a view to extending its boundaries. Thus the American university is at once an organ of general education, of professional training, and of research and investigation. From the point of view both of subjects and of workers it is a thorough democracy. It has the further advantage also of embodying in one organization the common ends of education.

The system, however, has the defects of its quality. The great danger is that of confusion of ends and purposes. Americans are a practical people and keenly appreciate the value of knowledge as a means of earning a livelihood or attaining professional success. But many of them fail to recognize the value of a general or liberal education. Thoughtful persons, however, recognize that a boy is a potential man as well as a potential engineer, lawyer, or physician and are ready to acknowledge the importance of an education for the development of manhood—for the training of powers, for the nourishment of the mind, for the enlargement of outlook and horizon, for the multiplication of intellectual interests, and for the expansion and development of personality. But perhaps the majority even of such persons fail to appreciate that the highest function of a university is the advanced instruction which it gives to original minds and espec-

ially the opportunity, stimulus, and guidance it furnishes them for independent inquiry and research.

As Dean Thilly has pointed out in his interesting and instructive report (Appendix III), the entire history of Cornell University shows that it has always regarded general education as one of the leading functions of the institution and has never confounded it with vocational and professional training for which it has also sought to make generous provision. The University gives the undergraduate in arts and sciences great opportunity to plan his own educational programme. But he is subject in the first two years to some restrictions, which aim to keep before his mind the idea of a liberal education, and in the last two years to the requirement of a moderate concentration of studies in a field of his own choice.

Many of the students in Arts and Sciences do excellent work. They desire knowledge, they delight in new ideas, they expatiate with eagerness in the intellectual world which is opening up to them. Others, however, lack intellectual interests and, while working hard enough to remain in the University, find their chief satisfaction in extra-curricular activities. A small percentage of students fail altogether and, of course, are dropped.

Can anything be done to awaken intellectual interests and to quicken intellectual life among undergraduates pursuing a general course of education? To this question Dean Thilly has a very suggestive reply. Where intellectual interest does not spontaneously manifest itself, he believes it may be induced by serious work. "We not only learn by doing; we also become interested in doing." Let the faculty insist that students shall work hard, and the students in responding will gradually become conscious of new intellectual interests. "The standards of scholarship can be raised if each individual teacher insists on honest work from his students and refuses to lower them for the indolent and the incompetent." To raise the standard of the College of Arts and Sciences the Dean prescribes a tonic of hard work. The President has always believed and on all suitable occasions proclaimed that hard work was the cure for nearly all the evils from which American colleges and universities suffer. It is the first duty of a student to study and to study hard. Those who do not respond to this obligation should, as Dean Thilly observes, "seek spheres of life more congenial to their nature." The institution which retains idle and incompetent students on its rolls is itself unworthy of the name of college or university. Cornell's reputation

as a place for hard work is a priceless possession, and every faculty in the University owes it to the institution as well as to its students and itself to see that this reputation is resolutely maintained.

The better general education a student has the better will he be qualified for his professional or vocational course. A general education is, however, absolutely essential to advanced study and graduate work. The American graduate school, while not wholly divorced from the professional school, rests essentially on the college of arts and sciences of which it is the culmination and crowning glory. Not only does the graduate school extend the period of study beyond the college course, but it furnishes the opportunity for concentrated and specialized work, it teaches and illustrates by practice the processes and methods by which knowledge is enlarged, and it encourages and trains the student himself to make investigations and pursue research with a view to throwing some new light on the unknown and contributing some new fact or idea to the sum-total of human knowledge. The value of the contribution made by the investigator may in itself be very slight. But it is of supreme value to the investigator himself as an exercise in original work, as a test of his ability, and as an encouragement and incentive to further effort.

In the graduate school the university is exercising its highest function. Enlarging the boundaries of knowledge, it makes its contribution to the progress of civilization. The amazing progress made in Germany during the last generation or two rests very largely on the creative science and scholarship of the German universities. Unfortunately this function of the university has never been appreciated in the United States at anything like its proper value and the graduate school is everywhere in danger of being submerged by the other divisions of the university which have a closer relation to practical life. Even the organization of the graduate school in American universities endangers its efficiency; for the faculty is made up of teachers who are members of other faculties, the greater number of whom devote the larger portion of their time to the instruction of undergraduate students and to the administration of undergraduate departments. The American public thinks of a professor as a teacher of undergraduates. And, as there are great numbers of undergraduates in the larger American universities, they monopolize the professor's time, endanger the efficiency of his work with graduate students, and encroach upon his interest in productive scholarship or scientific investigation. It is essential, however, not only to the

welfare of the graduate school but to the very life of the university as a whole that there shall be a large body of professors who refuse to be swamped by elementary instruction and to whom the work of promoting scholarship and carrying on research shall be primary and fundamental, not secondary and incidental. This subject has been admirably set forth by Dean Creighton, the head of the Graduate School, and the President most earnestly commends to all the friends of the University careful consideration of the following extract from his report (Appendix II):

"If, under the conditions of the present time, the Graduate School is to maintain and advance the spirit of scholarship and investigation in the University, certain independent provisions must be made for its work as something of central importance which has a legitimate claim, irrespective of undergraduate instruction. In the interest of all parts of the University, this central function must be supported and strengthened. At the present time we are looking forward to the Semi-Centennial of the opening of the University, and hoping that at that time it may receive support and stimulus which will lead to an increase of its usefulness. I believe that the strength of the University may be most certainly renewed and increased by giving to scholarship and research the central place. For this end, the Graduate School urgently needs a number of professors who shall devote themselves primarily to carrying on research, and to promoting and directing the scholarly activities of others. The endowment of such chairs in existing departments, or in subjects not yet represented in the University, would bring into the University a group of men whose main function and business would be the work of the Graduate School. They would thus form a centre and a rallying point for another and more vital interest than that of mere pedagogy. Ten or twelve such chairs would do more than anything else towards strengthening the University at its centre and lifting it to a new plane of endeavor."

An initial endowment of the Graduate School to the extent of one or two million dollars would be an incalculable boon to Cornell University. It would provide a band of able and highly trained men who, while teaching undergraduates as an incidental function, would devote the larger portion of their time and energy to strenuous work for the express purpose of enlarging the field of knowledge in the several provinces in which they had specialized. They would exercise immeasurable influence in energizing the intellectual life of the University and stimulating it to its highest potency. And if they had the co-operation of similar investigators in the principal American universities they could in the course of a generation markedly raise the character of American scholarship and science and through that intellectual achievement make notable contributions to the welfare and prosperity of the American Nation and to the advancement of civilization. Here is a large opportunity for some wealthy man or woman to do great good through the University for the country, while erecting at the same time an imperishable personal monument. As

Dean Creighton says, the Semi-Centennial Celebration of 1918 presents a fitting occasion.

LETTERS AND SCIENCE

The means of education are arts and letters on the one side and science on the other. The latter deals with Nature—the objective world in the midst of which we live and move and have our being; the former deals with Man—his doings and achievements, his social and political interests, his economic struggles, his artistic creations, his reflections on himself and on the world with which he is so vitally connected. Arts and letters thus embrace not only the objects signified by those words in their narrower sense but also history, politics, economics, psychology, and philosophy. It might conduce to greater clearness if collectively they were described as the humanities, that is, the subjects which concern themselves with man and which make for humane culture. With the word thus understood, it may be said that education has to do with the humanities and the sciences.

Cornell University has always recognized the high importance of the humanities in education. Three professorships in psychology and philosophy were endowed by that munificent benefactor of the University, the late Henry W. Sage. Mr. Sage, who was a hard-headed business man, in making these endowments bore striking testimony to his sense of the worth of idealism. Goldwin Smith was a scholar and voluminous writer; and Goldwin Smith left to Cornell an estate of nearly \$700,000 for the strengthening of the humanistic departments, which has been used to endow professorships in the classical languages and in history and political science. Jacob H. Schiff a few years ago also gave the University an agreeable surprise by presenting to it \$100,000 for the endowment of German culture. A large demand is made on the University for instruction in English literature and French literature and a smaller though not inconsiderable demand for Italian literature. It would be a great assistance to the University if other capitalists would follow Mr. Schiff's example in providing endowed chairs for these subjects.

But the more we know of man and of his life in society the larger the circle of the humanities becomes. Thus, the growing relations between the United States and Latin America have created a demand for Spanish and money is now needed to endow a professorship. A gift of \$6,000 by J. G. White, the well known engineer and contractor of New York City, for prizes in Spanish, offered annually to English-

speaking students for proficiency in Spanish and to Spanish-speaking students for proficiency in English, has proved valuable in stimulating competition among the students. The systematic study of city government is a modern one and an endowment is needed to make proper provision for it in the University. International law is not, indeed, a new subject, but there is no professorship at Cornell and the lectures are given by the President. There never was a time in the history of the world when international relations and international law were of greater importance or significance than at the present time. An endowment for a professorship would enable Cornell to make more adequate provision for the work than is possible at the present time.

Knowledge grows, however, more rapidly and extensively in the sciences than it does in the humanities. Cornell University has always had an excellent reputation for its work in science.

The applied sciences will be considered in another connection. Here we are concerned with the pure sciences, and the question is, what of the condition of astronomy, of physics, of chemistry, of geology, and of biology at Cornell? Owing to climatic conditions it would be a mistake to attempt to build up a first class department of astronomy here. And as other universities have observatories in strategic points all over the world, there is no reason why Cornell should make any effort to duplicate their work. There is a large and successful department of physics at Cornell, manned by able professors, a number of whom are conspicuous as scientific investigators. They have a commodious and convenient laboratory for which a few years ago John D. Rockefeller made a gift of \$250,000. There is also a reasonable supply of equipment, especially for purposes of instruction and student laboratory work, though the professors complain of deficiencies for carrying on their own scientific investigations. As physics is the fundamental science of the material world and the department at Cornell is unusually strong, endowments to enable the professors to carry on their investigations and to provide one or more professorships devoted to research would be an exceedingly good investment for any capitalist with his eye on intellectual productivity.

The laboratories of the department of chemistry, Morse Hall and the additions, were destroyed by fire on February 13. The roofs and the interiors of the structures were completely swept away and the walls were so weakened that the upper story was taken down. Temporary roofs have been placed on the remaining stories in which,

with the addition of rooms in other university buildings, the work of the chemical department will be carried on next year. It is a mere makeshift, however, and the Trustees have adopted the policy of erecting a new chemical laboratory as soon as funds are available for the purpose. As the chemical department is the largest in the University, registering about 2,100 students, who come from practically all the colleges on the campus, a laboratory of great size is needed. The present estimates of cost are from three quarters of a million to a million dollars. On the recommendation of the President the site now occupied by the President's house and the adjoining cottages will be given up to the new laboratory. It is beyond doubt the best and most commanding location on the campus. If rich men were as keen and wise in making investments in education as they are in making investments in manufacturing and transportation, some one would quickly seize the opportunity to donate this laboratory to Cornell, to equip it, and also to give one or two million dollars as an endowment for the salaries of the staff and the cost of maintenance. With such a transformation the department might very properly be organized as a college bearing the name of its benefactor. An intrinsic justification for this designation is found in the great size of the department, in the number and high ability of its professors and instructors, some of whom rank among the foremost chemists in America, in its service to almost every other college in the University, and, lastly, in the professional course in chemistry which has been developed in recent years with such marked success. There were 108 students specializing in this course in 1910-11 and in 1915-16 there were 201 and during the same period the graduate students in the department increased from 58 to 85. There is a brisk demand for graduates in this course from the chemical industries of the country, to which since 1914 the great European war has given a tremendous stimulus. Apart from the war, however, there are grounds for thinking that there will be in the near future a great and rapid development of chemical industries in the United States. The needs of the department of chemistry at Cornell University are commended to the consideration of capitalists interested in this subject and especially to those who have already made fortunes in the chemical industries.

The remaining natural sciences are geology and biology. In Cornell University the former is crowded in one old building, McGraw Hall, which it shares with zoology. The latter is dissipated in four or five buildings scattered all over the campus. Both departments

instruct large numbers of undergraduates, both encourage advanced work and research, and both have able scientists in their instructing staffs. The President hopes some day to see on the campus new laboratories for the accommodation of these departments and he hopes that with them will come endowments for the maintenance not only of instruction but also of research. But at present the needs of the department of chemistry, whose laboratories have been destroyed by fire, are more urgent than any other and to these the claims of other departments must be postponed.

THE FINE ARTS

Of the fine arts—music, painting, sculpture, architecture—it is architecture which has been longest established at the University and has had the fullest development. Organized many years ago as a separate college, it enrolled last year 166 undergraduates and four graduates. All the fine arts presuppose a liberal culture for their advancement and also for their complete appreciation. The tendency, however, in America has been to overwhelm the students of architecture with technical subjects, many of them of a scientific and mechanical character, with provision, indeed, for drawing and design, but with little regard for the cultural subjects which have been the nourishment of artistic souls and the stimulus of the artistic impulse throughout the entire history of art. At Cornell there are variations of the four-year course, extending through five and six years, offered to students for their election, and it is an encouraging circumstance that last year a third of the entering class selected the five-year course. Experience has shown that the best work in design is done by graduates of the *École des Beaux-Arts*; and as Professor Mauxion, who was recalled to France for service at the outbreak of the great war, is still in active service, another graduate of the *École des Beaux-Arts* was secured to take his place last year, namely, Everett V. Meeks, a graduate of Yale University who, after studying architecture two years at Columbia, entered the *École des Beaux-Arts* where he studied for four years, receiving his diploma in 1909. Mr. Meeks, who is in active professional practice in the office of Carrère and Hastings, New York City, has proved an excellent and inspiring teacher of design. He has been assisted by Shepherd Stevens, a graduate of Columbia, who also studied four years at the *École des Beaux-Arts*, receiving his diploma in 1909, and who has devoted the subsequent years in part to travel and study abroad and

in part to active practice in New York City. The work of these professors was reinforced by the work of the four graduate students who devoted themselves mainly to design. In the national competition for the architectural prize of the American Academy in Rome a Cornell graduate, Raymond M. Kennedy, holder of the Joseph Plaut fellowship, was successful. As holder of this fellowship Mr. Kennedy will enjoy three years of study in Europe under the auspices of the American Academy with an annual stipend of \$1,000 and living quarters in the Academy. The College of Architecture, which is now crowded in the upper story and attic of White Hall, feels the need of a separate building which with the constant increase in the number of students will soon become an imperative necessity. The idealistic side of the work of the College should be carefully fostered and constantly encouraged. The most effective material contribution to that end would be the endowment of at least one professorship in design.

There is no separate department of painting at Cornell, although there is a professorship of drawing and painting in the College of Architecture. This chair is occupied by Professor O. M. Brauner, an artist of first-rate ability and of growing reputation, whose paintings in recent years have found a place in the art exhibitions of the leading cities of the country. In addition to his teaching and his work as a painter, Professor Brauner has helped to create an artistic atmosphere in the University by the maintenance of annual exhibitions of paintings by distinguished American artists of the present day. On the invitation of the President of the University the exhibition of paintings this year was limited to the works of Professor Brauner himself with the result that the entire university community enjoyed the opportunity of seeing in one place and at one time the more important of his recent productions. /

The University makes no provision for the training of sculptors, but the influence of statuary as a factor in liberal culture is kept alive and diffused by the excellent collection of Grecian and Roman casts which fill the large and well lighted museum in the lower story of Goldwin Smith Hall.

Interesting courses in the history of architecture, painting, and sculpture are given by Professor Albert C. Phelps, Professor Hiram S. Gutsell, and Professor Eugene P. Andrews.

A university department of music may aim to teach the theory and history of music and train composers or to satisfy the general demands of a university community for good music, creating a musical atmos-

phere, providing the means of musical enjoyment, and stimulating musical appreciation. For the former purpose there should be a school of music with a considerable faculty including some men of distinctive musical genius. But Cornell University must await a special endowment for such an addition to its educational resources. Meanwhile at a comparatively small expense, by utilization of the musical talent of members of the student body with the occasional co-operation of outside musical organizations or individual artists of the highest standing, a great deal has been done under the leadership of Professor Dann to make the best music an element of education and a source of enjoyment to all the members of the university community, students and teachers alike. The annual musical festival in the last days of April offered to the university community a rich and varied programme of music of the highest order which was rendered by the Chicago Symphony Orchestra and a number of the foremost soloists of America with the assistance of the great university chorus. There were persons in attendance at this festival from over seventy cities and towns outside of Ithaca, not including the members of the university community for whom these annual festivals are primarily intended. There was also a series of concerts in the months preceding the festival which were also well attended. And thirty-three organ recitals were given in Sage Chapel and Bailey Hall, also to large audiences. In the Summer Session there is a well organized course for the training of young men and women who desire to become supervisors of music in the schools, and the course has proved so instructive that the effort to limit the attendance to 250 has been found impracticable. For these excellent results great credit is due to Professor Dann and his assistant, Mr. Quarles who, in recognition of his work, has been given an official appointment as Assistant Professor of Music. It often happens that men of wealth are lovers of music or of other fine arts and realize their importance as an element in liberal education. The preceding statement shows what fruitful use Cornell has made of the very limited means at her disposal. If instead of one talent she had ten or a hundred a corresponding increase might reasonably be expected in the results.

LAW

The science of law is based on the decisions of the courts. In the United States these decisions may interpret and apply statutes, constitutions, or the principles of the common law which the colonists

brought to America from England where they run back through unbroken history for several centuries. The conditions essential to good instruction in the science of law are, therefore, first, able and learned men and, secondly, books or, more particularly, decisions of the courts which furnish the material for their expositions and deductions.

The College of Law has always had able and distinguished men in its faculty. Among them may be mentioned Charles E. Hughes, ex-Governor of New York and ex-Justice of the Supreme Court of the United States, the late Francis M. Finch, Judge of the Court of Appeals, Dean Hutchins, now President of the University of Michigan, Emeritus Professor Francis M. Burdick of New York City, the late Ernest W. Huffcut, Professor and Dean and legal adviser to the Governor, Cuthbert W. Pound, now Judge of the New York Court of Appeals, and Frank Irvine, now Public Service Commissioner of the State. Judge Pound has recently stated that the College never had a stronger faculty than at the present time. With proper support, therefore, it may be confidently expected that the College will maintain and improve the standing it has secured.

The College has an extraordinarily complete and valuable library. It contains reports of the federal and state courts and of the British and Colonial Courts from the earliest times to the present day. The richness and completeness of the library are primarily due to the purchase some years ago of the great Moak collection; regular appropriations from the university treasury have been sufficient to continue all reports and to make other important additions. A gift made in 1908 by Earl J. Bennett, LL.B., '01, has been used for the purchase of Session Laws, greatly to the advantage of the College; and during the year just closed the College received a donation of 180 volumes from the library of the late Dean Huffcut, being a donation from his sister, Miss Lillian Huffcut. The establishment last year of the *Cornell Law Quarterly* is a noteworthy event. It furnishes the College with a medium of expression to which students of law and active practitioners have alike given a cordial welcome. And to the students of the College who are honored with a position on the board it furnishes an opportunity for advancement not unlike that enjoyed by graduate students in other departments of the University. From the outset the publication has been successful both on the scholarly and financial sides; and for these results large credit is due to the faculty editor, Professor Bogert.

The growth of the College of Law is a reflex of that of other divisions of the University. It began with low entrance requirements which were gradually raised until at the present time they cover a complete high school course and one year of college work (with two as an ultimate ideal). The course of study which was originally one of two years was long ago extended to three years. With these improvements in the scholastic standing of the College, the range of its attractive influence has expanded. In 1899-1900 the number of students from outside New York State was only 15 per cent. of the total number. In 1915-16 this percentage had risen to 41. These students were drawn from 25 different states or territories,—141 from New York, 28 from New Jersey, 20 from Pennsylvania, 11 from Ohio, 6 from Massachusetts, 4 from Connecticut, 4 from Indiana, 3 each from Illinois, Nebraska, and Porto Rico, 2 each from California, Michigan, Missouri and Utah, etc.

The following extracts from the report of the Dean (Appendix IV) show the most urgent needs of the College:

"In concluding this report may I call your attention to the more insistent needs of the College. The salaries of the members of the faculty are inadequate, whether viewed from the point of quality and extent of service rendered, or from the point of increased cost of living. The compensation compares on the whole unfavorably with that allowed by schools of equal reputation. * * * There is competition for law professors of established reputation, and the schools which are able to offer inviting compensation command their services at salaries ranging from \$4,000 to \$8,000. Fortunately we have been able at Cornell to present to desirable teachers a few attractions that counterbalance in some degree the lower salaries. I refer to our very complete facilities, and to the generally pleasant environment. Otherwise we are at a disadvantage. * * * The unusual good fortune that has hitherto attended the selection of members of our faculty cannot be expected to wait upon us always. * * * Another urgent need of the College of Law is an addition to Boardman Hall. There is housed in this building one of the most valuable law libraries in the country; but the building is not fire-proof. An addition should be constructed for the protection of at least the considerable number of volumes which are practically irreplaceable or difficult of replacement. * * * There is one other need of the College of Law. It is highly desirable that the law library should be endowed, in order that its necessary growth may thus be placed beyond interruptions that might be occasioned by possible future reductions in the amount of annual appropriations made for the library. * * * Moreover, it is to be hoped that our law library may soon be provided with a special endowment for the creation of a department of the law of continental Europe."

MEDICINE

No branch of science has made more rapid and extensive progress in recent years than the group of medical sciences. The advance has been energized both by intellectual curiosity in regard to nature's secrets and humanitarian sympathy with the diseased and suffering. Material resources for carrying on the work have been furnished with

unparalleled generosity by men of wealth. Medical education has been revolutionized and medical colleges subjected to altogether new criteria. The founding of the Cornell University Medical College eighteen years ago was a part of the new movement for the improvement of medical education in America. The Founder of the College quickly recognized the costliness of scientific research and instruction in the field of medicine, and the endowment which he generously turned over to Cornell University for the use of the Medical College in New York City, for which he had already provided a splendid building, is the largest which any school of medicine in the world has hitherto received. The College was thus enabled quickly to take its place among the foremost schools of medicine in the country. And its friends desire it to grow with the expansion of science and the multiplication of problems requiring scientific investigation. In the fulfillment of that object and destination its legitimate needs for teaching and research have already expanded beyond the limits of its income, liberal though that income is.

Of the new financial demands on the College one of the heaviest items is due to providing better hospital facilities both for the instruction of students and for the scientific investigation of clinical problems. Under a working agreement made during the year the trustees of Bellevue and Allied Hospitals entrusted to the College the administration of one-fourth of the present hospital service in the departments of general medicine and general surgery and also the entire neurological and urological services, including the out-patient departments, on condition that the College should provide a salaried staff to cover not only the ward work in the hospitals but also the study and research in the clinical, chemical, bacteriological, and pathological laboratories of such questions and problems as may arise in connection with that hospital service. The general plan of organization provides for a chief of staff in each department, giving four or five hours a day to the hospital, and competent professional assistants giving, if necessary, all their time to these duties, with scientific experts in the several laboratories to investigate the problems encountered by the practitioners in their daily service. The result is to bring the clinical departments and the scientific laboratories into the closest association for grappling with the problems of disease in all its forms. And it is not easy to imagine a more promising arrangement for the advance of medical science. But it is costly in any form and the more costly in proportion as it is made adequate and efficient. Already the

several departments of the College concerned are calling for more expert and scientific service than the funds of the College permit it to supply. And these new developments should not be limited to Bellevue but should, as soon as means are available, be extended to the New York Hospital, in which the College (thanks to the generosity of George F. Baker) already enjoys certain special privileges, and also to other hospitals in which similar desirable arrangements might be consummated.

The factors of a successful medical college are a faculty made up of practitioners, eminent in their practice and of scientists distinguished for research, and facilities for the work of these men in the way of well-equipped laboratories and hospitals. The man is of course the principal element, and every effort should be made to strengthen the faculty by the appointment of men both of high professional standing and high scientific attainments. But such professors must also be supplied with instrumentalities for their work. And at present the development and correlation of hospital ward work and laboratory investigations for pretty nearly all departments is the most urgent problem in the Medical College.

In one department, or rather in one field of investigation, that problem is being solved through the intelligent and generous philanthropy of Dr. James Douglas, the wise administration of the governors of the Memorial Hospital, and the able scientific leadership of Professor James Ewing, head of the department of pathology in the Medical College. Dr. Ewing and his associates, as is well known, have long been working at the treatment of cancer and allied diseases, in which they have made gratifying improvements. The Memorial Hospital, thanks to munificent gifts already made by Dr. James Douglas, now devotes itself exclusively to the care of cancer patients. And through the further generosity of Dr. Douglas, the Hospital is now constructing a well planned and thoroughly equipped laboratory building for the study of cancer and similar diseases. When this building is completed Dr. Ewing and his scientific coadjutors will have at the Memorial Hospital an ideal combination of clinical and laboratory facilities for the highly important investigations to which they are giving so large a part of their time and energy.

For details in regard to the operations of the College during the last year reference is made to the report of Dean Polk (Appendix V).

The Ithaca Division of the Medical College performs an important service both for the College and the University. It has trained

during the first year of their medical course a disproportionately large number of the subsequently most distinguished students of the College; it has brought to the home of the University the spirit of modern medicine, which has been fostered and stimulated by the university spirit of research; and it has served to keep alive the feeling that the Medical College, though located in New York City, is an integral part of Cornell University. The details of the work of the year will be found in Dr. Kerr's report (Appendix VI). His plea for a separate endowment is entirely justifiable. For in a medical school open only to college graduates research must occupy a large place, and research is always expensive. The medical students who take their first year at Ithaca enjoy the privilege of working in laboratories with independent investigators who are graduate students or juniors members of the staff, and in subjects like physiology, biochemistry, histology, embryology, and even anatomy research is actively carried on by a considerable number of such workers. They communicate to the medical students the spirit of research and are constant reminders of its necessity and importance.

The bequest of \$50,000 by the late Mrs. Dean Sage for the encouragement of research in the medical sciences by the Ithaca Division of the College is a much needed aid to a worthy cause and a source of great gratification to the professors who are devoting themselves to it.

VETERINARY MEDICINE

The conservation of the animal resources of the country is the business of the veterinarian, and for that purpose he needs all the help which modern science can furnish him. There is no adequate appreciation in the public mind either of the magnitude or of the importance of this subject. More than a third of the annual income from agriculture in this country is from animal products. And animals represent an investment equal to 12 per cent. of the value of all farm property including land, buildings, and equipment. As Dean Moore very justly says:

"A profession that has for its mission the safeguarding of such important and vital interests should have institutions equipped not only with the working tools of instruction but also facilities for the development and advancement of the sciences necessary for successful teaching and efficient practice."

The soundness of this policy and its urgency also are emphasized by the fact that the report of the Secretary of Agriculture for 1915 shows in the United States an annual direct loss from the more

important diseases of animals of \$212,000,000, a large part of which should have been prevented.

To qualify students of veterinary medicine more thoroughly for their work the course in the Veterinary College has been extended from three years to four beginning with September, 1916. This additional year will give the students more adequate time to master the increasing number of sciences which constitute the foundation of veterinary medicine and to get a more extended clinical training and a readier familiarity with clinical methods. A new department has also been created for the purpose of investigating the diseases of breeding cattle, which have been a source of heavy loss annually to stock owners in this and other states. This work has been put in charge of Professor Williams, who, in addition to the researches he has conducted, has attended gatherings of cattle breeders in different parts of the State, informing them of the present condition of scientific knowledge on the subject and assisting them in devising better methods for the control of the diseases. The investigations conducted by Dr. Birch on hog cholera and on methods of preventing its dissemination are of great scientific and practical importance. These and other investigations will be described in detail in the annual report to the Governor. Dean Moore (Appendix VII) describes the needs of the College as follows:

"The needs of the College are still numerous. The appropriations for maintenance and equipment have been quite satisfactory but the request for the south wing to James Law Hall and the new laboratory were not granted. The increase in the number of students emphasized the necessity for the enlargement of the laboratories of anatomy, bacteriology, and diagnosis. * * * The needs of the Veterinary College, however, are not restricted to buildings and equipment. * * * The most pressing needs of the Veterinary College and of the veterinary profession in this country are endowed professorships in research and fellowships for graduate veterinary students. There is no other profession where its artisans, if successful are required to possess a knowledge of a wider range of technical subjects than in veterinary medicine and there are few if any other subjects more promising for research than those of the physiology and diseases of the various species of the domesticated animals. The sanitary as well as the economic significance of animal diseases places them foremost among the problems that should be solved."

AGRICULTURE

The fostering of scientific agriculture in all of the states was begun by the federal government more than fifty years ago when, on July 2, 1862, President Lincoln approved the Morrill Act donating public lands to the several states and territories which might provide colleges for the benefit of agriculture and the mechanic arts. This legislation was supplemented by the second Morrill Act of 1890 and the Nelson

Act of 1908; and it was enlarged by the Hatch Act of 1887 establishing experiment stations in all the states, which was also supplemented by the second experiment station act or Adams Act of 1906. These two groups of statutes made provision for the teaching of scientific agriculture to college students and for research with a view to enlarging the boundaries of agricultural science. It remained for the federal government to make provision for the dissemination among the farmers themselves of the fundamental facts and principles of agricultural science and of the improved methods and processes whose value had been attested by agricultural experts. This latest step in the federal encouragement of agricultural education was taken on May 8, 1914, when President Wilson signed the Smith-Lever bill which appropriates to the several states large funds for extension work in agriculture to be undertaken in co-operation with the states themselves. Under the terms of this act New York State will in 1923, and annually thereafter, when the appropriations provided for will have reached their maximum, receive from the federal government \$170,000 on condition that the State of New York provides an equal amount for co-operative extension work among the farmers of the State. Cornell University, being the federal land grant college of New York, is the agent by which this extension work is to be carried on. The organization and conduct of this state-wide teaching enterprise will occupy much of the time and energy of the Dean and the administrative staff of the College for the next few years.

While the federal government has thus generously encouraged education and investigation in agriculture and the extension of the results of scientific investigation to farmers on their own farms, many of the state governments have shown no less zeal for the betterment of the farmers and the improvement of conditions of farming within their own borders. Among these states New York stands conspicuous. The State Colleges of Agriculture and Veterinary Medicine at Cornell University as well as the state experiment station at Geneva are visible evidences of the wisdom with which, in this respect, the State has been governed. No doubt this statesmanship is the reflection of a deep and wide-spread interest in the welfare of the farmer and in the general condition of country life. Conceived in a wise, sound, and forward-looking statesmanship, the State College of Agriculture has amply justified the generous appropriations which the State has made for it. Under the able leadership of Dean Bailey, who continued the work which Dean Roberts had so happily begun

and so long cultivated, the College quickly became an important influence throughout the State; and this position, in spite of the retrenchments in appropriations which it suffered last year, it has endeavored to maintain under the recent leadership of Dean Galloway. The motive force behind this great movement for a more satisfying country life and a better agriculture is the conviction that properly trained men and women must be placed on the farms and in the rural communities. Education and science are the hope of the farmers as they have already proved the boon of manufacturers and transporters. Men and women of vision and well disciplined minds are the prime agents in accomplishing progress in every field of human activity whether intellectual economic, or material. Thus, improvements in agriculture must rest on a sound educational basis. And that the State College of Agriculture at Cornell University is successfully solving the great problem of agricultural education is visibly evident from the fact that in a dozen years the enrollment of students in the College has increased ten-fold. Already the College of Agriculture is the largest college in Cornell University, and the authorities and friends of the University share the hopes of the Faculty of Agriculture for a continued increase in the attendance and steady improvement and growing success in its work.

The rapid and amazing growth of the State College of Agriculture at Cornell University has multiplied and enhanced the difficulties under which every college of agriculture labors. Agriculture is a new science and its subject matter has not yet been completely determined or thoroughly organized for pedagogic purposes; its teachers are nearly all of recent training, most of them young and inexperienced; its text books have in many cases not been written or, if written, leave much to be desired; and its curriculum of study lacks the perspective, the subordination of relatively unimportant to fundamental subjects and the correlation of one subject with another, which are the distinguishing features of the curricula of old and well established professional schools. These defects which characterize the agricultural colleges of America will as they advance from infancy to maturity gradually be overcome. But they are a part of the existing situation; nor is it in teaching alone that colleges of agriculture are hampered by the difficulties and restrictions which attend the organization and development of every new professional school. Research in agriculture is also unorganized and the funds available for this high function are wholly inadequate. The limitations of

existing agricultural knowledge will be felt more keenly as the rapidly growing system of extension work develops. In this circumstance, however, there is ground for hope that research may receive more attention and larger support in the near future. Meanwhile the extension work itself remains one of the most difficult which devolves upon the college. It is no easy question to determine what its character and scope shall be; and when that question is settled, it will still remain to organize the best methods and means for the application of science to the practical problems of agriculture. It will clearly require an experience of a good many years before a system of extension work such as that contemplated by the Smith-Lever bill can be administered with the maximum of wisdom, economy, and success. The first essential condition would seem to be the separate organization of an extension staff of teachers under a director giving his entire time to the administration of the extension service.

The state law approved April 12, 1906, providing for the administration of the New York State College of Agriculture at Cornell University sets forth the purposes of the college as follows:

"The object of said college of agriculture shall be to improve the agricultural methods of the state; to develop the agricultural resources of the state in the production of crops of all kinds, in the rearing and breeding of live-stock, in the manufacture of dairy and other products, in determining better methods of handling and marketing such products, and in other ways; and to increase intelligence and elevate the standards of living in the rural districts. For the attainment of these objects, the college is authorized to give instruction in the sciences, arts and practices relating thereto, in such courses and in such manner as shall best serve the interests of the state; to conduct extension work in disseminating agricultural knowledge throughout the state by means of experiments and demonstrations on farms and gardens, investigations of the economic and social status of agriculture, lectures, publication of bulletins and reports, and in such other ways as may be deemed advisable in the furtherance of the aforesaid objects; to make researches in the physical, chemical, biological and other problems of agriculture, the application of such investigations to the agriculture of New York, and the publication of the results thereof."

The language of the law is clear and definite. The State College of Agriculture was called into existence for the improvement of agriculture and allied industries, to advance intelligence and raise the standards of living by disseminating agricultural knowledge in the rural districts, to make researches in the sciences underlying agriculture, and to give college instruction "in the sciences, arts, and practices relating thereto." Briefly and broadly expressed, the State College of Agriculture at Cornell University exists for the benefit of the farmers. It is a college of *agriculture*; it is not an institution of general education. Possibly that fact was a little obscured when the degree was changed from Bachelor of Science in Agriculture to

Bachelor of Science. At any rate it is imperative that the institution be held to its charter object of educating and serving the farmers and promoting their interests. If the majority of the undergraduates in the College do not expect to live and work on the farm they should contemplate the advancement of agricultural interests in other ways. Devoting itself unreservedly to the function of educating, serving and helping the farmers, the College will in turn enjoy the confidence and receive the support of the farmers.

The New York State College of Agriculture has stood in the forefront among the agricultural colleges of America. Its work, however, has only just begun and vast possibilities are opening up for the future. The extent to which the College can realize these possibilities and the rate at which it can continue to progress will depend largely on how adequately its growing needs are met by appropriations from the State of New York. For the coming year the experimental work in all departments will be much hampered in consequence of the large reduction in the items requested of the legislature and hitherto used to pay the wages of employees who perform the manual labor connected with these experiments. Another serious embarrassment has been created for the College by the application to it of the new state policy of highly itemized budget-making, while depriving the authorities of the institution of any discretion in the use of the appropriations thus made. The budget of the State College of Agriculture may thus contain an item of \$3,000 for a professor's salary; if he is called to a professorship in another agricultural college at \$3,500 or \$4,000, the New York State College of Agriculture, however desirous of retaining him, finds itself powerless. In the past the Trustees, to keep able professors, have advanced their salaries within the limits fixed by the general scale of salaries in the University. If the present system continues in force, there is great danger that the Faculty will lose many of its ablest young men as soon as their reputations make them known throughout the country and command for them offers of salaries higher than the incipient compensation fixed by the legislature in the budget of the State College of Agriculture at Cornell University. A college is just as strong as the men who constitute its faculty; there is very serious danger that the restrictions of the new budgetary system adopted by the legislature may gradually lower the standard of the Faculty of the State College of Agriculture. The statement of this fact is not meant as an argument against a state budget system, still less against economy in state expenditures. All that is desired

is that the budget and the provisions which accompany it shall be so framed that the highly important and successful work of the State College of Agriculture at Cornell University shall not be impaired or endangered. The needs of the College are set forth in detail in the separate report to the Governor and legislature of the State.

ENGINEERING

The engineer applies science to the needs and uses of man. Nearly all of the material constituents of modern civilization, and a large part of the economic, are the work of the engineer. His first great achievement was the construction and operation of railroads and steamships; later he revolutionized productive industry by applying science to the extractive and manufacturing arts; he now co-operates with the architect in rearing the mammoth structures of modern cities; he provides for these cities light, heat, and water, and disposes of their sewage; he has established instantaneous communication between all parts of the world by means of both submarine and aerial messengers; and, in general, he has determined the character and he maintains the control of nearly all the productive activities of the modern world, satisfying the needs of men, ministering to their convenience and comfort, and holding out to them with the progress of scientific knowledge the prospect of indefinite improvement in the conditions of existence and in the means of happiness and advancement towards greater perfection.

Every college or university which has trained engineers has contributed its share to this splendid result. Among them Cornell University has a distinguished place, as American and European experts alike recognize. No university in the world has striven more zealously to unite in its mission the Idealism of ancient Athens with the Industrialism of modern America. Ezra Cornell's conception of a university where any person could find instruction in any study grew out of a consciousness and conviction that a modern university, without, indeed, surrendering its devotion to ancient ideals, must also deliberately serve the industrial interests of the country and apply to their relief and development the facts and principles established by investigators in the field of pure science. The schools of engineering at Cornell University have always loyally, devotedly, and with confident assurance followed this path. Their achievements, which have brought great distinction on the University, are now a part of the educational history of the country.

Engineering is applied science; there can be no engineering unless there is science to apply; and the progress of engineering is dependent on the advancement of science. But if science is to be advanced and enlarged, it can only be by means of the investigations conducted by able and well trained minds who give their supreme energy to that object. Hence, as already pointed out in the preceding pages, the endowment of professorships devoted to research is a fundamental requisite in every great modern university. In the next place, the new discoveries and principles of science are applied by the investigator to industrial processes and operations, and the good engineering school is the one which represents science in its highest stages of development and which reflects or reports the organizations of the industrial world with its best and latest improvements. Its professors must be masters of the sciences and also conversant with all the practical developments in the constantly changing industrial world. They must be supplied with laboratories, well equipped with scientific apparatus, with shops stocked with modern machinery, and with models, charts, and similar illustrative material. Apparatus and machinery, buildings, and above all men—scientists and engineers—these are the essentials of a school of engineering.

The schools of engineering at Cornell University have outgrown their organization alike in men, buildings, and material instrumentalities of instruction and investigation. There is too large a proportion of instructors and too small a proportion of professors in the instructing staff. Thus, in mechanical and electrical engineering there are 46 instructors to 11 professors and 12 assistant professors. Business men have made fortunes in the industrial world from the services of engineers with the use of engineering science; might not some of them be glad to recognize their obligations by establishing at Cornell University endowed professorships in branches of engineering? With the exception of one professorship endowed by the late Hiram Sibley of Rochester, the University, strange to say, has never received a gift for such a purpose. And although Mr. Sibley and his son, Hiram W. Sibley of Rochester, as well as Mrs. Florence Osgood Rand Lang of Montclair, New Jersey, have donated buildings, the accommodations are now wholly inadequate to the needs of the engineering departments. Lincoln Hall and Franklin Hall, which are old, inconvenient, and entirely unsuited to their present use, should be replaced by new, commodious, and larger buildings devoted respectively to Civil Engineering and Electrical Engineering. Plans were

made some years ago for two new shop and laboratory buildings to replace the old shop buildings north of Sibley College and the need of these buildings increases with the lapse of every year. In connection with the modern development of water power the work in hydraulics has assumed increasing importance, and the laboratory in the gorge beside Triphammer Falls is now wholly inadequate to the demands made upon it. The different buildings just mentioned would probably cost from \$200,000 to \$500,000 or \$600,000 each. A somewhat smaller building is needed as a laboratory for testing materials and another, a quite inexpensive structure, for demonstrations in sanitary engineering with special reference to the problem of sewage purification. In connection with this latter problem the Professor of Sanitary Engineering reports to Dean Haskell (Appendix X) that:

"Various cities of the United States have built testing stations for their individual problems, and while much practical knowledge has resulted, the fundamental biologic processes involved have been subordinated to the practical results desired for that particular municipal plant."

The Professor believes that this problem, so important to the health of the inhabitants of all cities, must be solved through scientific investigations which can only be undertaken at the universities:

"I believe strongly," he says, "that a fund to promote research should be provided. The fund should pay from two to three thousand dollars a year, and should furnish opportunity for the employment of an engineer with practical experience, who could, either in the hydraulic laboratory, or in this proposed laboratory, carry on experimental work, either with or without the co-operation of professors and students, and so apply himself to the work in hand that definite results of benefit to the profession at large could be obtained."

In electrical engineering Professor Gray came last year to the headship of the department. Dean Smith (Appendix XI) reports that it has been a year of growth and increase of effectiveness with a rearrangement of the laboratories and quite extensive additions to the equipment, with the result that the department "promises to become in the near future one of the strongest in Sibley College." In mechanical engineering Dean Smith reports that research has been carried on continuously, the most important problems falling under the following heads: an experimental study of the Brinell method of testing materials for hardness; a study of the physical properties of lubricating oils, particularly viscosity; experiments for determining the coefficient of friction of wood on cast iron at high speeds; the development and thorough testing of a thermal alarm system; a study of the clinkering of coal; investigation and partial testing of a power plant; the application of "surface combustion" to iron manu-

facture; characteristics of the Le Blanc pump; experiments with carburetors and automobile engine testing; effect of heat treatment on the physical properties of brasses and bronzes; experimental investigation of "water-hammer"; and study of aeroplane fabrics. The Dean adds the following:

"During the last summer vacation an investigation was started on the 'Upton-Lewis Fatigue Testing Machine' to determine the best heat treatment of carbon steels to give longest service under repeated stress; this investigation is still under way. Incidentally this work established the unexpected and surprising fact that the number of repetitions of stress at failure bore such definite constant relation to the carbon content, that the latter could be determined from the fatigue test almost as accurately as from chemical analysis. The new and improved machine is now in service, and during the coming summer a test series is planned on carbon steel of constant composition; the object of this test is to check the commonly accepted theory that within certain limits of stress-range materials are safe from rupture by stress repetition."

COMMERCE

Training for "the several pursuits and professions in life" is one of the principal objects of Cornell University as specified in the charter. And from its foundation the University has laid stress upon vocational training and the preparation of students for practical or public affairs. It is recognized on an equal footing with the older professions of law and medicine and the newer callings of the engineer, the architect, the veterinarian, and the scientific farmer. Wherever abstract science or experimental knowledge might facilitate or render more effective the performance of the functions of any vocation, Cornell has been ready to extend to that vocation professional recognition and to provide for it a systematic professional curriculum.

The first step, however, in this process of recognition has generally been taken not by organizing at once a professional school, but by tentatively offering courses having to do with the principles or technique of the new profession for election by students in some division of the University, generally in that of arts and science. This is the plan which has been followed also for a good many years in relation to business. The University has offered a variety of courses of instruction in different colleges with a distinctive vocational value for the education of business men. And it is asserted on competent authority that Cornell already offers more of the essentials of an adequate business education than any other university which has not yet organized a special curriculum in this field. Experience with these courses at Cornell and experiments in other institutions conspire to show that the time has arrived for giving to business education at

Cornell the same formal recognition with separate organization, curriculum, and degree which the other modern vocations like engineering and agriculture have already acquired.

This matter was on December 9, 1914, referred by the University Faculty to a committee of five of which Professor Allyn A. Young was chairman, his associates being members respectively of the Faculties of Arts and Sciences, Law, Engineering and Agriculture. The report of this committee, which was prepared by Professor Young, of course with the benefit of criticisms and suggestions from his colleagues, is a very able document with much valuable information. The subject is discussed with adequate knowledge both of business conditions and of educational experience. The location of Cornell is pronounced as favorable for such a college of business administration as it has already shown itself to be for colleges of engineering. In the development of the proposed college at Cornell the first thing would be the organization of the courses relating to business which are now given by the different colleges of the University. The next thing would be the correlation of these courses with the lessons of business experience so as to make them more distinctly vocational than they are at the present time. As Professor Young puts it, these courses "must in one way or another be grouped around a central core of purely vocational courses of a type not as yet largely developed at Cornell." This "core" would include courses in business organization and administration, in accounting, in the problems and technique of specialized forms of business such as insurance, foreign trade, and foreign exchange. It goes without saying that as in other professional courses the curriculum of a college of business administration would be prescribed, and Professor Young's report outlines tentatively the subjects to be included in such a curriculum.

As regards the organization of the proposed college of business administration the faculty committee had before them the type of undergraduate school of commerce which exists in some western universities and also the type of graduate school recently established at Harvard University. Both types offer professional courses extending throughout two years; but in the first type this is superimposed on a general education of two years in arts and sciences, while in the latter the prerequisite is the completed college course. The committee were of the opinion that under the first type of organization students looking forward to business as a career fail to receive adequate general and professional education. On the other hand,

the requirement of a degree in arts and science as a condition of admission to a professional business course as at Harvard would exclude large numbers of able and well trained men who happened to have been educated in professional schools from the opportunities of a business education. The faculty committee therefore recommended that the college of business administration proposed for Cornell should be a technical school of business training so organized that its work could be joined to that of any of the undergraduate colleges of the University. The committee felt strongly, and this is a striking and novel feature of the report, that a university training in business should not be limited merely to men educated in the liberal arts but should be open equally to men who have been trained in law, engineering, agriculture, etc. It was the opinion of the committee that the curriculum of a professional college constitutes quite as efficient a preparation for the work of a college of business administration as does the curriculum of the college of arts and sciences. And, as Cornell University already permits undergraduates in arts and science to take their fourth year in any professional subject, counting the work towards the requirement for the A.B. degree, it was assumed by the committee that similar arrangements might be effected with other colleges of the University in relation to the proposed professional course in business. The committee accordingly recommended that the proposed college of business administration at Cornell should be "a professional school of semi-graduate standing." This means that an undergraduate would be eligible for admission who had completed three years in any college in the University whether academic or professional, that the business course should extend over two years, and that it should lead to the master's degree at the end. It was also recommended that, under careful restrictions, a limited number of mature students with business experience not candidates for a degree might be admitted to the college of business administration. The report of the faculty committee was adopted by the Faculty.

The subject of the establishment of a college of business administration was also brought before the Board of Trustees on November 6, 1915, and by the Board referred to a committee of which J. Du Pratt White was chairman. That committee substantially adopted the report of the faculty committee, but they recommended that the scope of the college of business administration should be enlarged so as to include courses of instruction designed specifically as "preparation for the public service" and they thought provision

should be made for the foundation of a library of commercial bibliography and for the erection of a building for the purposes of the college. In this form the report was adopted by the Board of Trustees, who also voted that the committee of the University Faculty be requested to outline a definite curriculum for the proposed college and to make a careful estimate of the minimum annual increase which the establishment of such college would make in the university budget.

The underlying assumption of both reports is that business has now become a profession or a group of professions which should be recognized and served by the universities on the same footing as the older professions of law and medicine or the younger professions of engineering and architecture. Through systematic knowledge and organized business experience it should be possible for the universities to render valuable assistance to the business world. Of course no amount of professional education can be a substitute for practical business experience. But a college of business administration can give its graduates a systematic knowledge of business methods, business problems, and business experience; and, as universities are places of research as well as of instruction, investigations conducted by experts in professional schools of business might also contribute to national economy and efficiency by suggesting improvements in existing methods of production, distribution, and finance. On all these grounds the proposal to found a College of Business Administration at Cornell University should make a strong appeal to business men in the State of New York. And the University has pledged itself to establish such a college as soon as the necessary endowments are provided for the purpose.

BOOKS AND PUBLICATIONS

Carlyle used to say that the university of modern times was a good library. Cornell is fortunate in having a rich and valuable library with special endowments for its maintenance provided by the late Henry W. Sage, the late Willard Fiske, and others. The extent of the collection is now 474,278 volumes of which 388,875 are housed in the general library building, the annual additions now aggregating nearly 16,000. Of these during the past year 4,316 were received by gifts, among which may be singled out for special mention the valuable collection of facsimile reprints of Spanish literature made by Archer M. Huntington, founder and president of the Hispanic Society of America. The Library has been affected by the war as, indeed,

other departments of the University have been. Orders for books placed in the European market have not been promptly filled and many periodicals have either suspended or ceased publication. The records show that members of the University appreciate the Library. The recorded use of books in 1915-16 aggregated 137,139 of which 93,360 were in the reading room and 35,030 at home, the rest being in seminaries, departments, and laboratories.

The results of many investigations conducted by professors can not be published with commercial profit. Among Cornell professors there are a number of completed manuscripts of that kind now awaiting publication; and if there were any prospect of publication, the number would undoubtedly increase. If a university is set for the advancement of knowledge, it should certainly have the means of bringing new discoveries before the public. An endowment for this purpose has become a very important need of Cornell University. It is possible that in connection with it a printing press might be established as at Oxford University in England and as at Chicago and Princeton Universities in the United States. But, with or without a Cornell press, means should be provided for bringing to the attention of scholars in this and other countries contributions to knowledge made by the professors in Cornell University. Such a Publication Fund would benefit the University and encourage research and scholarship to a degree altogether out of proportion to its magnitude.

PRESERVATION OF NATURAL BEAUTIES

The university estate having since the opening of the century been enlarged by successive purchases from 200 acres to 1,378 acres, including liberal provision for additional water and power supply, no considerable expenditure should henceforth be necessary for this object, although it may be found expedient to straighten boundary lines or to purchase adjoining properties here and there. The location of this domain overlooking Cayuga Lake and the valley is an unusually fine one and the configuration of the grounds with their hills and valleys as well as the adjoining gorges with their streams and waterfalls make a combination of natural features of unrivaled charm and beauty. To preserve this beauty intact is a primary duty of the university authorities. The trees and shrubs and wild flowers as also the gorges and falls are at their best when left in their natural condition. But unfortunately they are exposed to desecration by the invasions of man. Nor is it easy to restore them to their natural

condition without leaving marks of patch work or artificial constructions. In connection with the Semi-Centennial Celebration there is a promising plan for opening up and beautifying the gorges. It is to be hoped that, whatever else may be done, the wild natural beauty of these wonderful scenic features will not be disturbed. On the campus itself practical needs and utilities are constantly menacing the beauty of the landscape. Nothing, however, but the poverty of the University could excuse the defacement of beauty caused by the poles and wires which now make such a hideous border to all the avenues and such an incongruous entanglement in the woods and over the lawns. Few things would contribute so much to the beautification of the campus as a gift to provide for carrying these telegraph and telephone wires underground.

The avenues of the campus, especially East Avenue, are becoming public thoroughfares. They are used freely by all kinds of conveyances whether heavy wagons, automobiles, or motor cycles, producing noise and dust, which are a nuisance in themselves and a source of disturbance to the peaceful work of the class rooms and laboratories. The University, which is absolute owner of the domain, should protect itself against these invasions which, if continued, may lead to the establishment, through prescription, of adverse rights. It could then be determined what roads were necessary for university purposes proper and these it might perhaps be possible to keep in good condition. It is also a question whether the street railway, which runs on the side of East Avenue, can be permitted permanently to retain its present location. That avenue is already too narrow, and the street railway, if it is to continue to enjoy the privilege of crossing the campus, might perhaps be given another location equally convenient for the academic public and less disturbing to university work and activities. It was carefully provided at the time that the street railway was permitted to come upon the campus that the University might at any time revoke this license or permit and direct a change of location or complete removal of the tracks and equipment from its grounds.

In connection with this subject of the maintenance and enhancement of the beauties of the university domain it is worth considering whether it could not be brought into closer relation with Cayuga Lake. One way of accomplishing this would be the creation of a park extending from the lower end of the lake eastward up the slope as far as the new state road running towards Auburn. Such a park might of

course be the property of the City of Ithaca and administered by the civic authorities, like the splendid parks which Thomas R. Proctor has donated to the city of Utica. It would probably be better, however, if it were the property of Cornell University. The President mentions the idea in the hope that it may appeal now or later to some friend of the University who desires to add to its æsthetic resources.

SCHOLARSHIP AND AID FUNDS

Nearly all scholarships and fellowships at Cornell are a charge on the university treasury. It is different in the older universities in which there are scores and sometimes hundreds of privately endowed scholarships and fellowships. It is significant and encouraging to report that during the past year a bequest of \$10,000 was received by the University under the will of the late Edwin G. Vail of Dutchess County, New York, the principal of which is to be held intact and "the income therefrom to be expended by the board of trustees of said university in the aid of needy students from Dutchess County who may in the annual examinations therefor succeed in winning a state scholarship in Cornell University." Foundations of this sort for the benefit of students from particular localities are good. It is still better, however, to endow scholarships and fellowships to enable students irrespective of localities to continue study or research in some course or specific branch of knowledge. This is a peculiarly inviting field for small endowments ranging from a minimum of \$5,000 to a maximum of \$20,000. The former sum would be suitable for an undergraduate scholarship; the latter for a fellowship, the holder of which might either remain at Cornell or study at foreign universities. Endowments of from \$10,000 to \$15,000 would provide suitable fellowships for graduate students at Cornell; and, as the figures in an earlier section of this report show, the Graduate School at Cornell increased last year from 394 students to 482 students. It may also be added that the Dean and professors of that School have recently made more than one appeal to the Trustees for funds for the endowment of fellowships for graduate students.

In this connection may be mentioned the Guiteau Student Loan Fund, which has proved of great assistance to large numbers of students. The capital of this fund now amounts to \$313,930.95. It was the gift of Frederick W. Guiteau of Irvington and his sister, Mrs. Howe, neither of whom had ever seen the University or had any special connection with it, but both of whom had been very favorably

impressed with the character of its work. They bequeathed practically their entire fortunes to Cornell University to establish this loan fund. Many hundreds of young men have been helped by it; loans are made to them on their own notes, which they are expected to repay as soon as practicable after graduation. No other gift to the University has been of such practical, personal assistance to such large numbers of students with the exception of the Infirmary. This institution, with its endowment of \$100,000, was the gift of William H. Sage and the late Dean Sage, the sons of Cornell's most munificent benefactor, the late Henry W. Sage.

FINANCES

For the regular year from August 1, 1915, to July 31, 1916, there was, as a result of the exercise of the strictest economy, a surplus of current income over current expense of about \$5,000, which is reminiscent of the still larger surplus of the preceding year. But the State of New York having changed its fiscal year so as to have it close like the federal fiscal year on June 30, the University followed the same course, with the result that the academic year 1915-16 consists of only 11 months; and as July is a month of large income and small expense the twelve months' surplus of \$5,000 was turned into a book deficit of \$34,894.59 for the year ending June 30. This deficit, though caused by a change in the fiscal year, will nevertheless continue to show in the accounts of the University until it is wiped out by gifts or savings. And to it must be added the still unpaid balance of advances made in previous years from university funds for the purchase of lands, the erection of new buildings, and other permanent improvements, which on August 1, 1915, stood at \$122,997.15.

The total income (including receipts from all sources) for the entire University for the year closing June 30 was \$3,225,258.02. To get at the normal income it will be necessary to consider separately the State Colleges and the Medical College in New York City. The State College of Agriculture received from all sources \$988,765.53, of which, however, \$336,650.77 was received for sales and services in connection with the business carried on (primarily for demonstration purposes) by the departments of dairy industry, animal husbandry, etc. A similar item of \$11,269.89 appears in the receipts of the State Veterinary College whose total income for the year (including that item) was \$86,612.73. From the State of New York the State Agricultural College received \$588,227.02 and the State Veterinary College

\$69,745.54. The total income of the Medical College in New York City was \$219,296.97, which however, included donations of \$3,350 and receipts from sales and services of \$7,675.34. The total income of the rest of the University was \$1,763,209.96, which, however, included the extraordinary items of \$200,000 of insurance on Morse Hall, \$237,600 donations for increase of plant, and \$13,586.54 donations to current income.

Among the gifts received during the year were the following: \$150,000 from George F. Baker, on account of his gift of \$350,000 for residential halls, \$60,100 from anonymous donors for a dining hall, \$40,228.37 from the Guiteau estate (being the proceeds of the sale of the residence at Irvington) for addition to the Guiteau Loan Fund, \$50,000 from the estate of Mrs. Dean Sage for scientific research, \$7,575.98 from Willard Straight for summer military camp, and \$10,000 from the estate of Edwin G. Vail for aid to students from Dutchess County.

The helpful activities of the Cornellian Council continue unabated. Among the funds turned over by that body during the year were \$25,000 towards the cost of Founders Hall, \$2,500 for purchase of land, \$13,113 for purposes not yet designated, and \$9,387 for various permanent funds of the University. This makes \$50,000 from Alumni and old students in the form of an annual contribution. Their interest in and their helpfulness to their Alma Mater are greatly appreciated; and the President would like to reiterate, if there were space, the acknowledgment and gratitude expressed in last year's Report. Nothing is of better augury and promise for the future of Cornell University than the growing interest and devotion which Cornellians feel for their Alma Mater. The appeal she continues to make to them and their relations to her problems and activities have been impressively set forth in the annual reports of the two alumni Trustees whose terms expired in June last, James H. Edwards and Herbert D. Mason.

The plans for the Semi-Centennial Celebration in October, 1918, are in charge of a large and representative committee, of which Henry W. Sackett is the chairman. This general committee and its sub-committees are devoting much time and thought and effort to their task. The institution, whose opening is to be commemorated, received directly and indirectly from Ezra Cornell an endowment of over \$5,000,000. What one individual, who was poor most of his life and whose fortune never amounted to many millions of

dollars, gave to the University fifty years ago might now surely be duplicated by commemorative gifts from the rich men and women of this State and country whose numbers have increased more than a hundred-fold since the days of Ezra Cornell. In the preceding pages of this Report it is shown how urgently additional funds are needed by the University for the prosecution of its work in many different lines. To maintain the large, varied, and immensely important work done on this campus by nearly seven hundred teachers and six thousand students the University has an endowment of less than \$10,000,000 and no other source of income (apart from student fees) except the state appropriations which are limited to the Colleges of Agriculture and Veterinary Medicine. The salaries of the instructing staff are pathetically low—instructors \$1,000 to \$1,200, assistant professors \$1,500 to \$2,000, and professors \$3,000 to \$4,000. This scale should be advanced fifty per cent. The advance is imperatively necessary for the maintenance of the dignity and attractiveness of the teaching profession. Indeed, there is imminent danger, not only at Cornell University but in the United States generally, that this profession may lose its fair share of the best brains of the country. Hence, additional endowments, unless otherwise prescribed by the donors, should be religiously devoted as soon as they are received to raising the salaries of professors and instructors. Endowments for general purposes without restriction are the best and most helpful of all gifts. Next in order of desirableness come gifts for the endowment of professorships, and in Cornell University endowments of \$100,000 each are needed for scores of chairs in arts and letters, in pure science, in technology, and engineering,—in fields so varied that every donor may find an object appealing to his preference and special interest. And, in the third place, come gifts for residential halls, which, while providing much-needed homes for the students, are also a source of income to the University.

Special attention is called to the accompanying reports of the Comptroller, the Deans, and other officers which form an integral part of this Report.

JACOB GOULD SCHURMAN

President.

**REPORT
OF
THE COMPTROLLER
OF
CORNELL UNIVERSITY
FOR THE
FISCAL YEAR ENDING JUNE 30
1916**

REPORT OF THE COMPTROLLER OF CORNELL UNIVERSITY

1915-1916

To the Board of Trustees:

GENTLEMEN: I have the honor to submit herewith the financial statement of Cornell University covering a period of eleven months, from July 31, 1915 to June 30, 1916.

By action of the Board of Trustees April 29, 1916, the University fiscal year was changed to close June 30, instead of July 31. This change harmonizes the University fiscal year with that of the United States, the State of New York, and most of the educational institutions of the country; and simplifies the accounting to the federal and state governments in connection with the several federal and state appropriations.

INCOME AND EXPENSE

The total income of the University, August 1, 1915, to June 30, 1916, including gifts for residential halls, etc. and excluding state colleges, amounted to \$1,982,506.93, of which there was expended, \$1,788,828.65, leaving an excess of income over the amount disbursed for the eleven months of \$193,678.28.

The income for the year includes \$150,000 (part of a total gift of \$350,000) received from Mr. George F. Baker on account of construction of Baker Court for housing men students; \$25,000 from the alumni of the University through the Cornellian Council for the construction of Founders Hall; and \$60,100 from anonymous donors toward the cost of the proposed dining rooms in connection with the residential halls for men. There is also included in this income \$200,000, amount of insurance received upon Morse Hall and contents destroyed by fire February 13, 1916. Allowing for the amount of income due special purposes and not available for general expenses, and for reappropriations necessary to meet obligations already incurred, including that portion of the Morse Hall Insurance Fund not appropriated for replacing apparatus and supplies and repairing the building for temporary use, the net deficit for the eleven months was \$34,894.59, which, added to the \$122,997.15, deficit of income accumulated during the past 13 years, makes an accumulated deficit on June 30, 1916, of \$157,981.74.

Had the figures for this report included the month of July, as formerly, we would have shown a surplus current income over current expense for the year of about \$5,000, but the dropping from this report of the month of July, which is a large income and small expense month, almost the entire year's expense having been paid within the eleven months herein reported, results in a deficit of \$34,894.59 for the period.

This deficit is, in a way, a matter of bookkeeping due entirely to the change of the fiscal year, but it will continue to show in our accounts until made up by gifts or savings.

STATE COLLEGES

The income of the New York State Veterinary College amounted to \$86,612.73, and the expense, to \$82,864.33.

The State College of Agriculture received during the year from appropriations from the state and from students' fees and sales of products \$988,765.53. The expense of the College aggregated \$1,026,558.14. The shortage of receipts was due to the delay in receiving, until a few days after June 30, reimbursements from the state of over \$40,000 of vouchers, payment of which had been advanced by the University.

CONDENSED AND COMBINED INCOME STATEMENT
(See Schedule II)

	University at Ithaca	University at N. Y.	State Veterinary College	State Agricultural College	Total
Tuition	\$ 383,318.14	\$14,595.00	\$1,737.50	\$ 39,432.50	\$439,083.14
Summer Session	1,374.87			350.13	1,725.00
Laboratory and other fees	129,608.92	5,365.50	3,688.44	21,771.80	160,434.66
Residential Halls	67,767.56				67,767.56
Dining Rooms	140,697.70				140,697.70
Total from students	\$722,767.19	\$19,960.50	\$5,425.94	\$61,554.43	\$809,708.06
From invested funds	393,068.69	162,550.00			555,618.69
College Land Scrip Fund	34,428.80				34,428.80
From United States	110,442.72				110,442.72
From State of New York			69,745.54	588,227.02	657,972.56
State of New York for Drill Hall					167,372.83
Rents for buildings	3,218.93				3,218.93
Donations to current income	13,586.54	3,350.00	25.00		16,961.54
Donations for increase of plant	237,600.00				237,600.00
Departments for sales and service	27,708.52	7,675.34	11,269.89	336,650.77	383,304.52
Morse Hall insurance	200,000.00				200,000.00
Advanced by the University		24,800.00			24,800.00
Miscellaneous	20,388.57	961.13	146.36	2,333.31	23,829.37
	<u>\$1,763,209.96</u>	<u>\$219,296.97</u>	<u>\$86,612.73</u>	<u>\$988,765.53</u>	<u>\$3,225,258.02</u>

CONDENSED AND COMBINED EXPENSE STATEMENT
(See Schedule III)

Salaries for instruction and research	\$566,322.86	\$123,708.44	\$46,568.33	\$371,524.38	\$1,108,124.01
Departments	134,731.47	24,133.29	23,039.21	475,651.29	657,555.26
Administration salaries	50,346.59	7,360.00	1,650.00	102,972.44	162,329.03
General expenses	41,093.40	6,761.61	10,476.88		58,331.89
Operation and maintenance of plant	39,020.20	47,524.31			86,544.51
Prizes, scholarships, fellowships, and loans	41,516.40	1,250.00			42,766.40
Residential Halls	42,544.21				42,544.21
Dining Rooms	137,406.50				137,406.50
Summer Session	1,578.00				1,578.00
Federal experiment station and extension work	56,993.39				56,993.39
Library	42,920.27				42,920.27
Infirmary and Medical Advisers	30,033.67				30,033.67
New construction and alterations	277,464.34			59,565.81	337,030.15

	University at Ithaca	University at N. Y.	State Veterinary College	State Agricultural College	Total
New York State Drill Hall					\$ 166,918.55
New equipment			\$1,129.91	\$ 7,360.75	8,490.66
Repairs	\$21,870.37	\$1,150.71			23,021.08
Industrial fellowships	2,773.58				2,773.58
Purchase of real estate	10,000.00				10,000.00
On special agricultural appropriation				9,483.47	9,483.47
Miscellaneous	51,781.00				51,781.00
Income transferred to principal	17,550.63	5,000.00			22,550.63
Income transferred to Medical College	5,993.41				5,993.41
	<u>\$ 1,571,940.29</u>	<u>\$216,888.36</u>	<u>\$82,864.33</u>	<u>\$1,026,558.14</u>	<u>\$3,065,169.67</u>

PROPERTY ACCOUNT

	Aug. 1, 1915	June 30, 1916	Increase	Decrease
Productive Funds.				
University at Ithaca	\$ 9,573,938.54	\$ 9,595,454.79	\$21,516.25	
Medical College at New York	4,483,176.79	4,488,176.79	5,000.00	
Residential Halls		971,816.49	971,816.49	
Total	<u>\$14,057,115.33</u>	<u>\$15,055,448.07</u>	<u>\$998,332.74</u>	
Income due Special Funds	121,023.39	130,105.61	9,082.22	
Premium and discount	165,687.88	111,736.27		\$53,951.61
	<u>\$14,343,826.60</u>	<u>\$15,297,289.95</u>		
Add cash balance of current income, less amount due Special Funds account but not including amounts due to complete contracts	*91,932.35	92,663.71	184,596.06	
	<u>\$14,251,894.25</u>	<u>\$15,389,953.66</u>		
Real estate, educational, etc	4,521,280.70	3,989,188.99		532,091.71
Equipment	2,084,380.49	2,112,462.31	28,081.82	
	<u>\$20,857,555.44</u>			
Buildings in course of construction	26,072.81			\$26,072.81
			<u>\$1,220,092.84</u>	
			\$612,116.13	\$612,116.13
Total University property, exclusive of 280 acres of Western land	\$20,883,628.25	\$21,491,604.96	\$607,976.71	
State Drill Hall	35,322.17	202,240.72	166,918.55	
State College buildings	1,440,147.70	1,499,713.51	59,565.81	
State College equipment	426,953.61	440,202.60	13,248.99	
	<u>\$22,786,051.73</u>	<u>\$23,633,761.79</u>	<u>\$847,710.06</u>	

*Deficit

The Productive Funds increased during the year as follows:

Alumni Fund	\$ 372.00	
Class of 1889 Fund	1,477.00	
Class of 1905 Fund	7,553.00	
Comstock Book Fund	22.00	
Western Land Receipts	1,782.16	
Cottage Renewal Fund	2,040.46	
Simon H. Gage Fellowship	2,778.98	
Sale of Guiteau House	40,228.37	
Guiteau Loans Repaid	7,530.61	
Haviland Scholarship	500.00	
Irvine Lecture Fund	975.00	
Sarah Manning Sage Endowment	50,000.00	
Goldwin Smith Fund	724.74	
State Scholarship Loan Fund	1.00	
Vail Endowment	10,000.00	
By transfer from income to principal of Special Funds . . .	22,550.63	
		<u>\$148,535.95</u>

And were reduced by:

1906 Class Fund transferred to Cornellian Council and Class Secretary	\$ 1,322.39	
Refunds of Professorial Pension Payments	697.31	
		<u>2,019.70</u>

Actual increase	\$146,516.25
But owing to the transfer of Cascadilla Hall to the Residential Halls account, as explained below	\$120,000.00
the net increase in the Productive Funds account appears at	\$ 26,516.25

In order to differentiate the income producing residential halls from the other buildings of the University used entirely for the purpose of instruction, administration, etc., the Residential Halls Fund Account was started, during the year by transferring:

From the Real Estate Account:

Prudence Risley Hall	\$293,154.34	
Baker Court	86,935.65	
Founders Hall	10,000.00	
Sage College	210,662.15	
Three Central Avenue	13,000.00	
		<u>\$613,752.14</u>
From the Equipment Account of Baker Court	126.18	
From Productive Funds, Cascadilla Hall	120,000.00	
		<u>\$733,878.32</u>
Expended during the year on Baker Court and Founders Hall	\$237,938.17	
Total		<u>\$971,816.49</u>

The Premium and Discount Account was reduced \$53,951.61 by the excess of premiums paid over discounts received on securities purchased during the year.

COMPTROLLER'S REPORT

To the Real Estate Account there was added:

Buildings on the athletic field	\$215,000.00	
Animal House, Dept. of Physiology	1,026.21	
Astronomical Observatory (part)	4,236.63	
Infirmery Addition (paid on account)	10,148.86	
Agricultural Farms (paid on account)	2,878.65	
Kline Farm (balance)	10,000.00	
	<hr/>	\$243,290.35

There was charged off:

Fuertes Observatory, torn down	\$ 6,624.92	
Morse Hall, partly destroyed by fire	150,000.00	
South Barn, torn down	5,000.00	
	<hr/>	\$161,624.92
		<hr/>
		\$ 81,665.43

Deducting \$613,757.14, transferred to Residential Halls, as above, makes a net reduction in this Real Estate Account of \$532,091.71.

The Productive Funds of the University with the purpose for which the Fund is intended and the income received during the year are as follows:

Alumni Endowment Fund:

	Aug. 1, 1915	Additions During Year	July 1, 1916	Income received during Year
Gift of Alumni to the Endowment Fund of the University. Established 1908	\$550.00		\$550.00	\$24.28
Alumni Fund:				
The Permanent Gift of the Alumni of the University through the Cornelian Council, and by the action of the Board of Trustees added to the permanent endowment of the University, the net income to be used for University purposes. Established 1913	20,000.00	\$372.00	20,372.00	882.20
Baker, Chas. H. Prize Fund:				
Gift of Mr. Charles H. Baker, 1886, to found a public speaking prize for the benefit of the Junior and Senior students in the College of C. E., but available likewise to those in Mechanic Arts, Architecture and similar avocational courses. Established 1912	2,000.00		2,000.00	120.00
Barnes Library Endowment Fund:				
Gift of Mrs. Harriet Barnes Newberry and A. Victor Barnes in memory of their father, the late Alfred Cutler Barnes. Established 1904	5,000.00		5,000.00	220.55
Barnes, Mrs. A. S. Shakespeare Prize Fund:				
Gift of Mrs. A. S. Barnes, the income to be appropriated as a prize to the undergraduate student who shall present the best essay upon the writings of Shakespeare. Established 1887	1,000.00		1,000.00	44.11
Bennett, Philo S. Fund:				
Gift from the estate of Mr. Bennett, the income to be used for a prize for the best essay discussing the principles of Free Government. Established 1905	400.00		400.00	17.64
Botsford, W. Hull, Memorial Fund:				
Gift of the friends in class of W. H. Botsford to the College of Architecture, to be administered by the Faculty of that College. The income to be used for the purchase of books for the Architectural Library. Established 1915	255.00		255.00	11.24
Caldwell, George Chapman Prize Fund:				
Gift of Mrs. Grace Caldwell Chamberlain and Prof. Frank Caldwell to establish in memory of their father a prize of \$50 a year, to be annually awarded in money and accompanied by a certificate on parchment to a member of the Senior class in the Chemical course for general excellence in chemical work. The award to be made by the staff of the Chemical Department. Established 1913	1,100.00		1,100.00	48.52

		Aug. 1, 1915	Additions During Year	July 1, 1916	Income received during Year
Class '86 Memorial Prize Fund:					
Gift of Class of 1886, the income to be awarded annually as a prize in Junior Oratory		\$1,886.00		\$1,886.00	\$83.19
Class '89 Endowment Fund:					
A University endowment fund being raised by the class of 1889. Established at its 25th reunion in 1914		191.00	\$1,477.00	1,668.00	8.42
Class '91 Memorial Fund:					
Gift of Class of 1891, the income to be added to the principal until class action. Established 1891.....		782.37	34.50	816.87	34.50
Class '94 Memorial Debate Prize Fund:					
Gift of Class of 1894, as a foundation of a prize in debate		1,894.00		1,894.00	83.54
Class '96 Memorial Prize Fund:					
Gift of Class of 1896 as a nucleus for a fund which shall be used for the establishment of a University Club		1,176.89	51.91	1,228.80	51.91
Class '98 Alumni Fund:					
Gift of Class of 1898 to be added to fund for establishment of a University Club		510.13	22.50	532.63	22.50
Class 1905 Endowment Fund:					
Established by the Class of 1905 "this money in total or in interest, as the council may see fit, to be applied to supplementing professors' salaries, at the discretion of the proper University authorities." Established 1915			7,553.00	7,553.00	
Class 1906 Memorial Fund:					
Established by Class of 1906, the income to be used by Trustees for the general expenses of the University until the class reunion in 1916, when ordered paid to Cornellian Council and Class Secretary. Established 1915.....		1,322.39	1,322.39*		58.33
Class 1908 Fund:					
Established by Class of 1908, to be invested with University Funds, the income on \$500 less five per cent transferred to University Surplus Fund to be paid over to Class Secretary. When no longer needed by the class the fund is to revert to the University for general University purposes unless the class at some regular meeting designates a particular University purpose for its use. Established 1908		1,848.90	56.55	1,905.45	81.55
Class 1912 Fund:					
Established by Class of 1912 to be invested by the University with its funds, the income less five per cent transferred to University Surplus or Insurance Fund, to be subject to call of Life Secretary of class. The fund when no longer needed by the class to revert to the University for general University purposes unless the Class at some five year reunion meeting designates a particular University purpose for its use. Established 1912		813.38		813.38	35.68

Class of 1913 Fund:				
Established by Class of 1913 on same basis as the 1912 fund	\$1,450.00		\$1,450.00	\$63.96
Class of 1914 Fund:				
Established by Class of 1914 on same basis as the 1912 fund	800.00		800.00	35.28
Class of 1915 Fund:				
Established by Class of 1915 on same basis as the 1912 fund	1,600.00		1,600.00	70.58
College Land Scrip Fund:				
Consists of proceeds received by State of New York from sale of Land Scrip apportioned to the State by the United States under the Morrill act of 1862	688,576.12		688,576.12	34,428.80
Comstock, John Henry Memorial Book Fund:				
Raised by students and alumni as a memorial to Prof. Comstock at the time of his retiring from active service and presented by Prof. Comstock to the University as a fund for the purchase of books for the benefit of the Department of Entomology. Established 1914	2,371.96	\$144.46	2,516.42	104.62
Cornell Endowment Fund:				
Consists of the \$500,000 given by Ezra Cornell, pursuant to his agreement with the State, for the founding of the University, together with the net profits derived from the sale of lands located under the scrip purchased by him under his contract with the State, of August 4, 1866, except those in the next following fund and the Cascadilla Hall Fund	4,847,847.73		4,847,847.73	213,183.12
Cornell Endowment Reserve Fund:				
Established in 1898 by setting aside Land Contracts and proceeds from future sales of Western lands, principal and income originally to be used only for addition to Cornell Endowment Fund but for recent years by resolution income is transferred to current income	531,396.25	1,782.16	533,178.41	23,439.88
Corson, Caroline, French Prize Fund:				
Gift of Prof. Hiram Corson in memory of his wife, Caroline Rollin Corson, income to be awarded as a French prize. Established in 1902 as a Dante Prize and converted into a French Prize in 1905	1,281.25		1,281.25	56.51
Corson, Hiram, Browning Prize Fund:				
Gift of Prof. Hiram Corson, income to be awarded as a Browning Prize. Established 1902	1,051.80		1,051.80	46.40
Cottage Renewal Fund:				
Consists of surplus income from cottages owned by University, in excess of five per cent of investment value transferred annually to current income, fund to be held to renew the cottages or replace investment therein. Established 1904	16,791.32	2,781.12	19,572.44	740.69

	Aug. 1, 1915	Additions During Year	July 1, 1916	Income received during Year
Daughters of the Revolution Endowment Fund:				
Gift of Miss Mary F. Hall, in honor of the New York State Society of the D. A. R., income to be added to fund during Miss Hall's lifetime and then, provided principal amounts to \$1,000 to be used for publication of such original studies in American History as are of permanent value, or as a suitable prize or prizes for research or superior attainment in American History. Established 1908	\$706.70	\$31.17	\$737.87	\$31.17
Dearstyne, Florence, Fund:				
Gift under the will of Miss Florence E. Dearstyne, income to be used under direction of Federation of Cornell Women's Clubs in assisting needy young women students. Established 1914	2,367.71		2,367.71	104.42
Fayerweather Fund:				
Gift under will of Daniel B. Fayerweather. Established 1892	323,684.59		323,684.59	14,278.62
Fiske, Willard, Library Endowment Fund:				
Gift under will of Willard Fiske to be used and expended for uses and purposes of Library of the University. Established 1906	450,055.00		450,055.00	19,852.19
Fiske, Willard, Icelandic Book Fund:				
Gift under will of Willard Fiske, income to be used for purpose of making additions to Icelandic Collection in the Library of the University. Established 1906	8,000.00		8,000.00	352.88
Fiske, Willard, Icelandic Salary Fund:				
Gift under will of Willard Fiske, income to be used for purpose of paying salary of an Icelandic amanuensis, whose time shall be given to care of Icelandic collection and who shall be a native of Iceland, educated or principally educated in Iceland, and recommended for said work by the Rector of the Latin School of Reykjavik. Established 1906	30,000.00		30,000.00	1,323.30
Fiske, Willard, Petrarch Salary Fund:				
Gift under will of Willard Fiske, income to be used in paying salary or part of salary of capable amanuensis, portion of whose time shall be given to care of Petrarch and Dante Collections. Established 1906. ..	12,000.00		12,000.00	529.32
Fiske, Willard, Petrarch Book Fund:				
Gift under will of Willard Fiske, income to be used for purpose of increasing Petrarch and Dante collections in Library of the University. Established 1906	6,000.00		6,000.00	264.66
Fiske, Willard, Icelandic Publication Fund:				
Gift under will of Willard Fiske, income to be used for purpose of publishing an annual volume relating to Iceland and the Icelandic collection in the Library of the University. Established 1906	5,000.00		5,000.00	220.60

Flower, R. P., Library Endowment Fund:

Established in 1901 by a gift of Mrs. Sarah M. Flower of \$10,000 the income to be used for the purchase and binding of books and periodicals for the Roswell P. Flower Library, founded by Governor Flower for the Veterinary College, by a gift of \$5,000 in 1897, \$1,000 remaining unexpended at the time of his death is added to the endowment ...

\$11,000.00 \$11,000.00 \$485.21

Fraser Scholarship Fund:

Gift of Wm. Metcalf, Jr., LL.B., 1901, of Pittsburgh, Pa., in memory of Alexander Hugh Ross Fraser for eighteen years librarian of the Law Library, income to be awarded in two scholarships to seniors in Law, the award to be based on scholarship, financial need and character.

Established 1911 4,000.00 4,000.00 176.44

Fuertes Medal Fund:

Gift of late Estevan A. Fuertes, income to provide two medals to be awarded annually; one to the student graduating, who has maintained the highest degree of scholarship during his four years; the other to the graduate, who may write a meritorious paper on some engineering subject. Established 1893

1,000.00 1,000.00 44.11

Gage, Simon H., Fellowship Fund:

Raised by former students and friends of Prof. Gage to establish a fellowship in Animal Biology. The income to be added to the principal until such time as the fund shall be sufficient to yield an annual income of \$500. Established 1916

\$2,778.98 2,778.98

General Fund:

Consists of the endowment of not less than \$100,000 available for the maintenance of Rockefeller Hall; required as a condition precedent to John D. Rockefeller's gift

106,000.00 106,000.00 4,675.66

Graduate Prize in Philosophy:

The income to be placed at the disposition of the Philosophical Department and for the present to be awarded to that graduate student who submits the best paper embodying the results of research in the field of Philosophy. Established 1912

571.36 571.36 25.20

Guiteau Student Loan Fund:

Gifts under the wills of Frederick W. Guiteau and Mrs. Nancy G. Howe (\$94,689.03), income to be used in advancing and assisting needful, worthy young men in pursuing their studies in the University. Established 1904

265,171.97 { 40,228.37 (sale)
7,530.61 312,930.95 11,696.74

Guilford Essay Prize Fund:

Gift under will of James B. Guilford to establish a prize the object whereof shall be the promotion of a high standard of excellence in English Prose Composition. Established 1902

3,000.00 3,000.00 132.33

	Aug. 1, 1915	Additions During Year	July 1, 1916	Income received during Year
Hall, Mary F., Scholarship Fund:				
Gift of Miss Mary F. Hall, income to be paid to her during her lifetime, and at her death to be used for scholarships. Established 1902	\$16,500.00		\$16,500.00	\$727.65
Harris, Lucy, Fund:				
Gift of Geo. W. Harris as a memorial to his wife, Lucy Thurber Harris, income to be expended each year in purchase of English poetry of the Victorian Era and of Biography and criticism connected therewith. Established 1893	1,000.00		1,000.00	44.11
Haviland Scholarship Fund:				
Gift of \$500 under the will of John G. Haviland of Glens Falls, N.Y., to be invested until such time as a bequest under the will of his daughter Bernice Haviland Guernsey shall be paid to the University when the income of both is to be applied to scholarships for girls residing in Warren County, N. Y. Established 1916		\$516.00	516.00	16.00
Infirmiry Endowment Fund:				
Gift of Dean and William H. Sage, income to be used for the maintenance and needs of the Cornell Infirmiry, established by them as a memorial to their father, Henry W. Sage, said Infirmiry being the former resi- dence of Henry W. Sage and valued at \$60,000. Established 1897 ...	100,000.00		100,000.00	4,411.00
Irvine, Frank, Lectures:				
Founded by the Conkling Chapter of Phi Delta Phi, income to be used in providing special lectures in College of Law. Established 1913	768.25	975.00	1,743.25	33.88
Law School Fund:				
Gift of Douglass Boardman, income to be used for a Law prize. Established 1887	2,000.00		2,000.00	88.22
Messenger, Luana L., Prize Fund:				
Gift of H. J. Messenger in memory of his mother, for an annual prize to the student writing the essay giving evidence of the best research and most fruitful thought in the field of human progress or the evolu- tion of civilization. Established 1902	5,000.00		5,000.00	220.55
Meyer, Edgar J., Memorial Fellowship Fund:				
Gift of Mr. Eugene Meyer and his wife, Harriet Meyer, in memory of their son, income to be awarded annually as a fellowship in En- gineering Research, to any graduate of an accepted school of Mechani- cal or Electrical Engineering, and not to be held by the same person more than two years. Established 1913	10,000.00		10,000.00	441.10
Pack, C. Lathrop, Fund:				
Gift of Chas. Lathrop Pack to be used "in the interests of forestry." The interest is now used by the Faculty of the Department of Forestry as an annual prize. Established 1915	500.00		500.00	22.06

Padgham, Frank William, Scholarship Fund:				
Gift of Amos Padgham to found a scholarship in Sibley College in memory of his son, Established 1892	\$3,000.00		\$3,000.00	\$132.33
Polish Student Loan Fund:				
Gift from Polish students at Cornell to be disbursed to candidates presented by members of the Polish Club of the University. Established 1909	128.00		128.00	5.68
Professorial Pension Fund Income:				
Consists of payments by Professors admitted to the benefits of the Pension Fund, with accrued income	38,483.15	1,000.17	39,483.32	1,697.48
Ring Memorial Fund:				
Gift under will of Charles A. Ring, income to be used in advancement of Horticultural Science. Income is to be added to the principal of fund till it amounts to \$1,000, original bequest. Established 1913	831.55	36.56	868.11	36.56
Roberts, Charles H., Scholarship Fund:				
Gift of Chas. H. Roberts of Oakes, Ulster Co., N. Y., income to be used in payment of five equal annual scholarships in College of Agriculture, and open to all races of mankind, regardless of color, or political or religious creeds, of good moral character and required qualifications, preference to be given to intelligence and financial inability. Established 1906	30,000.00		30,000.00	1,200.00
Sage College Endowment Fund:				
Gift of Henry W. Sage. Established 1872	109,300.00		109,300.00	4,822.03
Sage, Dean, Sermon Fund:				
Gift of Dean Sage in 1872 as an endowment of Sage Chapel and increased by recent gifts from Mrs. Sage	75,000.00		75,000.00	3,308.25
Sage Library Endowment Fund:				
Gift of Henry W. Sage for endowment of Library. Established 1891	300,000.00		300,000.00	13,233.00
Sage, Sarah M., Endowment Fund:				
The income or in the discretion of the University, the principal also, to be used to promote the advancement of medical science by the prosecution of research at Ithaca, in connection with any and all of the subjects at any time embraced in the curriculum of the Cornell University Medical School. Established 1915		50,000.00	50,000.00	1,041.69
Sage, Susan E. Linn, Professorial Fund:				
Gift of Henry W. Sage, to endow the chair of Ethics and Philosophy. Established 1885	50,000.00		50,000.00	2,205.50

	Aug. 1, 1915	Additions During year	July 1, 1916	Income received during Year
Sage, Susan E. Linn, School of Philosophy Fund: Gift of Henry W. Sage to enlarge basis of Susan Linn Sage Foundation and establish the Susan Linn Sage School of Philosophy. Established 1891	\$200,000.00		\$200,000.00	\$8,822.00
Sage, William H., Pension Fund: Gift of \$150,000 to found a pension fund for full professors, excluding professors in the Medical College in New York City, or in State or National Institutions at Ithaca, or elsewhere, together with income received thereon. Established 1903	276,192.58	\$12,183.85	288,376.43	12,183.85
Sampson, Frances, Fine Arts Prize Fund: Gift of Prof. Martin W. Sampson in memory of his wife, to be awarded in books or artistic reproductions and not in money to that student in the University who shows the most intelligent appreciation of the graphic arts and architecture. Established 1909	600.00		600.00	26.47
Schiff, Jacob H., Endowment Fund: For promotion of studies in German Culture. Established 1912	100,000.00		100,000.00	4,411.00
Seidell, William C., Book Fund: Gift of Mr. and Mrs. Gerritt S. Miller, income to be used to purchase books for poor young men working their way through College of Civil Engineering. Established 1905	1,165.16		1,165.16	51.40
Sibley College Endowment Fund: Gift of Hiram Sibley. Established 1884	50,000.00		50,000.00	2,205.50
Smith, Goldwin. Fund: Gift under will of Goldwin Smith to be used for promotion especially of liberal studies; language ancient and modern, literature, philosophy, history and political science, for which provision was made in Goldwin Smith Hall. Established 1911. One hundred seventy-five thousand dollars of this fund is set aside, the income to be used for the Goldwin Smith Special or Supernormal Salary Fund, Lectureship Fund, Faculty Prize Fund, Reading Room or other appropriate purposes ...	674,791.55	724.74	675,516.29	29,765.06
Smith, Goldwin, Hall Reading Room Fund: A portion of the \$4,000 gift of Mr. Goldwin Smith made in 1909 for the Reading Room in Goldwin Smith Hall. Converted in 1914 into a fund, income to be available for the maintenance of same	2,700.00		2,700.00	119.08
Smith, Judson N., Scholarship Fund: Gift of Mrs. Sarah L. Smith to found a scholarship in the College of Civil Engineering in memory of her son, and to be awarded, under such rules as the University may enact, on the basis of intelligence and financial inability, provided, however, that the student be of good moral character and meet the required qualifications. Interest at the rate of four per cent. upon the fund to be paid to Mrs. Smith during her lifetime, the Scholarship taking effect at her death	3,250.00		3,250.00	143.35

State Scholarship Alumni Fund:				
Being the nucleus of a fund to assist needy students. Established in 1914 by a gift of G. W. Graves, A.B., 1905, M.D., 1908, of the equivalent of the state scholarship held by him				
	\$400.00	\$1.00	\$401.00	\$17.64
Surplus Fund:				
Consists of five per cent on an annual income to cover such losses as may occur through bad investments, fire, or otherwise. Established 1886. Accumulations used for purchase of land and erection of buildings and for several years past returned to current income to help meet annual deficit				
	128.75	5.71	134.46	5.71
Town of Spencer Scholarship for Young Women:				
Gift of Miss Mary F. Hall to found a scholarship for young women, of the town of Spencer, N. Y., the income, however, to be paid to her during her lifetime				
	2,500.00		2,500.00	110.29
Vail Endowment Fund:				
Gift under the will of Edwin G. Vail of Dutchess County, the income to be expensed in the aid of needy students from Dutchess County, who may in the annual examinations therefor succeed in winning a State Scholarship in Cornell University. Established 1916				
		10,000.00	10,000.00	145.82
White Veterinary Prize Fund:				
Gift of Horace K. White, income to be awarded as prizes to meritorious Students in Veterinary Science				
	500.00		500.00	22.05
White Spanish Prize Fund:				
Gift of J. G. White, Class of 1885, to found three annual prizes of \$100 each, in Spanish, any excess of income or profit from the sale of the securities to be added to the principal. Two of the prizes to be given for excellence in Spanish to students who are citizens or residents of the United States, one to a student in the Engineering Colleges and the other in any of the other colleges, the third prize to be given, for excellence in English, to students who are citizens or residents of the Latin-American Republics, and for the next ten years, of Porto Rico or the Philippines. Established 1914				
	6,000.00		6,000.00	360.00
Women's Guild Fund:				
Gift of women interested in the University, income to be used to aid needy sick students. Established 1892				
	6,557.41		6,557.41	289.25
Woodford Medal Fund:				
Gift of Stewart L. Woodford, for prizes in Oratory. Established 1870...				
	2,500.00		2,500.00	110.28

	Aug. 1, 1915	Additions During Year	July 1, 1916	Income received during Year
Wurts Loan Fund:				
Gift of \$2,000 by Alexander Jay Wurtz, in memory of his mother, income to be loaned to students of Sibley College to "help lift the man's burden from the boy's shoulders." Additions by Sibley students. Established 1912	\$2,267.74		\$2,267.74	\$ 100.04
Women Students Loan Fund:				
Consists of former Student's Loan Fund, income to be loaned to needy women students, and increased in 1913 by \$7,000, temporarily assigned to the fund by Ex-President Andrew D. White from funds placed at his disposal by Trustee Andrew Carnegie	<u>19,420.58</u>	<u>2,551.28</u>	<u>21,971.86</u>	<u>856.64</u>
	\$9,453,938.54	\$141,516.25	\$9,595,454.79	\$421,623.07
Medical College Endowment Fund:				
The gift of Col. O. H. Payne, the income to be applied to the maintenance and operation of the Cornell University Medical College in the City of New York. Established 1913	\$4,350,000.00		\$4,350,000.00	\$156,250.00
Medical Increment Fund:				
Established on recommendation of Medical College Council, "the sum of \$5,000 to be set aside annually to constitute an 'increment fund' the income of which may be expended, and the principal of which or any portion thereof may from time to time be expended in case of need for permanent betterments or additions to the plant of the Medical School in New York City. Established 1914	5,000.00	5,000.00	10,000.00	220.55
Loomis Laboratory Endowment Fund:				
Consists of endowment of Loomis Laboratory turned over to the University by its Trustees at time laboratory was transferred to Cornell. Established 1899	118,176.79		118,176.79	5,212.77
Polk, J. M. Prize Fund:				
Gift of Wm. M. Polk to found a prize in the Cornell Medical College at New York in memory of his son. Established 1905	<u>10,000.00</u>		<u>10,000.00</u>	<u>441.10</u>
	\$13,937,115.33	\$146,516.25	\$14,083,631.58	\$583,747.49
Residential Halls Funds Reserve:				
Baker Court Fund:				
The gift of George F. Baker for the construction of the three Residential Halls for men known as Baker Court	87,061.83	212,938.17	300,000.00	5,206.13

Cascadilla Hall Fund:

A portion of the Cornell Endowment Fund invested in the Casca-
 dilla Hall

\$120,000.00 \$120,000.00 \$17,583.58

Founders Hall Fund:

The gift of the Alumni of the University through the Cornellian Coun-
 cil to cover with the net income of the building, the residential
 hall for men known as Founders Hall

10,000.00 \$25,000.00 35,000.00 6,802.01

Prudence Risley Hall Fund:

The gift of Mrs. Russell Sage for the construction of the residential
 hall for women named Prudence Risley Hall in memory of the
 mother of Mr. Sage

293,154.34 293,154.34 16,145.95

Sage College Building Fund:

A portion of the Sage College Endowment Fund, and income from
 the building, used for the construction of the residential hall for
 women named Sage College

210,662.15 210,662.15 18,618.99

Three Central Avenue Fund:

A portion of the income of the University invested in the building
 at 3 Central Ave., and now used as residential hall for unmarried
 members of the staff and for the University Club

13,000.00 13,000.00 3,410.90

Income due special funds

\$14,670,993.65 \$384,454.42 \$15,055,448.07 \$651,515.05

Premium and discount

130,105.61

Cash balance current income less amount due special funds

111,736.27

92,663.71

\$15,389,953.66

*The securities in which these funds are invested are listed in the Treasurer's report presented herewith.

COMPTROLLER'S REPORT

CLASSIFICATION OF INVESTMENTS

	Per cent.	July 1, 1916
Municipal Bonds .....	.024	\$ 376,470.84
State of New York Scrip .....	.045	688,576.12
Foreign Government Bonds .....	.020	306,870.00
Bank Stocks .....	.005	79,970.00
Steam Railroad Bonds .....	.111	1,713,791.29
Railroad Equipment Notes .....	.007	110,000.00
Traction Bonds .....	.165	2,533,676.25
Light & Power Bonds .....	.079	1,218,000.00
Lumber Bonds .....	.018	284,430.48
Miscellaneous Corporation Bonds .....	.230	3,543,650.00
Stock other than Bank .....	.107	1,646,906.00
Loans on Collateral .....	.004	56,455.29
Real Estate Mortgages .....	.084	1,287,414.23
Land Contracts .....	.001	9,164.69
Real Estate (Investment) .....	.010	147,311.38
Residential Halls .....	.063	971,816.49
Special Deposits .....	.008	120,044.24
Cash and Ledger Balances .....	.019	295,406.36
	1.000	\$15,389,953.66

DONATIONS

The following is a list of gifts to the University which passed through this office. It does not include many gifts made directly to departments.

Alumni Field Buildings:

Bacon Practice Hall	\$ 45,000.00
Schoellkopf Memorial Bldg	100,000.00
Stadium	70,000.00
	<u>\$215,000.00</u>
Baker, Charles H., for addition to Fuertes Debate Prize	30.00
Baker, George F., for residential halls for men (acct. gift of \$350,000)	150,000.00
Blue Valley Creamery Association for Industrial Fellowship	400.00
Champlain Valley Association for Industrial Fellowship	150.00
Civil Engineering Alumni for library books as a Fuertes memorial ..	275.00
Comstock Memorial Fund from sundry persons	22.00
Cornellian Council for Alumni State Scholarship fund	1.00
" " Class 1889 Endowment Fund	1,477.00
" " Class 1905 Endowment Fund	7,553.00
" " Founders Hall	25,000.00
" " Gage Scholarship Fund	20.00
" " Kline Farm purchase	2,500.00
" " Permanent Alumni Endowment Fund	372.00
" " purposes not yet determined	13,113.00
Dining Hall from anonymous donors	60,100.00
Earl, Dora F., for Agricultural Loan Fund	5.00
Eastman, A. R., for Debate Prize	100.00
Fonda, A. D., for Agricultural Loan Fund	14.70
Frasch, Herman, for Industrial Fellowship	500.00
Gage, Simon H., for embryology research	50.00
Gage, Simon H. and Henry Phelps, for Susana P. Gage Fund for a room in women's residential hall	2,028.64
Gage, Simon H., scholarship fund from sundry persons	2,758.98
Genesee Fruit Growers Ass'n for Industrial Fellowship	475.00
Geological work under Prof. Harris, anonymous	1,000.00
Gleason, Kate, for Sibley College	200.00
" " for special prize in Architecture	100.00
Goldwin Smith Art Exhibit from sundry persons	105.35

COMPTROLLER'S REPORT

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Guiteau Loan Fund from sale of residence at Irvington	\$40,228.37
Haviland, Estate of John G., for scholarship	500.00
Hollingworth, W. G., for Veterinary Honorarium	50.00
Holstein-Friesian Association for Industrial Fellowship	400.00
Irvine, Frank, for books for Law Library	8.00
Irvine, Frank, Lecture fund, anonymous	975.00
Mason, Herbert D., for Military Training Camp	50.00
Miller, Frank H., for Jane Miller Prize	50.00
Morrison, James T., estate of, for poetry prize	100.00
Niagara Sprayer Company, for industrial fellowship	1,500.00
Psychology, scholarship in experimental, anonymous	200.00
Read, William A., for medical salaries in Bellevue	1,000.00
Reid, Mrs. Whitelaw, for medical salaries in Bellevue	1,000.00
Sage, Sarah M. (Mrs. Dean Sage), Estate of, for Medical Research	50,000.00
Sheldon Memorial Fellowships in Medical College	1,350.00
Smith, Goldwin, Estate of, for Library endowment	724.74
Straight, Willard D., for summer military camp	7,575.98
" " for Architectural competition	50.00
Tidmarsh, G. P., for Medical Adviser account	5.00
Troy, Richard H., for current expense	1.00
Vail, Edwin G., Estate of, for aid to students	10,000.00
Wurtz Loan Fund from sundry persons	87.56
Wyoming Valley Truck Farms for Industrial Fellowship	281.00
	<hr/>
	\$599,487.32

DISPOSAL OF CONTRIBUTIONS RECEIVED BY THE UNIVERSITY THROUGH THE CORNELLIAN COUNCIL

Received Aug. 1, 1913	\$20,000.00	\$20,000.00
Credited to permanent endowment for increase of salaries	\$20,000.00	
Received Aug. 1, 1914		20,000.00
Credited to construction of Founders Hall	10,000.00	
" " available income of 1915-16	5,000.00	
" " " 1916-17	5,000.00	
Received as of Aug. 1, 1915		20,000.00
Credited to construction of Founders Hall	10,000.00	
" Kline Farm purchase	2,500.00	
" Permanent Alumni Fund	347.00	
" Class of 1905 Endowment Fund	7,153.00	
Received June 30, 1916		30,000.00
Credited to Class 1905 Endowment Fund	400.00	
" Class 1889 Endowment Fund	1,477.00	
" S. H. Gage Scholarship Fund	10.00	
" construction of Founders Hall	15,000.00	
Unappropriated	13,113.00	
	<hr/>	<hr/>
	\$90,000.00	\$90,000.00

NEW CONSTRUCTION

Of the group of four buildings for residential halls for men, two, Founders Hall and Baker Tower, were completed early in the year and were occupied during the greater portion of the year. North and South Baker Halls are practically finished and ready for occupancy during the coming year.

The grading of the grounds about these four buildings is practically finished, although much of the permanent planting is yet to be done.

Work on the new astronomical observatory located on the high ground north of Becbe Lake is in progress. This building will cost approximately \$15,000.

The new drill hall being erected by the State at a cost of \$350,000 is not yet completed. On account of weather conditions, work was practically suspended for the first four months of the calendar year, the contractor resuming operations early in May. It is hoped the building will be ready for use early this fall.

The reports of the Treasurer and the Superintendent of Buildings and Grounds containing items and schedules showing the condition of the University and the result of the year's business, are presented herewith and respectfully submitted.

E. L. WILLIAMS,
Comptroller.

NOTE:—The complete reports of the Comptroller, the Treasurer, and the Superintendent of Buildings and Grounds, containing the schedules referred to above and others, and bearing the certificate of audit of Messrs. Haskins & Sells, certified public accountants, 30 Broad St., New York City, will be forwarded to alumni upon receipt of specific request for the same, addressed to The Comptroller, Cornell University, Ithaca, N. Y.

FORMS OF BEQUESTS TO CORNELL UNIVERSITY

GENERAL BEQUESTS

I hereby give, devise, and bequeath to Cornell University at Ithaca, N. Y.,
 the sum of
 Dollars.

.....

 BEQUEST FOR ENDOWMENT OF PROFESSORSHIP

I hereby give, devise, and bequeath to Cornell University, at Ithaca, N. Y.
 the sum of

 Dollars as an endowment for a professorship in said University, the income
 from which said sum is to be used each year towards the payment of the salary
 of a professor of said institution.

.....

 BEQUEST FOR SCHOLARSHIP

I hereby give, devise, and bequeath to Cornell University, at Ithaca, N. Y.,
 the sum of

 Dollars, the income from which sum is to be used each year in the payment of an
 undergraduate scholarship in said University, to be known as the
scholarship.

.....

 BEQUEST FOR A PARTICULAR PURPOSE DESIGNATED BY THE TESTATOR

I hereby give, devise, and bequeath to Cornell University at Ithaca, N. Y.,
 the sum of
 Dollars to be used (or the income from which said sum is to be used each year)
 for the purpose of
(insert purpose).

APPENDIX I

REPORT OF THE SECRETARY OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: As Secretary of the University Faculty I have the honor to submit my report for the year 1915-16.

THE FACULTY

On October 1, 1914, the University Faculty consisted of 299 members, 49 of whom were members of the faculty of the Medical College in New York City. On October 1, 1915, the Faculty contained 313 members, an increase of 4.3 per cent. The membership was confined to professors and assistant professors and to certain administrative officials, whose work is closely related to the scholastic affairs of the University, viz. the Librarian and Assistant Librarian in charge of accessions, the Registrar and the Secretary of the University; i. e. the Faculty consisted of the professoriate and four others who were giving courses of instruction, as in the case of Librarians, or were in charge of the Faculty's scholastic or administrative records.

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

Through the President of the University the Faculty received from the Carnegie Foundation a confidential report prepared by President Pritchett, which was studied by a joint committee of the Board of Trustees and the Faculty. The committee's report, containing suggestions and objections regarding proposed changes in the Foundation's present pension system, has been forwarded to the Trustees of the Foundation for their consideration.

FACULTY REPRESENTATION ON THE BOARD OF TRUSTEES

Probably the most important action taken by the Faculty during the past year was the acceptance of the invitation of the Board of Trustees to elect three Faculty representatives on the Board. The action grew out of the plan suggested by the President of the University in his annual report to the Trustees for 1909-10 and again discussed by him at length in his report for 1911-12. The gist of his recommendation is stated as follows: "What is needed in American universities to-day is a new application of the principle of representative government. The Faculty is essentially the university; yet in the governing boards of American universities the faculty is without representation. The only ultimately satisfactory solution of the problem of the government of American universities is the concession to the professoriate of representation in the board of trustees or regents; and these representatives of the intellectual, which is the real life of the university, must not be merely ornamental figures; they should be granted an active share in the routine administration of the institution" (President's Report 1911-12, p. 10). At a special meeting of the Faculty held on February 12, 1915, the Faculty voted its approval of the President's plan,

outlined in his report of 1911-12, and elected a committee to confer with a committee of the Board of Trustees on the subject of "the participation of the Faculty in the government of the University." A further special session was held on March 15 and it was then voted that the Faculty express its approval of representation on the Board without vote, "in the hope that experience will indicate the desirability of giving full Faculty representation at some later time." On April 29th the Board of Trustees adopted the following resolution, which was presented to the Faculty on May 10: "Resolved that the University Faculty be authorized and invited for and during the period of three years commencing June 1 next to select delegates who shall represent it in the Board of Trustees. Said representatives shall not at any time exceed three in number. They and their successors shall be selected by ballot and for such terms respectively, not extending beyond the period above mentioned, as shall be fixed by the Faculty. They shall have the right to meet with the Board of Trustees and the Committee on General Administration and shall possess the usual powers of Trustees except the right to vote." On June 5 the Faculty elected three representatives, Professor D. S. Kimball to serve for three years, Professor W. F. Willcox for two years, and Professor J. H. Comstock for one year. While these Board members are elected to represent the University Faculty and not any particular college, constituency, or special interest, it so happens that one member is drawn from the College of Mechanical Engineering, another from the College of Arts and Sciences, and the third from the College of Agriculture. The success of the plan will depend in large measure on the broad view these members take of the general interests of the University and the avoidance of college or other local points of view. The progress of the plan, marking as it does so radical a departure in the method of university government in this country, will be watched in its experimental stages with wide-spread interest and it is likely to have a far reaching influence on university management and on the status of the professoriate.

HONORARY DEGREES

In June, 1885, the Faculty voted to recommend to the Board of Trustees that "no honorary degrees be conferred by the University." In June, 1886, the Board took the following action: "That honorary degrees may be conferred on the recommendation of three-fourths of the Faculty by a majority of the Board of Trustees." On June 16, 1886, the Faculty voted, by ballot, "to recommend that the degree of LL.D. be conferred on Ex-President Andrew Dickson White and President David Starr Jordan" (then president of the University of Indiana). On October 22, 1886, a petition from the Alumni of the University was presented to the Faculty "praying for a reconsideration of the action in regard to conferring honorary degrees, announced to the Faculty by the President at the meeting of June 16" and the Faculty thereupon voted "That this petition, in opposition to the granting of honorary degrees by the University, be referred to the Board of Trustees with the recommendation of the Faculty that it be favorably acted upon." In 1902 a resolution was introduced in the Faculty recommending the Board of Trustees to confer the degree of LL.D. on the Hon. Joseph B. Foraker and the Hon. Joseph C. Hendrix. The Faculty at that time voted unanimously that it was desirable to maintain "the established custom of Cornell University of granting no honorary degrees." Since the establishment of the University

only two honorary degrees have been conferred, one upon Andrew D. White, the creator of the fundamental ideals of Cornell University and a name dear to the hearts of all Cornellians, the other upon the eminent scientist David Starr Jordan, a Cornell alumnus. During the past year the question again came before the Faculty in connection with the discussion of the program for the celebration of the University's semi-centennial in 1918. On June 5, 1916, the Faculty adopted the following resolution: "That in the opinion of this Faculty it is unwise for the University to depart from its fixed policy of not conferring honorary degrees." This action was taken with virtual unanimity. The history of the Faculty's views on this subject, as above recited, would appear to indicate that the policy of not conferring honorary degrees is settled, so far as the Faculty is concerned, if not permanently, at least for a very long time to come. It might be added that the sentiment of the Alumni, so far as it has been expressed, is in substantial and cordial agreement with the Faculty. Just what reasons have weighed with the Faculty in its long and consistent opposition to the conferring of honorary degrees, it would be difficult to say. The opinion that is most commonly expressed is that while the bestowal of academic honors for distinguished public service or for eminent attainments in letters or science may be quite fitting, as a University policy such just recognition here and there does not compensate for the many embarrassments, wounded and hostile feelings, and lapses of judgment in the recommending body which the practice ordinarily entails.

THE COLLEGE OF BUSINESS ADMINISTRATION

The Faculty requested the President on December 9, 1914, to appoint a committee to "consider and report upon the advisability and practicability of establishing a commercial course of instruction in the University." On January 19, 1916, this committee, consisting of Professors Galloway, Kimball, Sampson, Woodruff, and A. A. Young, submitted a report, which was adopted. The committee recommended the establishment of a "professional College of Business Administration, of semi-graduate grade," an organization with its own staff of teachers and its own curriculum composed entirely of technical or professional subjects, so planned that its work could "be joined to that of any of the undergraduate Colleges of the University." For example, the work of the first year in the College of Business Administration might be accepted as the fourth year of work by one of the undergraduate colleges, as the first year in the Medical College or the College of Law is now accepted in lieu of the fourth year in the College of Arts and Sciences. It is in this sense that the proposed school is characterized as of semi-graduate grade.

The Board of Trustees communicated to the Faculty on June 28th its adoption of the Faculty's recommendations, together with the recommendations of a committee of its own, in which it was provided that the proposed college should be called "The College of Business Administration and Public Affairs at Cornell University," that it should be a college of semi-graduate grade, offering courses two years in length and leading to a master's degree, and so organized that its "work may be joined to that of any of the undergraduate colleges of the University." The Faculty's committee is requested by the Trustees to outline a definite curriculum and to submit an estimate of the minimum cost of such an establish-

ment. If means can be found to cover the financial needs of the College, it is proposed to establish it and to open its privileges to the following classes of students: 1) to college graduates; 2) to students who have completed three years of work in any of the undergraduate colleges of the University or in colleges of similar rank; 3) to a limited number of students who have had business experience, are not candidates for a degree, whose admission shall be guarded by careful restrictions.

The Trustees enlarge the scope of the college as planned by the Faculty's committee to include courses of instruction specifically designed as "preparation for the public service." The plan of the Trustees also provides for the creation of a library of commercial bibliography and for the erection of a building for the use of the College.

The spirit of a college such as that here planned by the Trustees and Faculty is in conformity with the long established traditions and ideals of the University in respect of the emphasis which the University, since the days of Ezra Cornell, has laid upon vocational training and the preparation of students for practical or public affairs. The plan also recognizes the established policy of relating undergraduate work, as far as possible, to the student's later professional or graduate study. The need of such schools is witnessed by their establishment and successful operation at various universities and colleges throughout the country. An important feature of the Faculty's recommendation is that the proposed school should be a separate college and not incorporated in the College of Arts and Sciences, as a department of the same. That college would thus be relieved of an additional force within it, tending to accentuate the already pronounced vocational trend in its work. The College of Arts and Sciences is the only home in the University where pure science and literature may be cherished and continuity with the idealistic traditions of the past in some degree maintained. Our society, built as it is upon industry, is in process of humanization, and this process will certainly have to take into account industrial, economic, and material facts and forces, which were unknown and not reckoned with in earlier forms of culture. These older culture values are precious to the conservative scholar, who is steeped in the historical aspects of civilization. But the reinterpretation of environing facts is constantly necessary. Culture ideals, however fondly cherished, are not static things. The transmutation of our knowledge of the forces of nature and society, in their constant flux, into spiritualized and humanized values is the essence of culture and, if not the chief, it is certainly the highest function of that phase of education for which the College of Arts and Sciences has for generations stood sponsor. This transmutation has in all history manifested itself chiefly in the character of literature, philosophy, history, science, and art, universally regarded as the finest products of civilization, and these are in no wise, save by accident, vocational in nature. To safeguard the College of Arts, a remnant of whose ideals are those of liberal culture, humanism, and pure science, from unnecessary invasion of professional aims and standards, it is desirable that a school such as that of Business Administration, with a purely vocational and technical curriculum, should have its own separate organization and administration. Other reasons for a separate organization, reasons which concern the proposed school itself, are clearly stated in the Committee's report (pp. 4-6, Trustees' reprint, pp. 12-14).

SECRETARY'S REPORT—UNIVERSITY FACULTY

STUDENT AFFAIRS

The chief problems that confront the Faculty's Committee on Student Affairs year by year are problems connected with athletics and the regulation of student conduct and social life. The disciplinary powers vested in the Faculty by the Board of Trustees have been delegated by the Faculty to its committee. The committee's records clearly establish the fact that the standards of conduct amongst undergraduates has risen appreciably in recent years. The cases of discipline both by the municipal authorities and the committee have markedly diminished in number. On the other hand, there are numerous social evils, not necessarily of a character to demand discipline, but nevertheless demanding regulation, which menace the standards of study and even the good name of the University. Some of these excesses demand not only curtailment, but even disciplinary treatment. The Chairman of the Committee on Student Affairs, Professor Kimball, in his report to the Faculty says: "From the view point of administration, student activities fall naturally into two classes, namely, those which represent the University before the general public and those which are a part of the Campus life only. Thus the 'Varsity athletic teams, the Masque, the 'Varsity debating teams, and publications, such as the Cornell Daily Sun, represent the entire undergraduate community, while intra-college athletic teams, class organizations of all kinds, social clubs, etc., represent only some portion of the University.

A particular instance of the need of faculty guidance is found in our social organization. The Committee on several occasions has called attention to the great need of reforms in social matters and the time has come when these reforms can no longer be delayed. This is particularly true of the excesses incident to Junior Week and Senior Week. It is true also of many of the house parties and other private functions. The Committee, through its chairman, is now endeavoring to organize a strong fraternity alumni council composed of faculty members and town's people who are interested in fraternity life, in the hope that such a council through more intimate acquaintance with the problem and with the groups of students interested can secure the elimination of the excesses that now threaten the existence of Junior Week and similar activities.

The relative importance of student activities in their influence on scholarship is difficult to estimate. It is quite generally believed that athletics and competitions for positions on periodicals, musical clubs, and dramatic organizations are much more harmful to scholarship than are some other activities. Statistics do not corroborate this view."

The Committee's investigation of freshmen activities resulted in the following statistics:

Academic records for the first term of 1915-16.

(A) Averages for entire class.

Entire freshman class.....	73.6%
Women of freshman class.....	75.9%
Men of freshman class.....	73.3%

(B) Average for Activities.

Men of freshman class in fraternities.....	72.2%
72 men in freshman class in track athletics.....	73.2%
16 " " " " " football.....	73.0%
14 " " " " " musical clubs.....	68.7%
40 " " " " " Sun competition.....	75.6%
7 " " " " " Widow competition.....	74.0%
Average of 149 freshmen in activities.....	73.5%

From the above statistics it would appear that these organized and controlled activities make an unexpectedly good showing scholastically. It is not assumed that these competitors would not have made better records in their studies without the encumbrance of outside interests. From the nature of the case nothing of the sort could be demonstrated. The fact remains, however, that their record is higher than the fraternity average and slightly higher than the general average of the men in the entire class. Furthermore, the number actually engaged in the activities enumerated is a small fraction of the class (149 out of a class of 1466 freshmen). It is no doubt true that the miscellaneous activities of a social type account for more bad scholarship than do these controlled and regulated organizations. The statistics regarding freshmen, gathered at the request of the Faculty, cover only a single term and no decisive conclusions are to be drawn from them. All freshmen who enter competitions, were included in the inquiry, whether they succeeded in their competitions or not.

The Faculty has jurisdiction over the formulation and administration of rules governing athletics, including eligibility rules, leaves of absence for out of town games, and all athletic schedules. The Committee on Student Affairs interprets the rules of eligibility with especial rigour, including the relation of these rules to probation and parole, and so far as the Committee knows, there has been no breach of the rules either in letter or in spirit. It is a matter of reasonable pride that the Committee, by a long history of insistent scrutiny, has kept undergraduate sports at Cornell clean and fair.

The amount of absences from the University for athletic purposes permitted to freshmen is two days per term and to other students seven days. In practice the amount of absences permitted is well within these limits.

Recently there has been considerable interest taken in the question of the effect of long distance rowing on the physical condition of oarsmen. Statistics on the subject are not sufficiently complete to warrant any very positive conclusion, but so far as evidence has been gathered from the life histories of participants, it does not appear to bear out the opinion that a four mile race is injurious.

ADMISSION TO THE UNIVERSITY BY CERTIFICATE

In order to make workable the method of admission by certificate, which has long been extensively used by the University, a constant inspection has to be made of the records of students so admitted. The entire question of the desirability of continuing this method of admitting students should be taken up by the Faculty and carefully examined. During the year 1915-16 eighteen schools, which had enjoyed the certificate privilege were denied the further use of the privilege and 22 schools were notified that the continuance of the certificate relation to the University would depend upon their sending students to us who are better fitted to do University work than their present representatives. From four schools the certificate privilege was withdrawn in a single subject and a higher standard was urged upon two others. The following statistics, covering a period of six years, exhibit the extent to which entrance by certificate is used and the scholastic records of students so entering:

	1910	1911	1912	1913	1914	1915
Schools using certificate privilege	265	274	296	301	301	330
Students using certificate privilege	528	265	607	623	656	657
Schools—no mark below a pass	133	111	125	113	107	121
Students—no mark below a pass	325	291	347	334	319	332

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS

These scholarships, 36 in number and amounting to \$200 each, are awarded to 18 sophomores and 18 freshmen. The original award is made to freshmen on the basis of rank in a competitive examination held annually in September. The freshman is continued in his scholarship during his sophomore year, provided he has maintained a high standing in his work. In a certain sense the competition, which takes the form of an examination at the beginning of the freshman year, is continued during the entire tenure of the scholarship; for if a scholar makes an unsatisfactory record, the student who failed to receive a scholarship, but was next in rank in the competitive examination is ordinarily appointed to take his place, otherwise the scholarship is allowed to lapse entirely. During the past year three scholarships were vacated and at the close of the year the records of 16 out of the 18 sophomores were approved by the Faculty's committee and 16 out of the 18 freshmen were continued. The general character of the work of these scholars is indicated by the fact that the average mark of the sophomores was 88.8 per cent and of the freshmen 88.2 per cent, the average in each case being about one per cent higher than during any year of which we have record. The 32 scholars of the two classes took 90 courses in which they received a mark of A and 68 courses in which they received a mark of B. The scholars took a total of 167 courses, with an average of 18.4 hours per week for the sophomores and 17.1 hours per week for the freshmen.

These undergraduate scholarships, with the exception of the Fuertes Medal and the Sibley prizes, constitute the only direct rewards offered by the University for the promotion of high scholastic standing while in the University. The sum devoted annually to this purpose is \$7200. According to the catalogue of Harvard University for the year 1915-16 the amount devoted to undergraduate scholarships in the college alone (2473 students, corresponding to our college of Arts and Sciences) was \$66445. The scholarships at Harvard range in annual value from \$75 (one scholarship) to \$700 (one scholarship). There are 299 of these scholarships and their average annual value is \$222. In addition to the scholarships there are, as at Cornell, other beneficiary and loan funds. While Harvard is no doubt exceptional in its generous support of needy and meritorious students, most of the better endowed institutions of learning make liberal provision for the assistance of their undergraduates who are in straightened circumstances and of high intellectual promise. Such students ordinarily make the most diligent and worthy use of university privileges. They have fewer distractions than the wealthier undergraduates and they experience a more urgent need to equip themselves thoroughly for the struggle for existence. It should be pointed out that the Cornell undergraduate scholarships are not in the nature of an unconditional gift; the student does not get something for nothing, but is rewarded at the start for scholastic achievement as attested by a severe competitive examination and this competition extends throughout the entire tenure of the scholarship.

A careful examination of the records of all Undergraduate Scholars who graduated between the years 1885 and 1910 shows that as a rule they have distinguished themselves in educational or vocational careers. The money thus used has benefitted not only a large number of highly endowed individuals, but has been an appreciable service to the University and to the country at large. Practically all of the students, who were incumbents of scholarships during the quarter of a century above referred to, have written the chairman of the Faculty's committee on scholarships that these stipends were a most important scholastic stimulus and that in the majority of cases they would have been unable to secure their University education without the assistance of these funds or would have secured it under circumstances very unfavorable to scholarship and health.

DRILL

The subject of Drill in the University has assumed an unusual significance because of the nation wide discussion of military problems and the action of various Universities and Colleges in introducing elective military science and drill, either with or without credit towards graduation. In Cornell University drill was required of all freshmen and sophomores from 1869 to 1902. From 1902 to 1916 it was required only of freshmen, owing to the lack of space in the armory to accommodate both classes. The requirement has always been in addition to the scholastic curriculum and no college credit has been given except for historical or tactical courses of lectures, academic in character. On February 10, 1916 the Faculty rescinded the action of 1902 and decided to require drill of both sophomores and freshmen, beginning with 1916-17. In suspending the original requirement the intention was that the two year program would be resumed as soon as adequate facilities were provided. Such facilities have now been secured by the erection of the capacious Drill Hall through funds appropriated by the State.

During the past year there were registered in the department of Military Science and Tactics 1386 students during the first term and 1378 students during the second term. In addition to the foregoing, 35 students took a six weeks course in Military Drill during the Winter term of the College of Agriculture. Although the Faculty's requirement applied only to freshmen, Military Drill was taken voluntarily by 90 sophomores, 37 juniors, 19 seniors, and three graduates, a total of 149 elective registrations. During the year 1916-17, under the new rule, it is expected that the corps will muster approximately 2400 students. They will be organized into 14 companies of infantry, one company of engineers, one company of signal troops, one band, one machine gun platoon and one detachment of sanitary troops.

The work of the department consists of practical drill, rifle practice, and theoretical instruction. The manual of arms and evolutions in companies or small units constitute, contrary to common opinion, only a small, although important, part of the entire work of the department. Each year the scope of the work is enlarged. Last year it included machine gun drill and firing, field intrenching, bayonet fencing, first aid to injured, target designation, shelter tent pitching, instruction on sand table for engineer company, rifle practice on target range, field problems and maneuvers, camp sanitation, and theoretical courses on military history, laws of war, army organization, military map reading,

and various other matters of importance in military science. The field problems and practical maneuvers in June were carried out in extended territory beyond Varna and were reviewed by Captain J. S. B. Schindel of the War College, who on the conclusion of the engagement gave the commanding cadet officers the benefit of military criticism. For three years Captain Schindel has inspected the corps with great detail and thoroughness on behalf of the Federal Government and has expressed his approval of the efficiency of the training. The War Department has again included Cornell in its list of ten "Distinguished Colleges" selected for excellence in military training from the institutions throughout the United States where officers of the regular army are detailed. This designation now entitles the University to special rifle equipment under the War Department's rule.

Through the generosity of Mr. Willard D. Straight better provision will shortly be made for rifle practice. A new range will be built and it ought to be located, if possible, within easy access of the new Drill Hall. It is highly desirable that this important branch should be pursued by the maximum number of students. The amount of practice hitherto devoted to this subject, owing to the remoteness of the target range, has been entirely inadequate.

A new plan of distributing drill over five days, instead of three, will go into effect next year. One division, as nearly as practicable half of the corps, will drill on Monday, Wednesday, and Friday, and the other division on Tuesday, Thursday, and Friday. This will bring the entire corps together only on Friday and will enable the Commandant and his assistants to give a greater amount of personal attention to the several units of the organization. More officers should, however, be detailed by the government to provide for military training here, especially in view of the increase of the corps next year. There is more work than the Commandant, assisted by Sergeant Nagel, can do. If the government is to utilize the colleges and universities, where military instruction is given, to train a picked group of young men for reserve officers, it would appear urgent that the best and most thorough instruction should be provided. In no other way, on a volunteer basis, can the government secure the military training of its reserve officers so economically or draw on a body of young men with similar intellectual qualifications.

The University has been fortunate in having had a long series of excellent officers detailed by the War Department as Commandants. These men have built up a strong organization, each succeeding commandant utilizing and improving upon the work of his predecessor. The training is one of the best things in the student's life here, significant in its influence on obedience, punctuality, attention, and physical bearing, but most important, perhaps, from the student's standpoint, because it forces on him considerations of patriotic service and takes him out of the egoistic attitude which an education for individualistic success is wont to beget. The Faculty and Alumni should give the military department their active and cordial support, because of the valuable work it does for the students in the corps and because of the highly significant relation that this work bears to our national life.

Respectfully submitted,

W. A. HAMMOND,
Secretary of the University Faculty.

APPENDIX II

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I beg to submit the following report of the Graduate School for the year 1915-1916.

The statistics appended to this report show that 482 students were registered in the Graduate School during the regular academic terms, and 147 during the summer, making a total of 629 for the year. Of the 482 students of the regular year, 232 held appointments on the Instructing Staff, as Instructors or Assistants.

This system, by which many of the younger teachers are at the same time students in the Graduate School, has grown rapidly both here and at other universities. It is obvious that there are both advantages and disadvantages connected with its extension, and that questions regarding its effect upon undergraduate instruction as well as upon the Graduate School are involved. From the former point of view, the complaint is sometimes made that instruction in the more elementary subjects and the reading of examination papers, etc., are largely carried on by teachers who are not merely inexperienced, but are primarily interested, not in teaching, but in their own graduate studies. There seems to be a real danger here, from the standpoint of undergraduate instruction, which ought to be considered and provided against by those responsible for that side of the University's work. An important consideration, however, which should not be lost sight of in discussing the question, is that participation in advanced scholarship and research, far from being a disqualification, is an indispensable part of a university teacher's business. A teacher without this interest and habit of mind is unfit to deal with any class of university students, even the most elementary. Moreover, in attempting to estimate, from the point of view of undergraduate instruction, the advantages and disadvantages of having as instructors and assistants persons who are at the same time carrying on studies in the Graduate School, it ought not to be forgotten that in a great many cases the opportunities which these positions afford for study and research, and for obtaining advanced degrees, are what render them attractive. It would probably be much more difficult than at present to fill these positions with appointees of proper qualifications, if these persons were not able to look forward to the possibility of carrying on studies at the same time in the Graduate School.

The effect of such appointments to positions on the instructing staff upon graduate students themselves, and especially upon their development as productive scholars, is, in my opinion, a much more important aspect of the same question. Practice in conducting classes and knowledge of the methods of carrying on the work of instruction and administration are doubtless valuable elements in the training of those who are preparing themselves for the profession of teaching. But there is another side to the picture. The duties connected with these appointments usually involve a large amount of routine work that absorbs a

good share of time and strength without yielding anything in the way of aid or stimulus to independent scholarship and research. Its tendency is all in the opposite direction. It is of course true that much depends upon the individual, and much, too, upon the spirit and intellectual atmosphere of the department with which he is connected. But, in general, I am inclined to believe that the best results in graduate work are obtained when students are free to devote themselves wholly to their own studies—during at least the greater part of their term of residence—and to become genuinely absorbed in some independent line of inquiry. There is danger that the result of trying to carry water on both shoulders will be a loss on both sides.

Nevertheless, the present practice is probably necessary, both for the University in obtaining men to fill its junior positions, and in many cases, for students in obtaining financial support to enable them to continue their graduate studies. The question has, however, become so important, both for the undergraduate and the graduate divisions of the University, as to warrant the inquiry whether any restriction or modification is desirable or possible.

One of the main difficulties under which the Graduate School carries on the promotion of scholarship and research, with which it is especially charged, results from the fact that, both for the majority of its Faculty members, and for a large proportion of its students, other duties and interests absorb a large share of their time and strength. The demands of undergraduate instruction are usually more urgent and insistent, and are likely to be regarded as more important by those responsible for the administration of the various departments of the University. It is not necessary or desirable to oppose sharply the claims of undergraduate instruction and of scholarly investigation. The latter activity is absolutely necessary to the continued vitality and success of the former. And it is probable also that scholarship in a university is most useful and productive when it is carried on in conjunction with teaching. But what I wish to urge is that it is of fundamental importance that productive scholarship should be fostered and encouraged within the University, not as a luxury, but as something essential to the life of the University and indispensable to the work which it is carrying on in behalf of society. What would the adoption of this doctrine as a working principle imply, not merely on the part of the President and the Board of Trustees, but on the part of the members of the Faculty who make recommendations regarding appointments and promotions, and plan programs of instruction for departments and divisions of the University?

In order to ensure that this principle shall not be forgotten in practice, I would suggest the advisability of establishing a joint Committee or Council for the Graduate School composed of representatives of the Board of Trustees and of the Faculty, and specially charged with the duty of keeping to the fore its interests and claims for support. In addition to this general function, such a body would undoubtedly from time to time be called upon to consider special questions pertaining to the Graduate School and to make recommendations to the Board of Trustees regarding them. At the present time there may be mentioned as illustrations of the kind of questions likely to require joint consideration from representatives of these two bodies, the question of tuition in the Graduate School, of Fellowships and Scholarships, and of the feasibility of further developing at Cornell the opportunities for graduate study during the summer months.

As a further argument for the need of a committee or council to represent the Graduate School, it should be recognized that the great influx of students into the University during the last decade or two has tended to produce conditions which are on the whole unfavorable to scholarship and research. On the one hand, the funds are swallowed up in providing additional teachers and equipment; and on the other side, the increase of students has brought in a great burden of elementary teaching and administration, emphasizing these things in the life of the University, so that for many members of the Faculty it is increasingly difficult to find time properly to direct the work of graduate students or to carry on investigations for themselves.

If, under the conditions of the present time, the Graduate School is to maintain and advance the spirit of scholarship and investigation in the University, certain independent provisions must be made for its work as something of central importance which has a legitimate claim, irrespective of undergraduate instruction. In the interest of all parts of the University, this central function must be supported and strengthened. At the present time we are looking forward to the Semi-Centennial of the opening of the University, and hoping that at that time it may receive support and stimulus which will lead to an increase of its usefulness. I believe that the strength of the University may be most certainly renewed and increased by giving to scholarship and research the central place at this time. For this end, the Graduate School urgently needs a number of professors who shall devote themselves primarily to carrying on research, and to promoting and directing the scholarly activities of others. The endowment of such chairs in existing departments, or in subjects not yet represented in the University, would bring into the University a group of men whose main function and business would be work of the Graduate School. They would thus form a centre and a rallying point for another and more vital interest than that of mere pedagogy. Ten or twelve such chairs would do more than anything else towards strengthening the University at its centre and lifting it to a new plane of endeavor.

In addition to these professorships, the Graduate School needs an endowment for investigation and for publication. No university can remain a mere teaching institution, dispensing the knowledge that has been created by the labor of others. The production of knowledge as well as its distribution is the work of the university, and these two functions go on best when they are closely conjoined. The policy of 'millions for instruction but not a cent for investigation,' would be suicidal to all genuine progress in education. In planning for the future, a fund for investigation should be regarded as one of the University's vital needs. And in order that this need may not be overlooked or displaced by other demands, a specific endowment for this purpose is asked for by the Graduate School.

Closely connected with investigation is the need of a fund for the publication of the results of investigation. At a number of the larger American Universities the work of publication is carried on by an endowed University Press. The Report of the Sixteenth Annual Conference of American Universities contains a paper on "The Function and Organization of University Presses," by Mr. G. P. Day of Yale University, and one on "The State Agencies of University Publications" by Mr. A. O. Leuschner of the University of California. Both of these papers are of importance in connection with the subject under discussion.

The desirability of some agency of publication, like a University Press, was referred to in my Report of last year. The question of a University Press has also been recently referred to by the Secretary of the University, and has been discussed at some length by Professor Lane Cooper in an article in the *Alumni News*. An endowment for publishing scholarly works would undoubtedly stimulate productive scholarship in the University and promote its standing and influence both at home and abroad. It seems reasonable to believe that Cornell University will find friends to do for her in this respect what has been done for her sister institutions.

The Faculty of the Graduate School held six meetings during the year, and at least one meeting was held by each of the five Groups into which the Faculty is divided. No radical change was introduced in legislation effecting educational practice or requirements for advanced degrees. A healthy interest seems, on the whole, to exist in the problems of the Graduate School on the part of a considerable number of its members, and it is believed that through participation in the discussions to which graduate study gives rise, teachers belonging to the various divisions of the University tend to gain a better understanding than would otherwise be possible of the spirit of the institution as a whole, and of its educational ideals and practice.

During the year 99 advanced degrees were granted—34 Doctors of Philosophy, 26 Masters of Arts, 15 Masters of Science in Agriculture, 7 Masters in Forestry, 4 Masters of Civil Engineering, 6 Masters of Mechanical Engineering, 3 Masters in Landscape Design, and 4 Masters of Architecture.

Respectfully submitted,

J. E. CREIGHTON.

Dean of the Graduate School.

STATISTICS OF ATTENDANCE

In the Graduate School, during the academic year 1915-1916, there were registered 482 students in addition to 147 registered during the summer of 1915.

Number of students registered	1915-16	1914-15	1913-14	1912-13	1911-12
during the academic year	482	390	386	379	351
Number of students registered					
during the Summer of 1915:					
1. Summer Session	45	39	34	30	24
2. Third Term in Agriculture	85	28	—	—	—
3. Under Supervision of Special Committees	17	65	19	12	8
Total in Summer	147	132	53	42	32

Classified according to the Degrees for which they were candidates:

	Academic Year	Summer Students
Doctors of Philosophy	225	62
Master of Arts	82	43
Master of Science in Agriculture	64	25
Master of Forestry	7	8
Master of Landscape Design ..	7	0
Master of Architecture	4	0
Master of Civil Engineering	6	0
Master of Mechanical Engineering	19	0
Not Candidates for a Degree	68	9
Total	482	147

Classified according to the group in which the major subject lay:

	1915-16	1914-15	1913-14	1912-13	1911-12
Group A, Languages and Literatures	52	56	47	41	38
Group B, History, Philosophy, and Political Science	62	45	48	49	56
Group C, Physical Sciences	75	95	83	91	87
Group D, Biological Sciences	243	220	175	141	118
Group E, Engineering, Architecture	50	30	29	36	38

Among the students registered in the Graduate School during the year 1915-1916, there were graduates from 103 different institutions distributed as follows:

Alfred University	3	University of Montana	1
Amherst College	1	Montana Agricultural College	1
Bates College	2	Morris Harvey College	1
Bethany College	1	Mt. Holyoke	2
Boston University	1	Muhlenberg College	1
Bowdoin College	1	University of Nebraska	6
Brigham Young University	3	New Hampshire A. & M. College ..	3
Bryn Mawr College	5	North Carolina A. & M. College ..	3
Butler College	2	New York State Normal College ..	1
University of California	2	North Dakota Agr. College	3
Colgate University	5	Northwestern University	2
Colorado Agricultural College	1	Oberlin College	9
Colorado College	2	Ohio University	4
Columbia University	5	Ohio State University	5
Cornell University	239	University of Oklahoma	2
Dartmouth College	2	Oregon Agricultural College	2
Denison University	2	Oregon University	3
Denver University	2	Oxford University	1
Drake University	1	University of Pennsylvania	3
Elmira College	1	Pennsylvania State College	6
Fargo College	1	University of Pittsburgh	1
Florida State College for Women ..	1	Pomona College	2
Franklin and Marshall College	1	Princeton University	1
Grinnell College	1	Purdue University	1
Hamilton College	2	Queen's University	1
Harvard University	2	Rhode Island State College	1
Haverford College	3	Rochester University	3
Hobart College	1	Smith College	3
Huron College	1	University of South Carolina	1
University of Illinois	6	Soo Chow University	1
Indiana State Normal School	1	Stanford University	1
State University of Iowa	5	Syracuse University	5
University of Kansas	4	University of Tennessee	2
Kansas State Agricultural College ..	1	Tokyo Agricultural College	1
State University of Kentucky	2	Trinity College	1
Kyoto University	1	Union University	1
Lawrence College	2	Utah Agricultural College	3
Lehigh University	1	Vassar College	1
University of Maine	2	Vienna Polytechnic Institute	1
Maryville College	1	University of Virginia	1
Marietta College	1	Wabash College	9
Massachusetts Agr. College	1	Wake Forest College	3
McGill University	1	Washington State University	1
Mercer College	1	Wellesley College	3
Meredith College	2	Wells College	1
Miami University	1	Wesleyan University	6
University of Michigan	5	University of West Virginia	1
Michigan Agr. College	4	Western College for Women	2
Middlebury College	1	University of Wisconsin	9
University of Minnesota	6	University of Wooster	1
University of Missouri	8	Yale University	1
Mississippi A. & M. College	1		

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: As Dean of the College of Arts and Sciences I have the honor to submit to you my report for the year 1915-16.

The total registration in the College of Arts and Sciences for the year 1915-16 is 1,424, an increase of 130 over that of last year. Of those enrolled 1,205 are candidates for the degree of A.B.; 209 for the degree of B. Chem.; and 11 are special students. The number of men is 1,080; the number of women 345. As the following table shows, the College has almost doubled its enrollment within the last decade:

Academic Year	Number of Students
1906-07	748
1907-08	820
1908-09	902
1909-10	970
1910-11	1017
1911-12	1031
1912-13	1112
1913-14	1132
1914-15	1294
1915-16	1424

In considering the work of our College it must not be forgotten that we do a large share of the teaching in fundamental subjects for the professional colleges and that we most likely still teach more professional students than Arts students, as Dean Hull found to be the case in his Reports of 1910-11 and 1911-12. It should also be borne in mind that one of these colleges, the College of Agriculture, which had 542 students in 1906-07, now has an enrollment of 1,704. All these circumstances should be taken into account in estimating the services rendered by our College as a part of the University and in seeking to provide for its growing needs.

DEFICIENT SCHOLARSHIP

Whatever may be the differing conceptions of the function of the College among the members of the Faculty, there ought to be agreement on one point at least, namely, that students should do thorough and effective work; that they should learn how to use their minds and how to acquire knowledge; that they should develop such capacities for solving intellectual problems as may fit them for the business of life. It has been said that there are more triflers and idlers in the College of Arts and Sciences than in any other college on the Campus; that our College is a veritable haven of rest for persons who have neither the brains nor the inclination to do creditable work. The President of the University

in his Report for 1906-07, referring to the reputation which our undergraduates have among their fellows of doing less work than other students, declared that "this disparagement is probably well founded" (pp. 23, f.). If this is true, it is a serious indictment, for it is well known that the demands made upon the intelligence and energy of students in the other colleges are not overpowering. If it is true, the reason may be that some of the courses in the College fail to compel serious effort on the part of undergraduates or that persons receive a passing grade who have not done the work. Perhaps our trouble is due to the fact that we often employ German university methods with immature minds as our material. In some cases students merely listen to lectures, perhaps write an occasional report or preliminary examination-paper during the term, and pass the course without any great effort on their part. Owing to the lack of a sufficient number of trained instructors in large classes, there is sometimes little opportunity for frequent and thorough discussions in smaller groups, for written reports and essays, for personal conferences and individual instruction. At any rate, the conviction is widespread among the members of the Faculty and of the standing committees that the number of inefficient students in the College is larger than it ought to be; and this conviction is strengthened by an examination of the records of the delinquent students with whom the Committee on Academic Records has dealt during the last ten years. The following table shows how heavy our "casualties" are.

Academic Year	Students dropped after examination			Students warned or put on probation			Aggregate for year	Total students registered	Per cent dealt with
	First term	Second term	Total	First term	Second term	Total			
1906-07	18	15	33	42	48	90	123	748	16.4
1907-08	21	21	42	24	21	45	87	820	10.6
1908-09	27	22	54	33	29	62	116	902	12.7
1909-10	32	28	60	29	33	62	122	970	12.8
1910-11	25	28	53	23	32	55	108	1017	10.6
1911-12	20	18	38	36	22	58	98	1031	9.5
1912-13	31	32	63	32	16	48	111	1112	10.0
1913-14	29	36	65	35	16	51	116	1132	10.2
1914-15	39	30	69	41	23	64	133	1294	10.2
1915-16	40	43	83	57	49	106	189	1424	13.2

The figures in the table do not, however, tell the whole story of the intellectual anaemia from which the academic body is suffering. They merely inform us how many students have failed to meet the *minimum* requirements and have thereby incurred censure in some form or other. According to our rules "no student will be recommended for the degree unless his record shows that the total amount of his completed work corresponds to an average of at least fifteen hours a term; nor unless half his work has been above the grade D." But we temper justice with mercy and do not, as a rule, visit with official censure the student who passes only twelve hours with the grade of D at the end of a particular term. Only those students who fall below this dead line, that is, persons who cannot carry an average of two hours of work a day, lose their credit for the term of residence and may be placed on probation or dropped from the College unless extenuating circumstances appear. The table does not report the total number of students who fail to pass fifteen hours of work of very middling quality at the end of the term. Nor does it say anything of those who have avoided the

danger of censure by selecting courses in which the burdens are not too heavy. And yet these figures invite reflection. It is not easy to say what the deeper causes of the poor showing are. It is apparent that many of the persons attending college are not profoundly interested in what we of the Faculty regard as the chief business of higher institutions of learning. They do not come with any ardent desire to devote themselves to study and to prepare themselves for the duties of life; they are attracted by the external tinsel of academic life or perhaps just come because they have been sent. Our problem is to arouse in these persons the desire to occupy themselves with the things for which a college is supposed to stand and to develop in them habits of intellectual curiosity. In some courses it is not easy to hold such students spellbound and to arouse in them a yearning to apply themselves to the laborious tasks which they must perform in order to succeed. In other courses it is not impossible to keep them entertained during the period and to make them look forward to the next meeting without qualms, but it is not easy to induce them to undertake the drudgery which must be undergone if they are to receive any real lasting benefit. There is no easy road to knowledge; and it is not given to men in their sleep. We have created excellent machinery for warning, censuring, and dropping those who either will not work or have not learned, or can not learn, how to work; and our Committee on Academic Records spends time and strength in rounding up the delinquents. The question is whether we ought to stop here; whether we should adopt a *laissez-faire* policy and let the student take the consequences of his conduct or endeavor to help him in developing interest and industry by insisting upon a diligent application to the prescribed tasks. On this point the opinion of the Faculty is divided. Some members are in favor of more or less strict supervision of the work of students, holding that many of those who meet with failure could, if properly advised, encouraged, and warned, be saved from defeat, and that it is the business of a college to save them. Others are honestly opposed to wasting their efforts on the lazy and mediocre and devote themselves to helping those who can and will help themselves. They act in what they conceive to be the spirit of Cornell University as expressed in our General Circular of Information:

With a student's first registration in the University there begins for him a period of greater personal responsibility than he has ever before been called upon to face. He should realize that the success of his University career depends in a large measure upon his individual ideals, his individual industry, and his individual determination to make the best possible use of his opportunities. Cornell University offers its equipment; its officers of instruction and administration stand ready to help with their personal encouragement and advice; but after all, the ultimate responsibility for success or failure rests upon the individual student himself.

If this statement is taken to mean that students are to be thrown upon their own resources, as in the German universities, I do not believe we should act in accordance with it unless we have the courage to maintain high standards in our classes and refuse to pass those who fail to meet them. So long as students are permitted to make their university work a mere negligible episode of their academic life, so long as they spend a large part of their time in the so-called "extra-curricular" activities or diversions and still receive degrees, the College will remain a pleasant refuge for those who have no real intellectual interests.

The standards of scholarship can be raised if each individual teacher insists on honest work from his students and refuses to lower them for the indolent and the incompetent. No legislation will produce a change in the conditions about which there is such widespread complaint in the College, so long as this spirit of discontent does not express itself in the right kind of action in the classroom. No dean can force students to work whom professors cannot induce to work. The Committee on Academic Records will continue to enforce the rules of the Faculty and drop the idlers from the College, but it is powerless to remove those upon whom teachers set their mark of approval by passing them. The Dean will carefully consider all cases of delinquent students reported to him by members of the Faculty during the term, but he has no means of discovering who these are unless teachers send him the necessary information.

I am not advocating "methods of compelling endeavor and of penalizing neglect," to use the words of Dean Nichols in his Report to the President of 1913-14. He is right in maintaining that "petty exactions and artificial enforcements of all kinds" will not provide a remedy, and that "inspiration and enthusiasm do not most abound under a rigid and exacting regime." The real problem, we are all convinced, is "that of improving the attitude of the student towards college work and creating a real interest in the intellectual life." The question, however, is whether and how such an interest may be aroused where it is not spontaneous; and I believe that interest comes, in many cases, with honest work. We not only learn by doing; we also become interested by doing. And young people do not come to college with their interests fully grown; they do not always know what their intellectual interests are. Moreover, they are tempted by many diverging interests to neglect the tasks the doing of which is essential to their future good; and flagging interest may be kept alive by effort. A university should help the student to find his true interests, his best interests, his interest in becoming a useful member of society; and that can no more be done by letting the student run wild, than a will can be fashioned by letting impulses run wild. Self-discipline is needed to develop character; and self-discipline is needed to cultivate the interests that life demands. It is true that no methods have yet been devised in any university which prevent idleness and failure,—not even in the free academic atmosphere of Germany where men are largely left to their own devices and where large numbers of them neglect their opportunities. It is true that the number of failures in our College has not varied materially for many years, and that there are many in whom intellectual interests will find no root. But there is nothing antagonistic to the development of intellectual interest in the demand that students do their work efficiently and that those who cannot meet our standards seek spheres of life more congenial to their natures. Our academic environment does not tend to stifle intellectual interests where they are spontaneous and strong nor does it prevent their development in students who are willing to give them a chance to grow. We should not lose sight of the comforting fact that many of our students do excellent work and are quietly preparing themselves to become useful members of society. Their tribe will increase if each individual member of the Faculty will do his full duty. As President Schurman said in the Report already referred to: "It cannot be too often repeated that at Cornell as elsewhere the hope of the College is in the Faculty. Changes in the administrative machinery, though they should be

made when improvements, will yet prove ineffectual to vitalize and energize a college of liberal arts. That is an end which the Faculty, and the Faculty alone, can accomplish."

THE ADMINISTRATIVE BOARD

Upon the unanimous recommendation of a joint committee of the Board of Trustees and our Faculty, the Faculty in 1908 established an Administrative Board in Charge of Freshmen and Sophomores with full power to supervise their work and provide means for making it effective. The object was to ensure "greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students." Although this Board has not solved all our problems, it cannot be denied that it has done some good work. It has restricted the field of subjects open to freshmen, limiting them, so far as the Faculty would permit, to fundamental subjects in the College. It has attempted to arrange a satisfactory schedule for freshmen and to increase the number of courses open to them in their second term of residence. It has introduced an advisory system for freshmen and sophomores with the view to assisting them in the selection of their studies and affording them such friendly counsel as they might desire. As Dean Hull foresaw in his Report to the President in 1911-12, the complete success of such a plan "will depend on the personal relations which may be established between advisers and advisees." It cannot be truthfully said that the hopes of the Board have been fully realized in this regard. Indeed, it is doubtful whether the majority of the underclassmen have been greatly benefited by the advisory system. Perhaps the chief reason of this is the undergraduate's own backwardness in availing himself of the invitation to confer with his adviser. Some members of the Faculty have been very successful in overcoming this difficulty and in establishing personal relations of a most helpful kind between themselves and their pupils; but most of them, I am inclined to believe, never see their "advisees" after the first, often hurried, interview during which the program of studies is mapped out, or sometimes merely inspected, for the coming term. There are possibilities of great good in the plan, but in order that they may be realized it is essential that the adviser take an active and sympathetic interest in the students whom he has consented to assist as guide, philosopher, and friend. Every effort will be made to improve the advisory system during the coming year, but the primary condition of its successful operation will always be the attitude of the advisers themselves, their willingness to enter heartily into the spirit of the business. There is no use shutting our eyes to the fact that underclassmen are, as a rule, inexperienced and immature, that they need assistance in the important task of selecting their studies, and that the help of a wise and sympathetic friend given at the beginning of their college career will have far-reaching consequences. Many of these students would welcome this help if they fully appreciated the situation; at any rate, many of them regret later on that they did not obtain it. Advisers, however, should not limit their efforts to helping students to select their courses, but should take a friendly interest in their work during the term, encourage them and stimulate them to make the best use of their time, and warn them against dissipating their energies in all kinds of "activities" the importance of which they are so apt to overrate.

With the help of a wise teacher they will learn to keep the proper academic balance, to see things in their right relations, and to value them according to their true worth. When we call to mind that professors keep in close and sympathetic personal touch with their graduate students, it must seem strange to us why anyone should regard the manifestation of a similar interest toward the neophytes of learning as a form of paternalism below the dignity of a real university. To act *in loco parentis* to our underclassmen may be impossible in the great modern institutions; it certainly is not puerile.

In the meanwhile, the Faculty, upon recommendation of the Committee on Educational Policy, and with the approval of the Board of Trustees, has voted that the Administrative Board in Charge of Freshmen and Sophomores, as at present constituted, be discontinued, and that the Board be superseded by a Committee on Advice to Underclassmen, which shall include, in addition to the Dean and the Secretary of the College, seven members to be chosen annually by the President from a list of names submitted by the Dean. This Committee is to have charge of the advising of freshmen and sophomores and to have power to consider and recommend to the Faculty measures for making the work of freshmen and sophomores more effective. The Faculty apparently believes that the object aimed at by the Administrative Board can be best attained by the appointment of a smaller committee which shall be directly responsible to the Faculty itself. It is wise that the educational policy of the College be determined by the Faculty as a whole and be not delegated to a body independent of it.

THE NEW SYSTEM AND WORK IN OTHER COLLEGES

In accordance with the legislation adopted in Dean Nichols's administration, a student, to secure credit for a term of residence, must pass during that term at least twelve hours of work. While he is registered in the College of Arts only, he cannot count a course or courses taken in another college on the Campus as part of the twelve hours necessary to obtain credit for a term of residence. Furthermore, no student will be recommended for the A.B. degree unless his record shows that the total amount of his completed work corresponds to an average of at least fifteen hours a term; nor unless half his work has been above the grade of D. The object of this "new system" was, among other things, to improve the quality of the work done by candidates for the A. B. degree; to extend their privilege of taking courses in other colleges; and to allow them to choose as many hours in addition to the required twelve Arts hours as they might be able and willing to carry. In other words, to obtain his A.B. degree the student is required to complete eight terms of residence, averaging fifteen hours a term, only twelve of which hours need be selected from the list of courses announced in the catalogue of the College. He may choose, in addition to these Arts hours, any courses outside of the College for which he is prepared and count them toward the 120 hours required for graduation. That is, a student registered in our College only may receive his A.B. degree after having completed 96 Arts hours and 24 hours outside of the College; and he may take as many courses in other colleges as he has the ability and inclination to pursue. Such a student might without great burden to himself take 48 professional hours and even more. A student, however, who has completed six terms of residence in our College may, with the permission of the faculties concerned, register both in our College and in any other college

of the University, and devote his entire senior year to work in that college. It is, therefore, possible for a student to receive his A.B. degree after having completed only 72 hours in our College; 48 of the 120 hours required for graduation may be taken in a professional school. By taking 18 hours each week during his four years, such a student might receive credit for 72 hours of work done in a professional college. All this shows that whatever obstacles there may be in the way of students desiring to pursue vocational studies cannot be laid to the account of the College of Arts and Sciences. Our policy is a liberal one.

We are, however, often reminded that we make no provision for persons desiring to prepare themselves for the newer vocations. In the Report already quoted President Schurman calls attention to the fact that while the College provides an education in the liberal arts and in pure science to the comparatively small number of men who seek it before entering the older professions, and trains specialists in the different branches, most of whom will devote themselves to teaching or writing, it makes no special provision for giving a more general education to those who will afterwards devote themselves to business, journalism, the public service, etc. It is true, the College lays down no courses or curricula preparing persons for these vocations or indeed for any other vocations, except in the case of chemistry, nor does it appoint official vocational advisers for any of the professions, old or new. Many students, however, who intend to enter certain branches of business or of the public service receive advice from members of the department of Political Science and arrange their studies in accordance with their vocational purposes so far as the opportunities afforded by the University in these fields will permit. It would be possible for our College to appoint vocational advisers in other fields from whom students intending to enter these fields might receive assistance in choosing their studies, and it may be wise to do so. Under the new rules such students could devote a large part of their time to the preparation they seek.

As has been pointed out, a student who has completed at least six terms of residence in our College (though not the 120 hours required for graduation), may, with the permission of the faculties concerned, be registered both in the College of Arts and Sciences and also in any other college of Cornell University. Such permission is, however, not given by the Faculty of the Graduate School in the case of any such student; and I am convinced that our own Faculty would grant it only in exceptional cases, if at all. But our College does allow students who have satisfied all the requirements (except residence) for the A.B. or B.Chem. degree to register in the Graduate School, with the approval of a committee consisting of the Dean of our College and two other members of our Faculty to be appointed by him. In accordance with this regulation, students who have given evidence of superior ability and have satisfied all the requirements for the degree except residence have been admitted to the Graduate School by its Dean after they have completed only seven or even six terms of residence in the College of Arts and Sciences. The Dean of the Graduate School has declined to admit any student who does not receive the unanimous recommendation of his committee.

Respectfully submitted,

FRANK THILLY,

Dean of the College of Arts and Sciences.

APPENDIX IV

REPORT OF THE ACTING DEAN OF THE COLLEGE OF LAW

To the President of the University:

SIR: I beg to submit the report of the College of Law for the year 1915-16. The year has been notably marked by the regretted resignation of Judge Frank Irvine on March 4, 1916, as Dean of the Faculty and Professor of Law, after fifteen years of highly valued service to the college and to the University. Judge Irvine came into the Law Faculty in 1901, bringing a high reputation acquired through a career of twenty years of labor at the bar and on the bench. From 1907 to the time of his resignation he was Dean of the Law Faculty. All the members of the Law Faculty request me to express to you on their behalf their warm endorsement of the most fitting resolutions adopted by the Board of Trustees and published upon the occasion of his retirement. In the minutes of the Board there will thus be preserved permanently a just and grateful appreciation of his work for Cornell as a learned teacher, quietly forceful administrator, and sagacious and friendly counsellor.

The resignation of Judge Irvine, the absence of Professor Hayes during 1916-17 on sabbatical leave, and the conclusion of the engagement here of Acting Assistant Professor Wyckoff, who for the past two years has acted as a temporary member of the instructing staff while Judge Irvine was absent on leave, will necessitate changes in the personnel of the Faculty the coming year. Professor Wyckoff leaves us to take up other work, and I wish here to make recognition of his assiduity and legal ability.

For the professorship of Procedure we have been singularly fortunate in securing Professor Oliver L. McCaskill, Ph.B. (University of Chicago, 1901), J. D. (University of Chicago, 1905). Professor McCaskill, after ten years of varied practice in Chicago, in the state and federal courts, gave up his practice for the purpose of developing his plans for improvement in the method of instruction in procedure and practice in law schools. In 1914 he accepted a place in the Law Faculty of the University of West Virginia, and has been so markedly successful there as to attract the attention of legal educators to his work. The place left temporarily vacant by the absence of Professor Hayes next year has been filled by the appointment of Henry White Edgerton, A.B. (Cornell, 1910), LL.B. (Harvard, 1914). Professor Edgerton comes strongly recommended by Dean Roscoe Pound of the Harvard Law School, and the Hon. Frank B. Kellogg, former president of the American Bar Association.

The following changes have been made with respect to present members of the instructing staff: The acting dean has been appointed to be Dean of the Faculty; the title of Professor Stagg has been changed from Professor of Procedure to Professor of Law; and Assistant Professor Bogert, after five years of loyal and effective service to the college, has well earned his recent promotion to the rank of full professor. These changes become effective July 1, 1916.

An addition has been made to the list of our regular nonresident lecturers by the appointment of L. Ward Bannister, A.B. (Stanford), LL.B. (Harvard), of the Denver, Colorado, bar, as lecturer on Western Water Rights and Irrigation Law. He is also lecturer on these subjects at the Harvard Law School. It is hoped that later this course may be lengthened by the addition of lectures on Mining Law by Mr. Bannister.

Again this year we have had a series of stimulating and informing addresses to the law students by nonresident lecturers. Former President Taft, now of the Yale Law School, spoke on Legal Ethics; and Hon. Edward T. Brackett, of Saratoga Springs, on Some Suggestions to Future Lawyers. The following Cornell Alumni have also spoken during the year in this series: Walter P. Cooke, LL.B., '91, Buffalo, The Business Lawyer; John J. Kuhn, LL.B., '98, New York, Law as a Livelihood; Hon. George A. Blauvelt, B.L., '90, New York, The Mechanics of Legislation; and the Hon. Francis M. Hugo, LL.B., '97, Secretary of State of New York, Watertown, Some Changes in Subjects of Litigation. To all of these gentlemen the college is greatly indebted for their willing response to our invitation.

The most important changes in the schedule of studies next year are in the work in Procedure. Professor McCaskill will give the sophomore course in Procedure, amplifying the work in Common Law Pleading. In the junior year he will give a course on Code Pleading in the first term, and Evidence in the second term. In the first term of the senior year he will introduce a Practice Court, four hours per week, the general object of which course is to narrow the gap between the procedural work of the law school and the future actual experience of the student in the law office and in the court room. The course on special proceedings under the Code Practice now given by Professor Stagg in the senior year will continue under his instruction, but will be shifted to the junior year. His present junior course on Procedural Papers will be omitted and its content distributed among other procedural courses. He will also give the course on Public Officers during the absence of Professor Hayes. Constitutional Law now given by Professor Hayes will be assumed by Professor Burdick, and extended from two hours per week to three hours per week. To Acting Assistant Professor Edgerton are assigned the courses on Torts, Equity, and the Law of Associations (including Partnership and Private Corporations). Owing to the diminishing importance of Partnership it will be omitted as a separate course and combined with the course on Private Corporations.

The Law Library, both in its growth and in its administration, continues satisfactory, taking into consideration the appropriations allowed for these purposes. During the year ending May 1, 1916, there has been an addition of 1760 volumes, making a total of 48,775 volumes in the Law Library. The principal gift during the year was a donation of 180 volumes by Miss Lillian Huffcut, from the library of the late Dean Ernest W. Huffcut. The fund donated in 1908 by Mr. Earl J. Bennett, LL.B., '01, of Rockville Centre, N. Y., for the purchase of Session Laws, was exhausted during the past year and a detailed report was sent to Mr. Bennett showing the disposition of the fund. 205 volumes have been added to this collection of Session Laws since my last report; the California and Oklahoma sets have been completed; and the Bennett collection now numbers 4300 volumes. During the year 346 items have been added to the collection of the Reports and

Decisions of the various Public Service Commissions. The Librarian is attempting to make a full collection of this material, as it is becoming of ever increasing value and importance. The report of the Librarian is appended hereto.

The following table shows the registration in the College of Law for the past seventeen years:

Year	Seniors	Juniors	4-Year 2	4-Year 1	3-Year 1	Specials	Total
1899-1900	52	61	—	—	61	4	178
1900-1901	45	52	—	—	78	7	182
1901-1902	34	71	—	—	86	7	198
1902-1903	48	77	—	—	95	5	225
1903-1904	53	76	—	—	109	3	241
1904-1905	58	80	—	—	86	4	228
1905-1906	65	69	—	—	85	4	221
1906-1907	51	70	—	—	89	1	211
1907-1908	48	68	—	—	85	5	206
1908-1909	48	58	15	29	71	6	227
1909-1910	49	56	22	54	70	10	261
1910-1911	48	69	28	61	68	6	280
1911-1912	65	80	47	102	25	12	331
1912-1913	74	52	75	65	22	10	298
1913-1914	48	75	51	71	19	6	270
1914-1915	66	56	37	56	18	4	237
1915-1916	53	40	38	88	20	3	242

In 1915-16, in addition to the total number of law students, 36 students from the College of Arts and Sciences have elected courses in the College of Law, thus making a total of 278 students receiving instruction in the college. The number of students from other colleges receiving instruction in the College of Law in 1914-15 was 34, and in 1913-14 was 23.

The following table shows the general increasing tendency of the college to become more national in the geographical distribution of its student body:

Year	Students from outside of New York
1906-1907	30%
1907-1908	32%
1908-1909	33%
1909-1910	35%
1910-1911	37%
1911-1912	35%
1912-1913	33%
1913-1914	39%
1914-1915	36%
1915-1916	41%

In 1899-1900 the number of students from outside of New York State was 15 per cent of our student body, and in 1901-02 it was 21 per cent. In 1915-16 we reach a point when 41 per cent of our students are from outside of New York State. The present geographical distribution of our students is as follows: New York, 141; New Jersey, 28; Pennsylvania, 20; Ohio, 11; Massachusetts, 6; Connecticut and Indiana, 4 each; Illinois, Nebraska, and Porto Rico, 3 each; California, Michigan, Missouri, and Utah, 2 each; District of Columbia, Georgia, Hawaii, Iowa, Maryland, Minnesota, Oklahoma, Oregon, Texas, Vermont, and Wyoming, 1 each. In the past fifteen years the percentage of students from outside of New York has practically doubled. These figures have particular sig-

nificance in a law school in their bearing upon the question as to the stress to be put upon instruction in the local law of the several states, and in considering the variants from the English common law and diversity of legislation upon various topics.

A change which affects some of the law students has very recently been made by the New York Court of Appeals in the rules for admission to the New York bar. Heretofore the rules have exempted from the general requirement of one year of office work, a student who had completed a three year course in a law school and had begun such course after having received an A.B. degree. This exemption has now been extended to the student who during his collegiate course has completed one year of law school work prior to receiving his Arts degree, if the law work thus taken is accepted for credit towards his Arts degree. This rule operates to shorten by one year the period of study required for admission to the New York bar for students who pursue the six year combined course in Arts and Law, leading to both degrees, A.B. and LL.B.

One of the most noteworthy events in the whole history of the College was the establishment in November last of the *Cornell Law Quarterly*. This publication is issued in November, January, March and May. What its influence may be—what in fact the year just past has shown it to be—was expressed in an editorial in the initial number: "The project had its inception in the request of our students and in the suggestions of our alumni that the work and interests of the law school be represented by a medium of expression that might periodically reach and be of some service to the hundreds of Cornell lawyers who are widely distributed throughout the country. * * * The *Quarterly* hopes to excite the interest and win the support of many practitioners by their contributions or otherwise, and bring to them through its pages the resources of the Cornell Law School and, so far as this medium can serve, the results of the work of our Faculty and students. The law faculty is also impressed with the pedagogical value of a publication within the college itself. Earnest and capable students have expressed the wish or willingness to carry on further and independent investigation of problems presented in the classroom, or offered by current decisions. The publication of the results of such work, when deemed of value by the faculty, is a distinct incentive to thorough and scholarly endeavor on the part of students. * * * This *Quarterly*, then, will not fail of its purpose, if it substantially enhances the spirit of mutual service between the College of Law and Cornell lawyers; if it aids in some degree to foster any needed reform in the law, or to give help by intelligent discussion and investigation towards the solution of legal problems; and if it satisfies within the college itself among the students and faculty a desire to advance, beyond the point of classroom instruction, the cause of legal education in the larger sense. While attention will be given by the *Quarterly* to American law generally, especial notice will be taken of the development of New York law."

The results of the venture have at the end of the first year in every way exceeded expectations. The subscribers number between 900 and 1000, thus showing the substantial support accorded by our natural constituency. Many Cornell lawyers have expressed their pride in the publication and some have testified to the help that it has afforded them. But chiefly from the faculty point of view the pedagogical value of the *Quarterly* has been proved. For every number there have been from 25 to 30 students working enthusiastically and faithfully

in the intensive study of the special problems afforded by recent cases for critical comment to be published in the *Quarterly*. By far the larger share of the credit for the establishment of the periodical is due to Professor Bogert, the Faculty Editor, who in the face of some discouraging circumstances at the beginning and since, has steadily guided the *Quarterly* to its present success.

I must also call attention to the publication during the year of the Cornell Law List, by Mr. E. Morgan St. John, A.B., '11, LL.B. '13, of Ithaca. Although this directory of Cornell lawyers was not published by the College of Law, it was prepared upon our suggestion and we afforded every facility and encouragement to the compiler. This assistance has been gladly given in the belief that the directory will serve to bring Cornell lawyers into closer touch and coöperation.

SUPPLEMENTARY STATEMENT ON THE NEEDS OF THE COLLEGE OF LAW

In concluding this report may I call your attention to the more insistent needs of the College. The salaries of the members of the faculty are inadequate, whether viewed from the point of quality and extent of service rendered, or from the point of increased cost of living. The compensation compares on the whole unfavorably with that allowed by schools of equal reputation. Law teaching has become a profession distinct from that of law practice, and while it is highly desirable that teachers should have had experience in practice, it is a fact that there have been eminent law teachers who had little or no experience as practitioners,—for example the late Dean Ames of Harvard and the late Dean Huffcut of Cornell. Whether a particularly efficient law teacher would meet with equal success at the bar is not the criterion whereby to measure his compensation as a teacher. When besides the possession of ambition and a knowledge of law one considers the special pedagogical qualifications necessary for proper success as a law teacher under the best approved method of legal instruction it will be realized that the most desirable men for teaching positions are not readily available. There is competition for law professors of established reputation, and the schools which are able to offer inviting compensation command their services at salaries ranging from \$4000 to \$8000. Fortunately we have been able at Cornell to present to desirable teachers a few attractions that counterbalance in some degree the lower salaries. I refer to our very complete library facilities, and to the generally pleasant environment. Otherwise we are at a disadvantage. Unless some provision is secured for an increase of salaries we shall remain handicapped and find it necessary to fill future vacancies with more or less inexperienced young men of promise, in the hope that we may benefit during the process of the fulfilment of the promise, though we would not be likely to retain the ultimate fruition. The unusual good fortune that has hitherto attended the selection of members of our faculty cannot be expected to wait upon us always.

Another urgent need of the College of Law is an addition to Boardman Hall. There is housed in this building one of the most valuable law libraries in the country; but the building is not fire-proof. An addition should be constructed for the protection of at least the considerable number of volumes which are practically irreplaceable or difficult of replacement. Moreover, the toilet facilities in the building are seriously if not scandalously inadequate; and there is no convenient way of remedying this difficulty except by providing proper facilities in an addition to Boardman Hall. The College therefore needs a fireproof addition in the

upper floor of which our more valuable books may be protected, and in the basement of which there shall be ample toilet facilities and a sufficient number of lockers for the safeguarding of clothes and books.

There is one other need of the College of Law. It is highly desirable that the Law Library should be endowed, in order that its necessary growth may thus be placed beyond interruptions that might be occasioned by possible future reductions in the amount of annual appropriations made for the library. Such a reduction four years ago, and continuing for two years, in our library appropriation, brought sharply to attention the inconvenience caused and also the substantial loss that would have been caused if the reduction had continued longer. The larger part, and much the more important part of the library, which is the working tool of the lawyer, consists of publications which are issued periodically or serially and constitute "sets", for example, the series of Reports of decisions of the courts, the Annual Digests, and the sets of Session Laws and the periodical compilations of Session Laws. It is therefore obvious that a reduction of appropriations causes a break in the continuity of these sets and a resulting inconvenience which is exasperating to those using the library, and to those charged with filling up the sets if the adequate appropriations are resumed. A sufficient endowment would remove the possibility of such disturbances to the growth and efficiency of the library as those occasioned by the reduction of four years ago.

Moreover, it is to be hoped that our law library may soon be provided with a special endowment for the creation of a department of the law of continental Europe. In this field we have substantially nothing. With us the emphasis has hitherto been laid entirely upon the acquisition of a full collection of books in the field of the English Common Law and its extensions into all parts of the British Empire and into the United States. The next direction for the growth of our library should be towards the collection of books on the law of continental Europe. In this country large and valuable collections in this department of law are possessed by the law library at Harvard University, at Northwestern University in Chicago, and at the National Library in Washington. The extremely valuable and comprehensive collection in this field at the Northwestern University Law School is due to the munificence of Judge Elbert H. Gary.

I have thus set forth somewhat in detail the more evident needs of the College of Law, namely: provisions for an increase in salaries, an addition to Boardman Hall, and an endowment for the law library.

Respectfully submitted,
EDWIN H. WOODRUFF,
Acting Dean of the College of Law.

APPENDIX V

REPORT OF THE DEAN OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to make this report upon the affairs of the Medical Department of the University for the year ending June 30th, 1916.

Continuing our efforts, more particularly of the past two years, we have made substantial progress in organizing our clinical departments in close association with our laboratory organizations. This involved a rearrangement of ward duties.

It is gratifying to note the readiness with which Juniors and Seniors alike have accepted and developed the new conditions demanded by this reconstruction of the service. The department of Surgery first inaugurated the change, and effected a reorganization as follows: A surgeon in chief, who is obligated to devote from four to five hours daily to his hospital duties; as assistants he has two thoroughly equipped surgeons who give all their time to their duties. Well officered and equipped pathological, chemical, and clinical laboratories are provided, and two surgeons are associated with the Chief Surgeon, who undertake the care and development of such cases as are grouped for intensive study.

The necessities of the broader field belonging to the Department of Medicine compelled an organization of its ward service similar to that of Surgery, and this is now being developed. To that end, a distribution of the opportunities and duties devolving is made as follows: A head or chief of Staff, and serving under his special or general direction as required by the exigencies of the service, a Staff of Associates, assistants, and adjunct assistant physicians. A ward laboratory to deal only with such problems as come readily under the head of, so called, "clinical pathology," is organized and under the direction and supervision of one of the assistant physicians. A laboratory for pathological and bacteriological study and research, and another for allied chemical and toxicological studies and research, are grouped under the general direction of the Pathologist of the Hospital. These three laboratories are planned for any enlargement that may hereafter be required, and are amply equipped for any problems, whether simple, or complex, which may arise in either our Medical or Surgical service at the present, or in the near future. The status for the present, of our cooperation with the Sage Fund for research in Metabolism, is entirely satisfactory, but as the agreement with the trustees of the Fund expires in another year, the question of renewal of this cooperation must be considered then. The field for this kind of research will be added to, as we widen the uses of our clinical, chemical, bacteriological, and pathological laboratories.

About January 1st, last, the trustees of Bellevue and Allied Hospitals made a working agreement with the University by which they entrusted wholly to our administration one-fourth of the present hospital service, in the departments of general medicine and general surgery, also the entire neurological and urological services, including the out-patient departments. So far as the general medical and surgical services were concerned we had always practically exercised much the same degree of control, but the arrangement now created enlarges and fixes our control to such a degree of perpetuity, we have felt justified in the creation of a salaried staff to cover not only the ward work but the system of laboratories mentioned above.

The department of Obstetrics remains as before, divided between the University of New York and ourselves. We have also arranged with the Trustees of the Hospital and the medical faculty of the University a satisfactory working agreement covering the department of Gynecology, which promises to remain permanent. We have to arrange to extend the facilities of our department of urology to the classes belonging to Columbia University, and obtain from Columbia similar

facilities for our own students in the department of Pediatrics, a department which it controls. With the completion of these details, I believe Cornell University will have added to itself clinical facilities which taken in conjunction with the New York and Memorial Hospitals, and our own Dispensary, (particularly with the Medical Clinic which has been so ably developed by Professor Thompson), will give its Medical College all the clinical facilities it can utilize properly for the next year or two.

Permit me also to call attention to the work of Professor Conner, at the New York Hospital, which so thoroughly supplements the labors of Professor Thompson and his staff at Bellevue. We have here every opportunity to thoroughly develop the clinical studies appropriate to the third year students, and I suggest that this question, together with the larger one of adapting our courses in Medicine more acceptably to the time allowed, be presented to the faculty, and that Professor Thompson and his associates and assistants be asked to consider and report upon this problem.

As we pass more deeply into the growing and exacting problems of medical education, I incline to the belief that with us the art of Pedagogy presents a fruitful field for development. If we are to limit to six or seven years an education capable of being legalized (supposing one or two years hospital service is to be exacted) measures of concentration must be perfected, so as to curtail the periods given each subject. This at once opens up the question as to the amount of time a teacher should give his subject in order not merely to prepare it for presentation, but to adequately present it. This applies to all kinds of teaching, laboratory, didactic, and clinical, or to demonstrations. Many of us believe that too much time is lost through lack of preparation for presenting subjects to students, leading to diffuseness and to vagueness. This is a delicate subject, this questioning of the teacher's method of presenting or teaching his subject. I suggest, however, that it be made one for discussion by our faculty, and perhaps some way be discovered to overcome the main difficulties of the problem.

By referring to Professor Thompson's report you find gratifying statements, covering the activities of his assistants in the "Extension of Relief," covering the occupational diseases, cooperating in this field with the Board of Health, with the Russell Sage Foundation, and with the School of Philanthropy. We have developed in this department a more direct association with the Loomis Laboratory. First, we have organized groups of patients requiring special phases of sero-therapy; for instance goitre, the remedies employed being partly our own product in this laboratory and partly gotten elsewhere. Originally this activity was a part of the work of our department of Experimental Therapeutics, but under an agreement with the department of Pathology a sub-department of Experimental Medicine was created, and placed under Dr. Weil. Professor Thompson has perfected a plan of cooperation long contemplated through which Dr. Weil's laboratory is brought into close cooperation with our Hospitals and Dispensaries. In this manner we expect to secure a closer cooperation between the Loomis Laboratory, Applied Pharmacology, and Therapeutics with the department of Medicine, encouraging research upon problems of treatment. I refer you for more detailed information to Professor Thompson's report enclosed.

In Surgery Professor Stimson finds that the work of clinical clerks at the New York Hospital grows in importance and interest, and along with what he has developed at Bellevue Hospital, together with the courses instituted at the Hudson

Street Hospital, he gives full opportunities for the demonstration of all phases of surgery. He wishes the course in Operative Surgery to be given later in the course. Measures will be taken to bring this about during this session. In this connection I ask attention to the suggestion made by the Professor of Anatomy that the course in applied anatomy be transferred to the third year. As these two subjects are closely allied, some arrangement might be made by which both be transferred to the fourth year of the course. An indication of the need for some such coalition is given by the success attending an optional course in Surgical Anatomy given the past year by Dr. Beekman under the direction of the Surgical Department. We must here, as in other clinical departments, speak of the difficulty with our time allowance, there being a continual increase of conflict between the Clinics and the clinical clerk, because of hours given to ward work by the latter. We have here an added reason for a comprehensive review of our entire system of teaching.

The departments of Anatomy, Physiology, and Chemistry report in each very satisfactory conditions.

Professor Edgar reports affairs in his department as being satisfactory. Here again we have gained a larger increase in clinical material both at the Manhattan State and Bellevue Hospitals. This marks a valuable addition to the already excellent opportunities Professor Edgar has secured to our students.

A most important change was made in the department of Urology during the year. Professor Keyes was entrusted with the new and difficult task of administering the entire urological service at Bellevue in the interest of ourselves, as well as the students of the University of New York, and probably those of Columbia also. No doubt he could employ a larger number of beds than the 40 or 50 assigned him, even after the addition of a rather full out-patient department wholly devoted to cases of syphilis, the space for which is being created in our building adjoining the Loomis Laboratory.

We are indebted to Professor Hoch and his assistants for the important advance he has made in his department, first in establishing at our own dispensary a satisfactory out-patient service for the mentally unfit, and in addition, giving a course of lectures on Medical Psychology, which have given much satisfaction and markedly enriched our fourth year course.

We have also undertaken the creation of a neurological service at Bellevue. This is in the hands of Dr. Foster Kennedy, who during the autumn will perfect its organization and administration.

In concluding this report allow me to direct attention to Professor Ewing's labors at the Memorial Hospital. Through the generous and continuing interest of Dr. James Douglass, together with the wise administration of the governors of this hospital, Professor Ewing and his associates have made gratifying improvements in the treatment of cancer and its allied diseases. A well planned and thoroughly equipped laboratory building for a complete study of these diseases is in process of construction, the gift of Dr. Douglass. We can congratulate ourselves upon the benefits which have come to us through our association with this Institution both for research and teaching.

Respectfully yours,

W. M. POLK,
Dean of the Medical College.

(The departmental reports referred to are on file in the President's Office.)

APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA DIVISION OF THE MEDICAL COLLEGE

To the President of the University:

SIR: As secretary of the Ithaca Division of the Medical College, I have the honor to present herewith my fourteenth annual report covering the work of the year 1915-16.

This year's work in the Medical College has been most satisfactory, with further progress in carrying out the plans for development formed eight years ago when the higher entrance requirements were adopted.

FACULTY

I wish again to commend the loyalty, industry, and enthusiasm of my colleagues and their staffs. Their whole time and energy have been devoted to the interests of the college in both teaching and research and with a faculty as small as ours the leaving of instructors is a serious matter. I am glad to be able to report that the changes in the instructing staff have been few and these only among the younger assistants. The increased amount of time demanded of nearly all the staff, owing to increased registration, has been given willingly and without complaint.

STUDENTS

There has been a slight increase again this year in the number of students in attendance. Sixteen of the twenty-five students, as shown in the tabulation given below are recorded as seniors in Arts and Sciences but only fourteen of these were seniors in Cornell University, two having been admitted from Barnard College under the same conditions as the seniors from our own Arts College. It seems probable that in the future more students of this class may apply from other institutions.

Men	{	Graduates	2	Women	{	Graduates	7	Total	Graduates	9
		Seniors	14			Seniors	2			Seniors	16
		Total	16			Total	9			Total	25

The number of students from other colleges of the University receiving instruction in the fundamental biological subjects that form the first year of the medical work continues to increase. The special courses established to meet the needs of these students are absorbing an increasing amount of the time and energy of the instructors. Concerning these special courses I shall speak more in detail in connection with the reports from each department.

EMBRYOLOGICAL RESEARCH

Emeritus Professor Gage has continued to work in Stimson Hall devoting himself to research and to the writing of books based upon his investigations. His recently completed book on optic projection written with his son, Dr. H. P. Gage, fills a long-felt want and his book on the microscope now entering upon its twelfth edition has been of inestimable value to students, teachers, and investigators alike.

It is unnecessary to speak here of the exercises on the occasion of the fellowship dinner in honor of his sixty-fifth birthday since a report of these has been preserved in the official publications of the University. The Faculty of the Medical College rejoice with his other friends in the establishment of the Simon Henry Gage Fellowship in Animal Biology and trust that the fund may speedily grow to such size that the fellowship may become available.

ANATOMY

The work in Anatomy for medical students, although but slightly changed since last year, has been better organized. The plan of giving nearly all the work in the dissecting room with frequent individual quizzes and demonstrations requires a large amount of time from the instructors but the results warrant the continuation of this method.

In addition to the work for medical students the Arts course on Anatomical Methods that was started last year was continued and was taken by 20 Arts and graduate students. There has been for some time a demand on the part of the students of Biology and Comparative Anatomy for a short course on human anatomy, which would enable them to compare man's structure with that of the lower animals. Students preparing to teach physiology have also desired some more knowledge of human structure than could be obtained from the courses in Physiology, and there have been also some general students who wished to know something about the structure of their own bodies. The courses in Anatomy for medical students were far too long and detailed for these students. Since Human Anatomy has recently been made an Arts subject, to meet the needs of these various classes of students, it was now possible to offer an elementary course on the structure of man, somewhat on the same lines as the elementary course in human physiology. Although the course was not announced until late in the spring it was taken by 18 students, of the Graduate School, College of Arts and Sciences, and other colleges of the University.

In addition to the students in undergraduate courses, five graduates, candidates for advanced degrees, were registered for work in anatomy.

The instruction in Anatomy is now carried on by one professor, an instructor, and two assistants, and it is quite evident that the development of the work of the department warrants the appointment of at least one assistant professor and additional instructors. I feel that there is already a demand for additional courses in anatomy along neurological and anthropological lines. Physical anthropology has been very much neglected in this country.

Since the retirement of Professor Burt G. Wilder there has been no course in the University on neurology, except the detailed special courses given to the medical students by the departments of Anatomy, Histology and Embryology,

and Physiology. The wonderful collection of specimens prepared by Dr. Wilder is now unused. When the demand for courses in neurology by Arts and Graduate students becomes insistent enough, it would seem logical to reestablish them in Stimson Hall in the Department of Anatomy and in close relation with the courses already given here.

HISTOLOGY AND EMBRYOLOGY

Professor Kingsbury reports that the work of the Department of Histology and Embryology has progressed normally with fair results. The total number of registrations in courses was over 325 this year which is nearly 100 more than last year. There were 175 individuals taking work in the department as against 120 last year. This increase was mainly in the Veterinary, Graduate, and Arts students. There were 14 students registered for advanced degrees taking work in the department.

Since a very considerable amount of the teaching in this department, as in the department of Anatomy, is in the laboratory, the amount of time required of the instructors is correspondingly large. As a result of this the increase in the number taking courses in the department has put a great strain upon the instructing staff. This was only slightly relieved by the extra student assistant provided.

The instructing staff consists of one professor, an instructor, an assistant, a half time assistant, and student help, and there is no question but that the work of the department, especially considering the number of graduate students, would justify the appointment of additional assistant professors, one in histology, one in human embryology, and another in experimental embryology.

The situation of the University offers unusual opportunities for the development of experimental embryology, and already there is a great need for better housing facilities for the breeding of small animals, which cannot be done in Stimson Hall but which can probably be easily arranged by extension of the physiology animal house at East Ithaca.

PHYSIOLOGY AND BIOCHEMISTRY

Professor Simpson had been granted sabbatical leave of absence for the first term and had planned to visit various universities and educational centers in Europe. As this was impossible under the conditions then existing, his leave was postponed and he has been on full duty during both terms and also in the summer months. He points out that, since the number of students taking courses in the department has increased so greatly in recent years, little time is available to him for research except during the long summer vacations.

In the first term much of Dr. Simpson's time was occupied in rewriting and expanding his "Outlines of Human Physiology" for the use of students, mainly from the Colleges of Arts and Sciences and of Agriculture, who take the course in elementary physiology. Under the title "Notes of Lectures on Human Physiology" this has been issued in three volumes of convenient notebook size and forms what is essentially an elementary textbook of human physiology. There were 542 students taking the elementary course for which this book was prepared which is an increase of 84 over 1914-15. In previous reports, I have emphasized

the importance to the University as a whole of this course. I can do no better here than to quote what Professor Simpson says in referring to the increased registration. "This fact shows that amongst the general body of university students, who have no intention of specializing in medicine, there is an increasing desire to understand something of the structure and workings of the human body and of the laws of health. Since many of these students will, in years to come, be men and women of prominence in civil communities, the knowledge acquired at this time and the interest aroused in human physiology, a subject closely related to the public health, are bound to have a beneficial and far reaching influence on all citizens of the state. It should never be forgotten that the care and preservation of the public health is one of the most sacred duties of citizenship and that it is a duty which can only be performed with intelligence when the fundamental laws of the sciences which bear on these matters are understood."

The number of individual students who received instruction in physiology this year was 584, with 702 course registrations. In addition to this there were 85 students registered in biochemistry. The total number of individual students for the two divisions of the department was 645. As pointed out above, this increase has been largely in the course in elementary human physiology which in my opinion is one of the most important in the University. The great value of the course, I believe, is largely due to the forceful way in which the subject is presented by Dr. Simpson and that it would be a great mistake to relieve him of this work. As already noted, however, teaching now takes practically all of his time during the college year and leaves him for his own research only the long summer vacation. The importance of his own investigations is very great and it is essential that some way should be found to conserve more of his time for them and for the supervision of the graduate students who are each year coming to him in increasing numbers. There are this year 11 students who have been taking majors and minors in the department.

The staff at present consists of one professor, in charge of the whole department, an assistant professor, an instructor, and an assistant, in experimental physiology; and an assistant professor and instructor in biochemistry. To meet the needs of the department there should be at least another assistant professor of experimental physiology and additional instructors in both experimental and chemical physiology.

The new animal house that was recently completed near the East Ithaca station will be of great service to the department. The disadvantage caused by its great distance from the laboratory has been partly overcome by securing for the attendant one of the University dwelling houses near by. Later it will be necessary to erect a house for the attendant close to the animal house.

The number of students taking work in biochemistry continues to increase and although extra desks were fitted out this year, it was necessary to refuse registration to two students. If the increase continues, as seems probable, it will be necessary to install extra desks or to employ additional instructors and assistants in order to duplicate the courses.

RESEARCH

It is hardly necessary to call attention to the fact that research in a medical college is equally as important as teaching and the investigations in the subjects

taught in the Ithaca division of the Medical College, forming as they do the fundamental basis of all the medical sciences, are therefore most essential.

Research work has been actively carried on in all departments of the college this year and as heretofore the number of important papers that have been published from the departments of Histology and Embryology, and Physiology and Biochemistry, as listed in the librarian's report, gives only a slight indication of the number of researches still in progress. The research work in the college is of two kinds, first, the independent investigations of the staff of instruction; secondly, the investigations of the graduate students. Although the published results of the investigations of graduate students may not always add greatly to Science, the importance of training these students cannot be overestimated. The amount of the professor's time that is given to the instruction and guidance of the research work of graduate students is usually far in excess of the amount of time that he has for his own investigations; nevertheless, this is done willingly. This research work is taken largely by candidates for the degrees of Master of Arts and Doctor of Philosophy. There is a decided advantage in having this class of students working in the laboratories alongside of the medical students since they help to instill in the medical students the spirit of research, and, on the other hand, the association communicates to the research student something of the spirit of modern medicine. A number of graduate students have later continued their work in the medical college and some of the medical students have interrupted their course for a period of research before completing their medical work. Both classes of students must be encouraged as much as possible since they form an important source from which to draw our teachers and investigators. The demand for competent, trained teachers and investigators in medicine is constantly growing. Moreover, the research attitude is now recognized as the only spirit of medicine and a physician must treat the ills of each patient who comes to him as a scientific problem that must be solved in order to secure the speediest and best cure.

For the encouragement of research in the Medical College at Ithaca there is now available the income from the sum of \$50,000 bequeathed for this specific purpose by the late Mrs. Dean Sage. It is certain that the money could have been given for no more important purpose, and it is a source of much gratification to the professors that the importance of their research work should be thus recognized.

There is still need for the encouragement of research in another way and that is by the establishment of Fellowships; one or several fellowships in Anatomy, in Histology and Embryology, in Physiology and Biochemistry, could be used to great advantage.

STIMSON HALL

The adaptability of Stimson Hall to the uses of the Medical College does not decrease as the number of students increases and the departments expand. The capacity of the building is now taxed to its utmost in some departments, especially in Experimental Physiology where more floor space is needed. To provide this, Professor Simpson suggests that a single story building be erected along the south wall of Stimson Hall, the floors to be solidly founded and suitable for recording work. In this building, which might be closed in by shrubbery

and not visible from the outside, could be housed one or two research laboratories, the mechanic's workshop, an animal surgery and operating room offices, and an installation for the string galvanometer with photographic dark room. I believe, however, that this would only temporarily meet the growing need and that in the not very distant future we shall see a duplicate of Stimson Hall at the south of the present building.

In spite of the crowded condition, it was possible, after the fire that destroyed the chemical building, to find room in Stimson for some of the courses in Sanitary Chemistry and Microchemistry, the former using the biochemical laboratory during vacant periods and the latter occupying part of Professor Gage's private laboratory on the first floor. Further, during the second term when the work is light in human anatomy, the east half of the dissecting room was used by Professor H. D. Reed's class in Comparative Anatomy, while some of the laboratories in McGraw Hall were being reconstructed.

NEEDS

As has been pointed out above, in each department of the Medical College there is urgent need of additional assistant professors and more instructors. All the departments are small as regards instructing staff. Such departments have but one permanent professor and instructors and assistants who are frequently changing. Since experienced successors can seldom be obtained until the new appointee is trained, a disproportionately large burden is thrown on the head of the department who must maintain the high standard of the work by a closer personal supervision of the courses of the former instructor and at the same time teach the new instructor both subject matter and manner of presentation. Provided a large enough nucleus of old instructors remain so that the department may not be crippled, every good teacher welcomes the opportunity to train new teachers and investigators in his own field. In addition to this the great burden of administrative detail cannot be shared to any extent with temporary members of the staff but must be borne by the head of the department. Thus the time and energy of a man eminent in his profession are largely diverted from their legitimate channel of teaching and research to routine details. A larger number of more permanent members of each department would make it possible to divide to a greater extent the responsibility.

The professors' time would also be conserved and the effectiveness of the work increased by having trained preparators for each department.

The desirability of fellowships and scholarships to enable young men and women to devote themselves for a period, without too great financial loss, to research has also been pointed out above.

The increasing demands for more floor space mentioned in the report of the department of physiology is a large and important problem that requires careful study. This will be dealt with more in detail in a later report.

The Medical College has now completed eighteen years of its organization. During this period the advances in medical education in this country have been greater than in all previous time, so that now our best schools are the equal of any medical colleges in the world. Although one of the youngest medical schools in the United States, the Cornell University Medical College ranks with the very best. To have attained this position among the first rank means not

only devoted work upon the part of her instructors, both as investigators and as teachers, but also hearty support from the President, the Trustees, and the friends of the institution. To maintain this position will require the continued activity and support of all. For in these days and under the new conditions, to maintain a first class medical college is a very expensive proposition. The Medical College in New York has been most fortunate in having a large special endowment but the Ithaca division has been entirely dependent upon the appropriation made by the trustees each year from the general funds of the University. Although the grants have been most generous, considering the demands of the other colleges and departments of the University, at the same time it became necessary a few years ago in order to bring the expenditure within the income to suspend the second year of the Medical College work at Ithaca. This was most regrettable and I have repeatedly pointed out in my reports the advantages of reestablishing this second year as soon as funds for it could be found. It seems, however, unlikely that these will be secured except through special gifts for a separate endowment for the Medical College at Ithaca. I believe that in securing such an endowment we should be greatly aided by those graduates of the Medical College who have had their first and second years at Ithaca. These men and women, while undoubtedly not themselves able to contribute largely to such an endowment, ought, through their intimate relation with their patients, to be able to interest some of them who have large means in contributing toward the advancement of medical education.

The Ithaca division of the college has not only been an important part of the institution in helping to make the Medical College in New York an integral part of Cornell University but it has also had an important influence upon the University as a whole by bringing to Ithaca the spirit of modern medicine and by affecting the careers of not a few able students.

The cost of maintaining the departments housed in Stimson Hall this year exceeded \$30,000, the income on over \$600,000. As has been pointed out repeatedly all of this cannot be charged to the Medical College, since the departments giving this instruction also form an essential part of the biological departments of the University. To permit the expansion that now seems necessary, it is important that there should be an independent endowment for the Ithaca division of the Medical College. The income on at least \$1,000,000 should be available to develop the work now being given and \$500,000 additional would make it possible to reestablish the work of the second year. This sum need not all be given by one individual, as was the case with the New York division of the college, but gifts for the endowment of departments, of professorships, of fellowships, and lesser amounts, no matter how small, contributed to the general endowment of the Medical College at Ithaca would be most acceptable. I make this appeal to all who have worked in Stimson Hall and to all friends of the institution to start now a sustained effort to secure for us the support that we need.

Respectfully submitted,

ABRAM T. KERR,

Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith a report of the work of the New York State Veterinary College for the academic year 1915-16.

The work of the college for the present year has been very satisfactory. Two important actions were taken by the faculty and ratified by the trustees, namely, the extension of the course from three to four years, beginning with September, 1916, and the establishment of a new department of obstetrics and research in the diseases of breeding cattle. The increasing number of subjects that it is necessary to include in a well rounded veterinary curriculum and the need of a longer period to train students, especially in clinical subjects, called for the additional year. It is further believed that this change will bring the veterinary students and the veterinary profession of the State into closer touch with the University than is possible under the present arrangement. The heavy annual losses sustained from the diseases of breeding cattle require for their elimination careful study and instruction. It was deemed best to create a new department for the purpose of acquiring further information concerning these disorders and to formulate efficient methods for combating them. This department was placed under the supervision of Dr. W. L. Williams who for some years has been making a special study of these troubles.

The number of students this year reached a total of 168 which is the largest registration in the history of the college. Distributed by years they are as follows: first year, 90; second year, 41; third year, 28; fourth year, 1; practitioner's course, 3; and graduate students, 5. The maximum registration of undergraduates prior to this year was 132 in 1913-14. Thirty-two students were graduated in June, 1915. It is presumed that the excessive enrollment this year may be accounted for in part by the fact that the four year course goes into effect in September. There is, however, no appreciable abatement in the number of requests for information from prospective students. Another factor bearing upon the large registration this year is the enrollment of students from thirteen states outside of New York.

The instruction, we believe, has been more efficient than heretofore. This is due to greater experience on the part of the instructors, better equipment, and the reorganization of the clinics. No changes have been made in the instructing staff among those ranking higher than assistants. The ambulatory clinic is now entirely in the control of the professor of medicine, and the consulting clinic has been placed in the department of surgery. The inspection of dairies supplying milk to the City of Ithaca which is in charge of Dr. Koenig, Assistant Professor of Medicine, has been of much practical value to our seniors. There were treated in all the clinics last year 2,865 cases. In 1907-8, the total number of cases for practical teaching of medicine and surgery was 451. Every student who was graduated in June, 1915, had an opportunity to diagnose and study, under the super-

vision of an instructor, between thirty and forty diseased animals under conditions encountered in private practice. These, in addition to the hundreds of cases that came to the college clinics, warrant the statement that the objection formerly urged against our clinical facilities no longer obtains.

There is a continued demand for well trained veterinarians to go into practice as well as to fill important positions. The rapid increase in the value of food producing animals is emphasizing the economic significance of efficient veterinary service. The report of the Secretary of Agriculture for 1915 shows an annual direct loss from the more important diseases of animals of \$212,000,000.00, a large part of which should be prevented. The enormous indirect losses are not calculated.

The college has from time to time lectures by practitioners and specialists in veterinary medicine and the allied sciences. This year Dr. Otto Faust, President of the State Veterinary Society; Dr. John W. Adams, Professor of Surgery in the School of Veterinary Medicine, University of Pennsylvania; Dr. Adolph Eichhorn, Chief of the Division of Animal Pathology, Bureau of Animal Industry, Washington, D. C.; Dr. W. G. Hollingworth of Utica; Dr. Cassius Way and Dr. Frank H. Miller of New York City; and Dr. J. G. Wills, Chief Veterinarian of the State Department of Agriculture, Albany, N. Y., have given instructive addresses at the college.

The regular diagnosis work for veterinarians of the State and the preparation of tuberculin, mallein, and anthrax vaccine have been continued. There were 1189 specimens of pathological tissues sent to the college for diagnosis last year and the indications are that the number will be much larger this year. These were examined and promptly reported. There were 11,270 doses of anthrax vaccine, 795 doses of mallein, 54,000 doses of tuberculin, 12,238 doses of anti-hog cholera serum and 2,733 c.c. of virus for the simultaneous method of vaccination against hog cholera, distributed in the State.

Because of the heavy losses from disease, unusual efforts have been put forth to assist the veterinary practitioners. The most effective means for rendering service of this kind that we have found to be practicable is an annual conference which is held in January. This year the attendance was exceptionally large, about 20 per cent. of the active practitioners of the state being present. This conference is virtually a short course in which the most important recent developments in veterinary medicine are presented by the best men at our command. The increasing number of practitioners who attend and their expressions of appreciation for the opportunity speak for the value of such instruction.

The research work has been quite as productive of valuable results as in previous years. Some of this has been in connection with physiology and animal diseases and some of it in preparation of charts and guides for teaching purposes. There is quite as much need for investigation into methods for properly presenting our subjects as there is for acquiring new knowledge. We are fortunate in having teachers whose interests are directed especially toward better pedagogy.

The study of the dissemination of hog cholera by means of infected pork scraps has shown the possibility of spreading the virus of that disease throughout the country by placing on the market carcasses of hogs infected at the time of slaughter, but in which evidence of the disease cannot be found on inspection, and also the means of preventing it by not feeding uncooked pork scraps to pigs.

The details of these important investigations by Dr. Birch will appear in the annual report to the Governor.

The experimental work on bovine tuberculosis, contagious abortion, and certain poultry diseases is being continued. Important researches in physiology are also under way. Detailed reports are made as rapidly as the work is completed.

In addition to the major investigations, members of the faculty are constantly rendering assistance to veterinarians and live stock owners in the solution of troublesome problems that arise. As examples of this, the diagnosis by Dr. Udall of contagious pleuro-pneumonia as the cause of numerous deaths among horses in New York City that came from Toronto, Canada, and the study by Dr. Pickens of anthrax infection from tannery refuse in Saratoga County may be mentioned.

Part of the more important work of the year has been that of Dr. Williams in connection with contagious abortion and sterility in dairy cattle. He has met with a large number of gatherings of cattle breeders in different parts of the state and instructed them relative to the present knowledge of these troubles and so far as possible assisted them in formulating better methods for their control.

The college has a large correspondence with the veterinarians of the state and many live stock owners relative to animal diseases and their control. In this way it is believed that the college is rendering a real service to the animal industry of the state. Much time is also consumed by members of the faculty in serving on various committees and commissions in the state relative to animal diseases and preparing papers by request for meetings of various organizations interested in the control of these maladies.

The needs of the college are still numerous. The appropriations for maintenance and equipment have been quite satisfactory but the request for the south wing to James Law Hall and the new laboratory was not granted. The increase in the number of students emphasized the necessity for the enlargement of the laboratories of anatomy, bacteriology and diagnosis. These needs were detailed in last year's report. The legislature appropriated \$7,500 for completing the equipment of the clinical buildings and \$1,500 for furnishing rooms in the Farriery. The appropriation for the maintenance of the college next year was \$410 less than we have for the present year. This is the first time that a reduction has been made in the appropriation for the operating expenses of the college.

The needs of the veterinary college, however, are not restricted to buildings and equipment. The veterinary profession has to do with the conservation of the life and health of living animals. These represent an investment equal, according to the last census, to 12% of the value of all farm property including land, buildings, and equipment. More than 35% of the annual income from agriculture in this country is derived from animal products. There is a close relation existing between the prosperity of the people and the health of domesticated animals. Epizootics or other serious maladies affecting beasts of burden and the food producing animals interfere seriously with the business of the country and the production of food stuffs and materials for clothing. A profession that has for its mission the safeguarding of such important and vital interests should have institutions equipped not only with the working tools of instruction but also facilities for the development and advancement of the sciences necessary for successful teaching and efficient practice. In matters of a material nature this college is as well provided as most veterinary schools in the country but there is one

important thing which it lacks, namely, endowment for research. The most pressing needs of the veterinary college and of the veterinary profession in this country are endowed professorships in research and fellowships for graduate veterinary students. There is no other profession where its artisans, if successful, are required to possess a knowledge of a wider range of technical subjects than in veterinary medicine and there are few if any other subjects more promising for research than those of the physiology and diseases of the various species of the domesticated animals. The sanitary as well as the economic significance of animal diseases places them foremost among the problems that should be solved.

The veterinary college enjoys numerous intimate associations with Cornell University. The founder, Mr. Ezra Cornell, recognized the importance of veterinary education; President White has always been enthusiastic in its development; and Dr. Law came here in 1868 and was one of the strong men in the development of the University. Again, Cornell was the first among American universities to place veterinary medicine in its curriculum. Because of the great need for better instruction in veterinary sciences Dr. Law, assisted by others, succeeded in having the state supplement the University by establishing, under the direction and control of the trustees, a veterinary college where veterinary medicine as a professional subject may be taught and research in connection with the diseases of animals carried out. The state has responded generously for instruction but under a system of annual state appropriations the continuance of investigations which often require years for their completion is not assured. Such researches are within the province of the University. For these reasons University endowments for research in comparative medicine are most urgently needed.

Finally, the better teaching and increased interest in research and other work of the college, which we believe mark progress in veterinary education and efficiency, are due to the united efforts of the members of the teaching staff. The faculty is co-operating in every possible way to the end that the college shall properly meet its obligations to both the students and the state.

Respectfully submitted,

V. A. MOORE,

Dean of the New York State Veterinary College.

APPENDIX VIII

REPORT OF THE DEAN NEW YORK STATE COLLEGE OF AGRICULTURE*

To the President of the University:

SIR: I have the honor to submit the accompanying report of the New York State College of Agriculture for the year 1915-16.

THE YEAR'S DEVELOPMENT

The chief administrative work of the past year has been the developing of a fiscal policy in accord with the new conditions imposed on the College by the adoption of a budget plan for the State.

*A full report of the New York State College of Agriculture is printed separately by that College.

Educational matters have gone forward, and the year has been marked by a considerable interest on the part of the faculty in the development of the work of the College as a whole. Several new courses have been approved by the faculty for inclusion in the list of subjects offered.

COURSES OF INSTRUCTION

In addition to the regular four year course in agriculture leading to the degree of bachelor of science, and the four year professional course in home economics and in rural education, there are two courses, one in forestry and one in landscape art, which, through a year's additional work in the Graduate School, lead to the degrees of master in forestry and master in landscape design.

The College offers sixty-seven courses of twelve weeks for the benefit of persons who desire to come directly from the farm and the farm home for the purpose of getting laboratory training and practice in general agriculture, dairy industry, poultry husbandry, fruit growing, home economics, flower growing, and vegetable gardening.

Special students are admitted to the College to take one or two years of work in specific subjects; this privilege is extended only to mature students.

There is a summer school for teachers and others in connection with the Summer Session of the University.

One feature of the extension work carried on at the College during the past year was the ninth annual Farmers' Week, held February 7 to 12. It was marked by a new record for attendance of persons actually registered. The registration, 3887, exceeded even the great increase which had been made the preceding year. The week was marked also by a great improvement in carrying out the program, which covered all phases of college work in the form of demonstrations, laboratory exercises, and lectures. This improvement was due to a careful planning on the part of the Department of Extension Teaching, coupled with additional available space in Caldwell Hall, the new soils building.

Summarizing, the College offers, through its twenty-seven departments two hundred and eighty-two courses of instruction for regular resident students, sixty-seven courses of instruction for winter-course students, fifty-three courses in the summer school, and seventy-four courses in the third term.

THE THIRD TERM

The third, or summer, term of the College of Agriculture is now firmly established, and all adjustments necessary to the carrying forward of this regular part of the college year on an equal footing with the spring and fall terms have been made.

CHANGES IN COURSES

During the year there have been but few changes in the courses of instruction, though some additional courses have been authorized by the faculty.

Following the tendency noted last year, there has been a continued expansion in the Departments of Botany and Home Economics, both of which are relatively new in the College. Botany, in particular, is aiming to serve other related departments which can make use of courses in economic or applied botany. In the Department of Botany three new courses have been added: Botany 4, microscopic wood technology, of particular value to professional students in forestry;

Botany 8, special taxonomy of the ornamental herbaceous plants, for students in the Department of Landscape Art; Botany 11, methods in histology and cytology.

In the Department of Entomology a course in general bee-keeping, with three hours credit, is being given for the first time at the College to students who have had a course in general entomology. This course is the first step toward the development of more extended technical training in bee-keeping, an industry which presents an opportunity for a considerable increase of farm income in the State.

In the Department of Extension Teaching a course in agricultural journalism has been authorized for the current year on a tentative basis, but has not yet been made a permanent course of study. The course is intended to aid in the presentation of agricultural subjects through the printed word, either in the agricultural and rural press or in popular and scientific agricultural circulars and bulletins. The course is limited to upperclassmen.

In the Department of Forestry a new course has been added—Forestry 5, conservation of natural resources. This course aims to weld together into a comprehensive whole the various subjects that have to do with the conservation of waters, soils, minerals, plants, and animals. It is offered in the Department of Forestry because of the close connection between the forestry and the conservation movements in the country, and it takes up the interrelation of the use and waste of various resources and the influence of America's physical equipment on human life and on American civilization.

The Department of Home Economics has added four new courses, all of which have to do with larger types of enterprise than the average farm home. These are as follows: Home Economics 5a, institutional management (lunch-room management); Home Economics 5b, large-quantity cooking; Home Economics 5c, institutional buying; Home Economics 21, experimental cooking.

Other courses that have been added by departments are given alphabetically as follows:

Landscape Art 17a, planting design, advanced course; Plant Pathology 11, methods in plant pathology, and 24, German phytopathological reading; Pomology 11, orchard field trip; Poultry Husbandry 11, undergraduate conference; Rural Education 7, investigation, and 8, seminary; Vegetable Gardening 9, canning vegetable crops.

Some of the older courses in various departments have been dropped, as follows:

Agricultural Chemistry 91; Animal Husbandry 3; Entomology 8; Floriculture 10; Plant Pathology 7 and 10; Pomology 5; Rural Education 1b.

A few courses have been consolidated or modified, and here again the expansion in the Department of Botany is noticeable. The course formerly given as Botany 12 has been amplified into three courses, as follows: Botany 12, comparative morphology of algæ and fungi; Botany 13, comparative morphology of bryophytes and pteridophytes; Botany 14, comparative morphology of spermatophytes. In the Department of Farm Crops, courses 2 and 3 have been combined in a new advanced course, 2. In the Department of Pomology, courses 1 and 1a have been combined.

FARM PRACTICE IN COURSES IN AGRICULTURE

In the last annual report of the Dean attention was called to the efforts of agricultural colleges to meet the problem of farm practice requirements for stu-

dents. It was pointed out that a committee of the Association of Agricultural Colleges and Experiment Stations had been at work on the problem for some years. A course is now being given by the Department of Farm Practice of this College for the benefit of those students who have the smallest number of farm practice credits on entrance. The object of this course is to clarify the conception of agriculture and farm work that the student had on entrance, and to make him familiar with the names and uses of materials that he will have to handle when he gets on a farm. The larger part of the farm experience required should be obtained on selected farms which are of the average type and on which production is on an economic basis. In the course this year 68 students were registered, 30 of whom dropped out, either through not having done good work or because they decided that they preferred other lines of work.

Records were kept for about 250 students who were on farms during the year 1916, about 75 of whom obtained their positions directly through the office of the Department of Farm Practice. These students have given reports on the 250 farms on which they worked during the year, covering the qualifications of the farmer and the farm which do or do not make the position a good one for the purpose desired. The students are required to hand in a diary or work report covering all work done for which farm practice is desired. The employers have also reported concerning the students, as to the desirability of the arrangement, and the kind, amount, and quality of work done. Credits toward the farm practice requirement are given on the basis of the kind, amount, and quality of work done as shown by these reports.

The department now has a list of about 350 farms, classified as to the type of farming and the attitude of the owner toward student labor, from which a selected list is being compiled. This list is made up on the basis of the information given in student reports (often there are two or three reports on the same farm and farmer) and from personal acquaintance and personal visits of the staff of the department.

In connection with the work considerable assistance has been given to students and former students in obtaining permanent positions. During the year 185 students have applied for permanent positions. Of these, 132 have reported that they have obtained places, 65 of them through the department. Almost all these positions are on farms or are intimately associated with agricultural work.

Help in getting places on farms is also given to boys from the city who are expecting to take the agricultural course in the future.

WORK OF THE FARM BUREAUS

The year has seen great progress in the development and perfection of the general plan of farm bureau work in New York State. The principal features of this progress are worthy of special notice here.

The membership organizations supporting the work locally have as a whole doubled in strength, increasing from a total membership of 5557, or an average of 253 for each of 22 counties, to 9995, or an average of 333 in each of 30 counties. The latter figure is 7.5 per cent of all the farm operators in the 30 counties.

The development of the number of advisory councilmen, or local representatives of the bureaus, is also most gratifying. During the year the number of these local community representatives increased from 690 to 1164, or an average of 39

per county. In addition there are 240 executive committeemen who are giving their time and energy to the management of this enterprise.

The local farm bureau associations, through their advisory councils and executive committees, have assumed the responsibility for determining the kind of work to be done in their respective counties and communities, expressing this in carefully drawn, semi-permanent, agricultural programs, to be carried out by still more definite annual projects.

A striking feature of the year's progress in the work has been the stimulation of interest and the crystallization and organization of many latent forces in communities into associations to deal with specific problems. From 24 counties 52 associations, with a total membership of 2202 adults, are reported, of which 3 are for poultry improvement, 8 for breeding cattle, 9 for cow testing (in addition to 30 or more previously organized), 3 for potato improvement, and others for similar purposes.

Field tests and demonstrations have become a generally accepted method of farm bureau teaching and effort. These have been organized and carried out in most of the counties to an extent which has made the influence of the farm bureaus appreciably felt in the modification of farm practices. In all, 3874 of these field tests and demonstrations, or an average of 129 per county, were conducted in 30 counties during the past year. This work was supplemented by 1043 demonstration meetings on farms, attended by 27,040 persons.

The methods of conducting the routine work of the bureaus, such as office correspondence, the keeping of records, and the like, have in a majority of the counties been organized and standardized with resulting increased efficiency.

To summarize, the miscellaneous activities conducted during the year were as follows: 11,795 farmers visited; 19,782 farm visits made; 15,628 calls on managers at their offices; 2968 meetings addressed by managers, with a total attendance of 162,076 persons (2027 of these meetings were organized by the bureau managers alone); 39 observation parties, attended by 792 persons.

CHANGES IN THE COLLEGE STAFF

There have been but few changes in the college staff during the year. F. E. Rice was made Assistant Professor of Agricultural Chemistry by promotion from an instructorship, the promotion becoming effective on November 1, 1915. Jacob R. Schramm, formerly of the Missouri Botanical Gardens, was made Assistant Professor of Botany, effective July 1, 1915. Edward Riley King, formerly of the Ohio State University, was made Assistant Professor of Entomology to specialize in instruction in bee-keeping, effective October 1, 1915. Professor D. J. Crosby, formerly specialist in agricultural education, Office of Experiment Stations, United States Department of Agriculture, was appointed professor of Extension Teaching, effective July 1, 1915. Dr. A. A. Allen, formerly instructor in zoology in the Arts College, was made Assistant Professor of Economic Ornithology, effective October 1, 1915. Professor F. L. Griffin, of the Oregon State Agricultural College at Corvallis, was appointed Professor of Rural Organization in the Department of Rural Education, to have charge of junior extension work, on February 15, 1916. J. C. McCurdy was made Assistant Professor of Rural Engineering by promotion from an instructorship, the promotion to become effective on July 1, 1916. F. M. Blodgett was made Assistant Professor of Plant Pathology, the appointment to take effect on May 1, 1915.

The College has lost the services of three of its members of professorial rank, two by resignation and one by death. Frank B. Moody, Extension Professor of Forestry, resigned, to become the head of the Wisconsin State Conservation Commission, on October 1, 1915. Bryant Fleming, Professor of Landscape Art, has severed his connection with the Department, acting hereafter only in an advisory capacity. This arrangement became effective on February 1, 1916. Miss Alice G. McCloskey died on October 19, 1915. Her principal work for the College was done as supervisor of the Cornell Rural School Leaflet, her main interest being in the betterment of rural school life. This effort has left a permanent impress on rural education, not only in this State, but also, by example, throughout the country.

The following professors have been granted sabbatic leave, effective for the dates given: A. R. Mann, October 1, 1915, to October 1, 1916; A. W. Gilbert, first half of college year 1916-17; James E. Rice, second term of college year 1915-16; W. A. Stocking, October 1, 1915, to February 1, 1916; M. W. Harper, first term of college year 1916-17; H. H. Love, October 1, 1916, to April 1, 1917; Charles H. Tuck, February 1, 1915, to October 1, 1916.

BUILDINGS AND EQUIPMENT

There have been but few changes in the buildings and equipment of the College. The new agronomy building, now known as Caldwell Hall, is occupied and equipped and is housing the Departments of Soil Technology, Rural Education, and (in part) Rural Engineering. Some of the work in agricultural chemistry is given in this building, as well as in other buildings of the College, since the burning of Morse Hall on February 13, 1916.

The auxiliary poultry buildings, including a feed house with various poultry houses and runs, are now complete, as well as considerable additions to the greenhouses, which have given much needed space to various departments. A tool barn has been completed and is now occupied. Bids have been requested for the erection of a sheep barn. All the buildings of the College of Agriculture, except the Animal Husbandry Building, are now connected with the main heating system. Unsightly temporary boilers for the heating of the three main buildings on the north side of the agricultural quadrangle have been removed. Plans for the Plant Industry group are still in the hands of the architects.

REGISTRATION OF STUDENTS IN THE COLLEGE OF AGRICULTURE FOR THE YEAR 1915-16

The student registration in the College for the year 1915-16 (including the winter courses and the 1915 summer school) is as follows:

Graduate students	395	
Regular students:		
Freshmen	432	
Sophomores	394	
Juniors	358	
Seniors	298	
		1,482
Special students		106
		<hr/>
Total full year students		1,983

Winter courses:

Agriculture (General).....	209	
Dairy Industry	103	
Poultry Husbandry	45	
Fruit Growing.....	18	
Home Economics	37	
Vegetable Gardening	6	
Flower Growing	7	
	<hr/>	425
Summer School (1915)		445
		<hr/>
Total.....		2,853

Respectfully submitted,

B. T. GALLOWAY,

Dean of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit the following report of the College of Architecture for the year 1915-16.

In many respects the year has been one of the best in the history of the College. The attendance has advanced only slightly but seems to indicate a continuance of the slow but steady growth of the past. The attendance for the past seventeen years, beginning with the low record in 1899-00 and ending with the current year runs as follows: (1899-00) 43, 53, 50, 53, 65, 68, 81, 82, 100, 133, 140, 133, 138, 144, 149, 163, 166 (1915-16). This does not in any case include graduate students of whom there have been four this year instead of the one or two usually registered.

As indicated in previous reports and announcements, the College has been endeavoring to interest students in the five and six year courses as providing a much broader and better academic training than the four year courses which are necessarily crowded with technical studies to the almost complete exclusion of unrelated work. For a number of years announcement has been made that students would be admitted to five or six year courses, and these courses have been arranged on demand to meet the needs of individual applicants. The applicants, however, were comparatively few until in the autumn of 1914 when there was a noticeable increase, and this year nearly one-third—14 out of 45—of the students entering as freshmen registered in the five year course. It is too soon to draw conclusions, but it is perhaps not too much to hope that this is the beginning of progress toward a general acceptance on the part of the students of the five year course as the normal arrangement, thus paving the way for the ultimate abandonment of the four year courses and the establishment of standards approaching those of the graduate school.

While the College has throughout the period since the reorganization in 1896 been subjected to considerable hazard through the all too frequent changes in

the department of design due to the superior attractions of other fields—usually the field of practice, it has been most fortunate in the fact that the men who have succeeded each other in the department have been invariably men so strong that we have hardly at any time been conscious of a pause in the progress of the work and at no time has there been any retrogression chargeable to the quality of instruction. Two years ago Professor Mauxion was recalled to France for service in the great war where he is still serving his country. Professor Ely Jaques Kahn, a distinguished graduate of Columbia University and of the *École des Beaux-Arts*, came to take Professor Mauxion's place for the year, filling the position with great credit to himself and to the College. Early in August a year ago Professor Kahn decided definitely that on account of his growing practice in New York he would be unable to return to Cornell for another year's work. At the same time Professor Bossange resigned to accept the deanship of the Department of Fine Arts at the Carnegie Institute of Technology. This left two vacancies in important positions most difficult to fill, but we were fortunate in securing Mr. Everett V. Meeks as Acting Professor of Design to take Professor Mauxion's work at the head of the department of design in place of Professor Kahn, and Mr. Shepherd Stevens as Assistant Professor of Design to fill the remaining vacancy.

Professor Meeks after graduation from Yale University studied architecture two years at Columbia, following this with four years in Paris where he took his diploma at the *École des Beaux-Arts* in 1909. Since then he has been in active professional practice in the office of Carrère and Hastings of New York. Professor Stevens was graduated in architecture from Columbia University, spent a year in travel and study in the Orient, and then studied in Paris for four years, taking his diploma at the *École des Beaux-Arts* in 1909, the same year as Professor Meeks. Since that time he has followed the active practice of his profession in the offices of such distinguished architects as John Russel Pope, W. W. Bosworth, and Carrère and Hastings, with frequent intervals of travel and study abroad. Both of these men have brought a great deal to the College and have contributed largely to the successes of the year. Both will remain through the coming year.

One of the objects greatly desired for the College has been a strong graduate department, but the outlook for attaining this end has not been encouraging. Traveling fellowships and seemingly greater advantages for graduate study in other strong schools have attracted this class of students elsewhere to our disadvantage, and in particular it has been difficult to impress upon the student in his undergraduate days the value of graduate study. Professor Kahn, however, during his year in the College succeeded in impressing a number of strong seniors with the value of advanced study and gave his enthusiasm concrete form by securing from Mr. Joseph Plaut of New York the sum of \$500 for a special fellowship in 1915-16. The result was that four good men returned for graduate work and for the first time the College has had a strong group of men doing real graduate work in design. Announcement has just been made that Mr. Raymond M. Kennedy, holder of the Joseph Plaut fellowship, has won the American Academy in Rome Prize in Architecture which provides for three years of study in Europe under the auspices of the Academy with an annual stipend of \$1000

and living quarters in the Academy in Rome. While Mr. Kennedy has especially distinguished himself in the winning of the great prize of the year, other graduates, and seniors as well, have carried off major honors and prizes in a large number of competitions in which the students of other leading schools have participated. All of this has been made possible only by a remarkable esprit de corps in the College, supported by the enthusiasm of Professor Meeks who has so ably followed up the work of his predecessor.

Another notable feature of the year's work has been a series of unusually good lectures on professional topics by distinguished nonresidents such as Mr. Albert L. Brockway of Syracuse; Mr. Thomas Hastings of New York; Mr. Victor Horta of Brussels, Belgium; Mr. Benjamin S. Hubbell of Cleveland; Mr. Charles Z. Klauder of Philadelphia; and Mr. R. Clipston Sturgis of Boston.

A year ago in my report I called attention to what seemed to me the imperative need of offering somewhere in the University a course on City Planning. If City Planning were a term used only in the drafting board sense of making a map, such a course might well have its beginning—and end—in architecture or engineering; but used as it is in the broader sense of comprehending all that relates to the physical, social, mental, and spiritual good of the dwellers in cities as affected by environment, it clearly is not solely, nor even mainly, a problem in architecture, though architects and landscape architects seem thus far to have been largely the leaders in the movement. Because the faculty has keenly felt the need of such a course for students in architecture, and because there seemed little likelihood of its being introduced elsewhere in the University, the College of Architecture is announcing for next year a brief course of lectures on the general subject of City Planning, the students taking this course being strongly advised to take in connection with it the course on Citizenship given in the College of Arts and Sciences. The course in City Planning as proposed is not a technical course, and it is hoped that a large proportion of the lectures will be given by nonresidents and by professors in other departments of the University rather than by professors in architecture.

Under the stress of increasing numbers conditions are reaching a point in some departments of the College where the work must be decreased or the number of instructors increased. This is particularly true in the departments of freehand drawing and descriptive geometry. In freehand drawing, courses are and always have been offered for students outside of the College who might desire to elect the work. All students in Landscape Design are regularly required to take our courses in descriptive geometry as well as the courses in the elements of architecture and in shades and shadows. All of these classes have now grown beyond the capacity both of instructors and of rooms. The problem of instruction, however, is distinctly the more acute of the two; and unless it is met, either by increasing the instructing staff or by excluding all but architects from these courses, the result must be retrogression in the quality of work. It has been urged by some members of the faculty that steps be taken at once to restrict admission to these courses to students registered in the College of Architecture, but I feel strongly that this would be a grave error. On the contrary, I believe we ought to move in the opposite direction and wherever possible increase for the student in purely academic work opportunities for election particularly

APPENDIX X

in those subjects relating to the fine arts, which in this country are only beginning to receive recognition as a necessary element in a liberal education.

Respectfully submitted,

CLARENCE A. MARTIN,
Dean of the College of Architecture.

APPENDIX X

REPORT OF THE DEAN OF THE COLLEGE OF CIVIL ENGINEERING

To the President of the University:

SIR: I have the honor to submit the following report for the College of Civil Engineering for the year 1915-16.

The registration for the year as shown by the class roll calls has been as follows:

	First term	Second term
Graduates	11	8
Seniors	90	81
Juniors	112	107
Sophomores	81	74
Freshmen	125	107
Freshmen, 5 year	21	22
Special ...	1	1
	<hr/> 441	<hr/> 400

This includes eleven graduates the first term and eight the second term in the undergraduate courses; all of these are doing advanced work.

Instruction has also been given to students from other colleges as follows:

	First term	Second term
Arts	6	10
Agriculture	63	58
Architecture	7	14
Sibley	9	100
	<hr/> 85	<hr/> 182

The number of new students was 146, of which 138 entered the Freshman, four or five year courses, three the Sophomore, two the Junior and two the Senior classes, and one entered as a special student. This is an increase of two in the number of freshmen over the registration of the previous year. The total registration was 441 for the first term, which is 27 less than for the corresponding period last year, while the registration for the second term is 400, or 29 less than a year ago.

The falling off in the total number of students was from the upper classes and due to financial conditions, as the record of requests for leaves of absence clearly shows.

Among the important features that I have to chronicle in connection with the college, are the improvements made to our hydraulic canal and the addition of the new laboratory for testing bituminous road material.

The canal was given needed repairs, a new track laid along it, a new car built and new machinery installed for operating the car. The machinery is of special design and on trial has demonstrated its usefulness. The work of rating current meters, pitot-tubes, and doing experimental work with moving bodies in water, can now be handled with great facility; our opportunity for research work is thereby greatly broadened.

As I stated in my annual report of last year, improved highways are the order of the day. The interest in them is not only state, but nation wide. The activity in this field during the past year has been most marked. The amount of money made available for road work, by the States of the Union, for the year 1915, was \$54,884,007—not to mention county and municipal expenditures for the same purpose. The technical press is daily recording new projects for road work of great magnitude. It is certain that our country is to be covered with a network of improved highways that will supplement our great railway systems in the matter of transportation. It is well, therefore, that we have our instruction in good roads work well in hand and this new laboratory comes at an opportune time—just when it is needed.

The college held its second "Good Roads Week" February 21 to 26 with gratifying results. There was a registered attendance of 145. While this was only about half of that of the previous year, deep interest was manifested by all as was shown by the discussion that followed the various lectures.

For generous assistance rendered in the lectures of the week, the college is greatly indebted to the State Highway Department, through its Commissioner, Mr. Edwin Duffy; to the Federal Office of Public Roads, U. S. Department of Agriculture, Mr. Logan W. Page, Director, Washington, D. C. and his assistants; to the Dunn Wire Cut Lug Brick Company, Conneaut, Ohio; and to the Association of American Portland Cement Manufacturers, Mr. Percy H. Wilson, Secretary, and Mr. W. A. McIntyre, Chief Road Engineer, Philadelphia, Pa.

The lecturers with the titles of their papers were as follows:

President J. G. Schurman, Address of Welcome.

Mr. Edwin Duffy, Commissioner, New York State Highway Commission, State Highways.

Dr. L. I. Hewes, Economics of Highway Engineering.

Dr. L. I. Hewes, Earth Road Improvement.

Dr. L. I. Hewes, Construction of Bituminous Roads.

Mr. John H. Huber, Drainage and Preparation of sub-grades.

Professor S. P. Orth, Public Contracts.

Mr. H. S. Mattimore, Road and Concrete Materials.

Mr. Perry Filkin, Gravel Roads and Waterbound Macadam.

Mr. E. K. Borchard, Construction of Culverts and Short Span Bridges.

Mr. W. A. McIntyre, Concrete Roads.

Mr. Wm. V. Perkins, Recent Advancement in the construction of brick roads.

Professor A. A. Young, Financing Road Construction.

Mr. Fred W. Sarr, Highway Maintenance and Repair.

Mr. Prevost Hubbard, What the Highway Engineer should know about Bituminous Materials.

Professor Heinrich Ries, Geology a Road Builder should know.

Mr. H. Eltinge Breed, Review of New York State work for 1915.

Dr. R. E. Somers, Use and Care of Explosives in Highway Work.

To each of these gentlemen the College wishes to express its sincere thanks for service rendered.

I have from time to time in my annual Report pointed out the needs of the College in the way of buildings and equipment and I feel it my duty to again emphasize these features in the hope of eventually attaining the desired end.

After the experience of the loss of Morse Hall, this last winter, by fire, I am firmly convinced that we should have a new Lincoln Hall, a building that in itself would be fireproof. The present building is far from being such a structure, and, furthermore, it is not well suited from the point of lighting or ventilation for the present demands of college work. Lincoln Hall was erected in 1888 and is, therefore, 28 years old. It has served its purpose well, but from the point of being an efficient school building is out of date. I estimate the cost of a new and larger building with its equipment at \$600,000.

The college has completely outgrown its plant for teaching hydraulics. We should have a new and larger hydraulic laboratory, also a new and larger hydraulic canal, under cover, so to permit of winter use. In a special report of June 19, 1911, which I submitted to you, I outlined a project for a new laboratory and canal, which in brief is the cutting into the cliff where the present laboratory stands, a space large enough for the erection therein of a new building, and for an entire reconstruction of the present canal and the housing of the same. I estimate for these improvements the sum of \$300,000.

The College has likewise outgrown its materials testing laboratory. It should have a new one, located preferably in the immediate vicinity of the present hydraulic laboratory. I estimate for this structure and its equipment the sum of \$100,000.

I am pleased to say that our new Astronomical Observatory is under construction, and we expect to use it during the coming school year. The College equipment for the observatory is very complete with one exception, namely, a suitable equatorial. The new building will care for a 12" equatorial, which will cost approximately \$6000.

Sanitary Engineering has become such a large and important subject, that I feel we should be putting forth every effort to keep pace with, and, if possible, lead in this science. Not being qualified to judge our needs, I requested Professor Ogden, head of the department of sanitary engineering, to give his views which are as follows:

"In reply to your request, I take pleasure in submitting the following suggestions for material equipment and improvement in the College which will, in my opinion, tend to secure better teaching facilities, and also afford opportunity for experimentation and research work by graduate students and instructors.

In sanitary engineering, the most obvious and much needed equipment is a small testing and experimental plant, built near the sewer pumping station in the city. I am more and more convinced of the difficulty of teaching fundamental principles involved in the biologic destruction of organic matter to students who have never seen sewage, much less the organic changes brought about by bacterial action or filter surfaces. If the department could have a series of tanks filled with particles of different size, that is, with different proportions of surfaces, it would constitute a laboratory to illustrate class room work, and would, I am sure, help to clear up many of the more difficult chemical and bacterial questions which to the student seem so vague.

That other institutions have felt this same need is evidenced by the fact that for some ten years the Massachusetts Institute of Technology has enjoyed a bequest of five thousand dollars a year for experimental work on sewage purification, and for "encouraging students to make plain and simple statements." Next to the classical work of the State Board of Health of Massachusetts, no more scientific study of the chemical and bacterial processes involved in sewage purification has ever been made than at this institution, through this particular bequest.

The University of Michigan, in 1912, under the direction of Professor Hoare, constructed a testing plant for the benefit of students and for the determination of facts having to do with local conditions within the state.

Various cities of the United States have built testing stations for their individual problems, and while much practical knowledge has resulted, the fundamental biologic processes involved have been subordinated to the practical results desired for that particular municipal plant. Akron, Columbus, and Cleveland, Ohio, and Brooklyn and Baltimore have all, within the last few years, expended some ten to fifty thousand dollars each on the construction and operation of such special plants, with the result that great gain in knowledge has come therefrom. The Akron plant cost nine thousand dollars; the Cleveland and Columbus each about twenty thousand; Brooklyn and Baltimore each about fifty thousand.

Through the aid of Mr. W. P. Daly, a Senior in the College, who has made such a study a thesis subject, I have planned what, in my opinion, is a suitable installation for a college testing station, to be built near the corner of First and Franklin Streets, and my estimate of cost for such a plant is four thousand dollars. A building, thirty by sixty feet is involved, with tanks of various sizes.

In the second place, to promote the value of the technical work done in the college, I believe strongly that a fund to promote research should be provided. The fund should pay from two to three thousand dollars a year, and should furnish opportunity for the employment of an engineer with practical experience, who could, either in the hydraulic laboratory, or in this proposed laboratory, carry on experimental work, either with or without the cooperation of professors and students, and so apply himself to the work in hand that definite results of benefit to the profession at large could be obtained.

In the third place, the college should, I believe, cooperate with the University authorities in the construction and operation of a garbage crematory. There is no line of sanitary engineering construction today more neglected than this phase of municipal wastes disposal. What knowledge there is has been either imported from England or stolen from inventors and manufacturers who have developed success along certain narrow lines. Experimental work on the general principles involved needs to be done, in order that the relations between great areas and character of garbage, with studies on heat losses and consumption of odors may be better understood. This would serve, not merely as a source of authoritative information for garbage crematory builders, but would be a most desirable addition to the teaching equipment of this department.

Finally, I have for some years desired an opportunity to build up a museum of illustrative material in sanitary engineering, and have hesitated only because I have failed to find a suitable place for such a collection as I have in mind. When a student comes, as one did yesterday, and asks what the Worcester type of sewage nozzle is like, I should be able to illustrate my description with a sample of the nozzle itself. When a Senior asks me the character of the Filtros plate used in distributing air through sludge for purposes of activation, I should be able to show him the type form of these plates, as commercially available. I should like to include samples of Imhoff sludge from various testing stations, types of nozzles for mechanical filters, controllers, outlet regulators, and in time all of the various appliances used in sanitary engineering construction.

Much of this material would be donated, but it is hopeless to ask for any of it, or to attempt any collection, until at least a moderate space suitably located can be provided for its installation and cataloging."

Professor Ogden's views emphasize the importance of a new and larger Lincoln Hall; the establishment of a small testing and experimental plant, that he estimates would cost \$5000; and an annual sum of at least \$5000 for investigation and research work.

Other departments of the college could make excellent use of moderate sums of money for research in their respective fields. An endowment of any sum from \$10,000 to \$250,000, or even more, the income from which could be used for research work in the various departments of the college, would be a boon to the work of its teaching staff.

It is with many regrets from both our alumni and faculty, that we are to lose Professor Church from our staff, by his retirement at the end of this present year. He entered the University as a student in the fall of 1869, receiving his B.C.E. degree in 1873, and his C.E. degree in 1878. After three years spent in practical and school work, he was called to the college to teach the mechanics of engineering. For forty years he has filled this chair, with its allied subjects and won for himself a reputation as a teacher and a writer, that is the admiration of the engineering profession. We wish him many long and happy years in which to enjoy the fruits of his labors and shall always hold him as one of the college's councilors, knowing the value of his opinions which have been formed through long years of experience.

Respectfully submitted,

E. E. HASKELL,

Dean of the College of Civil Engineering.

APPENDIX XI

REPORT OF THE DEAN OF THE SIBLEY COLLEGE OF MECHANICAL ENGINEERING

To the President of Cornell University:

SIR: I have the honor to submit this report of important matters in Sibley College, outside of routine, for the year 1915-16.

FACULTY CHANGES

In previous reports the desirability of increasing the faculty of Sibley College in the higher and more permanent grades at the expense of the lower and more transient grades has been emphasized.

In organizing the faculty for next year, 1916-17, it has been possible to make progress toward this desired change. Exclusive of shop instructors, the faculty for the present year, 1915-16, consisted of 69 persons as follows: Ten professors, 13 assistant professors, 10 instructors, appointed for two years, and 36 instructors appointed for one year. Assuming that instructors appointed for two years are men who have been tried out and approved as to character and teaching ability, this class may be included with professors and assistant professors as a part of the stable, experienced faculty; thus the faculty may be said to be made

up of 33 permanent members and 36 transient members; or of 47.8 per cent of permanent members.

For next year the faculty will consist of 67 persons as follows: 12 professors, 11 assistant professors, 14 two year instructors and 30 one year instructors. This gives 37 permanent members, or 55.2 per cent.

In the reorganization of the faculty the total number has been reduced from 69 to 67, involving more intensive work in two departments; the number of professors has been increased 20 per cent (10 to 12), the number of assistant professors has been reduced by 15.3 per cent (13 to 11), the number of two year instructors has been increased by 40 per cent (10 to 14), while the number of one year instructors has been reduced by 20 per cent. The reduction in assistant professors was not a part of the plan; it resulted from promotion and it is hoped eventually that a large proportionate increase may be made in this grade.

This change is relatively small, but it is in the right direction and it has been made without increase in the total annual salary expense in Sibley College. This was possible because of the reduction in the total number, and of rearrangement due to death and resignations.

The result of this increased stability in faculty tenure should be increased excellence in teaching and thus greater effectiveness for Sibley College. Further change of this kind should produce similar results, but it can only be made as a result of increased salaries coming from increased endowment.

It is not desired, however, to eliminate what may be called the transient part of the teaching force; for here teachers are trained and tried out; in fact it is virtually a training school for teachers, not only for Sibley College, but for other technical schools.

RESEARCH

During the year research in engineering problems has been carried on continuously, the most important work done falling under the following heads:

An experimental study of the Brinnel method of testing materials for hardness.

A study of the physical properties of lubricating oils, particularly viscosity.

Experiments for determining the coefficient of friction of wood on cast iron at high speeds.

The development and thorough testing of a thermal alarm system.

A study of the clinkering of coal.

Investigation and partial testing of a power plant.

The application of "surface combustion" to iron manufacture.

Characteristics of the Le Blanc pump.

Experiments with carburetors, and automobile engine testing.

Effect of heat treatment on the physical properties of brasses and bronzes.

Experimental investigation of "water-hammer."

Study of aeroplane fabrics.

During last summer vacation an investigation was started on the "Upton-Lewis Fatigue Testing Machine" to determine the best heat treatment of carbon steels to give longest service under repeated stress; this investigation is still under way. Incidentally this work established the unexpected and surprising fact that the number of repetitions of stress at failure bore such definite constant relation to the carbon content, that the latter could be determined from the fatigue test almost as accurately as from chemical analysis. The new and improved machine is now in service, and during the coming summer a test is planned on carbon steel of constant composition; the object of this test is to check the commonly accepted theory that within certain limits of stress-range materials are safe from rupture by stress repetition.

COMMERCIAL WORK

For many years Sibley College has undertaken to do work in engineering testing on a commercial basis; moreover the making of castings and of machine parts for manufacturers or dealers has become a part of the regular shop work. The income from this source has increased steadily and, during the past eleven months, was about \$1400. This money has been applied to maintenance and increase of equipment and thus the College has earned about nine per cent to the funds appropriated by the Trustees for purposes other than salaries.

The wide range and importance of the commercial test work is indicated by the following partial list from the past year:

An investigation of the insulating and other physical properties of Balsa wood.

A study of the relation between coefficient of friction and slip in the transmission of power by belting.

Investigation of the operation of several types of carburetors.

Tests for the efficiency of different kinds of automobile rear axle drives.

Development of a machine for dishwashing.

Numerous tests of machine parts and of material for machines, especially for aeroplanes.

The Department has also tested the underground piping system of the New York State College of Agriculture and an underground conduit for the State at the Custodial Asylum at Newark; and has inspected the heating systems, and made recommendations for improvements, at some charitable institutions.

This whole question of research is of special interest now when the Newlands Bill is under consideration by Congress. This Bill, if passed, would provide an engineering experiment station in each of the Land Grant Colleges with an annual fund of \$15,000 to be devoted to the carrying on of engineering research and to the printing and distributing of results. It would seem that the present time of industrial awakening in the United States is peculiarly a fitting time for the establishment of laboratories for such work, and it is urged that all possible legitimate influence should be used to help toward the passage of this bill.

INDUSTRIAL ENGINEERING

The work of the new senior option in Industrial Engineering, outlined in last year's report, has been given this year with very satisfactory results. The work was elected by 43 men out of a senior class of 185, and a canvass of next year's seniors shows that 48 men intend entering this department.

A course has been developed that correlates work in the shops and drawing rooms, and "time and motion studies" have been made by students for application to problems in industrial management. Special attention has been given to locating and planning industrial plants and to provision for their managerial organization.

The need for men trained in this engineering field is a growing one, and rapid development and increased usefulness seems assured to this department.

ELECTRICAL ENGINEERING

The first year of the Department of Electrical Engineering under the direction of Professor Gray has been a year of growth and increase in effectiveness. Re-arrangements in the laboratories and quite extensive additions to equipment have

been made, and this department promises to become in the near future one of the strongest in Sibley College.

SIBLEY COLLEGE EMPLOYMENT BUREAU

For many years an important function of Sibley College has been to help students at graduation to find places in practical engineering, and also to help alumni to make desired changes. Thus there developed an employment bureau. During the past two years this work has centered in the Dean's office and under Professor Barnard's direction has developed greatly in scope and usefulness.

The past year has been very exceptional in its opportunities for technically trained men. About 50 employers sent representatives to the College to interview members of the senior class, and others would have come had more seniors been available; in addition to this about 150 letters were received from employers seeking technical graduates.

The Bureau, during the university year, issues mimeographed employment bulletins, one or more a week. These are sent to alumni who express a wish to receive them, and also to alumni clubs that have facilities for giving the bulletins publicity. The Sibley Journal of Engineering, which goes monthly to many former students and to others interested in engineering, now publishes brief employment notices. During the second term of this year about 140 employers made inquiry by letter for one or more Sibley alumni to fill positions of various degrees of responsibility.

A demand has also developed for undergraduate students to work during summer vacations. These opportunities are especially numerous this year; about 40 employers have written for men, in some cases requiring large numbers; this demand is probably incident upon the present abnormal industrial situation.

The Employment Bureau bids fair to become of great and increasing importance in the work of Sibley College.

The College was shocked and grieved by the untimely death of Professor Hess. It seemed that the students, for twenty years yet, should have had the benefit of his broad scholarship, his extensive practical experience, and his kindly personal influence.

The department has been rearranged so that Professor Albert will take up Professor Hess' work. With his background of engineering practice, and his twelve year term of able service in the department of Machine Design, his success seems assured.

In general, the year has been one of effective work in Sibley College; the need for new laboratory buildings is still an urgent one, but until such need is met, it is the purpose of the faculty to utilize fully the present equipment.

Respectfully submitted,

ALBERT W. SMITH,

Dean of the Sibley College of Mechanical Engineering.

APPENDIX XII

REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR: In view of the change of time in closing the official year of the University my report for the Summer Session of 1916 will come naturally a year hence. I beg to make the following brief statement of this year's work with this explanation of the reason for deferring fuller comment.

The primary object of the Summer Session, stated clearly by the trustees at the time it was made an integral part of the academic year, is to give to teachers in high schools and other educational institutions such instructions as may add to their professional equipment, and such opportunities for extending their own personal study as may give them a broader scholarship and a fuller and richer life. That this purpose has been realized is evident by the steady increase in the number of teachers attending the session. The total number of students this year is 1628 (685 men, and 943 women) as against a total of 1509 last year.

A fact which is worth comment is the continued good health, the patience and cheerfulness of all persons connected with the session through the hottest July which Ithaca has known since 1887. In spite of the heat we have accomplished excellent results, and the testimony of students as they leave is appreciative and grateful. Reserving special comment for a later report I beg to say in general that we are performing a valuable service, and I think we may look back upon the twenty-five summer sessions with a reasonable satisfaction, but, at the same time, with the realization that there is room for future development and extension within the limits of our original plan.

Respectfully submitted,

GEORGE P. BRISTOL,

Director of the Summer Session.

APPENDIX XIII

REPORT OF THE ADVISER OF WOMEN

To the President of the University:

SIR: I have the honor to submit the following report for the year 1915-16.

ATTENDANCE

The increase in the number of women students goes steadily on. The total attendance for the year (excluding duplicates) was 734, an increase of 104 over the preceding year. The subjoined table shows the attendance of women students during the past seven years as well as the distribution among the colleges.

REPORT OF THE ADVISER OF WOMEN

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Year	Grad.	Arts	Law	Med.	V. M.	Ag.	M.E.	Arch.	Total	Dupl.	Net total
1909-10	52	274	1	25	1	57	-	3	415	18	397
1910-11	64	262	1	27	-	90	-	4	448	20	428
1911-12	70	244	1	21	-	121	-	2	459	12	447
1912-13	60	233	3	17	-	169	-	3	485	19	466
1913-14	56	244	2	25	-	213	-	4	544	10	534
1914-15	62	293	4	29	-	255	-	2	645	15	630
1915-16	73	345	7	28	-	290	1	3	747	13	734

Of the 28 medical students registered during the year, 19 were in New York City and nine in Ithaca. The registration of women in the College of Arts and Sciences again shows a greater gain than that in the College of Agriculture. The little group of women in the College of Law has received several additions this year and one woman has entered the course in Mechanical Engineering.

In Ithaca there were registered during the first semester 699 women and during the second 669, distributed according to residence as follows:

	1st term	2d term
Sage College.....	175	175
Prudence Risley Hall	151	151
Total in halls	326	326
At home	112	105
In approved houses	139	140
In private families (working).....	33	36
With relatives	25	16
Scattered	64	46
Total outside halls	373	343
Totals	699	669

HOUSING

The problem of providing satisfactory housing and supervision for this growing body of young women continues to present serious difficulties. This year we had eleven "approved" houses of considerable size, two of them housing more than twenty students each. Effort was made to secure houses as commodious as possible located in neighborhood groups in order to give to the students obliged to live outside of the dormitories as much of community life as possible. The plan adopted for next year of holding places in the dormitories for the freshmen and requiring the juniors to find places in the approved houses gives promise of working well and will unquestionably lighten the work of supervision. The need for additional dormitory facilities is, however, a most pressing one; and the recent evidences of alumnae recognition of this need are very gratifying.

Two of the sororities, believing that they might help toward the solution of the housing problem by providing housing for their own groups, have, with the advice and assistance of their local alumnae, secured houses for next year in the vicinity of Prudence Risley Hall. Other groups were equally willing to try the experiment but found the difficulty of securing suitable or even possible houses quite insuperable. Whether separate housing of the sorority groups is to be encouraged or discouraged is a question in regard to which there exists the greatest diversity of opinion among the undergraduates and alumnae. Under stress of present difficulties it is unquestionably a relief to have organized groups, such as the sororities, assume at least temporarily the responsibility for the hous-

ing of their own members. Whether it is desirable that such separateness from the general body of students should be given the permanency that would come from the ownership of sorority houses is at least a debatable question. If the dream of an adequate system of residential halls for women now taking form in the minds of many of the alumnae should sometime be realized, the separately owned sorority house, which now seems so desirable, might prove a hindrance instead of a help.

The interest and vigor with which the alumnae have recently attacked the housing problem make it possible to contemplate with greater equanimity the continuous growth in the number of women students. As you will perhaps recall, there was appointed by the Federation of Cornell Women's Clubs last June a committee of alumnae to consider all matters affecting the welfare of women students and to recommend to the Federation such action as might be deemed expedient. This committee appointed almost immediately from its membership a sub-committee on housing which has been actively considering the problem ever since. The committee is unanimous in believing that provision must be made for the erection in the future of an extensive system of residential halls for women similar to that projected and already partly built for the men. They are also unanimously of the opinion that the ideal location for such a system of halls is that which you recommended to the trustees for that purpose some three or four years ago; namely, the tract lying north of Beebe Lake formerly known as the Kline farm.

They are well aware, however, that the realization of such a dream as this means years of effort. Meantime something should be done to meet in part at least the immediately pressing need for suitable housing. They believe, therefore, that their first efforts should be directed toward securing the money for the erection of a dormitory on the land west of Prudence Risley Hall. Since the dining rooms of Prudence Risley Hall are adequate for the accommodation of 75 or 100 more persons than are now cared for there and the recreation room need not be duplicated, additional housing could be provided here most economically. Plans are already under way for securing the necessary money, and I believe we may look forward hopefully to the erection of this building within a comparatively few years.

HEALTH

I take this occasion to speak again most emphatically of the excellent work of our Medical Adviser and to reiterate the hope expressed last year that every facility will be given her to develop the work so excellently begun. A considerable epidemic of grippe, and small epidemics of scarlet fever, and measles visited the community this year. The number of cases occurring among the women students was, however, comparatively small. Of scarlet fever we had only two cases, and of these one was a day student.

On January 9th Barbara Boynton, a junior in the College of Arts and Sciences, died at the Infirmary after a comparatively short illness.

STUDENT GOVERNMENT

The work of the officers of the Student Government Association has been uniformly excellent. Under the direction of an exceptionally able president,

Miss Dorothy Winner, a number of rather difficult cases of discipline have been successfully dealt with and considerable progress has been made in the never ending task of bringing home to the individual girl her personal responsibility and of creating a wholesome public opinion. In May two representatives were sent to the meeting of the Middle Western Association of Women's Student Government Organizations, held this year at the University of Nebraska. The contact with these most representative women students of the great co-educational institutions of the Middle West is exceedingly stimulating and helpful to our girls.

VOCATIONAL CONFERENCE

Our second vocational conference was held on January 18th and 19th. The arrangements were in the hands of a committee of the students themselves under the chairmanship of Miss Helen Van Keuren. Following is the list of speakers with the topics presented:

Miss Mary Fowler of the Cornell University Library, What Cornell Women are Doing; Miss Mary Gilson of the Clothcraft Shops, Cleveland, Industrial Welfare Work; Miss Beulah Kennard of the Department Store Education Association, New York, Salesmanship; Miss Emma Gunther of Teachers College, Institutional Management; Dr. H. H. Crum of Ithaca, Public Health; Miss M. Landmann, formerly Farm Manager at Sleighton Farm, Institutional Agriculture; Mrs. M. P. Falconer, Superintendent of Sleighton Farm Corrective Work; Dr. Coursault of the School of Education, Educational Work; Miss M. A. Dingman of the National Y. W. C. A., Social Service—Y. W. C. A.

The attendance at the conference was not large, but the interest, as shown by questions asked after each address and by personal conferences with the speakers afterwards, was all that could be desired. I am convinced that the comparatively small attendance is not due to any lack of general interest on the part of the students but to the fact that the conference has to be crowded into already overcrowded schedules. I am inclined to think that a return to our earlier plan of a series of lectures given from time to time throughout the year, usually in the evening, would serve the purpose better.

EXTRA-CURRICULAR ACTIVITIES

The development of extra-curricular activities among the women students, of which note was made in my report of last year, has continued unabated. Among the new undertakings of this year have been the establishment of the Cornell Women's Review, a monthly publication, and of the *Cornell Daily Bulletin*, a small daily sheet which is proving extremely convenient and is already almost indispensable; the preparation of an original pageant or masque, to be produced next October; and the presentation of a play at the Lyceum by the Women's Dramatic Club. All of these undertakings have been excellent in quality and have been conducted in a thoroughly creditable manner, but they have unquestionably made heavy demands upon the time and strength of the students engaged in them. If they are to be in the future a helpful part of the college life, some more systematic method than now exists must be found for limiting the participation of some students and encouraging that of others.

The greatest danger that threatens the physical and academic welfare of our women students, however, comes not from too free participation in extra-curri-

cular activities of the type just mentioned but from excessive indulgence in social activities. There is no question whatever in my mind that the welfare of our women students demands a very much greater limitation of their social life than now exists, whether that limitation be self imposed or imposed by University authority. How such limitation is to be secured will be, I venture to prophesy, one of the troublesome questions of the immediate future.

In closing this, my last report as Adviser of Women, I wish to express my appreciation of the loyal support that has been given me by everyone with whom I have worked. The Wardens, the Medical Adviser, the Director of the Gymnasium, the Manager of the Residential Halls, the alumnae, the students, all have been generous and whole hearted in their co-operation. Such success as has been achieved is due far more to their willing co-operation than to any quality that I have brought to the work. Particularly I wish to express to you, Mr. President, my gratitude for your unfailing patience and your sympathetic consideration of every difficulty that I have brought to you. My work has been a joy to me; if it has been of some service to the University, I am more than content.

Respectfully submitted,
 GERTRUDE S. MARTIN,
 University Adviser of Women.

APPENDIX XIV

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my twentieth annual report as Registrar of the University. The report covers the academic year 1915-16, including the Summer Session of 1915.

THE YEAR

	Days in Session	Sun- days	Holi- days	Vaca- tion	Total
First term, Sept. 27-Feb. 9	103	17	2	..	122
First term, vacation, Feb. 10, 11 . . . . .	..	..	..	2	2
Christmas vacation, Dec. 23-Jan. 5 . . . . .	..	..	..	14	14
Second term, Feb. 12-June 21	105	18	1	..	124
Easter vacation, April 6-April 12 . . . . .	..	..	..	7	7
Summer vacation, June 22-July 5 . . . . .	..	..	..	14	14
Summer Session, July 6-Aug. 16	36	6	..	..	42
Summer vacation, Aug. 17-Sept. 24 . . . . .	..	..	..	39	39

In addition to the 244 days in session given above, the University Library was open every day in the year except holidays and there was no time during the year when college activities entirely ceased. The shops and some of the laboratories also were open for special work during nearly all the vacation period.

ATTENDANCE FOR THE YEAR 1915-1916.

DEPT. & COLL.	GRADUATE			ARTS AND SCIENCES			LAW			MEDICINE			AGRICULTURE			VETERINARY		
DEGREES	A.M.,	Ph.D.,	M.M.E., Etc.	A.B.,	B.Chem.		LL.B.			M.D.			B.S.			D.V.M.		
CLASSIFICATION	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	409	73	482	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Class of 1916	...	...	...	234	66	300	53	...	53	26	5	31	265	50	315	32	...	32
Class of 1917	...	...	...	210	72	282	42	1	43	28	3	31	297	61	358	38	...	38
Class of 1918	...	...	...	293	100	393	53	3	56	28	5	33	336	64	400	80	...	80
Class of 1919	...	...	...	320	98	418	84	3	87	49	9	58	381	78	459	8	...	8
Class of 1920	...	...	...	15	5	20	1	...	1	...	...	...	48	6	54	1	...	1
Specials	...	...	...	7	4	11	3	...	3	57	6	63	87	31	118	...	...	...
Totals	409	73	482	1079	345	1424	236	7	243	188	28	216	1414	290	1704	159	...	159
Duplicates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Net total	409	73	482	1079	345	1424	236	7	243	188	28	216	1414	290	1704	159	...	159
Third Term Grad.	107	10	117	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Third Term Agr.	...	...	...	...	...	...	...	...	...	...	...	...	134	7	141	...	...	...
Short Winter Agr.	...	...	...	...	...	...	...	...	...	...	...	...	368	57	425	...	...	...
Summer	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	516	84	600	1079	345	1424	236	7	243	188	28	216	1916	354	2270	159	...	159
Duplicates	89	6	95	...	...	...	...	...	...	...	...	...	130	6	136	...	...	...
Net total	427	78	505	1079	345	1424	236	7	243	188	28	216	1786	348	2134	159	...	159
DEPT. & COLL.	ARCHITECTURE			CIVIL ENG.			MECH. ENG.			SUMMER SESSION			SUMMER SCHOOL			TOTAL		
DEGREES	B. ARCH.			C.E.			M.E.			1915			IN AGR. 1915					
CLASSIFICATION	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	409	73	482
Class of 1916	31	...	31	96	...	96	190	...	190	...	...	...	...	...	...	927	121	1048
Class of 1917	31	2	33	113	...	113	192	...	192	...	...	...	...	...	...	951	139	1090
Class of 1918	34	...	34	75	...	75	225	...	225	...	...	...	...	...	...	1124	172	1296
Class of 1919	40	1	41	133	...	133	261	1	262	...	...	...	...	...	...	1276	190	1466
Class of 1920	17	...	17	32	...	32	66	...	66	...	...	...	...	...	...	180	11	191
Specials	10	...	10	1	...	1	7	...	7	...	...	...	...	...	...	172	41	213
Totals	163	3	166	450	...	450	941	1	942	...	...	...	...	...	...	5039	747	5786
Duplicates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	117	13	130
Net totals	163	3	166	450	...	450	941	1	942	...	...	...	...	...	...	4922	734	5656
Third Term Grad.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	107	10	117
Third Term Agr.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	134	7	141
Short Winter Agr.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	368	57	425
Summer	...	...	...	...	...	...	...	...	...	562	580	1142*	167	278	445*	729	859	1588
Totals	163	3	166	450	...	450	941	1	942	562	580	1142*	167	278	445*	6260	1667	7927†
Duplicates	...	...	...	...	...	...	...	...	...	339	43	382	63	30	93	621	85	706
Net total	163	3	166	450	...	450	941	1	942	223	537	760	104	248	352	5617	1526	7143††

*Includes 78 registered in both Summer Session and Summer School in Agriculture.

†Excludes 130 duplicates of regular session.

††Excludes 130 duplicates of regular session and 78 registered in Summer Session and Summer Agriculture.

STUDENTS

The table given on page lxiii, which shows the attendance for 1915-16 gives the number of students who have received instruction this year, including those in the 1915 Summer Session, in the 1915 Summer School in Agriculture, those registered up to July 1, 1916, in the 1916 Summer Graduate work, and Third Term Graduate work, in the 1915-16 Winter Courses in Agriculture, and in the Third Term in Agriculture, but excluding duplicates, as 7143, an increase over last year's attendance of 252.

The accompanying table shows the attendance in each course since the opening of the University in 1868. Previous to 1897 optional and special students were separately tabulated, but now these are distributed as far as possible among the groups to which they belong.

The attendance for the year is the largest in the history of the University and the increase in the number of regular students this year is 311. Special attention is called to the fact that the above table includes short winter and summer course students only as separately tabulated.

MATRICULATES

The following table shows that 2611 students have registered during the present year for the first time. The table also shows the method of admission. Students entering for the first time in the Summer Session and in the Summer School in Agriculture are not considered as matriculates, but for convenience are listed in this table.

Graduates	115	Medical (Ithaca)	00
Advanced standing	282	Veterinary students	64
Regents' credentials	520	Summer session (1915)	501
School certificates	683	Summer School in Agr. (1915) ...	220
By examination	28	Summer Graduate work 1915	12
As special students	76	3d Term Agr. to July 1, 1916	9
Coll. Ent. Board Exams	7	3d Term Graduate to July 1, 1916.	17
Medical (N. Y. City)	76	Summer Grad. to July 1, 1916	1
Total.....		2611	

The small number entering by some of the above methods is due to the fact that two or more methods have been combined in a single case, the student, however, being listed in the group to which the major portion of his entrance belongs.

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

The Registrar has charge of all credentials presented by applicants coming from other institutions. This system has given uniformity of action on similar certificates when the applicants enter different colleges at this University.

In the following lists should be included properly a number of cases of special students, who coming from other colleges, would have been eligible for admission to advanced standing. Such students, however, preferred to be admitted as specials. Some later changed to a regular course but are not included in these tables.

The number of students admitted to advanced standing as candidates for the first degree during the past thirty years, is, as nearly as may be ascertained,

TABLE SHOWING THE NUMBER OF STUDENTS IN EACH COURSE SINCE THE OPENING OF THE UNIVERSITY IN 1868

[illegible]

*Includes those registered merely "Optional"; e. g. "Optional Agr.", "Sp. Agr.", etc., are counted in the course to which they belong. The classification of "Optionals" was always vague, and this accounts for the sudden fluctuations in that course which appear in the Catalogue.

†Also counted in courses.

**The table for 1916-17 will include 1916 Summer Session and 1916 Summer School in Agriculture.

†Summer Session of 1892.

††Registration to July 1, 1916.

FIRST DEGREES

[illegible]

ADVANCED DEGREES

[illegible]

as follows: The former courses in Chemistry, Pharmacy, Medical Preparatory, and Optional have been omitted from the table but the numbers have been retained in the totals:

Year	Arts	Phil.	Let.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	For- estry	Law*	Vet.	Med.	No. of Cases
1886-87	2	8	1	4	1	4	6	18	..	..	..	..	50
1887-88	6	4	1	1	..	..	11	10	..	..	..	..	37
1888-89	5	..	6	6	1	2	12	21	..	..	..	..	58
1889-90	4	5	6	3	2	1	2	25	..	..	..	..	50
1890-91	8	8	2	4	1	..	14	28	..	..	..	..	65
1891-92	7	9	2	5	2	2	10	52	..	..	..	..	89
1892-93	6	6	1	8	..	6	11	44	..	..	..	..	87
1893-94	5	6	5	8	..	6	6	56	..	..	..	..	94
1894-95	4	2	3	3	2	3	6	44	..	..	..	..	71
1895-96	5	11	4	7	3	3	9	33	..	..	..	..	85
1896-97	10	4	2	4	3	3	11	42	..	12	5	..	100
1897-98	11	6	..	7	9	2	15	41	..	15	1	..	108
1898-99	27	6	1	7	5	3	16	56	2	6	3	2	134
1899-00	28	..	..	1	5	3	25	64	1	7	4	..	138
1900-01	37	..	..	..	4	6	6	64	3	10	2	2	134
1901-02	38	..	..	..	9	2	29	92	5	7	..	2	184
1902-03	33	..	..	..	8	2	24	105	9	12	1	..	194
1903-04	31	..	..	..	9	5	39	112	..	9	1	1	207
1904-05	29	..	..	..	9	5	44	101	..	3	..	..	191
1905-06	39	..	..	..	14	8	36	89	..	1	..	..	187
1906-07	40	..	..	..	19	5	55	86	..	15	..	..	220
1907-08	43	..	..	..	22	10	60	79	..	11	..	..	225
1908-09	37	..	..	..	21	10	53	71	..	5	1	5	203
1909-10	47	..	..	..	41	7	30	88	..	9	..	..	222
1910-11	41	..	..	..	44	8	44	47	..	11	..	..	195
1911-12	36	..	..	..	52	6	38	57	..	7	4	..	200
1912-13	57	..	..	..	76	8	39	44	..	7	1	..	232
1913-14	58	..	..	..	76	5	31	47	..	7	..	..	224
1914-15	70	..	..	..	87	5	42	51	..	7	1	6	269
1915-16	85	..	..	..	94	7	22	53	..	9	4	8	282

Of the 282 admitted in 1915-16 110 registered as freshmen, 95 as sophomores, 59 as juniors, and 18 as seniors.

During the last thirty years there have been admitted from over 500 other institutions of collegiate rank, 4,535 students. The distribution of these students can be seen by reference to the table on page xciii of the Report for the year 1907-08.

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Registrar has charge of the credentials of those entering by school certificate, by Regents' credentials, and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the last sixteen years the number of applicants admitted by school certificate, by Regents' credentials, and by examinations, has been as follows:

	'00-1	'01-2	'02-3	'03-4	'04-5	'05-6	'06-7	'07-8	'08-9	'09-10	'10-11	'11-12	'12-13	'13-14	'14-15	'15-16
Certificate	296	357	308	315	317	380	324	465	578	574	524	517	601	587	647	683
Regents	198	212	219	220	238	233	185	244	287	329	311	420	404	476	494	520
Examination	26	39	19	18	27	18	18	41	12	14	8	12	11	6	9	28
Coll. Ent. Exam. Bd. ....	..	9	11	20	27	29	37	33	23	27	14	18	13	14	27	7
N. Y. C. Ex. ....	..	..	..	..	..	..	29	9	5	..	..	..	..	..	..	..
Total	520	617	557	573	609	658	584	792	905	944	857	967	1029	1083	1177	1238

*No data prior to 1896-97.

The Regents' credentials mentioned above do not include medical and veterinary students certificates.

The discrepancy in numbers in the freshman class compared with those given in the Catalogue, is due to students being there listed as freshmen because of some shortage when otherwise they belong to a higher class. In 1912-13 and thereafter, students are registered with the class with which they intend to graduate. The tables now give a clearer statement of the distribution by classes.

The small number credited to entrance by examination would become much larger if those taking a few examinations to make up a shortage in another group were included. It is not unusual to have a student enter partly by certificate, partly by examination, and partly by College Board examination. The combining of school with Regents' credentials, however, is not a common method of admission and is employed only in very exceptional cases.

It should be noted that the number entering entirely by our examinations is small. Entrance examinations are held at Ithaca at the beginning of the second term and as students may graduate at midyear a considerable number are enabled to enter at that time and save a half year. Students who complete the requirement for their degrees may graduate at the end of the first term, at the end of the summer vacation, or in June at the end of the academic year. Thirty-four received degrees in September, 1912, fifty-five in September, 1913, eighty-five in February, 1913, seventy-one in February, 1914, fifty-six in September, 1914, seventy-seven in February, 1915, sixty in September, 1915, and eighty-eight in February, 1916. The preparatory schools are now better acquainted with our entrance requirements. Certain Regents' credentials admit to the Colleges of Arts and Sciences, of Agriculture, and of Law, and to the four and one-half and five-year courses in Architecture, Civil Engineering and Mechanical Engineering and under certain conditions relieve the students from taking entrance examinations. The results of Regents' examinations for single subjects are accepted if the grade is at least 60%. The failure of students to pass the entrance examinations before completing the high school course influences others to complete their course in school and enter the University by certificate.

PETITIONS AND REGISTRATION

The usual form of petition has been continued by the several faculties. Where the petition relates to routine matters and a mere change of registration of studies, a much simpler method has been adopted for changes in registration, and the strict enforcement of registration rules has made a marked improvement in the students' records.

The registration of old students takes place after the matriculation of new students. This allows new students a day to arrange their work before instruction begins. Old students are not required to be at the University until the day preceding the one on which instruction begins. The system of consulting new students in September in groups alphabetically arranged, and of sending out by mail permits and blanks for registration, has solved the problem of overcrowding at registration and gives each student abundant time to get started aright. Permits and blank forms for registration for old students are also mailed during the summer to all who apply for them. The congestion at the registration rooms in September is much relieved.

DEGREES

The inserted table gives the number admitted to graduation at the 1916 Commencement as well as those of former years. 17,768 degrees have been conferred, but there are some duplicates between the first and second degrees. One degree (M.D.) was conferred in 1899, but in 1907 was revoked because the candidate declined to accept it. One degree (D.V.M.) was conferred in June, 1905, but owing to a technicality was withdrawn and conferred again June, 1906, while another degree (D.V.M.) was conferred in 1907 but dated as June, 1906. The two degrees (M.D.) listed as February, 1912, were conferred after June, 1911, and before February, 1912, at the dates when the candidates became of proper age. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

Respectfully submitted,

DAVID F. HOY,
Registrar.

APPENDIX XV

REPORT OF THE SECRETARY OF THE UNIVERSITY

To the President of the University:

SIR: I beg to submit herewith my first report as Secretary of the University.

My appointment dating from May first of this year naturally limits the personal implications of this report to a few months' service. To this record and review of the activities of my predecessor we can venture to add only some possible extensions of time-tested plans and forecast some newer developments.

Under Mr. H. W. Peter's keen sense of immediacy and organization a flexible and effective working plan has been developed in the past two years that concentrates the operation of the office into these four executive units under the supervision of the Secretary: Department of Official Publications, Department of Alumni Service, Department of University Affairs, Department of Student Affairs. The summation of activities of these working units is intensively analyzed as follows:

OFFICIAL PUBLICATIONS

The editing, publishing, and distributing of 19 official publications; compilation of student directories; preparation of memorials, books of views, self-aid booklets, maps, and special publications; correspondence in regard to publications totalling 12,000 letters a year; distribution of 260,000 pieces of mail.

ALUMNI SERVICE

The Secretary is Alumni Recorder for the Associate Alumni, and for the Cornellian Council, and Secretary of the Association of Class Secretaries; the office maintains an alphabetical, a geographical, and an addressograph list of 27,000 alumni with 10,000 changes of addresses and 2,000 additions yearly; maintains a multigraph and addressograph plant equipped to do addressing, printing, folding, and stencil making, and is used by all alumni and under-

graduate associations in mail campaigns; supplies lantern slides and motion picture films for Cornell Alumni gatherings; compiles and publishes class and club directories and arranges special organizing campaigns; the Secretary acts as archivist of all Alumni Associations gathering memorabilia and biographical material and publishes bi-monthly the *Alumni Service Bulletin* devoted to the promotion of Alumni nerve centers.

UNIVERSITY AFFAIRS

The University secretarial duties of this department are too various to detail here. Among other activities are the duties of a general clearing house for university information; secretarial routine in examinations and scholarships; compilation of the yearly and weekly calendar; entertainment of University guests; cooperation with medical examiners and the infirmary; planning and executing Commencement and Alumni Week Programs; custody of diplomas; central office for the supervision of University printing, multigraphing and mimeographing; conducting the press bureau and various promotive ideas.

STUDENT AFFAIRS

The Secretary coöperates wherever possible with undergraduate clubs and associations and his office is the headquarters of the Freshman Advisory Committee; he supplements the work of the Christian Association in their Self-Aid Department and publishes Self-Aid booklets. The Secretary acts as examiner of applicants for loans from the Guiteau Loan Fund, and conducts an appointment office for seniors and graduates.

In the successful execution of the widely varying routine duties and projects of the four departments, we desire to acknowledge the enthusiastic and able assistance of Mrs. C. B. Jefferson in the Department of University Affairs, Miss F. M. Outterson, Assistant Editor of Official Publications, Miss E. M. Gardner in charge of Information and Correspondence, Miss C. Z. Howard in the Department of Alumni Service, Miss E. M. Grant assisting Miss Howard, and Mr. W. G. Fischer who has virtually acted as assistant secretary assuming many of the routine details of office administration and the promotion of new developments. The Cornell University Series of Motion Picture Stories owned and controlled by this office was taken under Mr. Fischer's direction.

The different reels in this series will be sent to any Cornell gathering without charge except for expressage. We are also discussing other profitable subjects for camera studies of Cornell life. It is our ambition to offer the prospective student a vocational series of motion picture studies in which he can visualize himself as the student in the laboratory, the field, and the shop; and then his achievement as a man of action in his chosen vocation. For schoolrooms and halls where there are no projectors, we are rearranging new lantern slide series with an outline and digest. Their reference to the coming Semi-Centennial Celebration has not been overlooked.

While the Office of the Secretary has no special portfolio in matters Cornellian it is vitally interested in such warm shadows on the threshold as a Cornell University Press—a modest publishing enterprise ordered on commercial lines, and with a foundation that guarantees the plate cost and the distribution of

ten or a dozen varied volumes of Cornell's scientific pioneering and scholarship. Or again, such a project as an Appointment Office—not a casual employment Bureau, but one that studies the student's derived and inherited preferences and reviews his progress during his University course, enlisting his faculty adviser's help in plotting his course and taking his log. And again, ways and means of legitimate publicity, presenting the "Cornell idea" with restraint and with point; and, not the least of these, the promotion of the Alumni Forum's splendid enterprise in the recognition of scholarship.

The Secretary as the Alumni Recorder of the Associate Alumni, the Cornellian Council, and the Association of Class Secretaries offers below a summation of the alumni activities of the year.

THE BOARD OF DIRECTORS OF THE ASSOCIATE ALUMNI

Since the adjournment of the annual meeting of June 1915 this association has held one meeting, the forum convened in Detroit, Michigan, March 31, 1916.

The directors have held four regular meetings: the first in Ithaca on June 12, 1915, the second in Philadelphia on November 26, 1915, the third in Detroit, Michigan, March 30, 1916, and the fourth in Ithaca, June 16, 1916.

The March meeting of the directors and the forum were featured by the cordial reception and splendid entertainment of the delegates and officers by the Detroit Cornellians.

The forum of March 31, 1916 was attended by thirty individuals representing four classes, thirteen local clubs and associations, and one representative of the Faculty of the University. The subjects discussed in conformity with the propositions submitted were: the time and place of presenting the reports of the retiring Alumni trustees; the granting of honorary degrees by the university authorities to former students of the University who shall have distinguished themselves by eminent achievement, or to others, at the time of the semi-centennial of the University in 1918; the general rules and regulations covering the election of the alumni trustees; the best means of presenting the advantages of Cornell University to preparatory schools; and means of stimulating scholarship among the undergraduates.

The first meeting of the directors held June 12, 1915, was for organization purposes only. At this time the chairman was authorized to divide the board into committees, on relations with preparatory schools, on local association scholarships, on benefactions, on publicity, on educational legislation, on promoting the interests of the Alumni, on developing local clubs and associations, on relations with the university authorities and undergraduate body, and on the semi-centennial celebration. These committees were duly appointed and organized by correspondence, and made their first report to the second meeting of the board convened in Philadelphia, November 26, 1915. On that occasion it was decided to designate January 11, Founder's Day, as the date for an "ALL CORNELL NIGHT," and to urge all local clubs and associations to celebrate that night with fitting ceremonies. A great deal of time was given over to the discussion of ways and means of securing an Alumni publication to serve as a channel of communication between the University and the Alumni. The publicity committee were especially charged with the development of this idea. The

meeting of the Board of Directors in Detroit on March 30, 1916 was held in the University Club and at this meeting subjects proposed for the Forum were thoroughly discussed and the method for conducting the Forum, the following day, was determined as reported in the outline of the Forum previously herein contained.

The meeting of the Board of Directors in Ithaca on June 16, 1916 was held in Goldwin Smith Hall. At this meeting, reports were received from the Committee on Relations with the University Authorities, regarding the investigation of the desirability of granting honorary degrees, also the report of the informal committee was received which indicated the willingness on the part of the owner of the *Alumni News*, (Mr. John L. Senior) to make it possible, should the Associate Alumni desire it, to participate in the direction of the policy of the paper, as well as to acquire ownership of the paper under terms that are to be definitely determined after a thorough investigation by the Committee on Publicity.

At the forty-fifth annual meeting of the Associate Alumni the retiring trustees James H. Edwards, '88 and Herbert D. Mason, '00 presented their reports.

Mr. Edwards pointed out the increasing needs of the University for salaries, equipment, and buildings. Ten years ago the total free endowment was \$6,900,000 and the enrollment (not including the Medical and the State Colleges) was about 2000; the free endowment was then \$3500 per student. Today the available income is \$7,700,000, the number of students 3500, and the endowment per student is \$2200 instead of \$3500 ten years ago. It is clear that the University is not paying its instructing staff the salaries it should or increasing its equipment conversant with its growth. Mr. Edwards urged that the tuition be increased to a uniform rate of \$150 in all courses and that laboratory fees should cover the actual cost of materials and depreciation of equipment values. With the free income less by \$65 than it was ten years ago and an income of only \$25 more per student, we have a net decrease of \$40 for each student. The increase of tuition required by this serious situation follows the recent practice of nearly all the universities in Cornell's class and is made imperative by present day conditions of life.

Mr. Mason in discussing the disposition made of the Alumni fund, which is being raised and turned over to the University in annual instalments after collection by the Cornellian Council, showed that the theory of this plan viewed these contributions as separate quasi-trust funds, the payments being income and the principle held by the subscribing Alumni. Few of the Alumni could be expected to make an outright gift to the University of \$500 or \$1000, but a large number could give the income on \$1000, on a 5% basis, \$50; or \$25 on \$500. When the first contribution of about \$20,000 was turned over to the University the question arose whether this money could be considered as income or as an addition to endowment. The final decision to treat this fund as endowment resulted in reducing the amount available for immediate use to \$1000, the interest at 5% on \$20,000 so placed in invested endowment funds. The Board was then facing the insistent fact that many members of the Faculty were greatly underpaid and that the University was frequently losing distinguished teachers for lack of funds to meet the more favorable offerings of other universities. It was decided to apply

a substantial part of the Alumni fund to meet this needed increase in professorial salaries in emergency cases. Each year's contribution to the Cornellian Council would therefore be held during the year of its receipt in order that there might be paid out of it enough to meet the urgency requirements of the salary increases and certain other needs. The balance of the contribution, which remained, would be turned in to the general endowment fund at the end of the year at which time the funds of the next year would be on hand. This expedient is a temporary one and is certain to be of service only as long as pledges of the moneys of the fund do not exceed the amount of such fund. These salary increases are naturally a permanent mortgage upon the future annual income donations of just this amount and this temporary expedient can be utilized only as long as there are increases in annual funds. It is hoped that this plan will operate successfully until there is a substantial increase in the general endowment fund of the university.

Mr. Mason also urged a closer relation between the Associate Alumni and the Board of Trustees, which would make for unity and efficiency. There should be a more ready means of information between the Board of Trustees and the Associate Alumni, thereby avoiding lost motion and duplication of work. There should be more Trustees, who are Alumni of the University, on the Board of Trustees of the Associated Alumni and that all of the Alumni Trustees should be invited to the forums. If a number of Alumni Trustees are members of the Board of Directors of the Associate Alumni they will be in a position to represent better the Alumni sentiment and to learn the wishes of the Alumni.

The Treasurer's reports show his receipts for the year 1915-16 were \$631.82 and his disbursements \$232.23.

The report of the Committee on Elections showed the ballot on the election of two Alumni Trustees to be as follows: James Harvey Edwards, '88 received 4186 votes; Herbert Delevan Mason, '00 received 3366; Clyde Potts, '01 1786; Miss Kate Gleason, '88 1782; scattering 11; total 11,131.

A Committee of the Associate Alumni, Mr. L. L. Tatum, '97, Mrs. Alice Bruere, '95, and Ezra B. Whitman, '01, appointed to make a study of the arguments for and against the granting of honorary degrees made a report based on the letters received from sixteen university and college presidents showing some divergence of opinion but in the main supporting the discriminating bestowal of these honors as an interesting Commencement ceremony. The Committee recommended "that Cornell perform the duty which devolves upon it as a distinguished institution of learning and expresses its belief that the Faculty and Trustees will execute this duty wisely, without limitations or suggestions on the part of the Alumni."

W. G. Ogden, '01, presented the report of the Committee on Cornell Publicity in regard to the conference with the Cornell Alumni News Publishing Company. Mr. John L. Senior, '01, the majority stockholder of the company after a conference with the committee has expressed his cordial interest in a plan for the future control of the *Alumni News* on the following basis:

First: The present committee on Cornell Publicity shall confer, at least four times a year, with officers, editors, and business manager, for a period of two years beginning July 1, 1916. An opportunity of participating in shaping the editorial policy and general business management will be freely given.

Second: If at the end of the said two year period the committee shall be satisfied that it is advisable for the Associate Alumni to make arrangements for taking over the paper and managing it either directly or indirectly, or through providing for the management thereof under direction of or in affiliation with the Associate Alumni, Mr. Senior agrees to make arrangements to sell the paper to the Associate Alumni or vest control thereof in the Associate Alumni under the following plans, to wit: The entire common stock of the paper, except one share, and the entire preferred capital stock of the paper, except sixteen shares, shall be transferred to trustees of a voting trust or trustees created under some other suitable instrument, two (2) of which trustees shall be named by the Associate Alumni and three (3) by Mr. Senior. This agreement must provide for the entire control of the paper by the said trustees so long as any part of the purchase price hereinafter specified shall remain unpaid and for a period of two years thereafter. Mr. Senior's intention in this respect is not only to insure the management of the enterprise while any part of the purchase price remains unpaid but also to make certain that no abrupt change of management or policy shall be made immediately upon the taking over the paper by the Associate Alumni or those representing the Associate Alumni. This Mr. Senior believes is only fair to those who have been with the paper for many years and have helped to build it up and are, therefore, entitled to be protected against those sudden changes in policy or management which sometimes follow upon the change of ownership.

Third: The price at which Mr. Senior will turn over the stock aforesaid is to be the par value of the stock turned over plus the exact amount owing to Mr. Senior at the time of the turning over according to the books of the company which he will, of course, be glad to submit to audit for the purpose of demonstrating their correctness. Neither the Associate Alumni or Mr. Senior can tell at the present time what the terms of payment should be. Presumably the Associate Alumni will not be able to pay all or any considerable part of the amount in cash. Mr. Senior's feeling is that he will be willing to accept long terms based mostly and perhaps entirely upon the profits which the company makes. However, he would not want to tie up the management and control of the paper for any indefinite term of years dependent wholly upon the profits to be made by the paper. Mr. Senior thinks it would be only reasonable to fix some length of time for ultimate payment, otherwise the matter might drag through a score of years in case small profits only were realized. Those details therefore must be left for agreement at the time of the turning over of the stock.

The following minutes from the meeting of the Board of Directors of the Associate Alumni held in Ithaca, June 16, 1916:

In the meeting of the Board of Directors held in June 16, 1916, it was moved, seconded, and unanimously carried that the proposition from Mr. Senior contained in his letter of even date, offering terms to the Associate Alumni for the control and acquisition of the *Alumni News* be accepted as read, and presented to the Annual Meeting of the Associate Alumni, and that the Associate Alumni be requested to grant authority to the Board of Directors to proceed with the proposition as outlined in the letter.

It was moved and carried that the Board of Directors be granted the power and authority to carry out this proposition as outlined.

REPORT OF THE SECRETARY OF THE UNIVERSITY LXXIII

The Report of the Committee on By-Laws was presented by J. H. Scott, '09. Mr. Scott reported that the committee proposed to present to the Fall meeting of the Board of Directors, by-laws, or constitutional amendments, as necessary, looking to the following changes in the Associate Alumni procedure:

1. The elimination of class representation.
2. The change of the term "Forum" to "Convention."
3. The holding of the convention in Ithaca not oftener than once in three years.
4. The change of convention date from March to May.
5. The change of the date of the November meeting of the Board of Directors to permit its being held either in October or November.

It was moved and carried that the officers take such steps as are necessary in order to bring before the Alumni the proposed changes in the Constitution and By-Laws.

The report of the Committee on Nominations presented the declination of Mr. H. W. Peters nominated for the office of Alumni Director of the Associate Alumni and placed in nomination for this vacancy, Mr. John L. Tiernon, jr., '95.

The President of the Associate Alumni was empowered to appoint a committee to consider some method of correcting the evils of holding separate reunions by certain classes on Spring Day or other days than the regular reunion days.

THE CORNELLIAN COUNCIL

The cash receipts of the Cornellian Council for the calendar year ending June 1, 1916, have been \$41,579.53, while the total cash receipts for the calendar year ending June 1, 1915 were \$21,595.36. As is well known by this time the special fund of the class of 1905 has been given to the University through the Cornellian Council, and has made possible the total here reported. Included in the total for the preceding year are the two special funds of the classes of 1904 and 1897, amounting to nearly \$4,000 which were also tendered to the University through the Cornellian Council. Included in the \$41,579.53 here reported is \$12,512.54 which has already been formally turned over to the University with the \$20,000 which was appropriated by the Trustees on the June 1915 recommendation of the Council.

The total number of new subscriptions obtained since August 1, 1915, have been more than \$1,000 practically all of which are on an annual basis, and the total over \$12,000. To this is to be added 720 new subscriptions from the class of 1916 totaling \$3375 annually. This makes a grand total of about 1700 new subscriptions which have been added during the past ten and one-half months totaling over \$15,000 annually.

The Post Office Department has granted the Second Class privilege to the Cornellian Council Quarterly.

The Cornellian Council has decided to maintain the office of the Council permanently in Ithaca. Experience has already shown that the office can be maintained with greater efficiency and economy in Ithaca.

The Council has recommended to the Trustees of the University that they appropriate \$30,000 to University purposes, or as much thereof as is on hand to the credit of the Alumni Fund on June 30, 1916, without recommendation for what purpose it shall be used.

The Council has decided to continue the plan of campaigns by cities until the whole country has been thoroughly canvassed. A big campaign for New York City and vicinity will be started about the middle of January, 1917.

ASSOCIATION OF CLASS SECRETARIES

The reunion class secretaries got an early start this year in their campaigning for a big home-coming and through an intensive cultivation of corrected mailing lists the foregathering on Alumni days was memorable in the number of graduates returning for the first time since graduation. Eight classes held successful reunions. 1871 held its 45th reunion, registering seven out of 19 living members. 1891 holding its 25th reunion had a record breaking attendance of over 170. The presence of wives of alumni made one of the happiest features of this year's home-coming.

The meetings of the Association have devoted a great deal of attention to important promotion work to be done by the class secretaries in relation to the Semi-Centennial Celebration in 1918. In this connection the Association will challenge every class organization having delinquent executive machinery to tune it up to the highest efficiency for this work. Willard Austen of the class of 1891 presented a plan at the mid-winter meeting for raising a memorial fund at the twenty-fifth reunion of each class which the Association endorses; and recommends that work on this memorial shall begin after the reunion, as any time before or during Alumni Week is not a proper time for such activities.

The Association urges all class officers to act upon the request of the Secretary of the University and send him all the biographical data in their files that it may be entered in the new biographical archives. It also has ordered that the yearly statistical summary required of the Class Secretaries be discontinued, and that the blank forms for changes of address, deaths, etc., be filled in and returned to the Secretary of the University at the earliest possible moment.

Respectfully submitted,

HARRY ALTON HITCHCOCK,

Secretary of the University.

APPENDIX XVI

REPORT OF THE TREASURER ON THE WORK OF THE MEDICAL ADVISERS AND OF THE INFIRMARY

To the President of the University:

SIR: During the year, through the cooperation of Professor Young, the room in the men's gymnasium available for the medical advisers was enlarged and also additional space obtained for the office in connection with the women's gymnasium. This has made possible more effective work. During the year a small laboratory was started where urine, blood, and other tests were made as often as time permitted. More and better facilities for the work of the medical advisers, including an adequate laboratory, is a great need of the health work at the University.

I quote from the report of Dr. Munford:

"The health of the students has been quite good during the year, but, as formerly, the chief causes of loss of time have been colds and digestive troubles, both of which are largely due to personal disregard of the laws of hygiene. Lectures have been given during the winter, endeavoring to correct some of the common faults.

Prevention of disease has been the main theme and there is reason to think that students are beginning to accept the teachings that attention to the details of personal hygiene is well worth while. One illustration confirming this belief is the noteworthy response to the advice to protect the feet in the winter by wearing overshoes.

In health matters where the University is responsible, I believe the interests of the students have been well protected. The establishment of cafeterias and residential halls aids greatly in the making of standards which must be approached by all those engaged in similar undertakings. Room for improvement exists but I wish to emphasize the statement that the greater part of ill health among our students is due to personal rather than to public errors in hygiene and sanitation.

The communicable diseases caused some concern during the latter part of the year but fortunately were controlled without serious outbreak. In January, we passed through the epidemic of so-called "grippe" which swept the country. In April a number of cases of scarlet fever caused much concern but the situation was obscured by the fact that an outbreak of the scarlatina type of German measles occurred simultaneously. During May a considerable number of cases of measles were admitted to the infirmary but as measles had been an epidemic in the city during the winter we were fortunate to have escaped so long.

In addition to the consultation work and the examination of the entering students, the following activities were carried out. Five lectures on hygiene were given to the women of the first year, and six were given to the men in the course of the gymnasium credit lectures. A sanitary detachment was conducted in connection with the military department and through its members, instruction in the first aid was given to each man taking the course in military training. Practical instruction in life saving was offered to volunteers and a considerable number of men availed themselves of the opportunity to learn of the work. Owing, however, to the crowded condition of the tank this work was not as largely taught as would be the case with better accommodations."

The consultations of the medical advisers were as follows:

	Men	Women
Consultations	12,311	3,807
Excuses	3,607	1,908
House visits	165	76
Examination of entering students	1,832	575
Total work		24,281

The statistics of the Infirmary for the year are as follows:

Number of patients, men	1135	
women	259	
		1394
Total number of day's service		9208
Average days per patient		6.6

Average total cost per day per student.....	2.32
Average daily service	33.24
Maximum day's service, Jan. 18	90
Medical cases.....	1029
Surgical cases.....	365
Operations	163
Discharged, cured.....	1362
improved	19
not improved	8
not treated	2
died	3

That portion of the Infirmary used for communicable diseases is overcrowded, not so much as to the number of patients but as to the variety of diseases treated at the same time and requiring isolation. Probably within a few years it will be necessary to consider the erection of an addition to the Infirmary building in order to increase these facilities.

Respectfully submitted,

CHAS. D. BOSTWICK,

Treasurer.

APPENDIX XVII

REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I have the honor to submit herewith the annual report of the condition and use of the Cornell University Library for the year ending June 30, 1916, together with such recommendations for changes and improvements as seem essential to the best interests of the library.

At the beginning of the year the work of the library was grouped under the four divisions, usually found in well organized libraries: (1) Accessions, (2) Cataloguing, (including classification), (3) Stacks Division, (4) Readers Division. This order is followed in the report.

ACCESSIONS DIVISION

	Vols. added 1915-16	Present extent
General library	12530	388,875
Seminary Collections	7	4,252
Law Library	1744	48,975
Flower Veterinary Library	183	4,863
Barnes Hall Library	65	2,169
Goldwin Smith Hall Library	63	2,271
Stimson Hall Library	18	1,378
Evans Mathematical Library	—	410
Comstock Memorial Library	47	69
Architectural College Library	96	569
Miscellaneous Department Collections	41	3,924
N. Y. State Agr. College Libraries	982	11,390
Maps, Charts, Plans, etc.	45	4,574
Manuscripts	—	559
		<hr/> 474,278

PERIODICALS, DOCUMENTS, REPORTS, ETC.

Regularly subscribed for	2290
Received by gift	763
Received in exchange	281
Government reports	458

During the year the library has received some 4316 volumes by gift. This included the valuable collection of facsimile reprints of Spanish literature made by Archer M. Huntington, Founder and President of the Hispanic Society of America, from whom the library received the volumes, upon request of Professor Keniston. Rev. W. E. Griffis, from whom the library is constantly receiving valuable gifts, this year gave a large collection of Japanese books, comprising history, fiction, essays, etc., in the original, thus forming an interesting group of literature for Japanese students.

From the Fuertes Memorial Fund was received the valuable set *Annales d'hygiene publique* in 92 volumes. From Mr. Y. L. Yeh was received a History of China in 40 volumes, edited by Sze-ma Kwang. From you, Mr. President, and from Ex-President White, the library has received generous contributions during the year. Also valuable gifts have been received from the late Professor J. M. Hart, Professor W. F. Willcox, Dr. H. P. de Forest, Theodore Stanton, and Louis C. Tiffany. From the U. S. Government, the State of New York, the British, Canadian, and Australian Patent Offices, the library has received the usual government publications.

From the Sage Book Fund, the Fiske Book Fund, and the smaller special funds given for specific purposes have been purchased books, periodicals, etc., during the year. Among the more noteworthy of these purchases may be mentioned the following:

- Beaumont and Fletcher. First and second folios, 1647 and 1679.
- Milton. *Paradise Lost*. ed. 3. 1678.
- Milton. *Paradise Regained*. ed. 2. 1680.
- Davenant. *Works*. 1673.
- Howell. *Parthenopoeia*. 1654.
- Drayton. *Poly-Olbion*. 1613.
- Milton. *Letters of State*. 1676.
- Bale. *Pageant of Popes*. 1574.
- Blount. *Natural History*. 1693.
- Ligon. *True and exact history of the Island of Barbadoes*. 1673.
- Atkyns. *Ancient and present history of Gloucestershire*. 1768.
- Eyton. *Antiquities of Shropshire*. 12 vols.
- Thoroton. *Nottinghamshire*. 3 vols.
- Blomefield. *Norfolk*. 11 vols.
- Baines. *Lancaster*. 5 vols.
- Hasted. *Kent*. 12 vols.
- Cussan. *Hertfordshire*. 3 vols.
- Hutchinson. *History of the County of Durham*. 3 vols.
- Wood. *Athenae Oxonienses*. 1813-20.
- Lysons. *Magna Britannia*. 6 vols.
- Wilkinson. *Londina Illustrata*. 1819-25.
- Racinet. *La costume historique*. 6 vols.
- Yarrington. *England's improvement by sea and land*. 1698.
- Morris, William. *Works*. 24 vols.
- Becker. *Katalog der palaearktischen Dipteren*. 4 vols.
- Verity. *Rhopalocera palaeartica*.
- Mulsant. *Historie naturelle des coléoptères de France*. 28 vols.

Thomas May. Tragedy of Julia Agrippina. 1639.
 Portraits by Sir Henry Raeburn.
 Worshipful Company of Stationers. Transcript of Registers.
 Mission scientifique du Cap Horn. 8 vols.
 Brayley. Topographical history of Surrey. 5 vols.
 Garcia Icazbalceta. Bibliografía mexicana del siglo XVI.
 Brandes. Samlede Skrifter. 17 vols.
 Drachmann. Samlede poetiske Skrifter. 12 vols.
 Séjourné. Grandes voutes.
 Mayer. Apulien.
 Ortiz de Zúñiga. Annales eclesiasticos y seculares de Sevilla. 1677.
 Ponz. Viage de España. 20 vols.
 Sanchez de Fernandez. Bibliografía zaragozana del siglo XV.
 Memorial historico español. 46 vols.
 Covarrubias Orozco. Tesoro de la lengua castellana. 1674.
 Argote de Molina. Nobleza del Anduluzia. 1588.
 Malleus Maleficarum. 1669.
 Rijks geschiedkundige publicatien. 40 vols.
 Great Britian. House of Lords. Journal. 1600-1887.
 Payer. Traité d'organogénie de la fleur.

Complete sets of the following publications have been added to the Library:

Royal Dublin Society.
 Rivista di mineralogia e cristallografia italiana.
 Church quarterly review.
 Astronomical Register.
 Royal Zoological Museum. Leyden. Notes.
 Deutsche Dichtung.
 Surrey Archaeological Society. Collections.
 Museo Civico di storia naturali di Genova. Annali.
 Belgravia.
 Pall Mall Magazine.
 Knowledge.
 Zeitschrift fuer die gesammten Naturwissenschaften.
 Publications of the French, Swiss, Swedish and Norwegian Geological Surveys.

The disturbed condition of the European book market, due to the war, has operated to prevent the prompt filling of many orders placed through importing agents. Also many periodicals heretofore regularly received, have either suspended publication or ceased, never to be issued again. The increase in insurance and freight rates due to the war has about offset the gain that would otherwise have come to the library from the fluctuations in the rate of exchange.

A new periodical record on the standard size cards, 3 x 5 inches, has been made during the year in order to have a more convenient form for entry and consultation. Some other minor changes have been made in the accessions records to facilitate the work and to more nearly conform to the best practice of other large libraries.

One way in which the library service could be improved, would be to have an exchange assistant whose sole attention could be given to documents, gifts and exchanges, to insure materials of this kind being in the library ready for use when wanted, thus avoiding the necessary delay in sending for them when their absence is discovered.

CATALOGUE DIVISION

In this division all the books received have been promptly classified and catalogued and the work kept up to date. The following table shows the work done:

Number of volumes catalogued	11,862
Number of maps catalogued	43
Number of cards written	13,491
Number of printed cards used	6,664

The books on the Protestant Reformation that came to the Library with the President White Historical Library, although catalogued in printed form, had never been entered in the card catalogue. This has now been done.

The card catalogue is conceded to be the most important library record. Cornell has long had the reputation of having one of the most usable card catalogues. For this reason but few changes are necessary to make this record conform to the latest practice in library economy. Some of these have been made during the year and others are to be introduced later.

SHELF DIVISION

The work of putting new books in place and returning books to their places after use, is a very important work in the library. In taking the yearly inventory of books, 139 were found misplaced. Books not accounted for, 605. This is less than the number reported for 1914-15, showing that more books, hitherto missing, have been found than were lost during the year.

A complete count of all library books has been made from the shelf list record. This formed the basis of the annual report on the present extent of the library. The shelf list for New York State Agricultural College books has been rewritten, thereby separating these books from the library books on the shelf list record. The Municipal Documents have been reshelfed in accordance with a new system of classification for this material.

The books deposited in the departmental libraries and laboratories have this year been under the supervision of the shelf division. The report shows the total number deposited outside the library to be 28,999. Of these 176 are not accounted for.

Another way in which the efficiency of the University Library may be increased is to put all the outlying libraries in the relation of branch libraries of the general library, in much the same way that branch libraries of a large city library are administered, with librarians appointed by the general library and under its supervision. Experience shows that certain classes of materials are needed in closer connection with the work going on in the laboratories than is possible if the books remain in the general library. On the other hand books needed by more than one department cannot be allowed to remain out of the library on deposit without seriously interfering with work that is being done elsewhere.

The object, then, is to limit the number of books thus removed to the actual needs and restrict the time as much as possible. To insure this being done department librarians are needed, whose records will show the use made of books deposited outside the main library and who will make such books accessible to all users during the time they are out.

READERS DIVISION

The Readers Division covers all use made of the library: Reference, home use, department, and laboratory use. By this means all needs come to one place

and materials can be shifted from one group to another without delay, or conflict on the question of jurisdiction. From this division the following report is made. The main library has been opened for use 309 days, being closed only on Sundays, Thanksgiving, Christmas, New Year's Day, Fourth of July and Labor Day. The hours of opening during the term time are from 8:00 a. m. till 10:45 p. m., which is more than any other University Library allows. During the latter half of the year the library was open the same hours on Saturday as other days. The number of registered borrowers at the main library is as follows: Officers 588, Students (including summer term), 639, Special investigators 21, other libraries 72.

The recorded use made of library books is as follows:

	1914-15	1915-16
Reading room use	89,017	93,360
Seminary room use	2,838	2,823
Departments and laboratories	7,898	5,449
Home use	32,199	35,030
Other Libraries and foreign loans	233	477
Total recorded use	132,185	137,139

The Council considered and adopted a plan for bringing the undergraduates more closely in touch with a large collection of standard literature, without admitting them to the stacks, where much of the literature is not only of little or no use to them, but would be discouraging to them. University teachers and graduate students go to the stacks for special investigations, but the undergraduate needs access to a selected list of books apart from the larger group. This is the object of the proposed change, which, briefly, is to put the reference library into the present periodical room, thus greatly facilitating the use of this branch of the library, and using the shelves in the general reading room for books on all subjects that appeal to the undergraduate.

For many years past some departments of the College of Arts and Sciences have been granted special appropriations by the Trustees for the purpose of purchasing books supplementary to those bought from general library funds. In so far as these departments have seminaries in the main library, these books have been placed there. From the point of view of the general readers of the library, this has not been wholly satisfactory. It often happened that a book in one of these collections was the only copy in the library, and as it could not be brought to the general reading room for use there, and the reader could not go to the seminary room (he might not be able to find it if he did) the system has been criticised. Realizing these difficulties some departments have given to the general library all the books in such collections, and in so far as they are needed in the seminary, they are left there, but are so classified and kept in order that they are accessible to all users. It would be a distinct gain if all such books could be dealt with in the same way.

Professor Burr reports for the White Historical Library that notable additions have been made to the shelves on the French Revolution and Napoleonic Literature. Miss Fowler, Curator of the Dante and Petrarch Collections, has been devoting a large measure of time to the completion of the Petrarch catalogue, which is now in type and will be issued in the early fall. Also some work has

been done towards preparing copy for a supplement to the Dante catalogue published in 1900, with the thought that it might be ready by January 1921, when the sixth centenary of Dante's death occurs. Mr. Haldor Hermannsson, Curator of the Icelandic Collection, reports the Catalogue of Runic Literature as going through the press, to be issued in the autumn. *Islandica* Vol. 9 has been prepared and will soon be issued. A few rotographic copies of rare Icelandic manuscripts and early printed books have been added to the Collection.

In connection with the plan of branch libraries working under the general supervision of the main library, ought to be considered the need for a wider representation of the several colleges of the University on the Library Council. The present Library Council is made up of two groups representing respectively the scientific and the literary subjects, but a larger library organization would involve larger problems, that could best be considered by a Council with a wider representation.

The possibility of a fire in the general library was naturally brought more forcibly to mind by the burning of Morse Hall, and this matter was made the subject of a special report to the Council. It was pointed out that the most dangerous point in the library was its connection with the tower. This danger is increased by the freedom of use allowed in connection with the tower. To reduce this and other possible fire risks, the present wooden partition between the tower and the library should be replaced with one of brick or cement, which can be done at an estimated cost of \$300. The present wooden book shelves used in all the old stacks should be replaced with metal shelves, and this can be done at an estimated cost of \$3,825. Fire doors shutting off the stacks from the reading rooms automatically in case of fire, might also be considered. Finally iron grating at the lower windows around the whole library, not now thus protected, would protect the library from the entry of irresponsible persons.

During the past year the lectures on general bibliography have been given to a class of twenty students. The object of this course being to acquaint the students with the general laws that are recognized as standard for all workers with books, it would be a great gain if the work could reach a larger number.

Cornell University Library was begun before the days of modern library economy and as much of the work in such a library is cumulative in character, it is not possible to suddenly put into operation more modern methods where needed. For this reason only such changes have been attempted as could easily be made without disturbing the working efficiency of the library.

The working staff of the library, although smaller than that of most large university libraries, there being eleven others with a larger staff, has kept the work up to date. In common with other departments of the University, the library has been able to hold its workers at a smaller salary than many large university libraries, there being ten university libraries with a larger salary budget than ours. With the thought of increasing the interest of the staff in the work as a whole and thereby increasing their efficiency, a general plan of making the members more familiar with the work of all the divisions has been adopted.

The Library has been fortunate in having Librarian Emeritus Harris a resident of Ithaca. He has graciously looked after the buying for the collection of Victorian Poets, and has been helpful in making clear obscure points in the early history and practice of the library.

Respectfully submitted,

WILLARD AUSTEN, Librarian.

APPENDIX XVIII

PUBLICATIONS, 1915-16

Under the Auspices of the University

The University Library is gathering a collection of the publications of all Cornellians. These are kept on the shelves in alphabetic order by University classes. Every Cornellian is asked to send to the Library a copy of every publication that he cares to have in such a collection.

CORNELL UNIVERSITY. Official publications. v. 6. No. 14-18; No. E. v. 7. No. 1-14; No. A-E.

CORNELL UNIVERSITY. AGRICULTURAL EXPERIMENT STATION. Bulletin, No. 362-376. Oct., 1915-May, 1916. Ithaca. 15 nos. 8°.

— Circular. No. 30-32. July, 1915-Jan., 1916. Ithaca. 3 nos. 8°.

— Memoir. No. 6-8. May, 1915-July, 1916. Ithaca. 3 nos. 8°.

CORNELL UNIVERSITY. COLLEGE OF AGRICULTURE. Cornell extension bulletin. No. 1-2. May, 1916-June, 1916. 2 nos. 8°.

— Cornell reading-courses. v. 4. No. 89-96; v. 5. No. 97-112. June, 1915-May, 1916. Ithaca. 24 nos. 8°.

— Cornell rural school leaflet. v. 9. Sept., 1915-March, 1916. Ithaca. 4 nos. 8°.

CORNELL UNIVERSITY. MEDICAL COLLEGE. Cornell University medical bulletin. v. 5. New York, 1915-1916. 4 nos. 8°.

Contents:—1. Studies from the Department of Psychopathology. 1915.

2. Studies from the Department of Physiology IV including contributions from the Russell Sage Institute of Pathology. 1915.

3. Studies from the Department of Surgery including urology. 1916.

4. Announcement of the Medical College, New York and Ithaca. 1916.

CORNELL UNIVERSITY. MUSIC DEPARTMENT. Eleventh annual music festival, Bailey Hall, April 27-29, 1916. Ithaca, 1916. 8°. pp. 69+(6).

CORNELL architect. v. 1. No. 4; v. 2. No. 1-3. Nov., 1915-June, 1916. Ithaca. 4 nos. 8°.

CORNELL chemist. v. 5. No. 3-4. July, 1915-Dec., 1915. Ithaca. 2 nos. 8°.

CORNELL civil engineer. v. 24. Oct., 1915-June, 1916. Ithaca, 8°. pp. 580.

CORNELL countryman. v. 13. Oct., 1915-June, 1916. Ithaca, 8°. pp. 810.

CORNELL law quarterly. v. 1. Nov., 1915-May, 1916. Ithaca, 8°. pp. 342.

CORNELL veterinarian. v. 5. No. 2-4; v. 6. No. 1-2. July, 1915-May, 1916. Ithaca. 5 nos. 8°.

JOURNAL of physical chemistry; editor, W. D. Bancroft. v. 19. No. 7-9; v. 20. No. 1-6. Oct., 1915-June, 1916. Ithaca, 1916. 9 nos. 8°.

Issued monthly except in July, August and September.

PHILOSOPHICAL review, edited by J. E. Creighton with the co-operation of James Seth. v. 24. No. 4-6; v. 25. No. 1-3. July, 1915-May, 1916. New York. 6 nos. 8°.

SIBLEY journal of engineering. v. 30. Oct., 1915-June, 1916. Ithaca. 8°. pp. 300.

Publications by Officers.

In the present list are included the titles of books, pamphlets, and contributions to periodicals, transactions, etc., published by officers and fellows of the University during the period extending from July 1, 1915, to June 30, 1916, with some titles omitted in previous lists.

- ABELL, M. F.** Potato culture in Ohio. Columbus, O., 1915. 4v. (Ohio State University. Extension Service.)
- ADAMS, BRISTOW.** Fairies of the woods. *American forestry*, v. 22:218, 1916.
 — Farm organizations in Tompkins County. *Tompkins County breeders' gazette*, v. 5:75, 1915.
 — Fire in the woods. *American forestry*, v. 22:292, 1916.
 — The forest struggle. *Same*, v. 22:46, 1916.
 — Forest students in camp. *Cornell countryman*, v. 13:282, 1916.
 — Forestry and what it means. *American forestry*, v. 21:866, 1915.
 — How a tree grows. *Same*, v. 21:935, 1915.
 — How trees travel. *Same*, v. 21:987, 1915.
 — An information service in connection with extension work. *American Association of Agricultural College Editors. Proceedings of the third annual conference*, 1915, p. 44.
 — Making maple sugar. *American forestry*, v. 22:158, 1916.
 — Marketing. *New York State. Department of Agriculture. Circular*, No. 130:63, 1915.
 — New publications of the College. *Cornell countryman*, v. 13:117, 1915.
 — Our oaks. *American forestry*, v. 22:90, 1916.
 — Report of committee on dissemination of information. *Cornell University. Department of Agriculture. Special circular: Farm bureau organization and projects*, January, 1916, p. 13.
 — The sprout growth of trees. *American forestry*, v. 21:1059, 1915.
 — Three trees. *Same*, v. 21:1120, 1915.
- ADAMS, J. Q., JR.** Captaine Thomas Stukeley. *Journal of English and Germanic philology*, v. 15:107, 1916.
 — "Hamlet" on the Elizabethan stage. *Wake forest student*, v. 34:487, 1916.
 — Reviews of Cowling, G. H. Music on the Shakespearean stage. *Journal of English and Germanic philology*, v. 14:617, 1915; Graves, T. S. The court and the London theatres during the reign of Elizabeth. *Same*, v. 14:462, 1915.
 — associate editor. *Materialien zur Kunde des älteren englischen Dramas*, 1915-1916.
 — joint editor. *Cornell studies in English*, 1916.]
- ADAMS, T. S.** Draft of law for income tax; introduced as Senate Bill No. 576. Int. 547. *New York State Legislature. Joint Committee on Taxation. Report transmitted to the Legislature Feb. 14, 1916*, p. 213.
 — How the State of Wisconsin improved its local assessment work. *New York State tax bulletin*, v. 1:88, 1916.
 — Increase in public expenditures. *National Tax Association. Proceedings of the 9th conference*, 1915, p. 463.
 — Short talks to assessors. *National Tax Association. Bulletin*, March, 1916, p. 54.
 — Tax exemption through tax capitalization. A fiscal fallacy. *American economic review*, v. 6:271, 1916.
 — Review of Nearing, Scott. Income. *Same*, v. 6:182, 1916.
 — editor. *National Tax Association. Bulletin*, February-June, 1916; *National Tax Association. Proceedings of the 9th annual conference*. Ithaca, 1915. pp. 514.
- ALBEE, ERNEST.** Review of Shaftesbury, Anthony Ashley Cooper, 3d earl of. Second characters; or, The language of forms; edited by Benjamin Rand. *Philosophical review*, v. 25:182, 1916.
- ALEXANDER, C. P.** A biological reconnaissance of the Okefenokee swamp in Georgia. The tipulidæ. *Washington University studies*, Oct., 1915, p. 97.
 — Biology of the North American crane-flies. 2. *Liogma nodicornis*. *Journal of entomology and zoology*, v. 6:105, 1914; 3. The genus ula. *Same*, v. 7:1, 1915; 4. The tribe hexatomini. *Same*, v. 7:141, 1915.
 — Description of new species of crane-flies from Central America. *United States National Museum. Proceedings*, v. 48: 441, 1915.

- The neotropical tipulidae in the Hungarian National Museum. Pt. 4. *Entomological news*, v. 25:351, 1914.
- New exotic tipulidae. *Canadian entomologist*, v. 47:79, 1915.
- New nearctic crane-flies. *Same*, v. 48:42, 1916.
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- New or little known crane-flies from the United States and Canada. Pts. 1-2. *Academy of Natural Sciences of Philadelphia. Proceedings*, 1914-1915, pp. 579, 458.
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- A revision of the American species of tanypremna and megistocera. *New York Entomological Society. Journal*, v. 22:205, 1914.
- A second bromeliad-inhabiting crane-fly. *Entomological news*, v. 26:29, 1915.
- Two new crane-flies from Porto Rico. *Insecutor inscitiae menstruus*, v. 3:104, 1915.
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- How to attract summer birds. *American forestry*, v. 22:146, 1916.
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- Same, v. 8:131, 1916; 4. Phosphorus in solution, by R. P. Anderson and W. Biederman. Same, v. 8:135, 1916.
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