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# OFFICIAL PUBLICATIONS OF CORNELL UNIVERSITY

VOLUME IV

NUMBER 17

## THE PRESIDENT'S REPORT 1912-13

NOVEMBER 1, 1913  
PUBLISHED BY CORNELL UNIVERSITY  
ITHACA, NEW YORK



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VOLUME IV

NUMBER 17

## TWENTY-FIRST ANNUAL REPORT BY ACTING-PRESIDENT CRANE 1912-13

WITH THE TREASURER'S REPORT, AND REPORTS OF THE DEANS OF  
FACULTIES, DIRECTORS OF COLLEGES, THE REGISTRAR,  
THE LIBRARIAN, AND OTHER OFFICERS

NOVEMBER 1, 1913  
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Forms for bequests to Cornell University will be found at the close of the  
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# ACTING PRESIDENT'S REPORT

FOR 1912-13

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## *To the Board of Trustees:*

The Trustees of the University on the 23d of June, 1910, the completion of the twentieth year of his presidency and the twenty-fifth of his connection with the University, granted to President Schurman a sabbatical year's leave of absence to be taken during such parts of the year 1910-11 and 1911-12 as might be agreed upon. In June, 1911, President Schurman, having been unable to avail himself of the leave of absence granted for a specific time, was granted a year's leave of absence to be taken at such time or times as might be agreed upon by him and the Executive Committee. The period of this leave of absence was on the 22d of August, 1912, fixed from September, 1912, to September, 1913. President Schurman having been appointed by President Taft, Minister to Greece, sailed from New York on September 5th for his post at Athens. The duties of the president of the University until the appointment of an acting president by the full Board were assigned to T. F. Crane, Emeritus Professor of the Romance Languages. At a meeting of the full Board held at Ithaca, November 7th, 1912, Professor Crane was elected acting president of the University from September 1st, 1912, for the period of the leave of absence granted to President Schurman or until the return of President Schurman if he returned before its expiration, and during said term the duties and powers of the president of the University were assigned to the acting president.

The Acting President of the University, therefore, has the honor to submit to the Board of Trustees the following Report for the year 1912-13. The Report covers the period from September, 1912, to September, 1913.

It would be manifestly improper for one filling a temporary position to have any policy of his own or to make any recommendations of a permanent nature which might embarrass the President of the University. The Acting President has, therefore, very carefully

## TRUSTEES AND FACULTIES

confined his activity to the necessary management of the University. This report will therefore be in the nature of an historical *résumé* of the progress of the University during the year 1912-13.

### TRUSTEES AND FACULTIES

The terms of office of Alumni Trustees, Judge Albert H. Sewell and Judge Harry L. Taylor expired in June. To fill these vacancies the alumni elected Mr. Franklin Matthews, A.B. '83, and Judge Cuthbert W. Pound, Professor of Law in Cornell University from 1895 to 1904. At the meeting of the Board in November a letter was presented from Mr. Emerson McMillin, suggesting that his resignation presented to the Board on October 21st, 1912, be acted upon, and on motion his resignation was accepted and the Secretary instructed to convey to Mr. McMillin the sincere regret of the Trustees at losing his services on the Board, which he had served in such an agreeable and helpful manner. The vacancy caused by the resignation of Mr. McMillin was filled by the election of Mr. Charles E. Treman. At the meeting of the Board in June, Messrs. Henry H. Westinghouse, Roger B. Williams, and Charles E. Treman were re-elected trustees for a term of five years to succeed themselves.

On February 14th, 1913, General Stewart Lyndon Woodford died at his residence in New York City. The Acting President of the University acted as pall-bearer at the funeral and the Trustees residing in and near New York City attended as representatives of the University. Mr. Woodford had been a trustee of the University for forty-six years and was most punctilious in the discharge of his duties and as long as health and presence in the country permitted he was active in the councils of the University. His loss from the membership of the Board will be deplored not only for his administrative and legal wisdom, but also for his singularly amiable and engaging disposition. His death removes another of the few who were closely connected with Mr. Ezra Cornell in the inception and early development of the University and leaves a gap in the Board which cannot be filled. As an additional token of respect to his memory the Trustees voted to take no action at present in regard to filling the vacancy in the Board caused by his death.

Professor Charles Babcock, professor of Architecture and head of the Department from 1871 to 1896, and Dean of the Faculty and Director of the College of Architecture from 1896 to 1897, and since that time Professor of Architecture, Emeritus, died at his residence

on the campus, August 27th, 1913, in the eighty-fifth year of his age. He was the first professor in the Department founded in 1871, and he saw it grow into the College of Architecture, and the number of students increase from 2 to 144. He trained a great number of architects who have won fame for their University and whose affection for their teacher has been profound. His professional skill and advice have been of great value to the University and Sage College, Sage Chapel, and Lincoln and Franklin Halls were designed by him. The Memorial Chapel of Sage Chapel, where lie the founders and benefactors of the University is a beautiful monument of his architectural skill and artistic taste. He was not only an accomplished and devoted teacher, but his genial character and noble personal qualities made him a power for good in the academic community and in the city. He was a loyal servant of the University for over forty years and has left a name and reputation which will ever prove an incentive and example to future generations of professors and students.

On the 14th of June Director L. H. Bailey presented his resignation and at the meeting of the Board on June 17th, a committee was appointed to associate with themselves members of the Faculty of the College of Agriculture or Alumni and to meet with Director Bailey in the hope of prevailing upon him to withdraw his resignation. The committee having been unable to persuade Director Bailey to withdraw his resignation reported their failure to the Board of Trustees and his resignation was reluctantly accepted to take effect July 31st, 1913. Director Bailey has been in the service of the University for twenty-five years, having filled the professorship of General and Experimental Horticulture and of Rural Economy, and for ten years the position of director of the College and dean of its Faculty. During this long period of service he has seen the College of Agriculture grow from a department of Cornell University into a State College of national and world-wide reputation. At the same time by the power of his personality and genius he has led the movement which has entirely transformed the conceptions and conditions of rural life in this country. His influence in the State of New York has been especially profound and the generous support of the State has been due to the universal confidence in his integrity and ability, and to an appreciation of the remarkable results achieved by the College under his guidance. The loss to the University would be irreparable were his interest to cease with his

resignation. As the grounds of his retirement are purely personal, the Trustees yielded most reluctantly to his earnest request for leisure to carry out plans made by him many years ago for the conduct of his life and future pursuits. The Trustees have Director Bailey's assurance that his interest in agricultural education will never flag and that he will be helpful in every possible way to the institution with which he has worked so long and to which he has shown such great and effective devotion. The Trustees expressed their earnest wishes for his future usefulness and happiness and their hope that he might enjoy a long life in which to carry out his purposes.

During the year there have fortunately been no changes in the Faculty caused by death, and the only case of retirement is that just mentioned of Director Bailey. A large number of changes, however, have taken place owing to the usual resignations on the part of the younger members of the instructing staff. A few vacancies which arose last year have now been filled either permanently or temporarily. The professorship of Economics and Finance left vacant by the resignation last year of Professor Kemmerer has now been filled by the appointment of Professor A. A. Young, head of the department of Economics at Washington University, St. Louis. Professor Young graduated at Hiram College, Ohio, and received the degree of Ph.D. at the University of Wisconsin in 1902. He has taught economics at the University of Wisconsin, at Western Reserve University, and at Dartmouth College. He was head of the department of Economics at Leland Stanford, Jr., University, from 1906-1911, and for one year was a lecturer on economics at Harvard University. Everything in Professor Young's academic history warrants the most sanguine hopes of his success at Cornell in the important position to which he has been called.

The professorship of Political Science made vacant by the resignation of Professor J. W. Jenks, was temporarily filled by the appointment of Professor S. P. Orth for the first term of the present year. At the end of the term Professor Orth had been so successful in his work that he was recommended by his colleagues for reappointment for the remainder of the year, and was reappointed in June by the Trustees for the year 1913-14.

On the 15th of December the War Department terminated the detail of Lieutenant Gillmore as Professor of Military Science and Tactics to the great regret of the University. During the year and a

half of Lieutenant Gillmore's service he had maintained the high standards of efficiency established by his predecessors in the Military Department and had won the respect and esteem of the cadets. The work of the Department which was once onerous and distasteful he rendered attractive to a large body of students and instilled into them valuable lessons of discipline. His personal character and efficiency will cause him to be long remembered at Cornell. The vacancy thus created was filled by the appointment of First Lieutenant Henry T. Bull of the 13th Cavalry. Lieutenant Bull was a student at Harvard University and graduated at the University of the South. He was a member of the Engineer Corps during the Spanish-American War, has served twice in the Philippines, and last year graduated with honor from the Mounted Service School at Fort Riley, Kansas. Although Lieutenant Bull's position was a very difficult one, coming as he did in the middle of the year, he secured at once the regard and confidence of the students and has displayed great efficiency and good judgment.

At the end of last year a vacancy was created in the Department of Psychology by the resignation of Assistant Professor M. Bentley, who accepted a position as Professor of Psychology in the University of Illinois. In his place was elected Dr. H. P. Weld, a graduate of Ohio State University in 1900, a Fellow and research assistant in Clark University from 1909 to 1911, and from 1911 to 1912 Assistant Professor of Psychology. Professor Weld has devoted himself to the study of music on its psychological side and is a welcome and valuable addition to the Faculty of Arts and Sciences.

Two important changes have been made in the College of Architecture, Professor A. C. Phelps who has been connected with the University since 1899 and has been Assistant Professor of Architecture since 1903, was promoted to the position of Professor of Architecture. The vacancy created by the expiration of the term of Assistant Professor E. J. Stork was filled by the appointment for one year as Assistant Professor of Design, of Mr. E. R. Bossange, a graduate of Columbia University School of Architecture, who has had the benefit of foreign study and practical experience in the offices of some of the most distinguished architects in this country. It is hoped that this promotion and appointment will add to the efficiency of the architectural department and strengthen it on the important side of Architectural Design.

The vacancy in the German Department caused by the resignation of Assistant Professor E. J. Fluegel was filled by the appointment as Acting Assistant Professor for one year of Dr. W. Grosse, recently Oberlehrer in Hamburg.

Professor E. H. Woodruff of the College of Law received a leave of absence for the second term on account of illness and his place was filled by the appointment as Acting Assistant Professor of Mr. C. L. Williams, a graduate of Columbia University and a practicing lawyer in Newark, N. J. It was exceedingly difficult to find any one to take up Professor Woodruff's work in the middle of the year, but Mr. Williams was entirely successful, and during his brief stay in Ithaca won the esteem of his colleagues and students and performed his work to the entire satisfaction of the College of Law and the University.

The following were promoted to assistant professorships: Messrs. J. R. Turner (economics), G. E. F. Lundell and C. W. Bennett (chemistry), and R. Matthews (in Sibley College) and Mr. G. B. Muchmore was appointed to take the place in the Department of Oratory left vacant by the transfer of Mr. G. A. Everett to the College of Agriculture.

In the Medical College in New York City Dr. H. Smith was elected Professor of Clinical Surgery in the Department of Laryngology and Rhinology and Dr. L. Cole, Professor of Radiology and Drs. Barrows, Wiggers, and Wallace were appointed to assistant professorships.

In the New York State Veterinary College Assistant Professors S. H. Burnett and H. J. Milks were promoted to full professorships in the departments in which they have been teaching and Drs. E. Sunderville, C. P. Fitch, and J. N. Frost have been promoted to assistant professorships.

A large number of appointments have been made in the New York State College of Agriculture, of which the most important are the following: Mr. Arthur B. Recknagel was appointed Professor of Forestry. He graduated from the academic course at Yale and subsequently from the Yale Forest School and has studied in Germany and had considerable practical experience with the Forest Service in various parts of the United States. Mr. Frank B. Moody was appointed Professor of Forestry in charge of the extension work of the Department of Forestry. Mr. Moody graduated from Bates College and from the Forest School of the University of Michigan.



He has been Assistant State Forester of Wisconsin and an associate professor in the University of Wisconsin. Dr. Karl W. Wiegand, a graduate of Cornell University, and recently professor of botany at Wellesley College, was appointed Professor of Botany. Mr. W. H. Chandler, who took his degree from the University of Missouri and was recently assistant professor of horticulture in that University, was appointed Professor of Research in Pomology. Mr. Lloyd S. Tenny, a graduate of the University of Rochester and engaged in plant pathology work in the United States Department of Agriculture for three years, was appointed Professor of Rural Development and State Leader (in co-operation with the United States Department of Agriculture) in Farm Bureau Demonstration. Mr. E. A. White, Professor of Floriculture in the Massachusetts Agricultural College, was made Professor of Floriculture and head of the Department. The following were promoted to full professorships: Assistant Professors C. R. Crosby, K. C. Livermore, M. W. Harper, E. S. Savage, E. S. Guthrie, and A. C. Beal and Mr. H. A. Hopper. Miss A. J. Warner was appointed Assistant Professor in the Department of Home Economics and Mr. R. W. Curtis in the Department of Landscape Art, while the following were promoted to assistant professorships: Mrs. A. B. Comstock, Miss A. G. McCloskey, and Messrs. W. W. Fisk, H. M. Fitzpatrick, H. B. Knapp, B. B. Robb, and V. R. Stewart.

At the meeting of the full Board on the 17th of June the necessary arrangement for the administration of the College of Agriculture for the coming university year caused by the resignation of Director Bailey was referred to the Acting President to act in consultation with the Agricultural College Council and to report to the Executive Committee the final action thereon. At the meeting of the Executive Committee held July 29th the Acting President, on the recommendation of the Agricultural College Council, nominated as Acting Director of the New York State College of Agriculture for the year beginning August 1st, 1913, Professor W. A. Stocking, now head of the Department of Dairy Industry, and the nomination was confirmed by the Executive Committee. The new Acting Director graduated at the Connecticut Agricultural College and took degrees later at Cornell. He was called from the Connecticut Agricultural College to Cornell University as Assistant Professor of Dairy Bacteriology in 1906 and since 1909 has been head of the Department of Dairy Industry. His scientific reputation and administrative ability

combined with his attractive personality will win for his appointment the approval of his colleagues and of the students and alumni of the College.

The first incumbent of the lectureship for the promotion of German Culture, endowed through the generous gift of Mr. Jacob H. Schiff, was Professor Erich Marcks of Hamburg, who gave between February 10th and March 28th a course of lectures on "The Origin and Growth of the German Empire." These lectures were delivered in German and attracted a large audience of those interested in the German language as well as in German history. Professor Marcks proved to be an unusually interesting lecturer and made a deep impression upon all who made his acquaintance. During his stay at Ithaca he was an inmate of one of the student associations and had an unusual opportunity to become acquainted with the student life of the University and to exert an influence upon a large number of persons. He will long be remembered with regard by his colleagues and students and no more fortunate beginning of the Schiff lectureship could have been made. The inaugural lecture was fortunately attended by Mr. Jacob H. Schiff, the founder of the lectureship, who made a very happy address in introducing the lecturer.

In the President's Report for last year he stated that Professor Albert Frederick Pollard of the University of London, the distinguished English historian, had been appointed the first incumbent of the Goldwin Smith lectureship to be filled by the annual appointment of a non-resident scholar. Professor Pollard began on the 25th of March his course of lectures on the subject of "The Place of Representative Institutions in the Development of Civilization." Professor Pollard proved to be a very effective and interesting lecturer. His scholarly lectures and agreeable social qualities made his visit to Ithaca an important event of the year.

The resignation of Mr. E. F. Johnston, University Organist, was presented at the close of the year and accepted with great regret and reluctance by the Trustees. During the three years of his service he has won the regard and affection of all lovers of music. His remarkable command of his instrument and his taste and judgment have contributed largely to the value and attractiveness of the public musical services of the University. His recitals have been crowded and although he gave two performances each week during the Summer Session the Chapel was filled to overflowing. In view of the

installation of the new organ in the Auditorium of the Agricultural College Mr. Johnston's resignation is peculiarly regrettable and it will be hard to find an adequate successor for him.

The following sabbatic leaves of absence have been granted: Professors C. H. Hull, J. H. Tanner, P. R. Pope, H. H. Whetzel, and G. F. Warren for the year 1913-14; Professors T. L. Lyon and George W. Cavanaugh, and Assistant Professor H. D. Hess for the first term, and Professors H. N. Ogden, W. R. Orndorff, and A. W. Browne for the second term. Assistant Professor C. L. Walker has also been granted a leave of absence for the first term and Professor W. F. Willcox for the second term. Provision has been made for carrying on the work of these professors during their absence.

The following table gives the number of members of the instructing staff in the entire University at Ithaca during the year 1912-13. The 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 Education	Arts and Sciences	Law	Medicine - 1st year	Architecture	Civil Engineering*	Mechanical Engineering*	Veterinary Medicine	Agriculture*	Total
Emeritus Professors .....	—	7	—	1	1	—	—	1	1	11
Professors .....	3	48	4	3	3	5	11	5	33	115
Assistant Professors .....	—	33	3	2	4	12	12	2	20	88
Lecturers .....	—	6	—	—	—	—	—	—	3	9
Instructors .....	2	55	—	2	4	14	47	9	34	167
Assistants .....	18	71	—	6	—	—	13	1	86	195
	23	220	7	14	12	31	83	18	177	585

\*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 .....	4
Professors .....	14
Clinical Professors .....	15
Assistant Professors .....	16
Lecturers .....	1
Instructors .....	56
Assistants, etc. ....	25

The Faculty sent greetings to sister institutions which were commemorating their foundation or the inauguration of presidents,

and was represented by delegates as follows: to Mt. Holyoke for the celebration of the 75th anniversary of its foundation, Acting President Crane; to the Rice Institute at Houston, Texas, on its formal dedication, Professor Nichols; to the Western Reserve University for the celebration of the 25th anniversary of the founding of the College for Women, Mrs. Martin, Adviser of Women; at the inauguration of the President of the University of Oklahoma, Trustee Mason; at the inauguration of President Duniway of the University of Wyoming and the dedication of the new agricultural building, Director L. H. Bailey; and at the inauguration of the President of Washington and Lee University, Professor Sterrett. The University was also represented at the dedication of the New York State Education Building at Albany by the Acting President and at the dedication of the new building for railway engineering at the University of Illinois by Professor Crandall, and Professor Faust represented the University at the International Historical Congress in London last April.

It is proper to mention in connection with the above academic ceremonies, the celebration of the eightieth birthday of Andrew D. White, the first President of Cornell University, which occurred on the 7th of November, 1912. The meeting of the full Board was called for that date, and an address was presented to Mr. White which was afterward suitably engrossed and bound. In order that this address may reach a wider public, it is here given again:

THE BOARD OF TRUSTEES OF CORNELL UNIVERSITY TO  
ANDREW DICKSON WHITE

Having fixed as the date of this regular autumn meeting November seventh, the eightieth anniversary of your birth, the Board of Trustees of Cornell University desire to present to you this more formal expression of their collective congratulations in addition to their personal and individual felicitations.

It is indeed a difficult, almost an impossible task, to enumerate, even briefly, your titles to their gratitude and affection.

Your inestimable services to Cornell University began by obtaining in 1865 the passage of the Bill conferring its Charter by the Senate of the State of New York, a body of which you were then a member, in the face of an organized and determined opposition.

For the first twenty years of the history of Cornell University yours was the mind which planned its organization and development. To you are due the broad foundations of liberal culture and academic freedom on which the imposing structure of the present has been

reared. Your devotion to the highest interests of the State and your participation in public affairs kept the University in touch with the national life and reflected upon it the honor you had won in the service of your country and of mankind.

But it is your services as a trustee of the University which this Board desires especially to commemorate today. By virtue of office or by election you have shared its deliberations for nearly fifty years. Fortunately for it your retirement from the presidency did not involve your absence from Ithaca and as a member of the Executive Committee you have continued to render constant and arduous service to the University.

As the University has grown its problems have become more and more complex and difficult, and their solution has demanded a wide range of knowledge, deep acquaintance with men and business affairs, keen judgment and unfailing tact. These qualities acquired by you from a long and varied experience as educator and statesman, you have freely placed at the service of the Board and of the University, and they have been of inestimable value in many a delicate and intricate situation.

Your generosity displayed in every stage of the University's history has been continued to the present time.

Your profound knowledge of Architecture, Music and the Fine Arts has been a guide to the Board in the material development of the University and in promoting the liberal culture of its students.

Finally the Board cannot estimate, but can only gratefully indicate, its appreciation of the salutary influence exerted upon the entire community by a life like yours unselfishly devoted to the intellectual and civic welfare of your country.

After the presentation of the above address, the students of Cornell University met in a body in front of Goldwin Smith Hall and there greeted with the utmost enthusiasm Mr. White, and one of their number presented him with an address to which Mr. White responded most eloquently. Later in the day a reception was held at his house, and addresses presented on behalf of various associations of the alumni and of the city of Ithaca. Telegrams and letters were received during the day from the most distinguished statesmen and scholars of the world including congratulations from the President of the United States and the Emperor of Germany. A further celebration of Mr. White's birthday occurred on the 18th of the following January when at the meeting of the full Board in New York, Trustee George C. Boldt gave a dinner in honor of Mr. White which was attended by the President of the United States and many other notable persons.

The anniversary of the birth of the Founder of Cornell University was observed as usual on the 11th of January. On this occasion

the usual address, devoted to Ezra Cornell, was delivered by James Morgan Hart, Professor Emeritus of the English Language and Literature in Cornell University, and was the first of the public lectures provided for by the Trustees from the Goldwin Smith endowment. The address was remarkable for its literary style and the light it threw upon the aims and personal character of the Founder of the University with whom Professor Hart was acquainted during the early years of the University.

#### FACULTY PARTICIPATION IN UNIVERSITY GOVERNMENT

In the last report of the President, considerable space was devoted to the question of faculty participation in University government and certain recommendations were made in regard to the establishment in the various colleges of councils, such as exist at present in the State Colleges and in the Medical College in New York City. It was further recommended that the deans of the Faculties of Arts and Sciences and of the Graduate School should be elected by these bodies and not, as at present, be appointed by the Board of Trustees on the nomination of the President. These recommendations by the President of the University were by action of the Board on November 7th made a special order of business at the next regular meeting of the Board. At the meeting of the Board in New York on the 18th of January, the recommendations of the President were discussed and the following resolution was adopted.

WHEREAS, President Schurman has recommended in his annual report that the Faculty be given a larger and more direct voice in the government of the University,

WHEREAS, the Board of Trustees not only recognize the desirability of closer relations and greater co-operation between the Faculty and the Board of Trustees in matters pertaining to the administration of its affairs, but also feel that the matter is of such vital importance that changes should only be adopted after most careful consideration, therefore

*Resolved*, That this matter be referred to a committee of five to be appointed by the chairman, to consider and report recommendations to this Board at a later meeting. Final action to be deferred until President Schurman returns. The chair appointed as such committee Trustees Hiscock, Stevens, VanCleaf, Carnegie, and Place.

At the same time the recommendation of the President in regard to the election of the deans by the Faculties of Arts and Sciences and

of the Graduate School was approved so far as it concerned the vacancy made in the deanship of the Faculty of Arts and Sciences by the resignation of Dean Hull. The result of this action will be found in the section of this report dealing with the College of Arts and Sciences.

## STUDENTS

The number of students who received instruction in the University in the year 1912-13 was 6,311, an increase of 463 over the total enrollment of 1911-12.

The records of Cornell University always carefully distinguish between students in the regular courses leading to degrees and attendants in the Summer Session and the Summer and Winter Schools of Agriculture, who enter without examination. Excluding these groups the number of regularly matriculated students for the year 1912-13 was 4,803. The following table shows the enrollment of students since 1908-09, the first column of figures including the Summer Session and the Summer and Winter Schools in Agriculture, the second excluding them.

Year	Total Number of Students	Total Number of Regularly Matriculated Students
1908-09	4859	3985
1909-10	5194	4227
1910-11	5624	4412
1911-12	5848	4596
1912-13	6311	4803

These regularly enrolled students, 4,803 in number, were distributed among the several courses of instruction as indicated in the following table, which for purposes of comparison covers five years:

Year	Graduate School	Arts and Sciences	Law	Medicine	Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical and Electrical Engineering	Total Exc. Duplicates
1908-09	310	902	225	221	94	415	133	569	1162	3985
1909-10	309	970	264	201	100	539	140	559	1186	4227
1910-11	372	1017	279	171	105	761	133	558	1073	4412
1911-12	383	1031	328	118	106	967	138	539	1020	4596
1912-13	382	1112	297	150	120	1263	144	503	956	4803

Of these 4,803 regularly enrolled students, 4,337 were men and 466 women. Of the women students, 169 were registered in the College of Agriculture and 233 in the College of Arts and Sciences while 60 were registered in the Graduate School.

Upon the recommendation of the University Faculty, the Trustees voted in December, 1911, to confer degrees at the close of the first term and of the second and in the fall. Accordingly 34 degrees were conferred in September, 1912, 85 in February, 1913, and 804 at the June Commencement, 1913, making a total of 923 degrees conferred since June, 1912.

The question of residential halls for the men of the University has been the subject of various reports by the President and has been considered by the Trustees of the University. Plans for proposed residential halls for men have been drawn after careful consideration of all the questions concerned by a committee of the Trustees and members of the various faculties. A pamphlet containing a brief sketch of these proposed halls, with plans and elevations, has been printed for circulation among the friends of the University. It is hoped that the various units of this plan will be erected from time to time by the bounty of those interested in the welfare of Cornell students. Meanwhile in order to relieve as far as possible the long-felt want for residential halls for men, Cascadilla Place, since the opening of the University a lodging and boarding house for faculty and students, has been entirely remodeled as a residential hall for men. It will afford accommodations for about 200. The floor of each building is divided into four separate units for 12 students each, with separate entrance and adequate protection against fire. The rooms will be suitably furnished, heated, lighted, and cared for by the University. The question of the management of the dining hall, whether by the University authorities or otherwise, has not been settled. The new building from its convenient location and moderate charges will serve a useful purpose and, it is hoped, justify the erection of similar buildings in the near future in the neighborhood of the University.

Prudence Risley Hall for Women, the gift of Mrs. Russell Sage in memory of her husband's mother, will be ready for occupancy at the opening of the next academic year. Various questions in connection with this event have arisen, one of the most important being the requirement of residence in this hall and Sage College and Cottage of the women students of the University. It has been necessary to make a revision of the prices for rooms and to increase them somewhat in view of the general advance in prices of rooms outside of the University. Although the charges as fixed are very moderate, considering the conveniences and comforts provided, they



may still prove too expensive for the women of the University who are endeavoring to support themselves. The principal method of self-support for women, as well as for men, consists in waiting at table in boarding houses or obtaining rooms free in return for some amount of domestic service. While it has seemed best to the Trustees that there should be a general rule regarding residence of all women in the residential halls provided for them, a liberal administration of this rule will be necessary and self-supporting women will have to be excused from the requirement of residence or some effort will have to be made to increase the funds of the University applicable to the relief of needy students among women.

In this connection it may be stated that the fund left by the will of Mr. Frederick W. Guiteau can by the terms of the will be used only for the men of the University. The funds used for this purpose prior to the Guiteau bequest have since been transferred to the use of women, and this year enlarged by a generous portion of the gift made by Mr. Carnegie to Mr. A. D. White on the occasion of his eightieth birthday.

It was hoped that with the completion of Prudence Risley Hall it would be possible to remodel Sage Cottage into apartments for the use of the instructing staff and to place in it the offices of the medical examiners of the University. If Sage College and Prudence Risley Hall are occupied to the full extent of their capacity, there will still be left a considerable number of women unprovided for, and it has been felt desirable for the present at least to continue the use of Sage Cottage as a residential hall for women.

So far as the student body of the University is concerned, the last year has been one of excellent order and disturbed by few unpleasant incidents. The health of the students has in general been good and there have been during the year no outbreaks of epidemic diseases. Two students, Miss Ruby Madsen and Mr. Burchard F. Russell, died at the Infirmary of pneumonia. The most serious accidents of the year were those in which five members of the University lost their lives by drowning in Cayuga Lake. Mr. W. S. Richards was drowned March 19th by the overturning of his canoe within a few yards from the shore. Mr. Richards was a good swimmer but was undoubtedly paralyzed by the coldness of the water. On the 17th of May Misses Martha E. McCormick and Mary C. Mallett and Messrs. Brainard Bailey and Reinhart A. Zimmer were drowned, presumably also by the overturning of the canoe in which they were;

but as no one saw the accident the details are unknown. The bodies of all these were recovered and memorial services were held in Sage Chapel on May 25th.

In his address to the entering class the Acting President dwelt on the dangerous character of Cayuga Lake, its liability to sudden storms, and the extreme coldness of the water at all seasons of the year. In spite of all warnings students still continue to expose themselves to accidents on the Lake. It is difficult, if not impossible, to prevent students from going upon the Lake by means of university regulations. In the case of women students permits to go upon the Lake have been required from their parents; but it is difficult to discover and punish infractions of this rule. The incoming class, however, should be earnestly warned against the dangers of the Lake and the practice of canoeing be discouraged in every possible way.

As has been already said above, the conduct of the student body has been most exemplary and due credit should be given to the Committee on Student Affairs and to the Proctor of the University for their share in this fortunate condition of things.

More serious than open infractions of good order is the question of the private conduct of students in their social relations with their fellow students and in their fraternities. The President of the University for several years instituted investigations in regard to the effects of fraternity life upon scholarship, and the inferences from such investigations have been published in the student papers. Although statistics have not been collected for a long period, they seem to show clearly that fraternities have not had a good influence upon the scholarship of their members. One important reason for this is not from anything inherent in fraternity life, but largely because members of fraternities are encouraged to take a prominent part in student activities and by their popularity and influence to reflect credit upon the fraternity of which they are members. It, of course, is possible for one not a member of a fraternity to become engaged in student activities to such an extent as to injure his scholarship. But this is more likely to be the case with members of fraternities. Valuable time is also lost at the beginning of each year by rushing, pledging, and initiation, although steps have been taken at Cornell within the last few years to diminish this evil. The fact, however, remains that the University has taken no steps to control fraternities except in the one matter of initiations. Certain restrictions are also embodied in the lease of university grounds to fraterni-

ties for building sites. Scarcely a year passes without new fraternities being added to the already large number. But no permission is obtained from the University and no statement is made of the purposes and rules of the new fraternity.

During the past year an especially valuable report was presented to the University Senate of Michigan University by a committee appointed to investigate "house-clubs," which term apparently covers all fraternities and similar associations possessing residence houses. The committee made an exhaustive investigation and its report should be carefully studied by the governing bodies of all fraternities. The committee recommended that any action taken by the officers of the University should recognize for the "house-clubs" the general principle of self-government and urged the publication of scholarship statistics, the appointment of an advisory committee to meet in conference representatives of the different colleges at least once during the year, and asked the "house-clubs" to take some definite action before February 15th, 1914, upon the following lines:

"I. Reconsideration of their house-rules and, when found necessary, revision of these rules in any way that seems to promise better conservation of time, better scholarship, greater moral and social responsibility, and in general a more effective loyalty to the best interests of the University; it being especially recommended that some attention be given, either through the house-rules or through rules of more general application to the question of restraining individuals from excessive participation in the various student activities.

"II. Reforms in the present conditions and methods of rushing, pledging, and initiation; it being especially suggested (1) that some reasonable provision be made for a certain minimum of credits to be earned during residence at this University before a student can be considered eligible to membership; (2) that all University fraternities and sororities and other similar house-clubs formally and publicly refuse to consider for membership all students who, after the date of such refusal being made known, have become members or have continued to be active members of societies of any sort existing in violation either of the rules of the schools or of the laws of the states from which the students have come; and (3) that as regards rushing, pledging, and initiation, the policy of having active membership begin with the sophomore year should be adopted and that rules less definite or less stringent than those now maintaining at the University of Wisconsin would not meet the present needs either of the University or of the clubs themselves.

"III. Adoption of such measures as will protect, better than heretofore, the good name of the different houses; it being suggested with emphasis that the clubs need to make common cause in this matter, that the conduct of parties as regards times, methods, and expense may constitute, as in the past in some cases it has constituted, a serious danger, that life in the houses during the Summer Session is not to be overlooked, that in some way returning alumni should be made to realize that after graduation they have a greater, not a lessened responsibility to their clubs and to the University and to the good names of both than they had before graduation, and that the conduct of members outside the houses and even away from the University and from Ann Arbor may bring, as in the past it has often brought, serious ill-repute."

As a matter of interest the Wisconsin rules referred to are here given:

*"Faculty Regulations.* (1) No person not a member of the University shall be pledged. (2) No Freshman shall lodge or board in a fraternity house. (3) No student shall be initiated by a fraternity while on probation. (4) No student shall be initiated by a fraternity until the beginning of his Sophomore year. (5) No student initiated elsewhere shall affiliate with the chapter of his fraternity until the beginning of his Sophomore year.

*"Inter-Fraternity Agreement.* (1) There shall be no ostentatious rushing at any time; (a) No Freshman shall be entertained singly or in groups at chapter dances, (b) No Freshman shall be invited to the chapter houses, (c) No Freshman shall be taken to the theatre or other places of amusement, (d) No Freshman shall be paid any sort of undue attention, and (e) No Freshmen, except pledges and brothers, shall be allowed in the chapter houses. (2) No Freshman or Freshmen shall be rushed by any fraternity until the first Monday following the first day of recitations at the opening of the second semester. (3) No invitation to membership shall be extended to any Freshman or Freshmen until four weeks from the first day of the rushing period. (4) All of the fraternities agree to provide suitable enforcement for these regulations."

It is quite possible that some of the above recommendations would not be desirable or feasible at Cornell, where a larger amount of individual freedom has always been granted than is customary in most colleges. But the recommendations and suggestions are well worth considering and one reference, that to life in the fraternity houses during the Summer Session, should receive at once some attention at Cornell. A large number of members of fraternities are in attendance at the Summer Session for the various purposes of removing conditions, making up back work, etc. It is clear that

such students should not carry into the Summer Session the social festivities of the winter. And yet during the present Summer Session at Cornell there has been an amount of entertainment at fraternity houses which has attracted unfavorable comment. The only way under the present system by which this abuse can be removed or diminished is through the graduate members of the fraternities in question, and this is a slow and difficult proceeding.

Another matter which will require attention in the immediate future is the question of the government of the women students in Sage College, Sage Cottage, and Prudence Risley Hall. All women of the University, so far as general university functions are concerned, are under the jurisdiction of the Committee on Student Affairs. There are, however, house-rules and regulations, which have received the approval of the Adviser of Women and the Women's Student Government Association, but have not received the sanction of the Trustees or the Faculty and consequently have not the weight of University rules. One of these regulations has been mentioned above in reference to accidents on the Lake. It might be desirable to have the rules governing the women in their various residences receive the approval of the Trustees and the Committee on Student Affairs but be administered, as now, by the committees of the Student Government Association, leaving, as at present, the enforcement of general University rules to the first-named Committee.

#### GRADUATE SCHOOL

The Dean of the Faculty of the Graduate School reports that the registration in the School shows a continuation of the steady growth that has gone on with scarcely any interruption during the last twenty-five years, and the graduate students now constitute 8.7 per cent of the whole number as against only 6.1 per cent in 1893-94. In the Graduate School itself more than one-half of the growth during the past year is due to the increase of students specializing in the biological sciences. There is a slight increase in Language and Literatures (group A), but the number of graduate students specializing in the Physical Sciences (group C), in Engineering (group E), and in History, Philosophy, and Political Science (group B) has remained virtually the same during the past four years. The number of graduate students who are not candidates for advanced degrees has increased during the year from 46 to 63.

The Dean connects the rapid increase in the number of graduate students in group D (Biological Sciences) with the growth of the Agricultural College, since many of the subjects in this group are closely related to Agriculture. The increase in the group for the last four years has been from 77 to 141, and of undergraduates in the College of Agriculture from 539 to 1,263. During the past year 121 candidates for advanced degrees selected their major subjects in the College of Agriculture, and 34 graduate students, not candidates for degrees, did their chief work in that College. Graduate students thus constitute 10.9 per cent of the total enrollment. In the Colleges of Arts and Sciences, Law, Medicine, and Veterinary Medicine we find that 13.3 per cent of the total number are in the Graduate School, while in the technical colleges: Sibley College and the Colleges of Civil Engineering and Architecture, only 2.2 per cent are doing graduate work.

These statistics are easily comprehensible. Certain of the Colleges: Law, Medicine, Sibley College, and the Colleges of Civil Engineering and Architecture are so purely professional and technical that the graduates enter at once on the practice of their particular branch, for which advanced degrees have no commercial value and for which the student has no time. In the other Colleges, especially in Arts and Sciences, a large number of students are preparing themselves for positions as teachers or for positions for which systematic advanced work, represented by a degree, is indispensable. This is largely true also of the Colleges of Agriculture and Veterinary Medicine which are furnishing so many instructors for sister institutions. Of the 275 graduates of the New York State Veterinary College 32 are teaching in veterinary subjects, while 54 are in the Government service. Undoubtedly a corresponding number of graduates in the Agricultural College are also engaged in teaching or hold research positions in experiment stations.

The Dean of the Graduate School discusses at some length a matter of grave importance connected with action taken by the Board of Trustees during the year, which well illustrates how close is often the relation between the financial and educational interests of the University, with the latter of which the Trustees are not supposed to interfere. For a considerable period of time free tuition has been granted to members of the instructing staff. In many cases this has been viewed as a substantial addition to the salaries of instructors and assistants. Even where persons rendering service

to the University have held scholarships providing for tuition, commutation of this free tuition into money has been asked and granted. The Executive Committee appointed a committee to examine the whole subject and report. This report was presented on April 1st and some of its conclusions are given here. It was found that the total number of instructors and assistants receiving \$400 and upwards was 282, of whom 168 were receiving free tuition. Deducting 32 probably entitled to free tuition on account of registration in State Colleges as residents of the State, and adding 38 military assistants, there are 174 registered in tuition-paying courses. They are distributed as follows:

Graduate Department.....	106
Arts, College of.....	14
Law, College of.....	6
Civil Engineering, College of.....	4
Mechanical Engineering, College of.....	3
Architecture, College of.....	1
Agriculture, College of (pay students).....	2
	136
Military Department (undergraduate).....	38
	—174

The committee expressed the opinion "that there should be no question of free tuition as between the University and any of its employees or instructing staff as such, that proper compensation should be paid for services rendered, and that the regular fees for tuition should be paid by those receiving the same, irrespective of their connection with the University." The committee in conclusion recommended that the present statutes exempting from payment of tuition members of the instructing staff be repealed, that the commutation of free tuition in money to members of the cadet corps giving instruction to the cadets be discontinued and salaries readjusted with that in view, and that instructors and assistants registered in the Graduate School shall be exempt from payment of tuition for graduate work taken in the colleges in which they are instructing.

The last recommendation was ambiguous and conveyed an erroneous idea of the intention of the Trustees. After various conferences between the committee and representatives of the instructors and assistants the form of the recommendation was modified and adopted by the Board of Trustees on June 17th, as follows:

1. Instructors and assistants, registered in the Graduate School, are allowed to take, without payment of tuition, such work in any college as shall be approved by their special committees; it being understood that the major subject shall be in the line of work in which they are instructing.
2. Instructors and assistants already holding a degree are allowed to register and take, without payment of tuition, such work in the colleges in which they are instructing as will lead to the first degree of that college.
3. In case instructors and assistants register in undergraduate work in any college in which they are not entitled to free tuition they will be charged a fee in proportion to the amount of work for which they are registered.

In regard to the last restriction it may be said that the committee which first considered the subject felt "that the object to be gained by granting free tuition as part compensation for services rendered should be primarily to encourage advanced work in the course in which the recipient is engaged, and to make the teacher more efficient in that particular branch." There were cases, for instance, of instructors registered in colleges in which they were not giving instruction and taking technical and professional degrees presumably for the pecuniary advantage which might issue from the subsequent practice of those professions. It was felt that in such cases it was not unreasonable to require tuition.

It is hoped that the above regulations will meet all reasonable demands for free tuition on the part of instructors and assistants, until the time when the finances of the University permit such a readjustment of salaries as will eliminate altogether the question of free tuition.

#### COLLEGE OF ARTS AND SCIENCES

Reference has already been made to the more important changes in the staff of instruction in the College of Arts and Sciences and to the non-resident lecturer provided by the Goldwin Smith and the Jacob H. Schiff foundations. In addition to those just mentioned a course of public lectures was given throughout the year by members of the Faculty of Arts and Sciences on the History of Civilization. These lectures occurred on Friday at 12 o'clock and were so largely attended that the accommodations in Goldwin Smith Hall were inadequate and it was necessary to occupy the large physics lecture room in Rockefeller Hall. The lectures were given by Professors



Burr, Schmidt, and Sill and proved popular in the best sense of the word. This course will be repeated this year in compliance with urgent requests on the part of faculty and students.

Two other courses of public lectures under the charge of the College of Arts and Sciences have been arranged for the coming year. The first course is on the subject of Citizenship and will consist of 14 lectures to be delivered largely by non-resident lecturers of distinction on the following topics: The Citizen and His Community; The Citizen and the Recreation Needs of the Community; The Citizen and the Schools; The Citizen and Problems of Poverty; The Citizen and Labor Problems; The Citizen and Public Health; The Citizen and Problems of Crime; The Citizen and the Homes of the Community; The Citizen and Problems of Immigration; The Citizen and the Physical Development of His Community; The Citizen and Politics; The Citizen and the Church; The Citizen and the Press; The Citizen and Civic and Social Organizations. It is a matter of interest that this course has been arranged with the co-operation of alumni of the University, of whom the most active were Messrs. John Ihlder and Lee F. Hanmer, who have distinguished themselves in philanthropic work in New York City.

The second course to which reference has been made is on the study of Eugenics, which is attracting at present so much attention. A public lecture on the subject by Professor Webber, arranged through the bounty of Mrs. Huntington Wilson of Washington, will be more fully mentioned in the section devoted to Gifts to the University. The proposed course will consist of 14 lectures on the following topics and will be given by professors in the Colleges of Arts and Sciences, Agriculture, Veterinary Medicine, and the Medical College: Introductory Survey; Historical Aspect of Eugenics; The Eugenic Attitude; Development of Science of Eugenics; Biometrical Method; Biological Basis of Heredity; Laws of Heredity; Introductory; Mendel's Laws; Continuation; Inheritance of Physical Traits; Inheritance of Mental Traits; Concept of Intelligence; Measures for Social Improvement Related to Eugenics; Relation of Education to Eugenics; Practical Eugenics.

The members of the Faculty of Arts and Sciences report that the work of the year has been given as announced, and no departmental recommendations of general interest have been made.

There has been much discussion during the year in the Faculty of Arts and Sciences on three principal subjects. These are the ques-

tion of the degree of Bachelor of Science conferred at the 44th commencement on graduates of the New York State College of Agriculture in lieu of the degree of Bachelor of Science in Agriculture as previously conferred; a proposal for establishing under the jurisdiction of the Faculty of Arts and Sciences a four-year curriculum that might consist in large part of courses offered by other colleges of Cornell University; and the choice of an elective Dean. The last of these subjects will here be considered first.

In the President's Report for 1911-12 the question of Faculty Participation in University Government was considered at length and, as has already been stated, was referred to a committee of the Board of Trustees to consider and report. One part of the President's recommendation became of present application owing to the resignation of C. H. Hull, Dean of the Faculty of Arts and Sciences since June, 1908, and the Trustees by their action of January 18th last, referred the question of his successor with power to the Faculty of Arts and Sciences. The various steps taken by the Faculty of Arts and Sciences in pursuance of this reference by the Trustees are given in detail in the report of the outgoing Dean and need not be repeated here except to say that a committee of seven was appointed to consider the possibility of readjustment of work in the Dean's office, the tenure of his term, and the method of nomination and election.

The committee recommended in substance that an executive secretary should be provided to assist the Dean and that a nominating committee of five members elected by the Faculty should bring in a nomination or nominations for the position of Dean. The term of office was referred to the nominating committee. It was also recommended that the Dean as executive officer of the Faculty should be given larger power in administering the rules established by the Faculty and in carrying out such policies as it might adopt and that it should be an important duty of the Dean to bring to the attention of the Faculty or of the appropriate committee such questions as in his opinion have a bearing on the welfare of the College.

The recommendations of the committee were adopted in the main; but the Faculty itself after discussion recommended to the Trustees that the tenure of office of the Dean be fixed at two years. At the regular meeting of the Faculty on the 11th of April the nominating committee unanimously presented the name of Professor E. L. Nichols, of the Department of Physics, as its candidate for Dean and he was duly elected.

The Faculty recommended to the Trustees (1) that a Secretary of the College of Arts and Sciences be provided, whose principal duty it should be to assist the Dean and who, therefore, should be Secretary of the Faculty and of all standing committees with a right to speak but not to vote in those bodies; (2) that in view of the variety of duties which will devolve upon the Secretary of the College, and of their responsible nature, he should be a man of university education, if possible of some teaching experience, and of such age and ability as may warrant paying him at least the salary of an assistant professor; and (3) that the first Secretary of the College be nominated to the President by the Dean-elect after consultation with the Committee on Educational Policy. In explanation of the Faculty's recommendation regarding a Secretary of the College a memorandum regarding the work of the Dean's office was submitted to the Acting President and by him to the Trustees. An extract from this explanation may be found in the Dean's report.

The Board of Trustees at its meeting on May 3d approved the recommendations of the Faculty of Arts and Sciences above mentioned with the express understanding "that the Board is not committed to the two-year term of office, nor to the other recommendations, excepting during the present deanship of Professor Nichols." The office of Secretary of the College of Arts and Sciences created as above has been filled by the appointment of Mr. E. T. Paine, Master of Arts of Brown University and recently fellow in philosophy at Cornell, who began his work on the 1st of August.

The above recommendations and actions of the Board of Trustees and the Faculty of the College of Arts and Sciences have had in view the relief of the Dean from the mass of routine work, which has grown enormously within the past few years. It was felt that no member of the Faculty could assume the office without serious detriment to his work as a teacher. Even with the relief thus afforded the duties of the Dean will be sufficiently extensive and onerous. He must still come into personal relations with a large number of students and the somewhat increased scope of his duties in administering the rules established by the Faculty and in calling its attention to questions bearing on the welfare of the College will still further engage his attention.

The Faculty of Arts and Sciences will doubtless express its views in regard to the outgoing Dean; but the Acting President of the University can not refrain from here recording the great regret of

himself and of the Trustees at the resignation of Dean Hull. While they feel that his request to be relieved from the burden which he has borne so long is only reasonable, they regret that the University should be deprived of his services as an administrative officer. His unusual grasp of details and his patience in dealing with routine work have made him a model administrator, although it has been at great expense of time, which could be employed to better advantage in professorial work.

Two other questions, as has been stated, occupied a large part of the attention of the Faculty during the year. Both grew out of the action of the University Faculty in recommending to the Board of Trustees that the degree of Bachelor of Science should be conferred upon graduates of the New York State College of Agriculture in lieu of the previous degree of Bachelor of Science in Agriculture. The request of the Faculty of the College of Agriculture for this change was considered by a special committee and approved by the University Faculty and the Board of Trustees. The change received slight discussion and was adopted with little or no opposition. A subsequent consideration of the fact that the degree of Bachelor of Science had for many years been conferred upon graduates from the general course and not upon graduates from a professional or technical one led to a resolution that the University Faculty rescind its approval of the change. This resolution was referred to the Faculty of Arts and Sciences at its request and referred to a special committee. The report of the committee was afterwards rejected and the question now remains in the hands of the University Faculty.

Unfortunately the third question about to be mentioned was complicated by the above action. It has been felt for some time by members of the Faculty of Arts and Sciences that there was a demand on the part of their students for a broader curriculum than that afforded by the one leading to the present degree of Bachelor of Arts. As this curriculum now stands, 30 hours, or one year of work, may be taken in other colleges than that of Arts and Sciences. In principle this work is open only to those who have completed three years of work in the College of Arts and Sciences, although a portion of it may be open by special permission to students in the first three years of their work. In the proposed new course it was recommended that 60 hours, instead of the present maximum of 30, be allowed to be taken outside the College of Arts and Sciences and that the student be permitted to take such outside courses before his

senior year. Various other details were recommended in regard to the entrance requirements for the proposed course, etc. The degree of Bachelor of Science was recommended for the new course and so affected the discussion of the whole question that no definite conclusion was reached and the matter was closed by the Faculty voting "that the liberty of choice of subjects outside this College may, under such restrictions as may be necessary, be extended."

Two other matters of importance are referred to by Dean Hull. The first concerns what is known as "double registration," where a student after having completed the number of hours required for his A.B. degree, but not having fulfilled the residence requirement, is allowed to register in the Graduate School and pursue studies leading to an advanced degree. In some cases undergraduate work is done under similar circumstances in one of the professional colleges. It has been felt that permission for such double registration should be given only after careful consideration by the college in which the student has done most of his work and that the burden of deciding whether he is fitted for graduate work or for the privilege of work in one of the professional colleges should not be thrown upon the Graduate School or the Professional College.

Far more important than the above subject is the new entrance requirement for languages in the College of Arts and Sciences. Beginning with next September all matriculants for the degree of Bachelor of Arts must offer at least three units in one foreign language and at least two in a second. The Dean predicts that many applicants who would have been admitted heretofore will be excluded next year and that others will enter the other colleges of Cornell University which demand only three language units among the 15 required. The Dean points out that in the latter case the College of Arts and Sciences may be required to receive such a student into classes to which he has been denied access as an Arts matriculant, and proceed to teach him the very subjects for which he has by implication been pronounced unprepared. The case is rendered more serious by the fact that it will afford an additional temptation to enter one or two colleges of the University in which tuition is not required from residents of the State of New York and one of which gives a degree formerly conferred by the College of Arts and Sciences and which does not specifically show that it is a technical degree.

The Dean makes an extensive examination of the grounds on which the new entrance requirement apparently was based and

finds them, in his judgment, devoid of the weight attributed to them. The Dean also examines the entrance admission in regard to languages in a large number of collegiate institutions in this country and concludes that the Cornell requirement is an anomaly; that it is a question whether our College of Arts and Sciences should not content itself, as do the other undergraduate colleges of Cornell, with the specification of three units in a single foreign language chosen by the matriculant. It is becoming increasingly difficult for many high schools to maintain instruction in three, or even two, foreign languages; and in case they are reduced to teach one foreign language only their graduates will be excluded from our College of Arts and Sciences by a five-unit language specification. The new requirement will also prove exceedingly inconvenient, not only in the relations of Cornell University to the secondary schools, but will render intercollege relations at Cornell, especially with respect to transfers of registration and admission to advanced standing, difficult. The question, as the Dean states, is bound up with the important question of the relation of the College of Arts and Sciences to the other divisions of the University. Is the College of Arts and Sciences a self-contained college of the type of Williams, Amherst, etc., or is it a general division of the University designed to serve all parts of it with whatever is not more appropriately furnished by one of the specialized colleges?

The Dean believes that all the experiments which have thus far been tried for encouraging humanistic studies by combined courses in the Technical Colleges and the College of Arts and Sciences have not proved successful in solving this important question. Whatever may be thought of this question, it is clear that no college of the University can be regarded as a separate entity unless possibly the three colleges of Agriculture, Veterinary Medicine, and the Medical College in New York City, which have their independent sources of income, which they distribute through their Councils. The other colleges of the University depend upon the general funds and their relations to each other from a financial point of view are of vital importance. In the professional colleges the question of instruction involving the number and character of courses is decided by the Faculty, in view of efficiency of the college as a whole, and not from the departmental standpoint. In the College of Arts and Sciences thus far no limitation has apparently been placed upon the amount and character of the courses of instruction. Restrictions, it is true,

have been placed upon the admission of students to certain courses; but there has been no Faculty supervision of courses of instruction, the matter having been left entirely with the various departments.

In view of the straitened condition of the finances of the University the Trustees have asked the Faculty of Arts and Sciences "to examine the courses of study and report whether they may be reduced without impairing the efficiency of the College and what limitations may properly be placed upon the extension and addition of courses." It will probably be found after a careful examination that under the present system there has been considerable duplication of courses. This examination will also bring out the relation of the College of Arts and Sciences to the other colleges of the University, which it furnishes with a large amount of instruction for their own students.

Finally the Dean dwells at some length upon the question of delinquent students, including in that term those who have come under the formal disapprobation of the faculty on account of their insufficient scholarship, and suggests an interesting and novel remedy for the difficulty, which is to require extra tuition from students who have been placed on probation for insufficient scholarship. There are so many difficulties attending this suggestion that it is doubtful whether it can be seriously considered. More simple would be the final removal from the University of all students who after a reasonable opportunity have shown themselves unwilling or unable to make proper use of the educational advantages afforded them at Cornell.

#### COLLEGE OF LAW

Reference has been made above to the fact that Professor Woodruff was unable from illness to continue his courses in the College of Law for the second term and that his place was taken by Mr. Charles Laidlaw Williams, who conducted with marked success the course in carriers and in contract and agency, Assistant Professor Stagg having generously volunteered to complete the course in domestic relations. While Professor Woodruff has fortunately recovered his health, he has felt that it would not be wise for him to carry on the full amount of his work, and Mr. Williams has been appointed assistant professor for the coming year to relieve Professor Woodruff as may be arranged. The Director in his report mentions the graceful tribute to the memory of William Albert Finch, for twenty-one years a professor in the College of Law.

Attention is also called to the marked decrease in the number of new students especially in the four-year course. This is explained as probably due to the requirement of one year of general college work as a preliminary to professional study and the requirement by the State of New York of a year of office clerkship in addition to three years of study either in a law school or in an office. There has also been a decrease in the number of students pursuing the combined course leading to the degrees of A.B. and LL.B. in six years. This decrease is also probably explained by the new rules for admission to the bar in New York under which admission can no longer be obtained any earlier by devoting one year in a college of arts to law study. The Director recommends that as soon as practicable provision be made for the introduction of several new courses which might be offered as senior electives. These are courses in federal jurisdiction and procedure and in irrigation and mining law. The extension of the exercise of federal powers and the consequently growing appeal to the federal courts render the former of great importance, while the latter is needed to meet the needs of the growing number of students from the western states. Such courses are given, the Director states, in all the western schools and have recently been introduced into the leading law schools of the east. The decrease in appropriations for the support of the College has required this year the omission of the course in admiralty.

A very pleasant incident of the year was the commemoration by the Conkling Chapter of the Legal Fraternity of Phi Delta Phi of the twenty-fifth anniversary of its installation. On this occasion the fraternity presented to the University a fund to be used for special lectures in the College of Law and conferred upon the present Dean the honor of attaching his name to the lecture course so provided.

The law library has somewhat suffered, owing to the reduced appropriations made necessary by the financial condition of the University. It has been impossible to add some of the foreign reports; but the domestic reports, session laws, and periodicals have been kept up to date.

#### MEDICAL COLLEGE

The report of the Director of the Medical College in New York City shows a successful year in undergraduate work and progress in the various fields of investigation undertaken by members of the staff. The graduating class numbered 19, an increase of eight over



the class of 1912. Evidently the difficulty of meeting the advanced entrance requirements is being slowly overcome and an improvement in the quality of the entering class as a whole is reported. It is still not easy to meet the specific requirement of physics, inorganic chemistry, and biology, owing to the fact that in many cases the student does not have in mind early enough in his college career the future pursuit of medical studies. Some readjustments have been made during the year in regard to the three subjects mentioned, which it is hoped will lessen the difficulty of fulfilling these requirements.

The Director reports that there were during the year 41 special students, most of whom were in effect taking post-graduate courses and two students taking the course leading to the degree of Doctor of Philosophy. While the primary purpose of the College, namely, a medical education requisite to prepare students for the practice of medicine has been carefully kept in view, facilities for research have been freely provided in order to attract to the staff those interested in such work and to provide the students of the College with instruction of the most advanced character.

The report of the Director indicates some of the enlargements of the facilities for instruction and research during the past year, the most important of which is due to the generosity of Mr. George F. Baker, one of the governors of the New York Hospital, by which half of the entire medical, surgical, and pathological service of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research. The College continues to enjoy the use of one of the four divisions of Bellevue Hospital and of various other institutions in the City.

The College also is enabled to carry on research work by means of different funds established for this purpose, such as the Huntington Fund for the Study of Cancer and the Russell Sage Institute of Pathology. Some of the results of the investigations made possible by the facilities above mentioned have already been published, while others are in course of progress. Some of the staff have availed themselves of study abroad and one, Dr. Teague, has returned after three years of absence in the Philippines, where he has made important discoveries in regard to the bubonic plague.

Dr. Ewing mentions in his report the important enlargement of the work in pathology, which has come through the clinical study of cancer at the General Memorial Hospital; the 24 beds devoted to

cancer in this hospital having enabled the staff of the Huntington Fund to extend greatly the work in this subject.

The progress of research in the various departments of the College are referred to briefly in the Director's report. He also calls attention to a matter of great public interest, which seriously affects medical students in this country. It is the difficulty of enabling students to follow up completely the clinical cases which they have studied in the hospitals, owing to the State law in regard to autopsies in public institutions. This defect has during the past year been noticed by distinguished physicians from abroad who have visited this country. The remedy must consist primarily in the education of the public and in some amendment of the State law.

The Secretary of the Ithaca Division of the Medical College reports a satisfactory year, with few changes in the teaching staff and those only among the assistants. The number of students registered has been the same as in 1909-10, being nine, of whom seven were seniors in the College of Arts and Sciences, two of them being women. In addition to these seven students, there were two graduate students. In other words, with the exception of the two graduate students, the students in the Ithaca Division of the Medical College consisted of members of the senior class of the College of Arts and Sciences. The Ithaca Division was originally instituted for the purpose of enabling students in Arts and Sciences to pursue one year of the Medical course during their senior year and thus to complete the two courses in seven years. Another object was to provide instruction at Ithaca for women during the early part of the Medical course. The reduction of the course given at Ithaca in the Medical College from two years to one makes the chief, if not the only, function of the Ithaca Division of the Medical College at Ithaca that of providing medical instruction for one year to the students in Arts and Sciences. In view of this fact and of the small number of students in the Medical College considerable misapprehension has arisen in regard to the work done by the staff of the Medical College, and it has been erroneously supposed that an expensive establishment was being maintained at Ithaca for the instruction of a very small number of students. As a matter of fact the Ithaca Division of the Medical College, like the other Colleges of the University, furnishes a large amount of instruction to students other than its own. The following tables will give the work furnished (1) to Medical students and (2) to those registered in other Colleges.

ARTS, AGRICULTURE, ETC.

	1st term		2d term		Year	
	No. of students	Student hours	No. of students	Student hours	No. of students	Student hours
Histology and Embryology..	29	204	25	154	54	358
Physiology .....	5	47	348	999	353	1046
Biochemistry .....	17	37	1	9	18	46
Anatomy .....	—	—	2	18	2	18

VETERINARY

Histology and Embryology..	46	414	37	333	83	747
Physiology .....	—	—	—	—	—	—
Biochemistry .....	—	—	—	—	—	—
Anatomy .....	—	—	—	—	—	—

TOTAL OUTSIDE MEDICAL COLLEGE

Histology and Embryology..	75	618	62	487	137	1105
Physiology .....	5	47	348	999	353	1046
Biochemistry .....	17	37	1	9	18	46
Anatomy .....	—	—	2	18	2	18
	97	702	412	1513	509	2215

MEDICAL STUDENTS

Histology and Embryology..	8	88	7	42	8	130
Physiology .....	8	24	7	176	8	200
Biochemistry .....	—	—	7	77	7	77
Anatomy .....	8	224— 280 336— 392	7	49	8	273— 329 680— 736

Students in Arts were permitted to elect work in the Department of Anatomy only under special conditions and upon petitioning the Faculty. There was one such special case this year, the first for several years, as shown in the following tabulation:

Anatomy, course 7. Arts students, 1. 18 student hours.

In addition to the work detailed above, the Department of Anatomy gave instruction to six graduate students; the Department of Physiology to twelve graduate students; the Department of Biochemistry to three graduate students; and the Department of Histology to eight graduate students.

In view of the question which is often debated as to the function of the Ithaca Division of the Medical College, it may be well to give here a statement which the Secretary of the Ithaca Division of the College made at the request of the Acting President:

"When the Medical College was established one of the reasons for duplicating the first two years at Ithaca was because the long

established Departments of Zoology and Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology, and Bacteriology already offered instruction which with slight change would duplicate the medical course. For the second year additional courses in Pathology, Medicine, Surgery, Obstetrics, and Physical Diagnosis were added. In addition as the work in Human Anatomy constituted a large part of the first two years in Medicine, and more extended courses than those given in connection with Comparative Anatomy and Zoology were necessary, a separate Department was founded.

"The work in Histology and Embryology grew up in the Department of Zoology and Comparative Anatomy where instruction in Microscopy, Histology, and Embryology was given under Professor Gage and his assistant. When the Veterinary College was founded the Department was moved from McGraw Hall to the new Veterinary building and all of the instruction in Histology and Embryology for veterinary students as well as the work for other students of the University was given by this Department. When the Medical College was established all of the instruction in Histology and Embryology for medical students was taken over by the Department of Histology and Embryology and when Stimson Hall was erected the Department was transferred to that building.

"Courses in Physiology were given at the very beginning of the University under the Department of Zoology and Comparative Anatomy. When the Veterinary College was established a separate department of Veterinary Physiology was also founded. In the first years of the Medical College, instruction in physiology was given in the Department of Vertebrate Zoology under Dr. Wilder and in the Veterinary College under Dr. Fish. Later a separate department of Physiology was established in the Medical College and the work in Physiology in the Department of Zoology was discontinued. At the start of the Medical College, the work in Physiological Chemistry was given in connection with Organic Chemistry in the Department of Chemistry. Five years ago when Dr. Simpson was appointed all of the work in Physiology in the Medical College was pulled together and a sub-department of Biochemistry was established in connection with the Department of Physiology.

"Since the very beginning of the University, Human Anatomy has been taught. For many years it was given in connection with the work in Comparative Anatomy and Vertebrate Zoology. When the Veterinary College was established the work in Anatomical Technology and Human Anatomy for Arts students was given in connection with Veterinary Anatomy. After the establishment of the Medical College, the instruction in Human Anatomy for Arts students was given in the Department of Human Anatomy and the Anatomical Technology was given in the Department of Zoology. Some six or seven years ago the faculty of the College of Arts and Sciences ruled that instruction in Human Anatomy was a technical and not a cultural

subject, although cat anatomy still remained in the latter class, and they prohibited Arts students from taking courses in Human Anatomy except under special conditions and then only upon petitioning the faculty. (Bacteriology was ruled out at this time.) Since Dr. Wilder's retirement no work in Neurology is given to Arts students although there is a course in the Department of Anatomy of the Medical College for medical students. Both Human Anatomy and Neurology could be given to the students of the College of Arts and I presume the need of these students for the work is as great as it used to be and the expense to the University for the instruction, if taken in the Medical College, would be very little unless the classes should become large.

"It is clear that the cost of maintaining the Departments of Histology and Embryology and Physiology should not be charged to the Medical College and that the cost of maintaining the Medical College at Ithaca is very slight. I believe that it is extremely important from the point of view of the Medical College and from the point of view of the University that this one year in medicine should be maintained as it serves to cement in a very important way, as you know, the Medical College in New York to the rest of the University here in Ithaca and I feel that it is very desirable whenever funds can be obtained for that purpose that the second year of the Medical College should be re-established at Ithaca."

In his report for the year the Secretary adds a word in regard to the question just discussed:

"If the courses enumerated above were not given by the faculty of the Medical College they would either not be given at all or else it would be necessary for the trustees to appoint instructors for this special purpose. The advantage to the University of having courses given in connection with those in the Medical College is considerable. We must, however, carefully guard against the temptation to call upon the instructing staff for so much time that they will not have sufficient left for their own study and investigation. We believe that as a rule the best results are obtained by a happy balance of these two functions of a university professor."

In connection with the above it is interesting to note the fact that the attendance in the Arts course in physiology has more than tripled this year, and the large number have overtaxed the facilities of the College. This has been remedied for the coming year by offering the courses for both the first and second terms. This year it was necessary to divide the class between Professor Simpson and Assistant Professor Dresbach. The demands on the part of our own medical students for laboratory instruction in Biochemistry has made it necessary to institute a new course for the coming year.

The Secretary points out the value of the Ithaca Division in maintaining the high standard of the Medical College and his belief

that the re-establishment of the second year's work at Ithaca would add greatly to the influence of the University upon the Medical College and of the Medical College upon the other departments of the University and calls attention to the opportunity here offered for some benefactor to endow the Ithaca Division of the Medical College.

#### STATE VETERINARY COLLEGE

The Director of the New York State Veterinary College reports a very satisfactory year. The number of students entering last fall was 14 per cent. larger than the previous year. There has been a steady growth from 11 in 1896-97 to 123 in 1912-13. In 1904-05 the number was 108 but, owing to the enforcement of a four-year high school course for entrance, the number dropped to 88 in 1905-06. Since 1908-09 there has been a steady increase. Part of the instruction of the veterinary curriculum is furnished by other colleges and in return the Veterinary College has taught 133 students from other colleges in Veterinary Physiology and 16 in Bacteriology.

A very important examination of the present occupation of the alumni of the college has been made by the Director, with the result that of the 267 living graduates 166 are in New York State, and of these 118 are in practice and 13 are teaching; the others being engaged in veterinary inspection work, state veterinary service, and government inspection work in packing houses in New York, Albany, and Buffalo. The Director notes that 44.2 per cent. of the graduates are actually practising their profession in New York State and of those who have graduated since 1908, 61 per cent. are in practice in this State. It will be seen that the bounty of the State in supporting this school is amply repaid by the large number of graduates who remain within the State and give it the benefit of their services.

The value of the College to the State is further shown in the Director's report by the large amount of diagnosis work and the preparation of biological products. In addition to this important researches have been continued and extension work, consisting of conferences for veterinarians, exhibitions at state and county fairs, lectures and correspondence, have been carried on as well as lectures at farmers' gatherings and special courses and lectures to students in the short course in agriculture.

The new buildings provided by the State for the medical clinics will be ready for occupancy in a few months. With the completion

of these buildings and their equipment the Department of Medicine, for both large and small animals, will for the first time be adequately housed and facilities afforded for thorough teaching in those subjects. The Director makes special mention of the training that is being given in physical examination and the ambulatory clinic, which supplement the regular clinics, which provided during the last college year a total of 1,749 cases. The Department of Anatomy is now being housed in its enlarged quarters in the north wing of the main building.

The Director urgently recommends two new buildings, or rather one new building and the addition of a south wing to the main building. It was originally intended that the first two floors of the central part of the main building should be set aside for a museum. It has been necessary, however, to use the second floor for a reception room and laboratories and the administration offices are in smaller rooms temporarily partitioned off from the museum. The laboratory is also much overcrowded. The College, therefore, needs a south wing to the main building for administration offices, auditorium, and enlargement of the laboratory. The laboratory of Comparative Pathology, Bacteriology, and Meat Inspection is very much overcrowded and instruction is also given in the laboratory. The Director very urgently recommends, therefore, a suitable laboratory for diagnosis work and another for the preparation of diagnostic agents and the vaccines. In order that this work may be properly done and that the museum may be restored to its original purpose it is necessary to construct a new building for Pathology and Bacteriology, Laboratory Diagnosis, and the preparation of diagnostic agents and vaccines. This would leave the third floor of the main building for instruction in Physiology. With the erection of the south wing and the laboratory the buildings of the College will, in the judgment of the Director of the College, be complete except for such necessities as future developments of the various subjects may demand. It is to be hoped that an institution which renders such great service to the State will receive in the future as in the past its generous support.

#### STATE COLLEGE OF AGRICULTURE

In an earlier section of this report reference has been made to the resignation of the Director of the College of Agriculture and the effort made by the Trustees and Faculty to induce him to reconsider his

action. This could not be done and a temporary arrangement for the conduct of the College was made by the appointment as Acting Director of Professor W. A. Stocking, who for some years has been head of the Department of Dairy Industry. It is believed that he will have the hearty support of his colleagues and of the retiring Director and that the efficiency of the College will not be seriously impaired by the necessary change.

The attendance at the College has increased from the 30 students in 1868-69—the year of the opening of the University—to 2,310 in 1912-13. The large number of students in attendance during the last year are distributed as follows:

Regular students.....	1,105
Specials .....	158
Graduates .....	111
Winter course.....	597
Summer Session (1913).....	339

Of these 268 were women, 169 of whom were regular and special students and 99 students in the winter course.

The entrance requirements are rigidly enforced and the Faculty has this year decided that no student shall be admitted who has a shortage in the points of entrance requirements. The rules in regard to the admission of special students have been changed in recent years and now only farm residents of New York State are so admitted; and they must have had the proper common school advantages and sufficient experience and general training to enable them to make the most of the optional courses of study extending over one or two years.

The staff of the College has increased with the number of students and now comprises about 300 persons, of whom approximately 200 are engaged in teaching and investigation. The large amount of teaching work is shown in the Director's report where, exclusive of winter courses and summer courses, 236 separate courses will be given during the year 1913-14.

The most important change in the College of Agriculture has been the extension of the college year, which has received the approval of the Board of Trustees. This change will go into effect with the beginning of the summer term of 1914 or with the beginning of the regular college year in the autumn of 1914. It is proposed to establish three terms covering the entire twelve months; but officers in the instructing staff will not be allowed to teach more than nine months in any one year. It is not the intention to make the Summer



Session the third or summer term, but a regular term co-ordinate with the other terms, except shorter in length. Even when the third term is established it is expected that the Summer Session will be held in addition thereto for teachers and others in the same way in which the winter courses are held in addition to the regular college year.

The most important addition to the work of the College during the past year was the establishment of a school for what has been termed Leadership in Country Life. In July, 1911, a training conference for rural leaders was held at Ithaca and a similar conference in July, 1912. The success of these conferences led to the establishment of a regular conference under the name of the School for Leadership in Country Life. The third conference under this name was held on June 24th-July 4th and was attended by 90 persons from 22 states. The scope of this school or conference is shown in the Director's report.

The growth of the editorial and publishing work of the College is shown in the Director's report, where the number of copies of the various bulletins, memoirs, circulars, reading course lessons, rural school leaflets, annual reports, announcers, and announcements reached the enormous figure of 2,284,000 copies. The preparation and mailing of this great mass of work is a severe tax upon the energies of the College and it is difficult to find sufficient space for the proper prosecution of this important work.

Some of the changes in the instructing staff have already been mentioned. The most serious loss to the college next to the retirement of the Director has been that of Professor H. J. Webber, Professor of Plant Breeding in the Federal Experiment Station since 1906. Professor Webber resigned his position at Cornell to take charge of the Citrus Experiment Station at the University of California. Professor Webber will be greatly missed and he takes with him the cordial good wishes of his friends and colleagues.

Of the buildings authorized by the State two have been completed and used during part of the year and the third has just been finished. I refer to the Poultry Building, which was used during the Winter Course of 1912-13 and the Home Economics Building, which has been used for the greater part of the year. These two handsome buildings were planned with the greatest care and represent the latest knowledge in the subjects for which they are used. The Home Economics Building has temporarily given quarters for the Department of

Forestry, and in the basement story there has been installed a model cafeteria, which has proved of the greatest value to the University during the regular session and especially during the Summer Session. It has satisfactorily solved the difficult problem of providing students living on the hill with good food at a reasonable cost and it would be difficult to over-estimate its convenience and excellency.

The splendid Auditorium, which is also to be used for laboratory, lecture, and recitation purposes, is practically finished and the seats have been selected and are now being placed. The Auditorium was used for the alumni luncheon in June and will prove of the greatest usefulness, not only to the College of Agriculture, but to the entire University, as affording a beautiful and commodious auditorium, capable of seating about 2,500, which is more than double the capacity of any other auditorium on the campus. There will be installed during the course of the year a new and fine organ, built partly from the gift of Mr. Andrew Carnegie to Mr. Andrew D. White on the occasion of his eightieth birthday and partly from funds contributed by Trustees and friends of the University. The builder of the organ has been selected with the greatest care and Mr. White has given much time and attention to the matter. The organ will remain the property of the University and may be moved to another building, if necessary, at any time. It is expected that the Auditorium will prove a place of general meeting for the whole University and, situated just as it is between the Agricultural College and the other Colleges of the University, it will serve to bind together the various educational interests represented on the campus. It is worthy of notice that the beautiful Auditorium and the picturesque new buildings of the Veterinary College were designed largely by Mr. E. B. Green of the Class of '78.

Other buildings of the Agricultural College are in progress and comprise the Central Heating Plant, the Forestry Building, and the Building for Animal Husbandry.

The establishment of a Department of Botany in the College of Agriculture renders additional space necessary, and the Director recommends the erection of another unit of the Plant Industry Building. An appropriation is also recommended for the purchase of land to be used by the Department of Forestry.

The extensive operations of the New York State College of Agriculture are shown by the appropriation made by the last legislature for general maintenance, extension work in agriculture, summer

school in agriculture, equipment of buildings already authorized, and new buildings. The total appropriation actually made to the College last year was \$909,000.

The recommendations of the Agricultural College Council for the coming year are somewhat less than for last year. In order that the needs of other colleges and departments may be fairly adjusted the recommendations of the various Councils should be submitted to the full Board in time for careful consideration. Under the laws of the State requests for appropriations must be filed with the Comptroller between October 15th and November 15th. A meeting of the full Board late in October or early in November could consider the various needs and demands of the colleges and readjust their claims in an equitable manner.

#### TECHNICAL DEPARTMENTS

In the last report to the President attention was called to the general falling off in technical schools all over the country and to the fact that the combined enrollment in the College of Civil Engineering and in Sibley College was not much larger in 1911-12 than it was in 1906-07. There has been during this last year a decrease of 36 in the College of Civil Engineering and of 64 in Sibley College. If this decrease is due to conditions general throughout the country, or to local conditions of entrance requirements, standards of scholarship, etc., no improvement at present can be expected. It is, however, a matter for very serious consideration if the falling off in attendance in the technical colleges is due to the competition of other technical schools, which from private or state bounty are able to offer greater attractions than Cornell.

The Directors of Sibley College and of the College of Civil Engineering call attention to the fact that the appropriations made for their colleges have not permitted the addition of anything new during the year to their equipment. The College of Civil Engineering is in great need of new testing machines of various kinds, and in Sibley College apparatus rapidly becomes out of date. This condition of things, due to the financial condition of the University, has been improved, so far as Sibley College is concerned, by the generous gift of Mr. Hiram W. Sibley, son of the founder of the College, who has contributed \$10,000 to provide needed apparatus.

The Director of Sibley College expresses his belief that no technical school can do entirely satisfactory work in instruction without

the stimulation of the co-ordinated department of research and states that from 1904 to 1910, owing to the internal development of the College and the re-organization of its courses, the work of research failed to receive its proper share of attention. It was reorganized, however, in 1910, and since that time some important work has been done. In connection with this work of research the College has been the recipient of a generous gift, which will increase its usefulness in this field of work. The gift in question was the sum of \$10,000 for the establishment of a fellowship in engineering research given by Mr. Eugene Meyer and his wife Harriet Meyer in memory of their son Edgar J. Meyer, who graduated from the Sibley College of Mechanical Engineering in the class of 1905 and met his death in the loss of the steamship Titanic in March, 1912.

In addition to the need for apparatus the College of Civil Engineering needs more room in every department, and plans for the enlargement of Lincoln Hall have been prepared with estimates of cost. The Director believes that the sum of \$275,000 will carry out the plans of the architects in a thoroughly satisfactory manner. In addition to the enlargement of Lincoln Hall the College needs a new hydraulic laboratory, a new laboratory for testing materials, and a new astronomical observatory. The cost of carrying on efficiently technical colleges is enormous. It will be increasingly difficult for Cornell University to compete with some of the great state universities of the west in which the technical departments receive the most generous support of the state. This is especially true of the University of Illinois, where there was dedicated this year a large building devoted entirely to railway engineering.

The College of Architecture also needs more room for its students and, if it does not demand expensive apparatus, it does require large outlay for instruction. This is especially true in regard to the subject of design, which can be properly taught only by those who have had a long and thorough training both in schools and offices. Persons so equipped can always find remunerative employment in the practice of their profession, and it is difficult to attract them to a university situated as this is at a distance from large cities where an instructor in architecture can add to his salary by outside professional work. In the architectural schools in great cities, as, for instance, Boston, New York, and Philadelphia, it is possible to obtain the services of distinguished teachers who are engaged in the active practice of their work. The finances of the University do not permit at present

paying salaries which will make up for the lack of active practice. The College of Architecture has, however, been fortunate in attracting many distinguished teachers of design, who have welcomed the attractive academic life of Cornell and the opportunity for study and travel during its vacations.

Some readjustments have been made this year in the staff of the College; Assistant Professor Phelps has been promoted to a full professorship, after having rendered useful service to the University as instructor and assistant professor since 1899. It has been possible to retain the services of the professor of design and to appoint as an assistant professor of that subject Mr. E. R. Bossange, to whom reference has been made in an earlier section of this report.

It is hoped that arrangements can be made for enlarging the quarters occupied by the College of Architecture. In addition to its purely professional work this College should be able to give courses which might be taken to advantage by students in Arts and Sciences. No one can be said to be liberally educated who does not have some idea of the history of architecture and of its artistic principles.

#### PHYSICAL EDUCATION

Attention has already been called to the withdrawal by the War Department of Lieutenant Gillmore and the appointment as his successor of Lieutenant H. T. Bull. In spite of this unexpected action the work of the department of military science and tactics has not suffered and the high standard set by his predecessors has been maintained by Lieutenant Bull. The department is called upon for a large amount of work, which it is difficult to do owing to the inadequate facilities for indoor training in the gymnasium-armory. The cadet corps actually consists of about 768 men, a very considerable number being excused for physical disability, as aliens, as laboring students, etc. The amount of instruction is not fixed by the provision of the charter (contained in the original Morrill law establishing the so-called land grant colleges), but is regulated from time to time by the War Department. At present members of the first-year class are required to take military instruction and the second-year class has an option between military drill and physical culture. Owing to the early approach of winter and the late approach of spring a large amount of instruction must be given indoors, and the only place for this work is in the gymnasium-armory, where the space is entirely inadequate

and is needed for physical culture at the very times and seasons when it is most wanted for the Military Department. All attempts to change the hour for drill or to obtain the use of the present armory floor for more frequent periods than at present have failed, and the efficiency of the department will be seriously impaired and the University will lay itself open to grave criticism on the part of the War Department unless greater facilities are provided for carrying on the work of military instruction.

The annual inspection of the cadet corps took place on the 9th of May and the inspector reported most favorably upon the skill, spirit, and interest of the cadets and commended very highly the attitude of the Faculty toward the Military Department. The inspector calls attention to the urgent need of an armory and advises compulsory military instruction for the second year as soon as practicable. The other land grant colleges, which like Cornell, are obliged to give instruction in military science and tactics have provided armories for the purpose. Only a few of these colleges have as many students in the cadet corps as Cornell. A bill was introduced into the legislature last winter providing for a drill hall but it did not become a law. The professor of military science and tactics earnestly recommends that next year the legislature be asked for an appropriation for an adequate drill hall.

The Director of Physical Culture also calls attention to the inadequate size and character of the gymnasium building. If it is unsatisfactory in its relations to the military department, it is far more so in its relations to the student body. Complaints are constantly being made against the sanitary condition of the building, and in spite of the efforts of those in charge the unfavorable conditions can not be wholly removed.

The rooms assigned to the medical officers for physical examinations, etc., are insufficient in capacity and poorly equipped. When it is considered that 1,812 students were examined during the year, the amount of labor involved can not be imagined. Besides the use of these offices for physical examination they are also used for consultation between the students and the medical examiners. It is necessary that these offices should be centrally located and they ought to be commodious and well equipped.

It is not the plan of the University to provide medical treatment for its students. But the medical officers endeavor to have an oversight of the health of the student body and to give advice in cases

of minor ailments. In all serious cases the student is sent to the University Infirmary, where he chooses his own physician. The amount of work done by the medical examiners is very great, as must necessarily be the case in a body of students numbering over 6,000 (including Summer Session and Winter Agriculture) and among whom 1,053 were inmates of the Infirmary for a longer or shorter period. The Infirmary—thanks to the bounty of the sons of Mr. Henry W. Sage, supplemented by the University—is now adequate to all the demands that may be made upon it, is admirably equipped, and embodies the very latest sanitary hospital construction.

The health of the students can be greatly improved by physical exercise under direction in proper quarters, and a new gymnasium of suitable size and equipment would add materially to the well-being of the students of the University. It is too often imagined that the gymnasium is of use to a university merely for the purpose of developing its athletic side. But this is a great mistake, and the health and happiness of the students in general would be greatly increased by a suitable gymnasium.

#### SUMMER SESSION

The Summer Session of the University, held July 7th–August 15th, has been eminently successful. Of the 100 persons engaged in giving instruction 79 were members of the teaching force of the University and 21 were invited from outside, some of whom had taught in previous Sessions. The number of students has increased from 841 in 1908 to 1,098 in 1913. The statistics of attendance given in the Director's report are extremely interesting and show that not less than 411 Cornell students of the previous year were in attendance and 193 of other years. This large attendance of Cornell students of the last year indicates, of course, the use made of the Summer Session for the purpose of removing deficiencies or acquiring extra credit.

The Summer Session had its foundation in the desire to aid Cornell students in making up deficiencies incurred during the regular college year and it was some time before it was felt that a far more desirable aim of the Summer Session was the attraction to Cornell of teachers or other mature students who are unable to pursue academic work at any other season of the year. This class now nearly equals the other, and it is especially gratifying to find that no less than 443 are teachers in normal schools, high schools, and elementary

schools, besides the large number of 90 engaged in the work of superintendence and supervision. While it may be a convenience to our own students to afford them an opportunity for making up the work of the previous year or years, it is a serious question as to how far this class of students should modify the aims and methods of the Summer Session.

The Director calls attention to the question of social amusement and reference is made to this subject in another part of this report. The Director indicates the real service of the Summer Session when he says that it "lies in bringing to a large number of persons, the majority of whom are public school teachers, the opportunity for deepening and broadening their knowledge, and for catching some inspiration to new lines of thought and action; and at the same time the chance for revising their methods of teaching, and for learning what is best in the theory and practice within their own special fields." The advantage to the University lies in making its advantages and liberal aims known to a large number of teachers from all parts of the country. Any addition to this association with a class of students largely composed of teachers is of great benefit to teachers who during the regular year have been dealing with more immature students. How widely spread are the homes of the teachers in attendance may be seen from the Director's report, which shows that 31 states were represented.

The Director points out some of the interesting features of the Session, among which are the growth of the Department of Music, which is now so large that its numbers have become embarrassing. There has also been great interest in the German courses, and the efforts to teach the spoken use of the language have been rewarded with great success. A course of lectures in French upon Modern French Literature proved very attractive and useful.

The Acting President has had an opportunity during the summer to watch very carefully the management of the Summer Session and he feels that he can speak in the highest terms of its value to the University and of the admirable way in which it has been administered by the Director, whose knowledge of the schools of the State and of the country has enabled him to offer a most attractive programme to teachers. The School is now firmly established and for the first time is self-supporting. Even if it were not, its value to the University is so great that it might well be partially supported by it.



The Director has referred to the Summer School in Agriculture, of whose students more than half were teachers, 68 of whom were doing work also in the University Summer Session. How extensive the Summer Session has become is shown by the fact that the total registration for all branches of summer study is 1,392, excluding all duplication of names in the count. In addition a number of advanced students have been doing independent work with the aid of libraries and laboratories. The Director estimates that the total summer academic population would not be less than 1,600.

#### INFIRMARY

An important event in the history of the Infirmary was the completion and use of the large addition to the Infirmary, which has been in process of construction for the last two years. The addition is fireproof and represents the most modern and scientific hospital construction. The original building still serves a useful purpose, and the Schuyler House annex is kept in reserve in case of emergencies.

Although the year has been without any serious epidemics, the growth of the University has naturally increased the number of patients, which reached last year a total of 1,053, of whom 140 were women. There were but two deaths, both from pneumonia. The Infirmary statistics given by the Chairman of the Infirmary Committee in his report do not, as it will be seen, by any means cover the medical work under the supervision of the University. The medical examinations of men and women and the consultations of their advisers reach the large number of 10,877 and include 380 house visits.

During the year the Acting President was requested to investigate the method of the University of Wisconsin in dealing with the matter of student health and report on the advisability of such similar or corresponding work in Cornell University. The Acting President in fulfilment of this direction investigated the method at Wisconsin, which does not differ materially from that pursued at Cornell. At Wisconsin, the University has no Infirmary, but has a few beds in the city hospital. At Wisconsin there is perhaps more extensive examination of the students and it may be that medical advice is given more freely. But under ordinary circumstances, as at Ithaca, the services of a local physician must be secured by the student or, when practicable, the student is removed to his home and placed

under the care of the family physician. At Wisconsin the medical advisers care for and treat all minor illnesses, but students requiring care along special lines, such as diseases of the eye, ear, major surgery, etc., are referred to a specialist.

For some years there has been a growing demand for similar work at Cornell University, especially since the present Medical Examiner, Dr. S. A. Munford, was appointed. In 1911, by direction of the Board of Trustees, the Infirmary Committee arranged to extend this work considerably. Dr. Munford was also appointed Medical Adviser to the students and an assistant was appointed to aid him in his work. The theory upon which this work is carried on at Cornell is that the same should be done for the students as the parent or guardian would do were he at home and that the University should not assume the responsibility of giving more treatment than is usually undertaken by the father or mother. Such cases, therefore, have been referred to a physician as would have been sent to the family doctor by a parent.

The Medical Advisers are in their office from 8:00 A. M. to 1:15 P. M. and 2:00 to 6:00 P. M. every day except from Easter to the end of the college year when the office is closed Saturday afternoon. The office is also open on Sunday mornings from 9:00 A. M. to 11:00 A. M. During this time the examiners combine medical and physical examinations of students with consultations in regard to personal hygiene and care of their health, advice in regard to minor ailments, and the treating of some cases. Occasionally the Medical Advisers perform minor surgical operations, such as opening boils, or caring for corns. They make emergency dressings for all accidents and emergencies which occur around the gymnasium and upon the campus. They plan, however, to refer all serious cases to some physician selected by the patient. They are glad always to consult with attending physicians in any case and in addition to regular hours frequently see patients at other times in consultation or for special examinations.

All of the students are urged to notify the Medical Adviser's office immediately in case of illness either of themselves or of their friends and the fraternity and boarding house keepers have been requested to make similar notification. If there is not a physician already attending the sick student one of the medical advisers calls upon him as soon as possible and advises whether or not it is necessary for him to call a physician, to go to the Infirmary, etc. The object

is not only to give the students good advice as to how to take care of themselves and preserve their health but also in case of illness to teach them the advantage of consulting a physician promptly so that they may obtain immediate aid and thus save much time ultimately. This method seems to have been successful, and in many instances contagious diseases have been detected by the Medical Adviser and the student isolated before he had an opportunity to visit his classes and expose others to the infection.

It will be seen from the above that the practice at Cornell differs from that at the University of Wisconsin only in the amount of treatment which is given to students. The advisers at the University of Wisconsin take care of all minor sicknesses which do not confine the student to his room, while at Cornell the medical advisers oversee and consult the students in regard to their health but send them for treatment to some physician of their own selection, just as they would go to a similar physician were they at home. At the University of Wisconsin there are greater facilities for clinical examination of the blood, sputum, urine, etc., than have as yet been available at Cornell although samples of sputum and urine have been examined in Dr. Moore's Department in the Veterinary College and in Dr. Fish's Department specimens of feces have been examined for parasites by Professor Riley of the Entomological Department.

The principal difference between the situation at the University of Wisconsin and that at Cornell consists in the fact that at Wisconsin the Medical Examiners have at their disposal a large house, one floor of which is devoted to the use of the Medical Examiners. The rooms used at Cornell for the same purpose are small and inadequate. It was hoped that on the completion of Prudence Risley Hall a part of Sage Cottage could be used for the Medical Examiners, but that will not be possible this year. On the whole it seems as if the method pursued at Cornell is not inferior to that at the University of Wisconsin and is carried on at a much smaller cost. If suitable quarters could be provided for the Medical Advisers, the Acting President does not see that any further change is needed at present.

#### GIFTS

During the year a number of gifts have been made for the encouragement of various branches of study in the University. Mr. Charles H. Baker, a graduate in Civil Engineering of the class of 1886, established in the College of Civil Engineering, but available

likewise for students in mechanic arts, architecture, and similar technical courses, a prize for public speaking. The rules governing the competition were later approved by the Faculty and accepted by the Trustees. The object of the competition may be seen from the requirement that the speeches shall be original in character and any subject may be chosen that may seem best fitted to furnish an opportunity for persuasive argument. Questions that would naturally come before semi-technical or non-technical commissions, boards of directors, and conventions are considered of peculiar fitness. The speeches are to be limited to fifteen minutes and must be delivered without notes but may be illustrated by diagrams, plans, models, or lantern slides. The establishment of this prize shows the increasing importance everywhere attributed to public speaking and Mr. Baker's gift will serve a most useful purpose.

Another prize of \$50 a year, to be known as the George Chapman Caldwell Prize for general excellence in chemical work, was established by Mrs. Grace Caldwell Chamberlain and Professor Frank Caldwell, the son and daughter of the one for whom the prize is named and who was a member of the original faculty of Cornell University and for many years a distinguished and successful teacher of chemistry in the University.

Through the generosity of Mr. Jacob H. Schiff the Japan Society of New York established two prizes of \$75 and \$25 respectively for the best essays or articles on Japan, Japanese-American relations, or similar topics submitted by any student of Cornell University. This University has always through a long line of distinguished alumni had very close relations with Japan, and the establishing of this prize should be the means of strengthening and enlarging these good relations.

Two prizes have been established in the College of Veterinary Medicine by Mr. E. R. Dick and Dr. Frank H. Miller of New York City for the best work on the diseases of small animals and the best work in veterinary physiology and another prize by Mr. James Gordon Bennett of Paris for the best work on local and general anesthesia.

Mr. Andrew D. White has shown his deep and continued interest in the study of architecture by providing two series of prizes in design amounting in the aggregate to \$135. Two of the prizes were for the best designs for a University auditorium with a memorial dining hall

attached and two were for the best designs for an entrance gateway at the northern end of the campus.

Reference has already been made to the establishment of the Edgar J. Meyer Memorial Fellowship in Engineering Research.

An anonymous donor has established in the Department of Medicine in the Cornell University Medical College in New York City an annual fellowship of \$1,000 to be awarded for work in medicine. In this connection may also be mentioned what has been referred to above, the generous gift by Mr. George F. Baker of New York for the purpose of effecting an affiliation between the New York Hospital and the Cornell University Medical College. By this arrangement the College has the right to nominate the attending physicians and surgeons and associate physicians and surgeons to the extent of one-half of each class and to make all professional nominations connected with the Pathological Department of the Hospital; such nominees to be appointed and approved by the governors of the Hospital.

Mrs. Huntington Wilson of Washington made to the University a gift of \$100 as an honorarium for a lecture upon the general subject of Eugenics to be given by some member of the faculty of Cornell. The lecturer later selected was Professor H. J. Webber, who delivered a lecture on the above subject to a large and interested audience on the 6th of May.

The Conkling Chapter of the Legal Fraternity of Phi Delta Phi presented to the University the sum of \$700 for the establishment of a fund, the income from which is to be used for the purpose of providing special lectures in the College of Law in addition to all such lectures as are customarily provided for by the University. The title of the foundation is the Frank Irvine Lectures founded by the Conkling Chapter of Phi Delta Phi. This is a most praiseworthy act and it is to be hoped will be imitated in the future. The establishment of such courses of lectures will widen the scope of instruction in the University and enable it to increase its usefulness.

The welcome gift of Mr. Hiram W. Sibley of Rochester, the son of the founder of Sibley College of Mechanical Engineering, for the purchase of apparatus for the College, has already been mentioned.

Memorials to former professors have been erected either in the Chapel or in the college with which the professor was especially connected. These memorials consist of a window in Sage Chapel to the memory of Professor R. S. Tarr, which was formally dedicated

on Easter day. The window constitutes an unusual memorial representing as it does the mountain and glacier scenery amid which so much of Professor Tarr's work was done. A bronze tablet to the memory of Professor W. A. Finch of the College of Law was given by present and former members of the Law faculty and many former students of that College, who also presented to the library over 300 volumes from the library of Professor Finch for the use of the College of Law. A tablet to the memory of Professor Hiram Corson, the gift of his son, has been accepted and will soon be placed on the walls of the Chapel.

A beautiful railing and screen for the choir loft were given during the year by Mrs. William H. Sage of Albany and have greatly improved the appearance of the choir loft.

Reference has already been made to the gift by Mr. Andrew Carnegie and other friends and trustees of the University of an organ for the Auditorium of the New York State College of Agriculture. This gift, as has been stated, was made on the occasion of Mr. Andrew D. White's eightieth birthday. At the same time Mr. Henry R. Ickelheimer, an Alumnus and Trustee of the University, offered to present to the University a bronze statue of Mr. Andrew D. White by one of the foremost American sculptors. The gift was gratefully accepted and the statue is already approaching completion and it is hoped will be received and placed in the course of the coming year.

The Acting President may here refer to the action of the Cornellian Council on June 13th, 1913. At this meeting it appeared that the sum in the hands of the Treasurer of the University to the credit of the Alumni, consisting of contributions of Alumni through the Cornellian Council, amounted to somewhat over \$20,000, and it was resolved that the Council recommend that \$20,000 of this net cash balance be appropriated to University purposes, either as a permanent endowment fund to be known as "The Permanent Alumni Fund," and to be invested and kept invested and the net increase therefrom to be used only for University purposes, or by adding \$10,000 to the permanent endowment and appropriating \$10,000 to the current expenses of the University. After due consideration by the Board of Trustees of these propositions it was resolved that the \$20,000 in question be kept as a separate fund and designated as above recommended, the net income only to be used for University purposes. This action is of great moment and is the beginning of additions to the income of the University from the bounty of its Alumni, which in the near future will prove of the greatest value.

In concluding the above record of academic progress during the year 1912-13, the Acting President can not refrain from expressing his deep appreciation of the cordial support of Trustees, Faculty, Alumni, and Students, which has made his work pleasant and easy. It is delightful to feel that the University has won such loyalty and affection that its future is assured and that it will pass safely through the necessary vicissitudes of its existence.

T. F. CRANE,  
Acting President.





# REPORT OF THE TREASURER OF CORNELL UNIVERSITY

1912-13

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To the Board of Trustees:

Gentlemen:

I have the honor to submit herewith my report as Treasurer of Cornell University for the fiscal year ending July 31st, 1913.

## INCOME AND EXPENSE

During the fiscal year 1912-13 the University expended and incurred obligations for \$4,141.46 more than its available income. This compares with a deficit of over \$36,000 in the previous year. This result was accomplished by economies resulting in considerable saving in several estimated appropriations; and from the fact that a few items of income over-ran the estimate made. The accumulated deficit in current income including reappropriations to meet outstanding contracts, now stands at \$164,499.57.

During the year a committee of the Board of Trustees of which Mr. James H. Edwards was chairman, made a careful study of the cost of instruction in the different colleges of the University, and its relation to the tuition received. On the recommendation of the committee the tuition in the Colleges of Arts and Science and of Law, was increased from \$100 to \$125 a year, to take effect July 1, 1914. These changes should make considerable increase in income for the year 1914-15.

## NEW CONSTRUCTION

The new dormitory for women, Prudence Risley Hall, being erected at a cost of \$300,000, through the munificence of Mrs. Russell Sage, is nearly completed; and it is expected that the dormitory portion will be ready for occupancy at the opening of the University this fall. The dining and reception rooms will be finished later in the year.

Cascadilla Building, which has served the University since its founding as a general boarding house, is being thoroughly overhauled and converted into a dormitory for men students. This building should be ready for occupancy with the opening of the University.

Of the buildings being erected by the State of New York for the State Colleges of Agriculture and Veterinary Medicine, the Home Economics Building (\$154,000) and the Poultry Husbandry Building (\$90,000), were completed during the year, and were occupied for the larger part of the second term. The Auditorium (\$138,000) of the Agricultural College, and the Clinic and Hospital Building (\$140,000) for the Veterinary College, are practically completed, and will be ready for occupancy with the opening of the University.

The Central Heating Plant for the Agricultural College (\$50,000) is nearly completed, and an appropriation of \$35,000 has been made for extending the main to the older buildings. This will probably be done during the coming year. Work is well under way with the Headquarters Building for the depart-

## TREASURER'S REPORT

ment of Animal Husbandry (\$91,000), and the Forestry Section of the Plant Industry Building (\$100,000), and plans are nearly completed for the Stock Judging Pavilion (\$38,000), and the Agronomy Building (\$100,000).

The legislature in 1913 provided for the extension of the green houses at a cost of \$30,000, a pig barn \$3,000, a sheep barn \$5,000, a tool barn \$6,000, a pattern rural school house \$3,000, and an extension of the Poultry Plant \$25,000. It also appropriated \$10,000 for changes in the present Stock Judging Pavilion, for the use of the department of Farm Management, plans for all of which are now being prepared.

## SUMMARY OF INCOME

In accordance with the policy of the University of keeping the accounts of the State appropriations and property distinct from the University funds, it will be noted that the figures in this report do not include the appropriations of the New York State College of Agriculture, the New York State Veterinary College, or the New York State College of Forestry, unless specifically mentioned.

## Income for year 1912-13:

University at Ithaca (See Schedule I) . . . . .	\$1,114,139.76
University at New York (See Schedule I) . . . . .	223,025.02

Expended at Ithaca (See Schedule II) . . . . .	\$1,190,692.48	\$1,337,164.78
" " New York (See Schedule II) . . . . .	215,907.22	1,406,599.70

Cash deficit for year . . . . .		69,434.92
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Less:

Decrease in amount due special funds . . . . .	68,714.95	
Increase in re-appropriations . . . . .	3,421.49	65,293.46

Deficit for year 1912-1913 . . . . .		4,141.46
Add accumulated deficit August 1, 1912 . . . . .		160,358.11

Total deficit in current income August 1, 1913		164,499.57
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Summarized as follows:

Amount due special funds . . . . .	219,244.52
Amount necessary to complete contracts . . . . .	31,690.25

	250,934.77
Less cash surplus . . . . .	86,435.20

\$ 164,499.57

Cash surplus August 1, 1912 . . . . .	\$155,870.12
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Less year's deficit . . . . .	69,434.92
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Cash surplus August 1, 1913 . . . . .	86,435.20
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Total current income (except state colleges . . . . .		1,337,164.78
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Received from New York State for Veterinary College (Schedule I) . . . . .	\$ 153,082.72	
Received from fees, etc. . . . .	8,511.03	161,593.75

Received from New York State for State College of Agriculture (Schedule I) . . . . .	\$ 708,387.50	
Received from fees, sale of stock, etc. . . . .	280,363.64	988,751.14

\$2,487,509.67

Received from Carnegie Foundation for pensions to retired professors . . . . .		\$24,536.66
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# CONDENSED AND COMBINED INCOME STATEMENT

	University at Ithaca	University at New York	State Vet'y College	State Agr. College	Total
Tuition .....	\$311,173.29	\$10,458.25	\$ 955.00	\$19,679.00	\$342,265.54
Summer Session .....	32,400.00			543.70	32,943.70
Laboratory and other fees .....	111,945.73	3,831.00	5,833.56	17,022.14	138,632.43
Total from students .....	\$455,519.02	\$14,289.25	\$6,788.56	\$37,244.84	\$513,841.67
From invested funds .....	448,483.82				448,483.82
College Land Scrip Fund .....	34,428.80				34,428.80
From United States .....	74,750.00				74,750.00
From State of New York .....			153,082.72	708,387.50	861,470.22
Sage College and Cottage .....	16,095.25				16,095.25
Rents of Buildings .....	9,996.95				9,996.95
Donations to Current Income .....	12,363.32	203,150.00			215,513.32
Donations for increase of plant .....	33,300.00				33,300.00
Departments .....	19,588.62	4,184.93	1,715.30	243,118.80	268,607.65
Miscellaneous .....	9,613.98	1,400.84	7.17		11,021.99
	\$1,114,139.76	\$223,025.02	\$161,593.75	\$988,751.14	\$2,487,509.67

## CONDENSED AND COMBINED EXPENSE ACCOUNT

61 Salaries of Instructors and Research .....	\$530,294.59	\$119,517.91	\$33,986.01	\$150,625.58	\$834,424.09
Departments .....	129,766.88	29,506.75	8,453.48	324,354.33	492,081.44
Administrative Salaries .....	50,618.04	6,720.00	5,730.37	17,950.00	81,018.41
General Expense .....	116,580.16	59,662.56	3,502.48	46,001.01	225,746.21
Prizes, Scholarships, Fellowships and Loans .....	37,556.50	500.00			38,056.50
Sage College and Cottage .....	11,918.12				11,918.12
Summer Session .....	30,826.04			9,452.08	40,278.12
Agricultural Experiment Station .....	26,237.73				26,237.73
Library .....	43,921.93				43,921.93
New Buildings .....	125,582.81		100,061.99	291,512.21	517,157.01
New Equipment .....	4,973.46		2,199.98	47,326.44	54,499.88
Alterations .....	9,453.51		356.50	10,907.42	20,717.43
Agricultural Special Extension .....				47,022.15	47,022.15
Special Gladioli Investigation .....				1,246.81	1,246.81
Agricultural Roads and Walks .....				6,996.00	6,996.00
Income transferred to Principal .....	21,738.77				21,738.77
Re-location Athletic Field .....	20,000.00				20,000.00
Veterinary Experiment Station .....			5,252.51		5,252.51
Special in Physics, etc .....				24,600.00	24,600.00
Industrial Fellowships .....	11,396.28				11,396.28
Miscellaneous .....	19,827.66				19,827.66
	\$1,190,692.48	\$215,907.22	\$159,543.32	\$977,994.03	\$2,544,137.05

## TREASURER'S REPORT

## TOTAL PROPERTY

The property of the University increased during the year as follows:

	August 1, 1912	August 1, 1913	Increase
Productive Funds.....	\$ 9,523,405.50	\$9,586,117.03	\$ 62,711.53
Income due Special Funds.....	287,930.59	219,244.52	*68,686.07
Premium and Discount (including profit in Foreclosure property)	133,991.30	118,833.61	*15,157.69
	<u>\$ 9,945,327.39</u>	<u>\$ 9,924,195.16</u>	<u>*\$21,132.23</u>
Less deficit of Income not includ- ing amount due to complete contracts .....	132,060.47	132,809.32	748.85
	<u>\$ 9,813,266.92</u>	<u>\$ 9,791,385.84</u>	<u>*\$ 21,881.08</u>
Real Estate Account.....	\$ 4,002,647.18	\$ 4,106,997.64	104,350.46
Equipment .....	1,902,099.63	1,902,802.93	703.30
	<u>\$15,718,013.73</u>	<u>\$15,801,186.41</u>	<u>\$ 83,172.68</u>
Buildings in course of construc- tion .....	219,430.59	183,623.73	*35,806.86
Total University property ex- clusive of the value of 840 acres of Western Lands .....	\$15,937,444.32	\$15,984,810.14	\$ 47,365.82
State College Buildings.....	646,752.91	1,048,633.31	401,880.40
State College Equipment.....	225,370.24	293,850.34	68,480.10
	<u>\$16,809,567.47</u>	<u>\$17,327,293.79</u>	<u>\$517,726.32</u>

\*Decrease

The Productive Fund account represents the total endowment of the University, together with certain funds in which the University has a contingent interest. They are the income producing funds.

The principal increases during the year were: \$20,000 received from the Cornellian Council, and set aside by the Trustees of the University as The Permanent Alumni Fund, the annual income to be used in the maintenance of the University; \$2,000 from Mr. Charles H. Baker of the class of 1886, to found a Public Speaking Prize for the benefit of the junior and senior students in the College of Civil Engineering, but available likewise to those in Mechanic Arts, Architecture, and similar avocational courses; \$1,100 from Mrs. Grace Caldwell Chamberlain and Professor Frank Caldwell to establish the George Chapman Caldwell Prize in memory of their father; the prize to be awarded annually to a member of the senior class in the Chemical Course for excellence in Chemical Work; \$10,000 from Mr. and Mrs. Eugene Meyer, to found a fellowship in Engineering Research, in memory of their son Edgar J. Meyer; and \$7,000 from Ex-President Andrew D. White, being a portion of the \$25,000 given to Mr. White by Trustee Andrew Carnegie, for the benefit of the University, on the occasion of Mr. White's eightieth birthday. \$7,000 of this fund Mr. White has added to the endowment for Women Student's Loan Fund. The remainder of the \$25,000 will be used in conjunction with gifts from several other friends of the University, in installing an organ in the new Auditorium Building just being completed by the State for the College of Agriculture. The names of other contributors to the organ fund will be hereinafter found in the donation list.

# TREASURER'S REPORT

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The kind of securities in which the funds of the University are invested is shown by the following table:

## CLASSIFICATION OF INVESTMENTS

		August 1, 1912		August 1, 1913
Municipal Bonds.....	.096	\$ 947,590.52	.080	\$ 778,782.11
State of New York Scrip.....	.070	688,576.12	.068	688,576.12
Foreign Government Bonds.....	.030	290,096.00	.030	291,870.00
Bank Stock.....	.008	81,200.00	.008	81,200.00
Steam Railroad Bonds.....	.132	1,295,600.00	.139	1,359,475.00
Railroad Equipment Notes.....	.036	349,000.00	.029	279,000.00
Traction Bonds.....	.103	1,004,970.00	.099	969,970.00
Light & Power Co. Bonds.....	.123	1,210,000.00	.122	1,190,000.00
Lumber Bonds.....	.036	354,000.00	.039	375,000.00
Miscellaneous Corp'n. Bonds.....	.102	983,253.50	.109	1,067,180.00
Stock other than Bank.....	.085	837,150.00	.095	932,900.00
Loans on Collateral.....	.008	79,477.50	.008	74,795.29
Real Estate Mortgages.....	.146	1,431,106.47	.135	1,315,420.24
Land Contracts.....	.001	8,449.69	.001	8,569.69
Real Estate.....	.013	130,398.88	.013	131,098.88
Special Deposits.....		5,029.22	.003	30,837.21
Cash and Ledger Balances.....	.011	117,369.02	.022	216,711.30
		<hr/>		<hr/>
	1.000	\$9,813,266.92	1.000	\$9,791,385.84

The average rate of interest on the above is 5.084%. The average rate received during the past year was 5.077%.

## DONATIONS

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

Permanent Alumni Fund, contributed by Alumni through Cornellian Council.....	\$ 20,000.00
H. W. Sibley, on account of \$10,000 gift for Equipment of Sibley College.....	4,000.00
Chas. H. Baker, to establish prize in debate.....	2,060.00
James Gordon Bennett, Veterinary Prize.....	50.00
Grace E. Chamberlain and Frank Caldwell, for Geo. C. Caldwell prize in Chemistry.....	1,100.00
Mr. and Mrs. Eugene Meyer for Edgar J. Meyer Memorial Fellowship, Engineering Research.....	10,000.00
Graduate Prize Philosophy.....	571.36
Frank H. Miller for Jane Miller Prize.....	50.00
Ira Place, act. new organ.....	1,000.00
H. R. Ickelheimer, act. new organ.....	1,000.00
J. G. White, act. new organ.....	1,000.00
C. S. Shepard, act. new organ.....	1,000.00
G. E. Molleson, act. new organ.....	100.00
F. H. Hiscock, act. new organ.....	200.00
Andrew D. White, gift to him for the benefit of the University from Andrew Carnegie at the celebration of Mr. White's 80th birthday.....	25,000.00
C. A. Ring, for memorial fund.....	750.00
E. R. Dick, for Lora C. Schroeder Prize.....	50.00
Goldwin Smith Estate.....	5,139.52
Wurts Loan Fund.....	3.00
H. W. Hollingworth, for Honorarium.....	50.00
J. T. Morrison Estate, for Prize.....	100.00

## TREASURER'S REPORT

L. W. G. Wilson, for Honorarium.....	\$ 100.00
American Steel & Wire Co., for Fellowship.....	1,500.00
Champlain Valley Fruit Growers' Assn. for Fellowship.....	1,000.00
Genesee Fruit Growers' Assn., for Fellowship.....	1,650.00
Newfane Fruit Growers' Assn., for Fellowship.....	355.00
Orleans County Fruit Growers' Assn., for Fellowship.....	765.00
Oswego County Fruit Growers' Assn., for Fellowship.....	300.00
D. M. Green for Poultry Industry, for Fellowship.....	208.32
Stuart-Chase-Brown-Perkins for Fellowship.....	2,000.00
Anonymous for Women's Loan Fund.....	35.00
G. W. Harris for Lucy Harris Book Fund.....	25.00
A. R. Eastman for Eastman Prize in Agriculture.....	100.00
G. W. Harris for Books.....	15.00
S. Eckler, Treasurer, for Polish Student Loan Fund.....	28.00
Union Sulphur Co., for Frasch Fellowship.....	4,000.00
Phi Delta Phi for Frank Irvine Lecture Fund.....	698.25
Mrs. Wm. H. Sage act. Chapel Rail.....	420.00
Col. O. H. Payne for Medical College, New York City.....	202,500.00
	<hr/>
	\$288,923.45

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:

	Aug. 1, 1912	Additions during year	Aug. 1, 1913	Income received during year
<b>Agricultural Student Loan Fund:</b>				
Gift of the School of Practical Agriculture and Horticulture at Briercliff, N. Y., to aid students in the Agricultural College who are working their way through. Established 1908 .....	\$ 298.01		\$ 298.01	\$15.13
<b>Alumni Endowment Fund:</b>				
Gift of Alumni to the Endowment fund of the University. Established 1908 .....	500.00		500.00	25.38
<b>Alumni Fund:</b>				
The Permanent Gift of the Alumni of the University through the Cornellian 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	20,000.00	83.33
<b>Charles H. Baker Prize Fund:</b>				
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 Civil Engineering, but available likewise to those in Mechanic Arts, Architecture and similar avocational courses. Established 1912 .....		2,000.00	2,000.00	120.00
<b>Barnes Library Endowment Fund:</b>				
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	253.85
<b>Mrs. A. S. Barnes Shakespeare Prize Fund:</b>				
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	50.77
<b>Philo Sherman Bennett Fund:</b>				
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	20.30
<b>George Chapman Caldwell Prize Fund:</b>				
Gift of Mrs. Grace Caldwell Chamberlain and Professor 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	9.25

	Aug. 1, 1912	Additions during year	Aug. 1, 1913	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	\$ 95.75
Class '91 Memorial Fund:				
Gift of Class of 1891, the income to be added to the principal until class action. Established 1891 .....	673.41	\$34.19	707.60	34.19
Class '94 Memorial Prize Debate Fund:				
Gift of Class of 1894, as a foundation of a prize in debate .....	1,894.00		1,894.00	96.16
Class '96 Memorial Fund:				
Gift of the Class of 1896, as a nucleus for a fund which shall be used for the establishment of a University Club .....	1,013.00	51.42	1,064.42	51.42
Class '97 Memorial Fund:				
Gift of Class of 1897, for furthering the plan of a University Club .....	1,677.87	85.18	1,763.05	85.18
Class '98 Memorial Fund:				
Gift of Class of 1898, to be added to the fund for the establishment of a University Club .....	436.20	25.16	461.36	25.16
8 Class of 1908 Fund:				
Established by Class of 1908, to be invested with University funds, the income on \$500 less 5% 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 .....	1,659.38	59.25	1,718.63	84.25
Class of 1912 Fund:				
Established by the Class of 1912 to be invested by the University with its funds, the income less 5% transferred to the University Surplus or Insurance Fund to be subject to the call of the life Secretary of the 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 designate a particular University purpose for its use. Established 1912 .....	813.38		813.38	41.29
College Land Scrip Fund:				
Consists of the proceeds received by the State of New York from the sale of the Land Scrip apportioned to the State by the U. S. under the Morrill act of 1862 .....	688,576.12		688,576.12	34,428.80



# 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 Aug. 4, 1866, except those in the next following fund.

## Cornell Endowment Reserve Fund:

Established in 1898 by setting aside the Land Contracts and proceeds from future sales of Western Lands, the principal and income originally to be used only for addition to Cornell Endowment Fund, but for recent years by resolution the income is transferred to current income

## Caroline Corson French Prize Fund:

Gift of Professor Hiram Corson in memory of his wife Caroline Rollin Corson, the income to be awarded as a French Prize. Established in 1902 as a Dante Prize and converted into a French Prize 1905

## Hiram Corson Browning Prize Fund:

Gift of Professor Hiram Corson, the income to be awarded as a Browning Prize. Established 1902

## Cottage Renewal Fund:

Consists of the surplus income from the Cottages owned by the University, in excess of 5½% of the investment value transferred annually to current income; the fund to be held to renew the cottages or replace the investment therein. Established 1904

## Daughters of the Revolution Endowment Fund:

Gift of Miss Mary F. Hall, in honor of the N. Y. State Society of the Daughters of the Revolution, the income to be added to the fund during Miss Hall's lifetime and then, provided principal amounts to \$1,000 to be used for the publication of such original studies in American History as are of permanent value, or as a suitable prize or prizes for research of superior attainment in American History. Established 1908

## Fayerweather Fund:

Gift under the will of Daniel B. Fayerweather. Established 1892

## Willard Fiske Library Endowment Fund:

Gift under the will of Willard Fiske to be used and expended for the uses and purposes of the Library of the University. Established 1906

\$4,930,836.79		\$4,930,836.79	\$250,326.02
526,819.34	\$2,382.83	529,202.17	26,832.21
1,281.25		1,281.25	65.15
1,051.80		1,051.80	53.39
15,822.60	2,970.77	18,793.37	954.14
608.26	30.89	639.15	30.89
323,684.59		323,684.59	16,433.46
442,555.00		442,555.00	22,468.52

	Aug. 1, 1912	Additions during year	Aug. 1, 1913	Income received during year
Willard Fiske Icelandic Book Fund:				
Gift under the will of Willard Fiske, the income to be used for the purpose of making additions to the Icelandic Collection in the Library of the University. Established 1906 .....	\$ 8,000.00		\$ 8,000.00	\$ 406.16
Willard Fiske Icelandic Salary Fund:				
Gift under the will of Willard Fiske, the income to be used for the purpose of paying the salary of an Icelandic amanuensis, whose time shall be given to the care of the Icelandic collection and who shall be a native of Iceland, educated, or principally educated in Iceland, and recommended for the said work by the Rector of the Latin School of Reykjavik. Established 1906 .....	30,000.00		30,000.00	1,523.10
Willard Fiske Petrarch Book Fund:				
Gift under the will of Willard Fiske, the income to be used for the purpose of increasing the Petrarch and Dante collections in the Library of the University. Established 1906 .....	6,000.00		6,000.00	304.62
Willard Fiske Petrarch Salary Fund:				
Gift under the will of Willard Fiske, the income to be used in paying the salary or part of the salary of a capable amanuensis, a portion of whose time shall be given to the care of the Petrarch and Dante collections. Established 1906 .....	12,000.00		12,000.00	609.24
Willard Fiske Icelandic Publication Fund:				
Gift under the will of Willard Fiske, the income to be used for the purposes of publication of an annual volume relating to Iceland and the Icelandic collection in the Library of the University. Established 1906 .....	5,000.00		5,000.00	253.85
R. P. Flower 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	558.47
The Fraser Scholarships Fund:				
Gift of William Metcalf, jr., LL.B., 1901, of Pittsburgh, Pa., in memory of Alexander Hugh Ross Fraser for eighteen years librarian of the Law Library, the income to be awarded in two scholarships to seniors in Law, the award to be based on scholarship, financial need and character. Established 1911 .....	3,000.00		3,000.00	150.00

#### Fuertes Medal Fund:

Gift of the late Estevan A. Fuertes, the 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                      \$ 50.77

#### 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                      5,381.62

#### Goldwin Smith Fund:

Gift under the 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. \$175,000 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 .....

669,650.40                      \$5,139.52                      674,789.92                      34,004.87

#### 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                      14.28

#### Guiteau Student Loan Fund:

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

245,327.25                      7,112.65                      252,439.90                      12,464.16

#### Guilford Essay Prize Fund:

Gift under the 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                      152.31

#### Mary F. Hall Scholarship Fund:

Gift of Miss Mary F. Hall, the 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                      837.69

	Aug. 1, 1912	Additions during year	Aug. 1, 1913	Income received during year
Lucy Harris Book Fund:				
Gift of George W. Harris as a memorial to his wife, Lucy Thurber Harris, the income to be expended each year in the purchase of English poetry of the Victorian Era and of biography and criticism connected therewith. Established 1893.....	\$ 1,000.00		\$ 1,000.00	\$ 50.77
Infirmary Endowment Fund:				
Gift of Messrs. Dean and William H. Sage, the income to be used for the maintenance and needs of the Cornell Infirmary, established by them as a memorial to their father, Henry W. Sage, said Infirmary being the former residence of Henry W. Sage and valued at \$60,000. Established 1897 .....	100,000.00		100,000.00	5,077.00
Frank Irvine Lecturers:				
Founded by the Conkling Chapter of Phi Delta Phi, the income to be used in providing special lectures in the College of Law. Established 1913 .....		\$698.25	698.25	5.83
Law School Fund:				
Gift of Douglas Boardman, the income to be used for a Law Prize. Established 1887 .....	2,000.00		2,000.00	101.54
Henry W. Sage Library Endowment Fund:				
Gift of Henry W. Sage for endowment of Library. Established 1891...	300,000.00		300,000.00	15,231.00
Susan E. Linn Sage Professorial Fund:				
Gift of Henry W. Sage to endow the Chair of Ethics and Philosophy. Established 1885 .....	50,000.00		50,000.00	2,538.50
Susan E. Linn Sage School of Philosophy Fund:				
Gift of Henry W. Sage to enlarge the basis of the Susan Linn Sage Foundation and establish the Susan Linn Sage School of Philosophy. Established 1891. ....	200,000.00		200,000.00	10,154.00
Loomis Laboratory Fund:				
Consists of the Endowment of the Loomis Laboratory turned over to the University by its Trustees at the time the Laboratory was transferred to Cornell. Established 1899 .....	118,176.79		118,176.79	5,999.83
Luana L. Messenger 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 evolution of civilization. Established 1902.....	1,000.00		1,000.00	50.77

Edgar J. Meyer Memorial Fellowship Fund:

Gift of Mr. Eugene Meyer and his wife Mrs. Harriet Meyer, in memory of their son, the income to be awarded annually as a fellowship in Engineering Research, to any graduate of an accepted school of Mechanical or Electrical Engineering, and not to be held by the same person more than two years. Established 1913 .....

\$10,000.00 \$10,000.00 \$ 208.33

Frank William Padgham Scholarship:

Gift of Amos Padgham to found a scholarship in Sibley College in memory of his son. Established 1892 .....

\$ 3,000.00 3,000.00 152.31

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 .....

100.00 28.00 128.00 6.49

John Metcalf Polk Prize Fund:

Gift of Wm. M. Polk to found a prize in the Cornell Medical College at N. Y. in memory of his son. Established 1905 .....

10,000.00 10,000.00 507.70

Professorial Pension Fund:

Anonymous 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 the income received thereon. Established 1903 .....

237,727.60 12,069.43 249,797.03 12,069.43

Professorial Pension Income Fund:

Consists of the payments by professors admitted to the benefits of the Pension Fund, with accrued income .....

27,182.90 3,878.34 31,061.24 1,500.78

Ring Memorial Fund:

Gift under the will of Charles A. Ring, the income to be used in advancement of Horticultural Science. The income is to be added to the principal of fund till it amounts to \$1000 the original bequest. Established 1913 .....

753.12 753.12 3.12

Charles H. Roberts Scholarship Fund:

Gift of Charles H. Roberts of Oakes, Ulster Co., New York, the income to be used in the payment of five equal annual scholarships in the 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

	Aug. 1, 1912	Additions during year	Aug. 1, 1913	Income received during year
Sage College Endowment Fund:				
Gift of Henry W. Sage. Established 1872 .....	\$109,300.00		\$109,300.00	\$5,549.16
Dean Sage Sermon Fund:				
Gift of Dean Sage in 1872, as an endowment of Sage Chapel and in- creased by recent gifts from Mrs. Sage .....	75,000.00		75,000.00	3,807.75
Frances Sampson Fine Arts Prize:				
Gift of Professor 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 apprecia- tion of the graphic arts and architecture. Established 1909 .....	600.00		600.00	30.46
Jacob H. Schiff Endowment Fund:				
For the Promotion of studies in German Culture. Established 1912 ...	100,000.00		100,000.00	5,077.00
Wm. C. Seidel Book Fund:				
Gift of Mr. and Mrs. Gerritt S. Miller, the income to be used to pur- chase books for poor young men working their way through the Col- lege of Civil Engineering. Established 1905 .....	1,000.00	\$165.16	1,165.16	50.77
Sibley College Endowment Fund:				
Gift of Hiram Sibley. Established 1884 .....	50,000.00		50,000.00	2,538.50
Judson N. Smith 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 dur- ing her lifetime, the Scholarship taking effect at her death .....	3,250.00		3,250.00	165.00
Town of Spencer Scholarship for Young Women Fund:				
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	126.92
Surplus Fund:				
Consists of 5% on annual income to cover such losses as may occur through bad investments, fire, or otherwise. Established 1886. Ac- cumulations used for purchase of land and erection of buildings and for several years past returned to current income to help meet annual deficit .....	110.90	5.64	116.54	5.64

Respectfully submitted,  
E. L. WILLIAMS,  
Treasurer.

We have made an audit of the books and records of Cornell University in the Treasurer's Office, for the year ended July 31, 1913. We have verified the investment securities and the cash on deposit and in hand; and

(Signed)

HASKINS & SELLS,  
Certified Public Accountants.

## TREASURER'S REPORT

## 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 OR 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: I have the honor to submit the following report upon the work of the University Faculty for the academic year 1912-1913

#### I. THE FACULTY'S LEGISLATION

THE DEGREE OF BACHELOR OF SCIENCE. On May 10, 1912, the following resolution was introduced in the Faculty:

"Whereas, at this University, the degree of Bachelor of Science has not heretofore been conferred upon the completion of technical or professional courses, but was for more than thirty years conferred upon the completion of a general course, the principal characteristic of which was the inclusion of modern languages in place of Latin and Greek, and

"Whereas, during that period about 800 candidates were granted the degree of Bachelor of Science upon the completion of such general course,

"Therefore, in view of the long period during which the degree with its distinct connotation was granted and the large number upon whom it was conferred;

"Be it resolved, that the University Faculty hereby rescind its approval, heretofore granted, of the action of the Faculty of the College of Agriculture, in recommending that the degree of Bachelor of Science be conferred as a baccalaureate degree in the College of Agriculture."

On October 11, 1912, this resolution was referred to the Faculty of Arts and Sciences for its consideration and report.

On March 12, 1913, the Faculty of Arts and Sciences reported that the following resolution had been introduced by its Committee on Educational Policy and was lost by a vote of 26 to 29: "*Resolved*, that the Committee recommend that the degree of Bachelor of Science, without predicate, be conferred only by the College of Arts and Sciences." It was ordered that this report from the Faculty of Arts and Sciences be placed upon the minutes of the University Faculty and no further action was taken.

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS. (Action of October 11, 1912).

Voted that the rule (General Circular of Information, p. 29) debarring students who have registered in the University in a previous year from competing for an undergraduate scholarship be applied to the Summer Session.

SPRING DAY. (Action of October 11, 1912).

On the recommendation of the Committee on Student Affairs, the date of Spring Day was fixed for the second Saturday preceding block week.

EIGHTIETH ANNIVERSARY OF EX-PRESIDENT WHITE'S BIRTH. (Action of November 8, 1913).

The Faculty approved the following congratulatory address:

"First in time and foremost in distinction among the members of the Faculty of Cornell University—we, your colleagues, extend affectionate and reverent greeting upon the occasion of your eightieth birthday.

"On this anniversary there is borne to you the full measure of filial devotion from the host of Cornellians who are taking an honorable part in the interplay of thought and action throughout the world. Today there come to you also the felicitations of your fellow-townsmen, mindful of your generous interest in the daily life of this community. And to thoughtful men everywhere there will recur today the grateful memory of your ennobling influence upon momentous affairs of state and nation.

"But to us, your co-workers as teachers and investigators, your life has meant something more precious than friendship, more vital than citizenship. At the very inception of this University you ensured our intellectual liberty by providing in its charter that our fitness should never be tested by creed or absence of creed. At its organization you guarded our dignity by committing to our sole care the shaping of instruction; and as its first President you made that responsibility real by the unwavering courtesy with which you shared, but never dominated, our labors. And above all, from the beginning you have stood as you still stand among us—teacher, scholar, and man—the exemplar of the worth of our vocation.

"Long may your benignant presence be spared to us and to Cornell, that you may see yet more fully the realization of the visions of your young manhood,—the ever increasing fruition of your life's chief endeavor."

**JAPAN SOCIETY PRIZE.** (Action of November 8, 1912).

The Faculty adopted a statute governing the prizes established through the generosity of Mr. Jacob H. Schiff, for the best essays or articles on Japan, Japanese-American relations, or similar topics, submitted by any student of Cornell University.

**REGENTS CREDENTIALS.** (Action of November 8, 1912).

The Faculty voted to continue the present arrangement by which the credentials earned in the state academic examinations are accepted, for the further period of five years.

**ENTRANCE EXAMINATION BOARD.** (Action of November 8, 1912).

The Faculty voted to create an entrance examination board. The board shall consist of eight members, to be appointed by the President of the University, in four groups of two each, which groups shall serve for one, two, three, and four years, respectively. The President shall appoint each year two members to fill the vacancies caused by the expiration of the terms of service. This board shall have entire charge of all matters pertaining to entrance examinations.

**CONFERRING OF TWO BACCALAUREATE DEGREES IN THE SAME YEAR.** (Action of November 8, 1912).

The Faculty formulated a rule governing the conferring of two baccalaureate degrees in the same year as follows:

"In case a person has satisfied the requirements for any baccalaureate degree, he shall not be recommended for any other baccalaureate degree until he shall have completed at least one year of further residence and of work acceptable to the Faculty on whose recommendation the second baccalaureate degree is to be conferred."

**PROFESSOR HENRY SHALER WILLIAMS.** (Resolutions adopted November 8, 1912, on his retirement from the chair of Paleontology).

"On the retirement of Professor Henry Shaler Williams from the chair of Paleontology, we, the members of the University Faculty, desire to place on record our high appreciation of the service which he has rendered not only to the University, but also to the advancement of geologic science.

"Professor Williams held the chair of Paleontology in Cornell from 1879 until 1892, when he accepted a similar position at Yale. He returned to Cornell

in 1904, and until his retirement continued to take a keen interest in the work of instruction and the development of research.

"He took up Paleontology as a life work in 1879, at a time when fossils were regarded as little more than curiosities or as a means of identifying formations. Realizing, however, that they had a much greater significance as an aid toward unraveling geologic problems, he began a detailed study of their life history, conditions of environment, historical and evolutionary relationships, and geographical distribution.

"These studies which attracted the attention of eminent scientists both in this country and Europe were first applied to the formations around Ithaca, but subsequently were extended to the central and southern states.

"Later, the methods of research thus developed were taken up by other Paleontologists and led to the development of Palaeogeography, or the study of ancient shore lines.

"As an investigator and teacher, the work of Professor Williams has always been marked by a keen enthusiasm, as well as a desire to reach the truth, and his many publications bear witness not only to his ability as an investigator, but also to his powers of philosophical treatment. His enthusiasm for scientific research also led him to take an active part in the founding of the Sigma Xi fraternity.

"With earnestness of purpose and love for truth, Professor Williams combines a kindly manner and a charming disposition so that he is not only an eminent scientist, but a much loved and respected man.

"While we regret that his work as a teacher has terminated, we hope that he may long continue his labors in a field that has already profited to such an extent by his research."

DATE OF COMMENCEMENT. (Action of November 8, 1912).

For the current year the date of commencement was fixed for Wednesday, June 18, and it was voted that thereafter commencement day shall fall upon the Wednesday nearest the 19th of June.

On December 13, 1912, the following communication from the Board of Trustees (adopted by the Board on November 7, 1912) was communicated to the Faculty:

"The special committee on Commencement and Reunion Plans presented a report through its chairman, Trustee Mason, and it was resolved, that Commencement Day shall be for a period of five years, beginning with the Commencement of June, 1913, the Wednesday immediately preceding the Thursday nearest the twentieth day of June, and that the Alumni Reunion days be the Friday and Saturday immediately preceding the Commencement Day."

ENGLISH REQUIREMENTS FOR FOREIGN STUDENTS. (Action of December 13, 1913).

The Faculty adopted the following provisions for the satisfaction of the requirements in English on the part of foreign students:

"1. That a foreign student who is unable to satisfy the Entrance English requirement may offer his native language and literature in complete or partial satisfaction of the English requirement, provided

a. That the foreign language in question have a recognized literature.

b. That no substitution be allowed for English literature unless the student offers foreign literature as well as foreign language.

c. That the foreign languages acceptable as substitutes for English be determined by the Entrance Examination Board, which shall be in charge of the administration of the English requirements for foreign students.

d. That the foreign languages substituted for English be not counted twice in entrance units.

2. That the Trustees be requested to consider the advisability of appointing an instructor or tutor nominated by the Entrance Examination Board, who shall

offer a course in English for foreign students, such course to carry no University credit, but to serve as an equivalent of the entrance units left unprovided for by the substitution of a foreign language for Entrance English."

**LIEUTENANT W. E. GILLMORE.** (Resolution adopted on January 17, 1913, on the retirement of Lieutenant Gillmore from the office of commandant):

"The Faculty of Cornell University records its high appreciation of the service of Lieutenant W. E. Gillmore during the period of his detail as Commandant of the Cadet Corps and his administration of the Department of Military Science and Tactics. The University has been very fortunate in the assignment of officers from the War Department, but under none of them has a higher standard of efficiency been attained. It was unfortunate both for Lieutenant Gillmore and for the University that the exigencies of his service in the War Department necessitated his retirement before the period of his detail had expired. Nevertheless, in his term of service, shortened though it was, he has imbued the men in his Department with a spirit of loyalty and enthusiasm which has contributed greatly to the efficiency of the work of the Department and to the esteem in which it is held by the student body. This Faculty, therefore, expresses to Lieutenant Gillmore its high appreciation of his service to the University, with the hope and belief that his career will be attended by the success which he so well deserves."

**ATHLETIC ELIGIBILITY RULES.** (Action of January 17, 1913).

The Faculty voted to amend Rule IV of the Eligibility Rules so that it shall read as follows:

"IV. 'VARSITY ROWING, BASEBALL, FOOTBALL, AND TRACK TEAMS—No student shall represent the University on a 'varsity athletic team in rowing, baseball, football, or track athletics:

- a. If he does not conform to the above rules;
- b. For more than three years, including therein the years in which he has represented another college or university in any of these four sports;
- c. If he has received a college degree;
- d. After the class in which he entered this institution has graduated, unless he has been out of residence for one or more terms for reasons other than failure in work or breach of discipline.

NOTE: In applying Rules IV b, c, and d, only those degrees and years are to be counted which are regarded as an equivalent of the degrees and the college years in this University."

**FUERTES MEMORIAL PRIZE IN PUBLIC SPEAKING.** (Action of February 21, 1913).

The Faculty adopted a statute governing the Fuertes Memorial Prize in Public Speaking, established through the generosity of Mr. C. H. Baker, a graduate of the College of Civil Engineering of the class of 1886.

This statute was approved by the Board of Trustees on February 25, 1913.

**UNIVERSITY UNDERGRADUATE SCHOLARSHIPS.** (Action of February 21, 1913).

The Faculty delegated to the Committee on University Undergraduate Scholarships the power of vacating scholarships after the holder has been given an opportunity to explain his unsatisfactory record. This action of the Faculty was approved by the Board of Trustees on February 25, 1913.

**PROFESSOR WILLARD C. FISHER.** (Action of March 14, 1913).

The following resolution was adopted:

"Whereas, Professor Willard C. Fisher, a distinguished alumnus and former Fellow of this University has been dismissed from the chair of Economics and Social Science at Wesleyan University on grounds stated in the letters of January

27, 1913, exchanged between the President of Wesleyan University and Professor Fisher, therefore resolved, that the Faculty of Cornell University extend to Professor Fisher greetings and assurance of regard, with the message that his *alma mater* still seeks to maintain and extend the spirit of liberality, toleration and loyalty to truth, illustrated by the principles and lives of its founders, Ezra Cornell and Andrew D. White."

FRESHMAN ATHLETIC ELIGIBILITY RULES. (Action of April 18, 1913).

The following rules governing Freshman athletics recommended by the Committee on Student Affairs were approved by the Faculty:

"No person shall represent the freshman class on any student athletic organization either at home or abroad :

a. If he is not a regularly registered student of the University as a freshman.  
b. If he has been removed from the University for failure in work or for breach of discipline and has not since reinstatement completed one full academic term.

c. If he is on probation, that is, if by vote of his Faculty, he is duly notified that a repetition of failure in work or neglect in duty will result in his exclusion from the University.

(NOTE—*Probation* is regarded as but one step short of exclusion and is to be distinguished from advice, warning, admonition, or censure. Probation terminates at the end of the term for which notification is given unless it be terminated earlier by vote of the Faculty concerned).

d. If he has previously registered and taken work in any other college or university.

e. If he receives or has ever received any remuneration or consideration of any sort for his services in any branch as performer, player, coach or otherwise, apart from such necessary expenses in excess of ordinary expenses as are actually incurred by him as a member of a college team or of a permanent amateur organization in connection with occasional amateur contests.

(Note in applying rule e to baseball any person who plays under a name other than his own or who plays in a contest at which an admission is charged except as a member of a school or college team, shall be conclusively presumed to have violated this rule).

f. Nor shall he take part in such contests or train for any team, if he does not secure at the beginning of each season a special certificate of satisfactory physical condition from the Physical Director. Such certificate may be cancelled at any time in case the Director decides that the continuation of training is likely to operate to the physical injury of such person.

g. If otherwise eligible, a person who enters at mid-year may represent the freshman class during the first term of his next year, provided he is then a member of the freshman class."

ATHLETIC ELIGIBILITY RULES. (Action of April 18, 1913).

Rule II d was so amended as to allow undergraduate student assistants (except in Physical Culture) to compete in University athletics, subject to the regular three year limitation (see Rule IV b).

UNIVERSITY PROCEDURE. (Action of April 23, 1913).

On the recommendation of a special committee appointed to consider problems of University procedure, it was voted to adopt in principle the following:

1. To recommend the printing of a directory to include all salaried employees of the University;

2. To issue a student identification card;

3. To abolish registration by proxy;

4. To issue a handbook of information for the use of members of the Faculty and administrative officers;

5. To issue a handbook for the information of students;

6. To recommend to the Trustees the advisability of establishing a central purchasing agency;
7. To recommend the establishment of a central office for handling the printing, mimeographing, or multigraph work of the several colleges and departments;
8. To discontinue the issuance of excuses for illness of less than two consecutive days' duration, and to cause such excuses to be forwarded by the Medical Examiner to the Dean of the college responsible for the student, and to the Secretary of the University, by messenger service;
9. To provide for reports on students doing unsatisfactory work by having the names of such students forwarded to the office of the Secretary of the University twice during each semester;
10. To provide for a lecture room schedule;
11. To provide for a general room schedule;
12. To provide for uniformity in printed blanks used for administrative purposes;
13. To reconstruct the system of designating courses;
14. To provide for a central mailing office;
15. To create an employment bureau to be maintained by the Secretary of the University for the registration of the names of students desiring employment in University offices;
16. To recommend that a plan be devised for providing needed clerical assistance without increasing the teaching staff for clerical purposes;
17. To provide for the supervision of janitor work;
18. To provide for the establishment of a central news bureau.

ENTRANCE REQUIREMENTS IN FORESTRY OR LANDSCAPE ART. (Action of May 9, 1913).

On the recommendation of the Faculty of Agriculture, the subjects of Solid Geometry and Plane Trigonometry were removed from the list of required entrance subjects for students entering the University in the Departments of Forestry or Landscape Art.

THE WOODFORD PRIZE. (Action of May 9, 1913).

Rule I of the present statute was amended to read as follows:

"The competition is open to any student in good standing who is to fulfil the requirements for graduation before the beginning of the second term of the following year, and who does not already hold a baccalaureate degree from this institution or from any other of like rank. No student may compete more than once."

## II. THE FACULTY'S STANDING COMMITTEES

1. COMMITTEE ON RELATIONS TO SECONDARY SCHOOLS (Professor G. P. Bristol, Chairman)—The Committee on Relations to Secondary Schools took no action during the year calling for special mention. There are a number of problems growing out of changes in the character of public high schools which the Committee will have to consider in the near future. At present the data were hardly extensive enough to warrant formal consideration of these matters.

2. COMMITTEE ON ADMISSION BY CERTIFICATE (Professor G. P. Bristol, Chairman)—The following table illustrates the increase of admission by certificate since 1903, together with the record made by the schools using this method of admission for their students and by the students thus admitted.

Schools using certificate	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
privilege .....	167	154	175	171	223	262	264	265	274	296
Students using certificate privilege.....	277	311	376	327	459	510	586	528	565	607

Schools—no mark below a pass.....	91	72	82	107	102	77*	107*	133*	111*	125*
Students—no mark below a pass.....	?	?	235	190	252	248*	293*	325*	291*	347*

These figures prove clearly the worth of this system of admitting students to the University. It is well known among school men that the system of admission by certificate is administered at Cornell University in a highly efficient manner. Many weaknesses often charged against the system are unknown in our working of it.

It has been found necessary this year to terminate our relations for receiving students by certificate with three schools whose students have proved unsatisfactory, and in the case of eight others notice was given that the students were not making good records. The Committee feels that in spite of the objections urged against it, this system of admission to the University prevents a condition which would be a real hardship in the case of many students, and further, that in view of the records made by students thus admitted there is no danger of a lowering of scholarship through it.

3. UNIVERSITY UNDERGRADUATE SCHOLARSHIPS (Professor W. A. Hammond, Chairman)—The Committee selected 18 undergraduate scholars on the basis of competitive examinations held between September 22d and September 25th, 1912. The number of competitors was 95, and the highest average made by any competitor was 90.25. The subjects covered by the scholarship examinations are English, Greek, Latin, French, German, Elementary Mathematics, and Advanced Mathematics. The following table shows the number of students selecting each of these subjects:

Advanced Mathematics.....	29
Elementary Mathematics.....	21
German .....	44
French .....	18
Latin.....	58
Greek .....	4
English .....	91

All of these scholars came from the State of New York and were trained in the schools of Brooklyn, Albany, Buffalo, Rochester, Binghamton, Troy, and Riverhead. During the year three scholars were dropped on account of unsatisfactory scholastic records. Leave of absence without prejudice to the tenure of the scholarship was granted to one scholarship holder on account of illness.

On October 11, 1912, the Faculty voted that the rule debarring students who have registered in the University in a previous year from competing for an undergraduate scholarship be applied to the Summer Session.

On February 21, 1913, the Faculty delegated to the Committee the power of cancelling scholarships after the holder has been given the opportunity to explain his unsatisfactory record. During the second term of 1912-1913 the highest average (based on hours of instruction) maintained by any scholar was 94.66. The general average of all Sophomore scholars was 86.45. The general average of all Freshman scholars was 85.87. The Committee is gratified by the high

\*These years include Drill and Gymnasium marks not heretofore recorded.

character of work maintained by the scholarship incumbents. The record, as above recited, is the highest made in recent years. It is the Committee's belief that these endowments perform a very valuable function in promoting the standards of scholastic work in the University. All scholars upon election are notified that the scholarship is not a prize won in competitive examination, but is an endowment provided by the University for the purpose of promoting a high type of scholastic work and the tenure of the scholarship is subject to the maintenance of such standards.

4. EXCUSES FROM PHYSICAL TRAINING AND MILITARY SCIENCE (Professor W. A. Hammond, Chairman)—On December 13, 1912, the Faculty changed the title of this Committee from the Committee on Excuses from Physical Training to the Committee on Excuses from Physical Training and Military Science.

a) Department of Physical Training for Men:

Registered in the Department, 1912-1913.....	1493
Excused on account of illness.....	26
Excused for athletics and Sun competition.....	38
Excused for labor.....	3
Excused as assistants in the gymnasium.....	2
Total excused .....	69

Subject to the requirements of gymnasium..... 1424

b) Department of Military Science:

The following statistics are based upon the enrollment in the Department up to and including April 29, 1913:

Men taking drill classified as follows:

Freshmen in the corps.....	662
Sophomores in the corps.....	80
Juniors in the corps.....	21
Seniors in the corps.....	23
Total men in the corps.....	786
Dropped from the corps.....	69
Excused, for athletics.....	89
for physical disability.....	36
for labor.....	188
as aliens.....	46
as Quakers.....	6
for previous military training.....	29
by Committee.....	2
for Sun competition.....	2

Total excused..... 398

Total registered in the Department during the year..... 1253

The Committee permitted, in accordance with previous custom, a maximum of 100 men to be withdrawn from the Military Department for purposes of athletics. Of this number, 89 were actually called for.

5. COMMITTEE ON STUDENT AFFAIRS (Professor D. S. Kimball, Chairman)—The work of the Committee falls naturally into two classes, namely the regulation of student organizations, and the administration of discipline for the infraction of University rules.



**STUDENT ORGANIZATIONS**—During the past year the Committee has given careful attention to the matter of leaves of absence for the members of student organizations, particularly in activities that necessitate absence from University work. It will be understood that all requests for such leaves of absence originate with the organization concerned and are, in general, approved by the council controlling the activity. In the case of athletic events, for instance, the athletic councils arrange the intercollegiate schedules and care for all details of arrangements, the Committee on Student Affairs passing upon the eligibility of all participants, the length of the leaves of absence and any other matters which affect the University work of the men interested. In the case of other organizations, such as fraternities that request leaves of absence for delegates to national conventions and similar events, the request must be approved by some responsible official of the organization concerned.

The following table shows the number of men in each activity that were granted leaves of absence on account of out-of-town engagements, with the total days of absence and the average days of absence per man:

Activity	No. of men	Total no. of days	Average
Association Football.....	15	8½	.6
Baseball.....	45	109½	2.2
Basketball.....	14	46½	3.1
Crew.....	13	23	1.8
Debate.....	14	27	2.0
Fencing.....	6	23½	3.9
Football.....	66	131½	2.0
Fraternities.....	71	154	2.0
Golf.....	9	23	2.5
Hockey.....	20	44	2.2
Lacrosse.....	17	25	1.5
Musical Clubs.....	115	112	1.0
Swimming.....	8	0	.0
Tennis.....	7	16½	2.0
Track.....	83	178	2.1
Wrestling.....	11	126	2.4
C.U.C.A.....	13	14	1.0
Miscellaneous.....	28	49	1.8
<b>Totals.....</b>	<b>555</b>	<b>1011</b>	<b>34.4</b>

In making the above computation, absences covering holidays have not been counted. It will be noted that the average duration of leave of absence for all men receiving such leave was 1.9 days.

It is generally supposed that athletics more than any other student activity are responsible for low scholarship. In times past the low scholarship of 'varsity athletes was so notorious as to admit of no defence. Of recent years, however, at Cornell at least, there has been a marked improvement in the scholarship of this class of students, partly because of the attitude of the several faculties toward these matters, and partly because of better management on the part of those directly controlling athletic affairs. No one intimately acquainted with athletic matters will, even now, contend that the scholarship of athletes is what it should be, but the many other forms of student activity that do not come before the Committee on Student Affairs in the same way as do athletics are often much more harmful to scholarship. The many competitions open to students that require little or no official sanction from anyone are, in many cases, more harm-

ful to scholarship than the athletic competitions. It is true that they do not, in general, require absence from the University, but they do often require more of the competitor's time and involve more men than athletic competitions, and where academic work is neglected and the student absent from the class room, it makes little difference whether he is in residence or not, so far as final results are concerned. Most of these activities, no doubt, serve a good purpose in student life, but no student who has difficulty with his academic work should be enrolled in these competitions, for this is bad not only for the student but also for the activity in which he is competing. This is particularly true of freshmen who, in many instances, get a bad start in their academic work because of excessive interest in some competition and as a consequence are in scholastic difficulties the entire remainder of their college course.

Fraternities and all other clubs can do much to hold these deleterious influences in check and it is to be hoped that they will; for it would be unfortunate, indeed, if it ever became necessary to take such steps as have been taken at some of the middle western universities looking to a much closer supervision of all student activities that are in any measure self-governing. The student body at Cornell has always risen to the occasion in times past and they will no doubt recognize the importance of the nation-wide demand for higher scholarship that is now so seriously occupying the minds of those charged with the administration of universities in this country, particularly in the middle west where educational standards are steadily rising. Members of the University Faculty and Alumni who are interested in student organizations or activities should also give these matters careful consideration, for if Cornell is to keep pace with the best educational thought of the country these matters may not be put off or neglected.

The Committee has felt for some time that a closer supervision should be exercised over Freshman athletics and that the general eligibility rules did not fully cover the requirements for first-year men participating in athletic activities.

On June 18, 1913, therefore, the Committee recommended to the University Faculty eligibility rules covering Freshman athletics, and these were adopted (see p. v of this Appendix).

**DISCIPLINE**—The past year has been remarkably free from breaches of conduct on the part of students. The Committee is, of course, constantly in receipt of complaints regarding student conduct, but the great majority of these are of a more or less trivial character and such as may always be expected from youthful exuberance. Where the offense overstepped the bounds of such limitations and savored whatsoever of malicious intent, the Committee has not hesitated to impose a fitting penalty.

During the past year there were, according to the report of the Proctor, 21 recorded arrests of Cornell students by the city police. Of these 4 were charged with disorderly conduct, 1 with forgery and 16 with breaches of ordinance. It is not intimated that this record shows all or nearly all the breaches of conduct on the part of students, but, by comparison with other years, it is, in a way, a measure of certain phases of student behavior. There seems to be no doubt that the general tone of the student body improves yearly and that the general attitude of the students, in and out of fraternities and house-clubs, is improving so far as drinking and consequent disturbances are concerned. There is, however, a great need of further improvement along these lines, and individuals,

organizations, faculty members and particularly the alumni should do whatever is in their power to help along all good influences looking to the betterment of these conditions. This is true particularly of returning alumni who should feel that after graduation they have a greater and not a lessened responsibility to the University and to the institutions belonging to it, of which they may be members. If it is important to strengthen all uplifting influences, it is just as important to discourage those that are degrading.

The work of the Proctor and of the Student Conference during the past year has been of great assistance to the Committee, and both the Proctor and the Conference have amply justified their office. The position of the Proctor is a difficult one to fill, but Lieutenant Twesten has certainly fulfilled the expectation and hope of those responsible for his appointment. Through him and the Student Conference a number of difficult cases were successfully disposed of in a manner reflecting great credit on the fairness and good judgment of the Conference.

The Committee on Student Affairs refers to the Student Conference, for an opinion and recommendation, all cases of breach of conduct, relying on them and the Proctor to find and sift out all the evidence relating to the case. Cases of fraud in examination are not referred to the Student Conference, but are always heard by the Committee on Student Affairs. The Chairman of the Committee on Student Affairs and the Proctor sit with the Conference in an advisory manner, but retire when the vote on the recommendation is taken. The Committee has been much impressed with the skilful and fair disposition of the cases submitted to the Conference and feels that in the Conference it has a very valuable addition to the disciplinary machinery of the University, particularly as it gives the Committee a means of securing the student point of view which members of the Faculty are likely to forget or overlook.

This form of joint student and Faculty disciplinary organization offers, apparently, the nearest approach to student self-government that can be devised for large numbers of students. Nearly all will agree that student self-government is a very desirable end to attain, but all who have had experience with pure self-government in large student bodies are somewhat skeptical of its continued success. It is exceedingly difficult to build up student sentiment against such practices as fraud in examination, for instance, that will survive the strain of an ever changing student body. In very small colleges, and particularly in those that draw their students from the same sources, as is the case of some of the southern colleges, student self-government, it is said, has been quite successful. But in large cosmopolitan student bodies such as are found in the larger colleges of Cornell University such organizations can hardly be expected long to survive, unless supported by the inertia of some more permanent organization such as the Committee on Student Affairs.

The Committee on Student Affairs, therefore, while recognizing the desirability of student self-government, has made an effort to co-ordinate the work of the several honor systems with its own, with the double purpose of supplying the inertia necessary to these bodies and of lending such aid as will make their position secure. It is hoped that a working agreement as good as that now existing between the Student Conference and the Committee on Student Affairs may soon be arranged between the Committee and all the honor systems.

This same principle can be extended with success to other phases of student self-government. The women of the University have had a self-government association for several years that has operated with fair success. It has, however, suffered for lack of just such support as was discussed above. It will be noted that the Women's Self-Government Association has a somewhat different problem from the student honor systems that are interested, largely, in protecting the standard of academic work. The problem of government in Sage College, for instance, is twofold, namely, to administer so called "house rules" that have to do with the conduct of the women students as tenants of Sage College, and on the other hand to control the conduct of all women students so far as general behavior is concerned both in and out of the dormitory. These two fields necessarily overlap to some extent, yet the line of demarcation is fairly clear.

Now so far as infraction of the general rules of the University are concerned, a working agreement is in effect between the Women's Self-Government Association and the Committee on Student Affairs and there should be no difficulty in administering proper discipline for such infractions of general conduct.

The question of the house rules is, however, somewhat different, but none the less important. The Committee on Student Affairs is not operating Sage College as a dormitory and is not properly constituted to consider many of the questions that arise in this respect. The Committee on Student Affairs, for instance, has no power over permits to go boating, yet cases constantly arise where repeated infractions of the existing rules regarding such matters must be considered by some one with more authority than is vested, at present, in the Women's Self-Government Association.

The University is about to open another dormitory for women, and the time is opportune for issuing a clear cut statement of the house rules of these dormitories, and for co-ordinating the work of the Women's Self-Government Association with that of the Committee on Women's Dormitories already created by the Board of Trustees. The relation between the Committee on Dormitories and the Women's Self-Government Association regarding house rules would then be analogous to the relation between the Women's Self-Government Association and the Committee on Student Affairs regarding rules of general conduct. This would, no doubt, add dignity to the Women's Self-Government Council and conduce to more efficient operation of the house rules.

It would seem that any scheme of student self-government that may hope to be permanently successful must have some such background as has been suggested above, if for no other reason than the ever changing character of the student body. The entire experience of the human race with self-government has not carried it beyond the probationary stage. Everyone will admit that the intent of student bodies as a whole is good, as is amply manifested in their college spirit and pride in the institution in which they are enrolled. But college spirit and *responsibility* for university government are very different matters. Students receive ample training in college spirit, but have received little or none in university administration, and for this reason, no doubt, their schemes of self-government often go astray.

On the other hand, the time has gone by when best administrative results can be obtained by simple enactment of rules either by the Faculty or the Board of Trustees. Men can always be led; they can not always be driven. The co-

operation of the best elements in the student body is needed, if university government is to make progress. It would seem as if the plan of co-operation now existing between the Student Conference and the Committee on Student Affairs would open up a way of building up a better and more stable form of university government than we have yet possessed.

Respectfully submitted,

WM. A. HAMMOND,

Secretary of the University Faculty.

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## APPENDIX II

### REPORT OF THE DEAN OF THE FACULTY OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I have the honor to submit herewith my report as Dean of the Faculty of the Graduate School for the year 1912-13.

#### GENERAL

The registration of graduate students during the past year shows a continuation of the steady growth that has continued with scarcely any interruption during the last twenty-five years. Previous to the year 1904-05, the number of graduate students had increased less rapidly than the University as a whole, the percentage of graduates having fallen from 13.2 per cent in 1893-94 to 6.1 per cent in 1904-05. During the last eight years, however, the number of graduate students has grown more rapidly than the total registration, and graduate students now constitute 8.7 per cent of the whole number of students. When it is remembered that only the larger and stronger universities are in a position to adequately provide for graduate instruction and research, it seems probable that the relative importance of graduate work at Cornell will continue to increase.

More than half of the growth of the Graduate School during the past year is accounted for by the increase in the number of students specializing in the biological sciences. While Group A (Languages and Literatures) also shows a slight increase, the number of graduate students specializing in the Physical Sciences (Group C), in Engineering (Group E), and in History, Philosophy, and Political Science (Group B) has remained virtually the same during the past four years. The number of students who are not candidates for advanced degrees has increased during the year from 46 to 63.

Since many of the subjects included in Group D (Biological Sciences) are closely connected with the subject of Agriculture, it is natural to associate the rapid increase in the number of graduate students in this Group with the remarkable growth of the Agricultural College. During the last four years the number of graduates specializing in Group D has increased from 77 to 141, while the number of undergraduates in the College of Agriculture has increased from 539 to 1263. During the past year 121 candidates for advanced degrees selected

their major subjects in the College of Agriculture, and 34 graduate students who were not candidates for degrees did their chief work in that College. Graduate students thus constitute 10.9 per cent of the total enrollment. If we group together the Colleges of Arts and Sciences, Law, Medicine, and Veterinary Medicine we find that 13.3 per cent of the total number are in the Graduate School; while in the technical colleges—Sibley College and the Colleges of Civil Engineering and Architecture—only 2.2 per cent are doing graduate work.

We have always had among our graduate students a considerable number of the younger members of the teaching staff, who continue their work for an advanced degree while serving as instructors or assistants. For many of these, graduate work would be impossible were it not for the opportunity of supporting themselves during their course of study by teaching. In other cases, particularly in the case of those who are preparing themselves for the teaching profession, it is frequently an advantage to extend the period of study for an advanced degree in order to gain teaching experience at the same time. While in rare cases such instructors may neglect their teaching because of their greater interest in advanced study, the usual result is, I think, to give the University a better teacher and the Graduate School a stronger student. One who has had actual experience with the problems and difficulties of the teacher is in a better position to profit by study that is intended to prepare him for that profession. On the other hand, one whose interests extend beyond the limits of the course that he is teaching, and who is himself a learner, is for that reason a better teacher. No one can devote himself to elementary teaching only and long retain the power of holding the interest of his class; his teaching will sooner or later become mere drill work, devoid of life and inspiration. Whatever may be the reasons for this view, I believe the feeling is general among members of the Faculty that the graduate students who are also members of the teaching staff form a very desirable element in the Graduate School and in the University.

During the past year, the number of instructors who were registered in the Graduate School was 159, or 37 per cent of the whole number of graduate students. The number of such students has increased steadily during the past four years, but the percentage has remained virtually the same. The total number of teachers of the grade of instructors (excluding those in the Medical College in New York) during the year 1912-13 was 167, of whom 78 were in the Graduate School. The total number of assistants was 137, and of these 81 were registered as graduate students. Of the 56 assistants who were not in the Graduate School, 32 were undergraduates; while a large proportion of the instructors who were not registered as graduate students already had an advanced degree and therefore had no reason for such registration. It is clear that the opportunities for advanced study that are offered by the Graduate School are appreciated by the great majority of our instructors and assistants.

In many universities the appointments that we call assistantships are spoken of as "teaching fellowships." While the latter term has always seemed to me in some ways an undesirable one, it has the advantage of accentuating the fact that our assistants are attracted to the University by the opportunities for advanced study, rather than by the salaries paid them for their work in teaching. In the case of the great majority of our instructors this is equally true. I hesitate to think what would be the character of the teaching in our elementary courses

if we tried to secure instructors and assistants at the present salaries *without* opportunities for advanced study and research. In discussing the benefit to a university of a strong graduate school stress is usually laid, and properly so, upon the value to the world of scientific investigation and productive scholarship, and the need of a school which shall prepare for such work; and it can scarcely be doubted that the influence which a graduate school exerts upon the spirit of a university is of almost equal importance. But it would be interesting, I think, to consider whether the maintenance of a strong graduate school could not be justified, entirely apart from such considerations as these, simply as a business proposition—as a means of reducing the cost of undergraduate instruction. If we were unable to offer the attractions of advanced study we should either have to pay much larger salaries to instructors and assistants, or else be content with very poor teachers. A comparison between the salaries paid for elementary teaching in the different colleges and the extent to which graduate work has been developed in each would, I believe, support this view. To say that the presence of the Graduate School cuts down the cost of undergraduate teaching, so far as the salaries of instructors and assistants are concerned, to one-half, is in my opinion a very conservative estimate.

#### FACULTY LEGISLATION

Recognizing the fact that the technical colleges have a special interest in and responsibility for the corresponding technical degrees, the Faculty took action last year which provided that if a candidate for an advanced technical degree has as chairman of his special committee a member of this Faculty who is not in the college specially interested in the degree in question, the candidate's selection of subjects shall be submitted to the faculty of that college for approval. During the present year a case arose where a candidate for an advanced technical degree selected not only his major subject but his minor subject also outside the college concerned. It appeared to the General Committee that in cases of this kind the Faculty of the technical college should be represented on the candidate's special committee, and the General Committee therefore recommended that in such cases

"The Dean of the Graduate School shall be empowered at the request of the college in question to add to the special committee a representative of that college."

At a meeting of the Faculty held November 22, 1912, this recommendation was adopted.

It happens occasionally that two students select the same subject for a thesis and work together in its preparation, presenting finally a 'partnership thesis'. I can recall only one instance where this has happened in the case of candidates for the doctor's degree, and in this case, I believe, the acceptance of the joint thesis was authorized by special action of the Faculty. Among candidates for the master's degree the practice is, however, not unusual. When the thesis involves experimental work the co-operation of two experimenters is frequently quite desirable, and in fact is sometimes almost essential. The benefit resulting from discussions between the two partners is also often considerable. On the other hand, if the two are unequal in ability or energy it may well be that the weaker student contributes very little to the result. It is a matter of some difficulty to make sure that a joint thesis gives evidence, in the case of both authors, of

"ability to do independent work and to present the results in satisfactory form." At the meeting of the Faculty held on November 22, 1912, the General Committee requested instructions as to the circumstances under which theses prepared by two students working together should be accepted, and the Faculty voted that

"theses written in partnership may be accepted only when authorized by the General Committee at the request of the Special Committee in charge, such request to be made before the work is undertaken."

At the same meeting of the Faculty, the General Committee asked for instructions as to the "circumstances under which major and minor subjects may be accepted as suitable for an advanced degree when the proposed subjects represent lines of work for which an advanced degree has not heretofore been granted." The Faculty voted

"to delegate its authority in the matter to the General Committee, and directed the Dean to bring before the Committee any subject concerning the propriety of which he may have any doubt."

It has been our custom to print the titles of all advanced degree theses on the Commencement Program. On several occasions members of the Faculty have expressed regret that the phraseology of the titles is not always in accord with accepted usage, and it has been suggested, without formal action, that the Dean should edit the list. The Dean hesitated to take such action, feeling that the judgment of the chairman of the special committee, which is final as regards the acceptance of the thesis itself, should carry equal weight in the case of the title of the thesis. The question was again brought before the Faculty at its meeting on March 28, 1913, and it was voted

"that the Dean be requested to consult henceforth with the chairmen of special committees with regard to questions of phraseology in the title of theses."

At the same meeting the Faculty adopted the recommendation of the General Committee

"that graduate students who are not candidates for degrees be permitted to choose as their advisers, not as heretofore, only members of the Faculty of the Graduate School, but also members of the University Faculty."

During the first two years after the Graduate School was organized meetings were held only when called by the President for some definite purpose. It was necessary therefore to send a notice of the meeting to each member of the Faculty, and it became the custom to call attention on this notice to the chief object of the meeting. During the last two years three regular meetings have been held each year, which, like the meetings of the other faculties, were announced on the University calendar. Since, however, the meetings were few in number and came at irregular intervals, the Dean has continued the practice of sending out notices in advance, and has called attention in these notices to such business as he knew would be brought before the meeting. On two occasions the Dean was not informed of any business to come before the Faculty and stated this fact in the notice of the meeting, with the result that a quorum was not present and the meetings were not held. It was pointed out, and in my opinion very properly, that such action was equivalent to annulling the meeting, and that while the Dean may have the authority to call a meeting, it is doubtful whether even the President has the power to suspend a meeting which has been regularly established by vote of the Faculty. Serious annoyance would undoubtedly be caused



if some member of the Faculty had intended to introduce important and urgent business at a regular meeting that was virtually suspended in this way. At the meeting held on March 28, 1913, the Dean brought the whole question before the Faculty and it was voted that

"the Faculty approves the action of the Dean in giving notice in advance of topics to be presented at meetings of the Faculty, whether such topics come from the General Committee or from other members of the Faculty."

A preliminary notice of each regular meeting will hereafter be sent to each member of the Faculty calling for a statement of the topics that members may desire to have announced in advance. It seems to me probable that this procedure will not only avoid the dangers of the practice previously followed but will also result in a larger attendance at meetings where matters of importance are to be considered.

At the meeting of November 22, 1912, Professors G. L. Burr and A. T. Kerr were elected members at large of the General Committee to fill vacancies caused by the resignations of Professors Duggar and Kemmerer. At the meeting of March 28, 1913, Professors W. F. Willcox and A. T. Kerr whose terms as members of the General Committee expired on May 1, were elected to succeed themselves.

Statistics connected with the work of the year 1912-13 are contained in the accompanying tables. Respectfully submitted,

ERNEST MERRITT,  
Dean of the Faculty of the Graduate School.

#### STATISTICS OF ATTENDANCE

During the year 1912-13, including the summer of 1912, 421 graduate students were registered in the Graduate School. The following table shows the registration for 1912-13 as compared with that of previous years:

	1912-13	1911-12	1910-11	1909-10
Regular session (Ithaca).....	376	349	349	288
Medical College (New York).....	3	2	—	—
Summer Session only.....	30	24	16	16
Summer only (not in S. S.).....	12	8	5	—
In absentia (no longer permitted).....	—	—	2	5
Total.....	421	383	372	309

Arranged according to the degrees for which they were candidates:

	1912-13	1911-12	1910-11	1909-10
Doctor of Philosophy.....	170	170	166	157
Master of Arts.....	101	86	92	72
Master of Science in Agriculture.....	47	43	32	24
Master in Landscape Design.....	5	—	—	—
Master in Forestry.....	1	—	—	—
Master of Mechanical Engineering.....	18	20	33	21
Master of Civil Engineering.....	12	16	11	8
Master of Architecture.....	4	2	1	1
Non-candidates.....	63	46	37	26
Total.....	421	383	372	309

Arranged according to the groups in which the major subject lay:

	1912-13	1911-12	1910-11	1909-10
Group A, Languages and Literatures.....	41	38	40	31
Group B, History, Philosophy and Political Science.....	49	56	47	48
Group C, Physical Sciences.....	91	87	97	89
Group D, Biological Sciences.....	141	118	104	77
Group E, Engineering.....	36	38	45	33
Non candidates.....	63	46	37	26
In absentia.....	—	—	2	5
Total.....	421	383	372	309

During the year 1912-13, the following degrees were conferred as compared with those conferred in previous years:

	1912-13	1911-12	1910-11	1909-10
Master of Arts.....	25	23	14	16
Master of Science in Agriculture.....	13	16	10	14
Master in Forestry.....	1	—	—	—
Master in Landscape Design.....	2	—	—	—
Master of Mechanical Engineering.....	4	8	5	2
Master of Civil Engineering.....	2	7	3	2
Doctor of Philosophy.....	35	36	34	35
Total.....	83	92	66	69

Among students registered in the Graduate School during the year 1912-13, there were graduates of 119 different institutions distributed as follows:

Adelphi College.....	1	Illinois Wesleyan College.....	1
Alfred University.....	1	Imperial University (Tokyo).....	1
Allegheny College.....	1	University of Indiana.....	6
Amherst College.....	3	Iowa State College.....	1
Boston University.....	1	Johns Hopkins University.....	1
Brown University.....	2	University of Kansas.....	5
Bryn Mawr College.....	1	Kansas Agricultural College.....	1
Buchtel College.....	1	Kentucky State University.....	1
Cape Girardeau College.....	1	Keuka College.....	1
Carson & Newman College.....	1	Lafayette College.....	1
University of Chicago.....	1	Lake Forest College.....	1
Clark College.....	1	Lawrence College.....	1
Colgate University.....	1	Lehigh University.....	1
College City of New York.....	3	University of Maine.....	2
Colorado Agricultural College.....	1	University of Manitoba.....	1
Columbia University.....	3	Marietta College.....	1
Cornell University.....	215	Maryland Agricultural College.....	1
Dalhousie University.....	1	Massachusetts Agricultural College.....	1
Dartmouth College.....	2	Mass. Institute of Technology.....	2
Denison College.....	1	Mercer University.....	1
DePauw University.....	2	Miami University.....	1
Earlham College.....	1	University of Michigan.....	7
Edinburgh University.....	1	Middlebury College.....	1
Franklin & Marshall College.....	2	University of Missouri.....	3
George Washington University.....	1	Mt. Holyoke College.....	4
Grinnell College.....	1	Muhlenberg College.....	1
Hamilton College.....	3	Munich; Technische Hochschule.....	1
Harvard University.....	5	Muskingum College.....	1
Haverford College.....	1	Napgar College of Agriculture.....	1
Hobart College.....	2	National Normal University.....	1
Howard University.....	2	National University.....	1
University of Illinois.....	5	University of Nebraska.....	7

Nebraska Wesleyan University . . .	1	Stuttgart: Technische Hochschule . . .	1
New Hampshire College . . . . .	5	Swarthmore University . . . . .	1
New York Normal College . . . . .	2	Syracuse University . . . . .	6
New York University . . . . .	1	Teachers College . . . . .	1
North Carolina A. & M. College . . .	3	University of Tennessee . . . . .	3
No. Dakota Agricultural College . . .	2	University of Toronto . . . . .	1
Norwich University . . . . .	1	Trinity College . . . . .	1
Nova Scotia Technical College . . .	1	Union University . . . . .	1
Oberlin College . . . . .	5	University of Upsala . . . . .	1
Ohio State University . . . . .	4	Utah Agricultural College . . . . .	1
Ohio University . . . . .	4	Vassar College . . . . .	4
Ohio Wesleyan University . . . . .	1	Virginia Polytechnic Institute . . . .	3
Oxford University (England) . . . .	2	Wabash College . . . . .	17
Oklahoma A. & M. College . . . . .	1	Wake Forest College . . . . .	1
Pei Yang University . . . . .	1	Washington College . . . . .	1
University of Pennsylvania . . . . .	4	Washington & Jefferson College . . .	1
Pennsylvania College . . . . .	1	Wellesley College . . . . .	5
Pennsylvania State College . . . . .	2	Wesleyan University . . . . .	5
Pittsburgh University . . . . .	1	Western College . . . . .	2
Pomona College . . . . .	4	Western Reserve University . . . . .	1
Princeton University . . . . .	2	University of West Virginia . . . . .	3
Purdue University . . . . .	3	William & Mary College . . . . .	1
Queens University . . . . .	1	Williams College . . . . .	2
Robert College . . . . .	1	University of Wisconsin . . . . .	1
University of Rochester . . . . .	4	Worcester Polytechnic Institute . . .	1
Sheffield Scientific School . . . . .	1	Yale University . . . . .	7
Smith College . . . . .	1	Zurich; Technische Hochschule . . .	1
Stanford University . . . . .	6		

## APPENDIX III

### REPORT OF THE DEAN OF THE FACULTY 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 fifth report. Varied contact with the College in a period of its substantial growth, both internally and as a part of the University, has left upon me the impression of three major problems demanding solution. They are: first, our place in the University; second (and related), the desirable direction of our expansion, or contraction; and third, the unsatisfactory student, either stupid, frivolous, or misplaced. This report, in theory covering the year 1912-13 only, does not attempt to deal extensively or directly with these problems. But it is doubtless colored in some degree by my prepossessions concerning them.

#### FACULTY ACTION

The principal matters taken up by the Faculty of Arts and Sciences during the year with a view to action on them were these: the degree of Bachelor of Science, as conferred at the Forty-fourth Commencement; a proposal for establishing, under the jurisdiction of our Faculty, a four year curriculum that might consist, in large part, of courses offered by other colleges of Cornell; and the choice of an elective Dean.

The Faculty also opened the courses in music to freshmen, thus disallowing the action of the Administrative Board for Underclassmen (2 Minutes, 131). It reduced the elective membership of the Committee on Educational Policy from eight to six, and provided that, instead of all being chosen annually, two only should be elected each year for a term of three years, and these should then be disqualified for reelection (2 Minutes, 150).

For many years the degree regularly conferred upon graduates from the agricultural course was either Bachelor of the Science of Agriculture or Bachelor of Science in Agriculture. With the establishment and expansion of the New York State College of Agriculture, however, its Faculty came to feel that, for reasons set forth in Director Bailey's Report, 1911-12, pp. xlvī-xlvii, the degree of Bachelor of Science without qualification was more appropriate. Upon their request, approved by the University Faculty after consideration of it by a special committee, the Board of Trustees, in April, 1912, accordingly authorized the change, reserving the right, however, to establish or to reestablish the degree of Bachelor of Science in the College of Arts and Sciences or elsewhere whenever they should deem it expedient to do so. The matter appeared to be closed. It proved not to be. At the June meeting of the University Faculty, a professor in one of the professional colleges offered a resolution that reopened it. Premising that the degree of Bachelor of Science, without predicate, had not been theretofore conferred at Cornell upon graduates from a technical or professional course (such as he must have understood the courses in the College of Agriculture to be), but that, during many years, it had been conferred upon some eight hundred graduates from a general course, the principal characteristic of which was the inclusion of modern languages instead of Latin and Greek, he proposed that the University Faculty rescind its approval of the change. This resolution was referred to the Faculty of Arts and Sciences at its request (2 Minutes 131, 133) and there rested in the hands of a special committee from 1 November, 1912, to 7 March, 1913. When it was at length reported upon a majority of the committee advised that our Faculty should claim the exclusive privilege of recommending for the degree of Bachelor of Science without predicate. The minority advised, on the contrary, that our Faculty express no opinion in the matter. That would leave the resolution to be determined upon by the University Faculty, where it had been originally introduced, and where all professors in our Faculty had voice and vote. After much discussion our Faculty of Arts and Sciences, by a narrow margin, rejected first the minority report and then the majority report. What inference as to the main issue may be justly drawn from this performance I do not venture to say, and should therefore have ignored the incident here had it not become involved with a second matter of greater weight.

#### A NEW COURSE PROPOSED

This second matter was the project of an elective curriculum little restrained by college boundaries. Its purpose was to make completely available the entire range of educational opportunities which Cornell University affords. To this end it appeared necessary that we disregard, in some measure, the dividing lines between colleges. Our college boundaries were originally marked off, not by the Faculty for educational reasons but by the Trustees, presumably for administrative purposes. That there were advantages in the separation experience has

abundantly proved. It has also revealed some disadvantages. One of these is the embarrassment of the College of Arts and Sciences in attempting to determine, from time to time, its place in the University—to ascertain how far it interpenetrates the whole institution, and in what respects it is self-contained. The professional colleges have never hesitated to avail themselves, from their very beginning, of any opportunity that Arts and Sciences offered, sending their men into our classes so freely that at times our Faculty has instructed more professional students than students registered under it (cf. Report, 1910-11, pp. xxii-xxiii; 1911-12, pp. xx). The "Academic Department," as our College was at first called, long assumed, on the contrary, that until senior year its own courses should be found sufficient by all students registered with it. This assumption, perhaps never very well warranted, became less and less tenable as other colleges, and notably the College of Agriculture, introduced courses which, save for financial reasons, might well have found their field of development rather in the College of Arts and Sciences than elsewhere. For years the attention of our Faculty has been drawn to this situation by insistent and apparently reasonable demands of our students for permission to pursue, before senior year, one or another course that chanced to be in a professional college (cf. Report, 1908-09, pp. xxxviii-xxxix). To such demands we have responded from time to time, but always by granting a special privilege, never by recognizing a general right. Now, however, the Committee on Educational Policy, after two years intermittent consideration of the whole problem, attempted a general solution. At the January Faculty meeting they recommended:

... "the establishment of a course leading to the degree of Bachelor of Science, to be conferred on the recommendation of the Faculty of Arts and Sciences. One difference between the requirements for the proposed degree and those for the present degree of Bachelor of Arts shall lie in the larger number of hours, namely 60 or twice the present maximum of 30, allowed to be taken outside of this College, and in the liberty of taking such outside courses before the senior year.

Such a course would serve the purpose of students who by reason of the present special requirements of the several colleges are prevented from arranging combinations of courses suited to their needs. There seem to be at least two groups of such students:

(1) Students in the College of Arts and Sciences who find that, with the multiplication in other colleges of courses needed at an early stage in their own work, the present limitation of 30 hours outside of this College, not to be taken before senior year, prevents them from utilizing efficiently the facilities of the University for the purposes which brought them to it.

(2) Students who do not plan to enter a profession, but who register nevertheless in a professional college and find themselves prevented from combining with portions of its curriculum the courses in this College which they may need."

In the hope of giving a little more definiteness to their plan for extending beyond our College boundaries the practice of a regulated elective system already long established within them the Committee further recommended:

"(1) That students be admitted to the proposed course upon satisfying either the present requirements of the College of Arts and Sciences or of the engineering colleges;

(2) That certain courses, to be later determined, be required of all candidates for the degree of B.S.;

(3) That each candidate be required to devote a major subject which he shall choose under advice such a portion of his hours as shall be later determined;

(4) That a portion of the candidate's hours be left free for election."

These recommendations were unfortunate in beginning with mention of Bachelor of Science degree, and in coming to the Faculty before that body had enjoyed an opportunity of directly speaking its mind (if it had one) about the "Bachelor of Science without predicate." The members of the Committee on Educational Policy, exercised about a real educational problem,—at least so they thought it—had bothered themselves very little as to the degree that should "crown" the proposed course. Some degree there must be. People would expect one. Bachelor of Science was not ideal, but it seemed as appropriate as any and upon it they seized. Nothing, I venture to say, gave them less concern at the time than a resolution about Bachelor of Science without predicate that had been sleeping for ten weeks in the care of its own special committee. Nevertheless their seeming simple plan was suspected in the Faculty as a subtly wise device to forestall the College of Agriculture, and discussion of the report turned less upon the substance of the proposed course than upon the incident of the proposed degree. It presently developed that in the Faculty there were four minds on the question. Some approved the projected curriculum on the sole condition that it lead to the A.B. degree, others on the sole condition that it did not; others approved it as an educational matter, and were indifferent to the degree; and still others, contending that our present rules afforded as much latitude of election as any student in "the College" should be allowed, were opposed to the plan out and out. These, however, proved to be a minority, and the Faculty, desirous, perhaps, of postponing this aspect of the Bachelor of Science matter until the special committee should report upon the other aspect of it (as already recounted) brought its consideration of the proposed new course to a temporary close by voting as its sense "that the liberty of choice of subjects outside this College may, under such restrictions as may be necessary, be extended" (2 Minutes, 138, 11 February, 1913). What is thus won for the students whom this year's committee had in mind will therefore depend upon the success of next year's committee in devising acceptably the necessary restrictions.

Both these episodes proceeded far enough to indicate the relative importance assigned to education and to degrees. What further they might have revealed who shall say? They were occultated by the elective Deanship with a suddenness that proved then to be, after all, without appreciable magnitude in the Faculty heavens.

#### THE ELECTION OF A DEAN

The elective Deanship is obviously but an incidental feature of President Schurman's sweeping plan (Report, 1911-12, pp. 8-14) for giving "the professors a share in the government of the University." It chances, however, to be the first portion of that plan that was put into execution and its operation is therefore a matter of such interest as to demand a full record. The initial step was taken, of necessity, by the Board of Trustees, whose direction "that the statute governing the appointment of the Dean of the Faculty of Arts and Sciences be waived on this occasion and that the question of the choice of a successor to Dean Hull be referred with power to the Faculty of Arts and Sciences,"

was reported at the February Faculty Meeting. The Faculty after some discussion, directed:

"That a committee of seven be appointed (1) to consider the practicability of some readjustment of the work of the Dean's office which will relieve the Dean of the routine work with which he has heretofore been burdened; (2) to consider whether the election of the Dean for a definite term is preferable to election for an indefinite period; (3) to consider the method of nomination and election of the Dean; and (4) to consider such other matters bearing on the work of the Dean's office as may come before the Committee."

The Committee held four meetings, on February 22 and 25 and March 3 and 5. At the first of these one member was out of town, at the others all members were present. As a result of their deliberations the Committee recommended (2 Minutes, 144):

- (1) That an executive secretary to assist the Dean should be provided;
- (2) That a nominating committee of five members be elected by the Faculty to bring in a nomination or nominations for the position of Dean;
- (3) That the undersigned committee be empowered to canvass the Faculty by mail and to notify those who are elected upon this nominating committee;
- (4) That the term of office of the Dean be referred to the Nominating Committee for consideration and report;
- (5) That upon the presentation of the report of the nominating committee the Faculty shall by ballot elect a Dean;
- (6) That the Dean as the executive officer of the Faculty shall be given larger power in administering the rules established by the Faculty and in carrying out such policies as it may adopt;
- (7) That it shall be an important duty of the Dean to bring to the attention of the Faculty or of the appropriate committee such questions as in his opinion have a bearing on the welfare of the College."

Discussion of this report turned largely on the fourth recommendation. Differences of opinion had developed in the Committee, as afterwards they did in the Faculty, regarding the desirable term of office for an elective Dean. The form of the Committee's fourth recommendation is attributable in part to such differences, but more largely to the committee's feeling that the term to be set presented a question inseparable from that of the man to be nominated. The Faculty, however, were for settling the question of the term quite in the abstract. Proposals for a single year, for an indefinite term, and for three years without eligibility for reelection, were successively defeated and then "the Faculty recommended to the Trustees that the tenure of office of the Dean be fixed at two years" (2 Minutes, 147). Opportunity was further provided for nominations from the floor after the nominating committee should have spoken, the style of the new office proposed was altered from executive secretary to Secretary of the College, and the whole report, thus amended, was adopted by the Faculty. At the regular Faculty Meeting on the eleventh of April, the nominating committee unanimously presented the name of Professor Edward L. Nichols, '75, of the Department of Physics, as candidate for Dean. No nomination from the floor was offered and a ballot was ordered. There were one hundred and five persons entitled to vote if present. The tellers reported that sixty-six ballots had been cast and Professor Nichols was declared to be duly elected.

In transmitting a report of its action to the Trustees, the Faculty explained its views, in part, as follows:

"Of late years the work required by the Deanship of Arts and Sciences has grown greatly. In 1904-05 the College numbered 684 students. At present it counts over 1100. To each student in consequence of regulations adopted by the Faculty or by the Underclass Administrative Board (notably the regulations

designed to afford students some guidance in their election of studies, as detailed in President Schurman's Reports, 1905-06, pp. 25-26, and 1907-08, pp. 19-21) the Dean's office must give more than twice the amount of individual attention that was given in 1904-05. Records and correspondence have increased proportionately. In addition the Dean has been charged with the management of a large building, accommodating more than 70 teachers. No professor, with merely clerical assistance, can carry these duties, most of which must be discharged through personal interviews, without neglecting his obligations as a teacher and a scholar.

The reasons for proposing that many of the duties now falling to the Dean be henceforward discharged by a Secretary of the College are: (a) that the Faculty may freely command the services of any desired member as its Dean without gravely impairing his professorial usefulness, and (b) that the Dean himself, who is now to be "given larger powers in administering the rules adopted by the Faculty and in carrying out such policies as it may adopt," shall not be prevented by multifarious interruptions from performing what the Faculty now declares his "important duty," namely: "to bring to the attention of the Faculty, or of the appropriate committee, such questions as, in his opinion, have a bearing on the welfare of the College."

In the light of this explanation the Trustees approved the action of the Faculty and adopted its recommendation "with the express understanding that the Board is not committed to the two year term of office, nor to the other recommendations except during the present Deanship of Professor Nichols" (2 Minutes, 163).

The reservation thus made by the Trustees in approving the first step of President Schurman's plan obviously leaves the way clear to take the next step upon his return. He has recommended the establishment, as soon as possible, of a council for each college in Ithaca modelled on the Council of the Cornell Medical College in New York city. That body is composed of seven members. Three of them are trustees elected by the Board, two are professors elected by the Faculty, a sixth is the Dean serving *ex officio*, and all of them sit under the chairmanship of the President of the University. Should the College of Arts and Sciences receive such a council just at the time when its Dean, relieved of routine duties heretofore accreted upon his office, has been "given larger [undefined] power in administering the rules established by the Faculty and in carrying out such policies as it may adopt," the character of our deanship may be appreciably altered. As a member of the Council the Dean would regularly share in settling, by way of resolution to be transmitted to the Trustees, "whatever business now comes before the Executive Committee affecting the College of Arts and Sciences" (President's Report, 1911-12, p. 13). He would also have a vote, to be recorded for the Trustees, upon "all nominations for appointment" in the College. This is new. Whatever may have been the routine where deans were also directors, the Dean of Arts and Sciences, whoever he was, appears to have been consulted but irregularly about pending business or proposed appointments. Sometimes, therefore, he might know in advance of a project deeply affecting the College; at other times he would learn nothing of the matter until it had become *res adjudicata*. In this respect the proposed councils would work a change. While they might perhaps lessen the influence of a director, they could not fail to increase that of a mere dean. And now, having resigned as Dean, I wish after twenty years observation of the Deanship, including five year's experience in it, to record an opinion that the College of Arts and Sciences should profit if its Dean were granted, as a matter of official right, his constant share in the settlement of



all such business including appointments, instead of enjoying only an intermittent participation by reason merely of presidential grace or departmental favor.

#### THE GENERAL INTERESTS OF THE COLLEGE

Under present practice the constituent elements of our College are determined almost wholly by the autonomous action of departments. Departments originally suggest the great majority of all the appointments that, formally speaking, are made upon the recommendation of the President. Departments offer, or withdraw, such courses as to them severally may seem good. Departments decide, in fine, what the College should be and what it shall not be. Upon the elements thus provided "the rules established by the Faculty and such policies as it may adopt" actually operate from the outside only. The Faculty does its best with what it is allowed to work upon. But with anything that a department may claim as its own affair the Faculty sedulously avoids interference. A sort of senatorial courtesy has grown up. Happily it has not crystallized into a *liberum veto* such as paralyzed the Polish diet. But it has its consequences. Among them is this—that many matters really of general importance to the College as a whole either are settled solely by some department, or, if the settlement of them calls for an appropriation, then they are settled by the President and Trustees acting upon *ex parte* representations which the department has privately prepared. There is no replication. In cases where something should perhaps be said on behalf of the College as a whole there is no device for assuring that it shall be said.

To meet this state of affairs I have twice drafted a suggestion for inclusion in the Dean's report, and have twice laid it aside as not at all likely to prove acceptable, and as very likely to do more harm than good. Now, however, that other and, I hope, more promising means to the same end are under consideration, my project shall be here epitomized as a contribution to the impending discussion. Briefly it was that all departmental requests for new salaries or other appropriations be transmitted to the President in writing and only through the Dean's office; that the Dean, having no power to suppress or alter, should be allowed a reasonable specified time for examining them, and should be at liberty to accompany them, when they went to the President, with such recommendations as he might think appropriate; and finally that he should have the privilege of being present at any subsequent discussion of the matter between the President and the department, unless the President specifically decided otherwise. The purpose of all this would be that proposals clearly in the interest of departments should not fail of consideration in the light of general College interests also. As a rule these interests would not conflict. It is certainly not to be assumed that the recommendations of any department would consciously disregard the general interests of the College. But the department's point of view may easily become a partial one, and its obligation to consider the general interest is in any event more remote than its obligation to consider the particular interest that has been specifically committed to its especial care. The lawyer finds himself not dissimilarly placed. He is at once an officer of the court, charged with a general obligation of the law, and also the attorney for a particular client, whose case he must present in a favorable light. The duty of bringing out the other side lies with the opposing attorney. Such a device may work substantial justice when conflicting interests confront one another in open court. But with us the argu-

ments of departments are *ex parte* and may be quite unopposed. The President does indeed conserve the interests of the whole College, but he can do so only in the general manner of a judge sitting in chambers. He has repeatedly explained that his multifarious duties leave him insufficient time for forming a detailed acquaintance with the entire College of Arts and Sciences, and that his general obligations as President of the whole University must in any case forbid his undertaking for any particular college, however much he might be personally interested in it, a standing official duty such as he could not discharge for all of them. He is no more head of the College of Arts and Sciences than of the other colleges. In the sense, therefore, in which they have a headship, it has none. In consequence our College, and our College only, is not regularly represented when "business of every kind affecting" it is to be settled.

The suggestion above made, that in these circumstances the Dean might well be charged with a certain duty of representing the College as a whole, was not prompted by any delusion that a dean is personally or officially infallible. It is conceded that he would not know the affairs or needs of a department as well as the department itself. But it is submitted that many department affairs are also College affairs, and that the Dean, if relieved as the Faculty has desired that he be relieved of office routine, could learn to know the general situation, which departmental desires might affect, at least as well as departments are likely to know it. Should the duty privilege of commenting upon department requests be discharged by him in a manner betraying ignorance or partiality his recommendations would presently be disregarded. They could acquire influence only by proving themselves useful. And the existing situation affords such opportunity for their possible usefulness as perhaps to warrant trying the experiment.

Such were the considerations that brought my project, some time since, to paper. Other considerations withheld it from print. I recalled how, nine years ago, the Executive Committee had judged that "in contrast with the technical colleges of this University the College of Arts lacks organization, union and aggressive leadership" and how they had proposed that it "should have an administrative head charged (among other things) with the duty of . . . working for its . . . improvement as a whole." I pondered the Faculty's response to this suggestion (Dean's Reports, 1903-04, pp. xiv-xv; 1906-07, pp. xxxiii-xxxix). But for President Schurman's recommendation of a council these paragraphs would have made no part of this report. Since, however, he has suggested a device, presumably not repugnant to the Faculty, whereby the Dean shall share in representing the general interests of the College whenever needful, I am glad of the opportunity to put on record that such a representation, orderly and as a matter of college right, is what I have also hoped for. The notion that it might be achieved through the deanship alone was due rather to lack of imagination than to any desire to aggrandize that office. Three professors, serving as members of the Council, would, no doubt, serve more wisely than any one professor could.

#### DOUBLE REGISTRATION

In January a circular letter was sent to each member of our Faculty who had served, at any time during the last four years, as a member of the special committee of an Arts-Graduate Student, asking whether in his opinion the particular student had profited by the privilege of graduate registration after securing his

on hundred twenty hours of credit, and whether, on the whole, he approved of the present arrangement. In the replies received there was no clear preponderance of opinion on either question. The Committee on Educational Policy, which considered the answers, was able to draw only the obvious conclusion that the Arts-Graduate Students differed, some desiring to work and some to find "an easy committee." Accordingly the Faculty, as I suggested three years ago (Report 1909-10, p. xxxv), has taken the matter into its own hands, deciding that an undergraduate in the College who has satisfied all requirements for his degree except that of residence, may register in the Graduate School only upon approval by a committee consisting of the Dean of the College and two of the members of its Faculty, to be appointed by him (2 Minutes, 149). It is to be presumed that the Dean will appoint in each case two members well acquainted with the would be graduate, who, unless they are convinced that he desires to study and not to loaf, will withhold their consent to his double registration. Some such arrangement is needed for the protection of the Graduate School not less than the College.

A similar situation presents itself now and then with our seniors who are taking their work in one of the professional colleges. Such men often have a large surplus over 90 hours at the end of junior year, and a first term's successful work in law or medicine brings them so near to the sacred one hundred twenty that they must be remarkably inefficient not to reach it before their year ends. Meanwhile they may perhaps have changed their plans and may neglect their professional studies in consequence. It has even happened that an Arts student has satisfied all requirements for A.B. and was therefore graduated, although his last term's work, all done in the College of Law, was so unsatisfactory that had he been subject to the jurisdiction of the Law Faculty his name would have been dropped from its roll. Such a condition of affairs is neither satisfactory to the Law School nor creditable to us, and our Faculty has directed that measures be devised to prevent its recurrence.

#### ENTRANCE REQUIREMENTS IN LANGUAGE

In consequence of the new specification (Report 1910-11, p. xxv) that, beginning next September, all matriculants for the degree of bachelor of arts must offer at least three units in a first foreign language and at least two in a second, many applicants who would have been admitted heretofore will be excluded next year. Some effects of this are already foreshadowed by the recent correspondence of the Dean's office. It appears that a few of the rejected will continue their preparatory study of language until they can meet the new specification. Some will enter other institutions this fall. Most, however, knowing that any other undergraduate college of Cornell except this one may be entered by presenting only three language units among the fifteen required, will matriculate elsewhere in Cornell. And no sooner shall a delinquent of this stripe be registered in one of our sister colleges than we of Arts and Sciences will receive him into the very classes to which we have denied him access as an arts matriculant, and will proceed to teach him the very subjects for which we have, by implication, pronounced him unprepared. This Gilbertian situation emerging just as Kingsley's "College Entrance Requirements" was received has incited me to a re-examination of our Cornell practice regarding entrance specifications in

language. The results are offered as a supplement to previous reports on other phases of our entrance requirements (1909-10, pp. xxxix-xl; 1910-11, pp. xxiv-xxvi).

By the "old" or group system of entrance requirements, in vogue in this College until 1908, two preparatory languages were specified and "full preparation" was called for in each of them. Translated into the terms of the "new" or unit system, as now used, these old specifications covered the equivalent of four units of Latin, in case that language were offered at all, and of at least three units of Greek, German, French or Spanish, in case either of these languages was offered. The new system of 1908, on the other hand, reduced the total language specification to four units (Report 1907-08, pp. xxv-xxviii). Additional language units might be offered, and indeed commonly were offered, as optional credits. But four only were indispensable. It is indicative of the unstable equilibrium in which our entrance requirements are that, although this change was unanimously adopted by the Faculty (2 Minutes 25, November, 1907), some members presently came as early as May, 1909, to doubt the wisdom of it, and, in consequence, the Committee on Educational Policy was directed, by motion, to consider the advisability of requiring that each matriculant have "full preparation" in one language at least (2 Minutes, 71). The Committee's report, adverse to any further change, was met by the presentation, in the November meeting (2 Minutes, 78), of figures tending to show, as summarized in the Dean's report for 1909-10, p. xxxix, that "of the students admitted [with] the permissible minimum of linguistic preparation . . . an altogether disproportionate share . . . failed to meet the expectations of the Faculty, and came, in consequence, before the Committee on Academic Records." It was chiefly this circumstance, apparently, that induced the Faculty to retrace its steps and to establish in June, 1910 (2 Minutes, 93), the specification of five language units for September next. These otherwise insignificant procedural details are recited to make plain that in November, 1909, when the apparently decisive figures were considered by the Faculty, the test of time could not, as yet, have been applied to any numerous body of students admitted on the minimum preparation of four units in foreign language. Of such matriculants we had then known a single class just over a year, and a second class but two months. The number involved was not large enough to offer a safe basis for statistical deductions. At present, however, we have four full year's knowledge of both these classes (1912 and 1913) and also our experience to June, 1913, with the classes that entered in 1910, 1911, and 1912. What does the examination of this wider field indicate?

The total number of matriculants from September, 1908, to February, 1913, was 1546. Of these 464 were either dropped for insufficient scholarship or, at some time, placed upon probation. (The number 464 is less than the totals shown by the table elsewhere in this Report, because that table includes, in its earlier years, persons matriculated before 1908, and therefore omitted from the present discussion). It appears, therefore, that just 30 per cent. of all matriculants fell under formal disapproval for insufficient scholarship.

Of the 1546 matriculants there were 171 (not counting aliens or candidates for the degree of Bachelor of Chemistry) who were admitted with less than five entrance units in foreign languages. Of these 171 the number dropped or put

on probation was 51, or 29.8 per cent. In the year 1908-09, however, when the possibility of entering with less than five linguistic units was new, 41 persons availed themselves of it, and out of these, 17, or 41 per cent. came to grief. This was, apparently, the experience upon which alone the Faculty acted in June, 1909. But in 1909-13 there were 130 persons thus admitted, of whom 34 or only 26 per cent. came to grief against 29.8 per cent. of all matriculants.

My point is that these figures, so far as they warrant any inference at all, indicate that, on the whole, there is no substantial difference in the percentage of failures among students, admitted with fifteen entrance units, who have five or more units of linguistic preparation and those who have less than five. There is nothing novel in that conclusion. Years of successful experience in our own classes, with thousands of students who had registered in our sister colleges upon presenting three units only in a foreign language, might well have served to convince us that for the study of many, even if not of all, of the subjects taught in our College, such preparation was quite sufficient. This point, indeed, would not be worth laboring for had not our Faculty acted on the contrary assumption in increasing the amount of foreign language specified as necessary for direct admission to the work in Arts and Sciences.

Being now convinced that in 1910 our experience was misread, I turn to inquire what the experience of other institutions may suggest to us. That experience has been conveniently summarized by Mr. Clarence D. Kingsley, Chairman of the National Educational Association's recent Committee on the Articulation of High School and College. In his monograph on "College Entrance Requirements" (United States Bureau of Education, Bulletin No. 578, being No. 7 for 1913) "the attempt has been made to include the most important colleges of liberal arts and only such colleges." The number of these is 203. The following table shows (I) for all of them, (II) for such of them as are located in New York State, and (III) for the institutions composing the Association of American Universities, how many there are that specify for admission to their A.B. course (A) not more than three language units so that "complete preparation" in any single language will suffice; (B) four units, making Latin the only single language that will suffice; (C) five or more units so that two languages must be offered in every case.

Institutions	Total number	A Specify- ing not more than three units	B Specify- ing four units	C Specify- ing five or more units
I. In Kingsley's book. . . . .	203	83	49	71
II. In New York State. . . . .	20	1	3	16
III. In Association American Universities. . . . .	23	13	4	6

As to the composition of these groups it may be said in general that class A, requiring not more than one language, is the most diversified. It includes, besides many of the weaker southern and western colleges, also nearly all of the more important state universities and such recent endowed institutions as Chicago and Stanford Universities and Reed and Clark Colleges. Class C, requiring two languages, comprises most of the institutions in New England and the Middle States, together with many of the more conservative colleges in the West and some of the stronger ones in the South. The B class, of which the best known members are perhaps California, Columbia, Ohio State, and the University of

Virginia, follow an obvious compromise which has the merit, if it be a merit, of premiating Latin.

The disposition to place a premium upon the preparatory study of Greek or Latin appears also in the circumstance that of the 71 institutions specifying five or more language units for admission to their A.B. course, 68 stipulate the inclusion of one or both of the ancient languages. The exceptions, besides Cornell, are only Washington University in St. Louis, Lebanon Valley College in Annville, Penna., and three institutions of a pronounced special character located in New York City—the City College, the City Normal College, and Manhattan College.

It appears that of the 71 colleges in class A 28 maintain only an A.B. course. Forty-six of them, however, have also a B.S. (or similar) course, to which they admit on fewer language units than to their A.B. course. In every case, however, the B.S. course is apparently such as, if pursued at Cornell, might lead to the degree of Bachelor of Arts here. But of the 46 institutions on class A maintaining such B.S. courses there are but seven (Amherst, Boston, Brown, Central University of Iowa, Elmira, Muhlenberg and Princeton) that require as much entrance language from their scientific students as we do. Enough has been written to show that while our fifteen unit requirement for admission is justified by our experience and is sustained by general practice, our five unit language specification rests upon no such secure basis. On the contrary, whether we judge it with reference to our own elective curriculum and to our generalized A.B. degree, or to the present practice of other institutions, that specification, as made by us, is, for Cornell, an anomaly. The existence of such an anomaly should not indeed be deemed regrettable wherever experience has supplied a sound reason for it. But in our case the reason originally advanced has proved to be unsound. The conclusion therefore remains inadequately supported, and the question arises whether our College of Arts and Sciences should not content itself, as do the other undergraduate colleges of Cornell, with the specification of three units in a single foreign language chosen by the matriculant.

For an affirmative answer to this question the arguments, to my mind highly persuasive, fall into three groups. The first group proceeds from the need, I had almost said from the necessity, that the general division of Cornell University once called "The Academic Department," but now "The College of Arts and Sciences," shall be connected with such courses as the public high schools, for their general social purposes, may permit or encourage, in such a manner that the high school pupil who has developed, perhaps late in his course, the capacity and desire to do good work in any of the varied lines comprised in our College, may proceed unhampered by the necessity of learning the rudiments of a second foreign language which has been stipulated for his admission because somebody else was thought to need it. This whole group of arguments, set forth with vigor by the Boston Headmasters' Association, the High School Teachers' Association of New York City, and President Henry L. Pritchett of the Carnegie Foundation, has been summed up by the "Report of the Committee of Nine on the Articulation of High School and College" adopted at the San Francisco meeting of the National Education Association 11 July, 1911, (Proceedings, pp. 559-567; reprinted by Kinglsey, pp. 97-105). Without accepting all of the arguments of these several reports, I do consider as much of them as makes for a specification of but three language units to be well worth attention at the hands of the Faculty of Arts and

Sciences. One point I would add. These committees, composed solely of teachers from large cities, have passed over the case of the small high schools. Such schools, from which we receive many of our most successful students, are already finding it hard, and in view of the increasing demand for new high school subjects, are likely to find it still harder to maintain instruction in three or even two foreign languages. Many of them will probably find their solution, as some of them already have, in teaching one foreign language only, and in all such cases their graduates will be excluded from our College by a five unit language specification.

In the second place the relations of Cornell University at large with the secondary schools would be much simplified, and consequently, improved, if our several colleges should reach an approximate similarity of specification for admission. Inter-college relations at Cornell would be simplified also, especially with respect to transfers of registration; and admission to advanced standing, sought in general by a highly desirable sort of student elsewhere, would be facilitated.

In the third place if the College of Arts and Sciences is a general division of the University designed to serve all parts of it with whatever is not more appropriately furnished by one of the specialized colleges, the continuance by us of an entrance specification originally devised and commonly maintained by such institutions as provide only an education of the literary type, appears to be out of character. Here indeed lies the crux of the whole matter, and our Faculty will not reach a stable determination for two entrance languages, or for one, until it has faced and solved the question whether it is an organ of the University at large or not.

That is the question that presses upon us from all sides. The five year engineering courses, which are not proving to be the hoped for step towards a general pursuit of humanistic studies by engineering students (cf. President Schurman's Report, 1906-07, pp. 57-58 and Dean's Report, 1908-09, pp. xxxvi-xxxvii) are part of the question. So are the six year courses leading to two degrees, and all the devices of double registration. So is the proposal of a B.S. course above described. So are the suggestions that professors of agricultural economics, and of home economics, and the history of architecture and of drawing (2 Minutes, 2, 126, 128, 139, 196, 208, 223) be made members of our Faculty. So is the Faculty action (*do*, p. 159) directing that the Arts Announcement of Courses for 1913-14 include, as a temporary measure, several classes offered by various persons not members of our Faculty. So is the recent request from the Board of Trustees that we "examine the courses of study and report whether they may be reduced without impairing the efficiency of the College, and what limitations may properly be placed upon the extension and addition of courses." The reply that the Faculty shall make cannot fail to affect the whole University.

#### DELINQUENT STUDENTS

During the past ten years nine hundred seventy-seven students in the College or Arts and Sciences have come under the formal disapprobation of the Faculty on account of their insufficient scholarship.

Academic Year	Students dropped after examination			Students warned or put on probation			Aggregate for year	Total stu- dents regis- tered	Per cent dealt with
	First term	Second term	Total	First term	Second term	Total			
1903-04 . . . . .	15	1	16	37	13	50	66	734	9.1
1904-05 . . . . .	23	20	43	18	10	28	71	684	10.2
1905-06 . . . . .	21	16	37	20	18	38	75	705	10.4
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

\* Two freshmen were also dropped before Christmas for persistent neglect of work in spite of warning.

This is more than a quarter of all our matriculants. Whether the proportion of such delinquents is greater with us than in other colleges at Cornell I do not know. In any event it seems clear that much time, energy and money are being wasted upon persons who cannot, or will not, make good use of their opportunities.

The University is essentially an eleemosynary corporation. The question is not whether it shall give, nor indeed how much in the aggregate it shall give—for it exists to give all that it can—but to whom it shall distribute its gifts. At present it gives to all of its students, without exception, more than they pay for. In some institutions students are invited, I understand, to pay "full tuition," (what they cost the college) in case they can afford to do so. Might it not be possible to require full tuition of all whose work is unsatisfactory? Would it not be at least as desirable to discontinue making presents worth say \$150 a year to the student who has merited none as to diminish the present of \$450 made to those (largely in the College of Arts and Sciences—cf. Report, 1911-12, p. xxv) who, by proof of exceptional merit, have gained University scholarships? If every student whose unsatisfactory standing in his classes required that he be put on probation, were charged thereafter say fifty dollars per year extra tuition, and every student whose insufficient grades required that he be dropped, were obliged, upon reinstatement, to pay say one hundred dollars per year extra, one of two results would ensue. Either there would be more revenue or there would be fewer undesirable students. Such a plan would be difficult to administer no doubt. And the reaction of it upon the Faculty's practice in putting students on probation and in dropping them is not easy to foresee. But the reaction upon the students themselves directly and through their parents, could scarcely fail to prove salutary, if instead of an apparent toleration for slothfulness and indifference, the University were to mark its disapproval of them in a language "understanded of the people," in the money that talks, we might find a change of parental attitude, and therefore of youthful attitude, toward "work" and towards "activities" in College. We might find fewer parents of "prominent studes," and perhaps even fewer members of the Faculty, lauding the advantages to be derived from playing at business in school, and more of them appreciating that school is itself business.

On the 30th day of August I wrote to President Schurman as follows:



"Dear Mr. President:

I beg to tender to you and through you to the Board of Trustees of the University, my resignation as Dean of the Faculty of Arts and Sciences, to take effect at your pleasure, not later than the first day of July, 1913.

This letter written to you in accordance with an understanding that has subsisted between us for several months, is now sent somewhat earlier than otherwise might be the case because I hear that you are presently to undertake a public service abroad which will preclude your being in residence at the University during the coming year. I would wish, therefore, not merely to acknowledge with gratitude at this time the uniform patience and helpfulness which my colleagues in the Faculty of Arts and Sciences have showed towards me as Dean, but especially to thank you, Sir, for the large measure of confidence and the unfailing consideration which I have enjoyed at your hands. I am resigning the Deanship of the College of Arts and Sciences not on account of any uneasiness in that position due to causes possibly removable but solely, as you are aware, because I find myself incapable, while I continue to occupy it, of carrying on such work in my Professorship as I could wish to do."

To the Acting President of the University also, and to my colleagues in the Faculty of Arts and Sciences, more especially to those with whom, as members of the standing committees, I have especially shared in administrative responsibilities, I acknowledge generous co-operation. My office assistants have proved loyal and cheerful. Our relations with the students have been, so far as I know, not unsatisfactory. It is therefore without regret, though not without relief, that I find myself closing my last report as Dean of Arts and Sciences.

Respectfully submitted,

CHARLES H. HULL.

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## APPENDIX IV

### REPORT OF THE DIRECTOR OF THE COLLEGE OF LAW

To the President of the University:

SIR: I have the honor to submit herewith the report of the College of Law for the year 1912-13.

All courses announced have been carried on throughout the year with regularity except that the decrease in appropriations for the support of the College required the omission of the course in Admiralty. The course in Bankruptcy was given this year by Mr. James White Persons, LL.B. 1906, of the Buffalo Bar, and referee in Bankruptcy in the Western district of New York.

Professor Woodruff was taken ill a few days before the spring recess. His physician advising that a somewhat prolonged rest was necessary, the Trustees granted him a leave of absence until September. The Faculty has keenly felt the temporary loss of its senior member, but it is assured that he will resume his work in the fall with health entirely restored.

In order that none of the courses carried by Professor Woodruff should be interrupted Mr. Charles Laidlaw Williams was appointed at the close of the spring recess acting assistant professor, and has conducted with marked success the courses in Carriers and in Contract and Agency. Assistant Professor Stagg generously volunteered to complete the course in Domestic Relations.

A bronze tablet of unusual dignity and beauty has been placed in the lower library, bearing the following inscription:

TO  
WILLIAM ALBERT FINCH  
CORNELL A.B. 1880  
WHO FOR TWENTY-ONE YEARS 1891-1912  
HERE TAUGHT THE LAWS WITH DEVOTION AND INSIGHT  
THIS MEMORIAL  
IN GRATEFUL RECOGNITION OF LOYAL SERVICE  
IS ERECTED BY HIS STUDENTS AND COMRADES  
VIR BONUS JURIS PERITUS

With the surplus of the fund subscribed for this memorial, three hundred and seventy-three volumes of New York Reports were purchased from Professor Finch's estate. These, under the name of the "William Albert Finch Collection," have been marked with an appropriate book plate and added to the library. One of the large office rooms on the second floor of Boardman Hall has been set apart for Faculty use, and this collection together with the books presented by the late Judge Francis M. Finch, and others contributed or lent by members of the Faculty has been placed in this room. In this way these two memorial collections will be preserved separate and intact and at the same time the Faculty is provided with a convenient room adjoining the individual offices of the professors and equipped with the books most frequently demanded for their use.

The following table shows the registration in the College for the past 14 years:

Year	Seniors	Juniors	4-Year	2 4-Year	3-Year	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

It will be observed that there has been a marked decrease in the number of new students, especially in the four-year course. Preceding reports have called attention to causes operating or soon to become operative which would tend to bring about such a decrease. There has been a general tendency to raise the standards required for admission to the Bar and this tends to decrease the aggregate number of those seeking admission. Considering recent conditions in the profession this result is desirable, provided, of course, that those deterred from seeking to enter are those least fitted. Concurrently with the enforcement here of the requirement of one year of general college work as a preliminary to professional study, the State of New York began to require a year of office clerkship in addition to three years of study either in a law school or in an office. The concurrent operation of these two requirements affects this College in particular.

Columbia University is a graduate school. The other seven schools in the State have no requirement of preliminary college work and several admit on the New York Law Students Certificate. Students may enter any of these seven schools direct from the high school and obtain admission to the Bar after four years of professional study. If they come to Cornell, it will require five years of college and professional study as a minimum. Our experience in introducing the new requirements indicated that they might not cause any decrease in attendance, but the unexpected additional year of clerkship imposed by the State, together with our own additional requirement, has apparently determined the choice of a number of students in favor of other schools. It is probable that those who in spite of the additional requirements seek to enter Cornell will prove more earnest and better fitted students than those in this way lost. If so, the loss from this source is not to be regretted. The rules of the State, however, continue to discriminate in favor of office students, in spite of the apparently unanimous opinion of those conversant with the subject that the day of efficient office study is past, and that systematic and thorough instruction in law can now be obtained only in the schools. An office student need present merely proof that he has been in regular attendance in the office of a practitioner during the regular business hours and engaged in the ordinary office work. A law school graduate must present evidence that he has been in regular attendance upon all the courses required for the LL.B. degree, that these constitute at least ten hours per week of regular recitations and lectures, and that he has successfully passed final examinations in all subjects required for the degree. It is to be hoped that the Court of Appeals will soon see its way to place preparation for law on somewhat like the same plane that the legislature now demands for medicine, veterinary medicine and dentistry, by requiring a complete law school course of all applicants for admission.

The announcement of a considerable increase in the fee for tuition to take effect during the course of those about to enter will have a further tendency to decrease our numbers. With the present instructing staff, it is doubtful whether efficiency is not impaired if the number of students greatly exceeds three hundred. Up to this number efficiency is not impaired, and it is to be hoped that counteracting tendencies will operate against those just mentioned to maintain our numbers at approximately the present figure.

In addition to the students in the College of Law 39 students from the College of Arts and Sciences have been pursuing law courses. Of these 13 took all the first year subjects. The total number is considerably larger than last year, but fewer have pursued the combined course leading to the degrees of A.B., and LL.B., in six years. This decrease is probably accounted for by the new rules for admission to the Bar in New York. Under these, admission to the Bar can no longer be attained earlier by devoting the senior year in Arts to law study.

Of the regular law students, 97 are from outside the state of New York. Last year there were 117; in 1910-11, 97; in 1909-10, 93; in 1908-09, 74; in 1907-08, 63; in 1906-07, 62; in 1905-06, 57.

During the year one student died, 8 were dropped for failure in work, 3 transferred to other colleges of the University, 2 were graduated in February, and 13 withdrew because of illness or other personal or family reasons.

Sixteen students hold academic degrees, but only two of these are in the first-year class. A special student already has the LL.B. degree.

The Director recommends that as soon as practicable provision be made for the introduction of several new courses. A course should be offered in Federal Jurisdiction and Procedure. The extension of the exercise of federal powers and the consequently growing appeal to the federal courts render this of great importance. Courses in Irrigation and in Mining Law should also be provided, largely to meet the needs of the growing number of students from the Western states. Such courses are given in all the Western schools and have recently been introduced in the leading law schools of the East. These courses might well be offered as senior electives.

The Conkling Chapter of the legal fraternity of Phi Delta Phi commemorated the twenty-fifth anniversary of its installation by presenting to the University a considerable fund wherewith to pay the expenses of special lectures. It conferred upon the present Dean the honor of giving his name to the lecture course so provided. The Chapter expects to add from time to time to this fund, but it is already sufficient to provide one or more lectures each year.

The report of the librarian is herewith submitted. The decreased appropriation has necessarily curtailed purchases to a considerable extent, and has forbidden the desired increase in the circulating section. Nevertheless, continuations have been fairly well maintained and absolutely necessary purchases have been made.

Respectfully submitted,

FRANK IRVINE,

Director of the College of Law.

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## APPENDIX V

### REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to make the following report upon the work of the Medical College for the year ending June 12th, 1913.

We had in attendance 93 undergraduate students, 19 candidates for the degree of M.D. in 1913, and 41 special students, most of whom were in effect taking post-graduate courses; 2 students took the course offered toward the Ph.D. degree.

For the details of the activities of the several departments I refer you to the individual reports, this report containing but a summary of the work performed.

Soon after the school began in 1898 it was definitely settled that while the institution was dedicated to medical education, required to qualify students for the practice of medicine, the grade of this education was so much dependent upon the higher attainments of teachers, that efforts were made to attach and hold workers of this class. To this end every facility toward activities in research was offered, with the distinct understanding associated therewith that research was at all times subordinated to the obligations and necessities of the regular undergraduate course required for the degree. These conditions have been

faithfully met in all departments, giving as a result a satisfactory tone throughout all the activities of the school.

#### ANATOMY

Progress in the department continues along satisfactory lines, to the end that all its subdepartments from the beginning of the coming session, will be thoroughly correlated and administered from the section of the building (the fifth floor) constructed for this purpose. The necessary fittings of the southwest room are being made so that all the microscopic work of the classes can be carried on there. Apart from the convenience secured by this arrangement, a place is provided at which in the beginning of his medical studies the student masters the technical methods essential to all studies in microscopical anatomy, normal or pathological. The frequent demonstrations on the living body in the first term, supplemented by dissected parts and transparent specimens, form an admirable footing for the course in applied anatomy, serving well to fix attention upon structures which are of particular medical and surgical importance.

#### PHYSIOLOGY

Through the influence of Professor Lusk the Russell Sage Institute of Pathology has been placed under the direction of the head of the Department of Physiology by the Trustees of the Institute, with the consent of Mrs. Sage. The Atwater-Benedict respiration calorimeter has been installed on the Cornell Medical Division at Bellevue Hospital, and is now being operated under the direction of Doctor DuBois, lecturer in Clinical Physiology.

The College is fortunate in the development in this department of a closer relation with clinical medicine than seemed possible but a short time ago. Apart from the interest from the student standpoint thus developed, is the breadth of methods of instruction forced to the front in the teaching of clinical medicine and surgery. This is particularly evident in the domain of preventive medicine, where the normal rather than the pathological is of such importance. The instruction which impresses upon the student the advantage of the dual approach to his problems (that from the pathological to the normal, and that from the normal to the pathological) is of the greatest service, particularly when in after life as a practitioner, he finally settles for himself some routine to be followed in dealing with his cases.

Special mention is made in the report of some of the activities of Assistant Professor Murlin and Assistant Professor Wiggers. In this connection it is best to submit here an extract from Professor Lusk's report.

"Professor Murlin and Doctor B. Kramer have made some studies of the pancreatic extract on the metabolism of depancreatized dogs. Also, in association with second year students, Professor Murlin has been recording the effect of simultaneously clamping the abdominal aorta and the inferior vena cava on the oxygen and carbon dioxide content of the blood.

Dr. Wiggers spent the summer in Munich with Professor Otto Frank who ranks to-day as a master of the physiology of the circulation. His methods and apparatus have been employed by Doctor Wiggers in this department for the first time in this country. During the past year a room has been fitted up for the photographic recording of body functions, a method destined to replace the smoked paper registration in all work demanding extreme accuracy. The equipment has been specially selected for work on the circulation."

## CHEMISTRY

Owing to changes and additions carried through by Professor Benedict this course has been greatly improved. Formerly, fully equipped as to space for illustration and for demonstration in conjunction with lectures, the necessities of other departments caused this to be seriously curtailed. This deprivation has now been remedied satisfactorily. Additional time for lectures has a so been secured for physiological chemistry, broadening and permitting better co-ordination of this subject. A gratifying advance, in the quality of the entering students as a whole, is reported. This is a matter of much importance not only to this department but to all others, because it shows a better meeting of two out of the three requirements for admission to the College, Chemistry and Physics.

Professor Benedict continues in charge of the chemical work carried on by the Huntington Fund in its research work in the domain of cancer. This has made necessary the connection with the research staff of the General Memorial Hospital, to which he has been recently appointed.

## PATHOLOGY

Instruction in the various branches of the department have been conducted without interruption and with steadily increasing efficiency; for the first time in the life of the College there were no students conditioned in the final tests in pathology which are made at the close of the third year. For a long time the field of Surgical Pathology has suffered for the want of special workers. This now bids fair to cease. Under the care of Doctor B. J. Lee it has been rapidly developed during the past two years. Greater interest, however, is still needed on the part of the surgical specialties. Exceptions, however, must be made in the work of Dermatology and Ophthalmology, both having perfected arrangements by which demonstration of actual material will be made as part of their course. Other departments, notably Gynecology and Orthopaedic Surgery must give more attention than they have to this essential. Steps will be taken to secure this at their hands.

At the departure of Professor Buxton arrangements were made to conduct the activities of the subdepartment of Experimental Pathology under the direction of Doctor Torrey, aided by Doctor Teague.

Doctor Torrey has completed a remarkable work on dog distemper and published the results; now he is engaged in conjunction with Professor Coleman in a study of the influence of diet on intestinal flora in typhoid fever. Doctor Teague returned to us from the Philippines after a three years' absence in which among other activities he was able to demonstrate that bubonic plague is an air borne disease. He resumes his place in the subdepartment and is studying problems in the communicability of diphtheria and in cancer.

I desire to call your attention to the following extract from Dr. Ewing's report:

"An important enlargement of the work of this Department has come through the clinical study of cancer at the General Memorial Hospital. The twenty-four beds devoted to cancer in this hospital have enabled the staff of the Huntington Fund to greatly extend the work in this subject. A still further increase in these facilities appears imminent. Meantime the laboratory studies in cancer problems in this and other departments has felt a greatly increased stimulus. The third report of the Huntington Fund for Cancer was issued in December 1912."

The practical results reached in these several departments are more complete each year. The fundamental changes in the practice of medicine, surgery and obstetrics, which have come to the fore in the past 15 years, are fully appreciated and are met in the courses presented in each of the departments concerned in the studies of the first and second years, but it has occurred to some of us that a better collaboration might prevail than now appears. To this end enquiries are being made of the several heads of departments with the hope of bringing this about.

When we began, what in reality is the laboratory method, in the clinical teachings of the third and fourth years, it was a problem whether we could efficiently cover medicine, surgery, obstetrics and certain of the broader specialties in this way, the difficulty being mainly one of variety and number of the clinical cases to be had; seeing that each student must personally investigate each of his cases and suggest a line of treatment therefor. It would be impossible anywhere to find cases covering the entire field of practice, but our connection with the New York Hospital together with our facilities at Bellevue Hospital enables us to cover the larger and more important parts of this field, and to give each student enough cases to thoroughly develop his fitness in this advanced work. The students *realize* especially well in medicine, in which this ward work begins in the third term of the third year and continues through two-thirds of the fourth year, ending in a ten weeks course in the dispensary. In this connection I make a condensed statement from Professor Thompson's report which says that the experiment of finishing in the Dispensary the practical work of the students in his department, has proved a success. In the wards they studied bed cases, here ambulant cases, the same complete methods being employed in each class. He also makes the gratifying statement that the students come into the Dispensary so thoroughly trained in clinical microscopy they were able to conduct to completion any investigation which might arise in the course of their study of the cases—this too without the supervision of a special instructor.

There is, however, still a defect in these ward studies, medical particularly; it is the extreme difficulty the hospital has in securing autopsies. We have abundant pathological material for the purposes of the Department of Pathology, and this admirable course makes us feel all the more keenly our loss in failures to secure autopsies, especially in cases students have studied. The prime obstacle lies in the state law as now worded. To meet this defect Dr. Thompson has organized, under Dr. Floyd, pathological demonstrations once a week in Prof. Ewing's laboratory, these demonstrations being in connection with the students' cases in the wards.

In other departments, unless it be Orthopedics, owing to lack of time little can be developed beyond demonstrations to small sections of the class as heretofore. In this connection, however, a system of post-graduate instruction is being developed, especially in the department of the eye, which ultimately may attract our students to the completion of a course, which in an undergraduate course in these specialties, is of necessity incomplete.

Let me renew suggestions made in last year's report concerning the co-ordination of the work in neurology and psychiatry; and here let me lay stress upon the great importance of psychopathology as part of proper medical education upon the importance therefore of its development as an essential to a course of study in any medical college.

## EXPERIMENTAL THERAPEUTICS

As already stated, a certain amount of investigation goes on in all departments of the school rigidly subordinated however to the obligation to the curriculum. The Department of Experimental Therapeutics, however, is free from such obligation and is expected to give its entire self to works of investigation. Having an intimate connection with the Huntington Fund for cancer research, much of its time is given to this work both in the Loomis Laboratory and in the wards of the General Memorial Hospital. Assistant Professor Weil, under the general supervision of the Professor of Pathology, acts as director of this work in the wards continuing also his studies on cancer at the laboratory. The following condensed statement is an outline of most of the work. One of the assistants, "Miss Van Alstyne, has done valuable work in the same field, notably in a study being made by Professor Beebe of the effects of fulguration upon transplantable sarcoma in rats, and in one of her own carried to completion to determine the effect of non-carbohydrate diet upon the growth of transplantable rat sarcoma. She also has aided in preparation of colloid copper, used as a therapeutic agent in treatment of inoperable malignant growths because of favorable reports of Dr. L. Loeb. A number of hospitals were supplied with it from this laboratory. Dr. Feldstein engaged on two lines of work. Completion of study on the effect of thyroid administration upon character of blood count. Also working on study of hormone factors concerned in secretion of milk. Dr. Cook studying both from laboratory and clinical standpoint treatment of hay fever by means of vaccine obtained from certain plants, seed and pollen. He will report more fully after the present Hay Fever season has passed. Has made extensive clinical and laboratory study of number of problems connected with nephritis. Dr. Berkeley has continued work under pay of Huntington Fund. Devoting large part of time to study of preparation and clinical application of serum for treatment of malignant growths. Two additions to staff made possible by reason of special gift obtained by Dr. John Rogers, namely, Miss Jessie A. Moore, a trained chemist; Mr. C. G. Fawcett, a physiologist. Purpose of gift to make possible through study of chemical characteristics and physiological action of proteins obtained from a number of glands of internal secretion. Thus far concerned with two glands: the thyroid and adrenal. Too early to report results. Dr. Rogers personally very much interested in this work and devoting much time to it. Dr. Albee has made a study of transplantation of bone grafts in dogs. Results have been recently published. Dr. Albee has applied these methods to surgical treatment of large number of patients having a variety of deformities. Experiments have made it possible to improve technique of operation in no small degree. Dr. Charles Goodman made a number of experiments to improve technique of kidney transplantation. Endeavoring to modify methods in such a way as to make it feasible to make kidney transplantation to human patients. No statement of results as yet. Dr. C. G. Taylor has been engaged in a study, the purpose of which is to adapt certain serum reactions, originally devised by Abderhalten, to diagnosis and treatment of certain little understood diseases of human patients. Preparation and distribution of serum for hyperthyroidism continued during past year with increasing activity. During past year has been furnished to physicians in England, Germany, Mexico, Brazil and all parts of United States and Canada. As to making of serum, see report. Large amount



of tablets of extracts of glands of internal secretion made during past year. Commercial firms not successful in making them. College staff, dispensary and hospital furnished. Year just closing very active. Practically all persons now constituting staff developed as research workers in this laboratory and process must continue."

I refer you to Prof. Beebe's report for a fuller statement, and to the volumes of studies issued from our Pathological Department for completed reports from the workers named.

Respectfully submitted,

W. M. POLK,

Director of the Medical College.

## APPENDIX VI

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

SIR: I have the honor to submit my eleventh report as secretary of the Medical College at Ithaca for the academic year 1912-1913.

This, the fifteenth year of the medical college and the fifth with the higher entrance requirements, has been most satisfactory. There have been few changes in the teaching staff and these only among the assistants. The curriculum and the method of instruction have remained the same as last year and as a result the work has been more efficiently carried out. The enthusiasm of the Faculty not only for the large amount of research which is under way but also in the work of teaching has continued unabated.

#### MEDICAL STUDENTS

The number of medical students registered in the college has been the same this year as in 1909-10 which was the smallest registration in the history of the college. Seven of the nine students registered were seniors in the College of Arts and Sciences. One of the graduates was from Cornell and the other from Ohio University. One of the students withdrew during the first term but will reenter next year. This student held the only medical college scholarship, equivalent to free tuition, which was granted this year. In previous reports, I have pointed out that we must expect the greater number of our students from our own college of Arts and Sciences as there will be few graduates from other universities who will come to Ithaca for a single year. The registration in the college here during the past five years is given in the following tabulation.

	1908-09	1909-10	1910-11	1911-12	1912-13
Men { graduates .....	5	3	3	3	2
seniors .....	7	3	6	7	5
Women { graduates .....	0	3	5	3	0
seniors .....	1	0	2	0	2
Total { graduates .....	5	6	8	7	2
seniors .....	8	3	8	6	7
Total .....	13	9	16	13	9

## STUDENTS FROM OTHER COLLEGES OF THE UNIVERSITY

In addition to the instruction given to medical students, the Faculty of the Medical College gave instruction to many students in other colleges of the University. From the Graduate School six students have been registered in the department of Anatomy; 8 in the department of Histology and Embryology; 12 in the department of Physiology; and 5 in the department of Biochemistry. Besides these in the department of Anatomy 1 Arts student was registered for dissection of the upper extremity in the second term and 1 for the dissection of the abdomen in the first term. In the department of Histology and Embryology in the first term 17 students were registered for the Arts course in Histology and Histogenesis of the Tissues; 10 in special Histology and Technique and 1 for advanced Histology and Embryology and 1 in the Seminary; while 46 Veterinary students were taking the course in Veterinary Histology and Embryology. In this department in the second term 10 students were taking the Arts course on the Histology and development of the organs; 14 the Embryology of Vertebrates; 1 advanced histology and embryology; 1 the seminary; and 36 veterinary students were taking the course on veterinary histology and embryology. In the department of Physiology in the first term 4 students were taking the lectures and recitations on the physiology of the cell, muscle, nerve, heart and circulation, blood, lymph, and respiration with the medical students. In the second term 334 students were taking the Arts course of lectures in elementary human physiology and 16 were taking the Arts course in the laboratory in experimental physiology; 1 was doing advanced work in physiology; 4 students were taking the course on digestion, excretion, internal secretion, animal heat, and reproduction with the medical students; 4 in the course on the nervous system and special sense organs; and 1 in the seminary in Physiology and Biochemistry. In Biochemistry in the first term 14 were taking the lectures in elementary biochemistry; 7 the lectures on special chapters in biochemistry. In the second term 3 students were taking the lectures on general biochemistry and 1 the laboratory work in practical biochemistry with the medical students; and 2 were taking the Arts course in laboratory biochemistry.

From the above it will be seen that a very considerable amount of instruction is given to students other than those of the Medical College by all the departments of the Medical College except the department of Anatomy. This department formerly gave instruction in Anatomy to Arts students with the medical students but the Faculty of the College of Arts and Sciences considering this a technical subject abolished it as an Arts Course. Separate courses in human anatomy could easily be given for Arts students. A course in neurology could also be given for Arts students with very little effort. Since Dr. Wilder retired the only courses in neurology in the University are the courses in the Medical College for medical students. The expense to the University of providing these courses for Arts students would be slight.

If the courses enumerated above were not given by the Faculty of the Medical College they would either not be given at all or else it would be necessary for the Trustees to appoint instructors for this special purpose. The advantage to the University of having courses given in connection with those in the Medical College is considerable. We must, however, carefully guard against the tempta-

tion to call upon the instructing staff for so much time that they will not have sufficient left for their own study and investigation. We believe that as a rule the best results are obtained by a happy balance of these two functions of a university professor.

The work in Anatomy has changed very little in any particular since last year. The assistant professorship still remains unfilled because we have been unable to find a properly qualified man to recommend for the position. The work has been in charge of Professor Kerr; Dr. Webb, a practitioner of Ithaca who has given a part of his time to the department; and Mr. Davis, a graduate of the College of Arts and Sciences who had taken his first year of medicine. The assistants have both been most painstaking and conscientious in their work and will be with the department again next year. Mr. Davis is planning to take his Ph.D. before going on with his medical course with the idea of a career in anatomy after graduation in medicine. There have been every year for some time a number of good teaching positions in anatomy and very few qualified anatomists to fill them. It is hoped that by training young men as we are now doing that after graduation in medicine they may elect anatomy rather than the practice of medicine as their life work. With two new assistants in the department the professor of anatomy has devoted practically his whole time to teaching and running the department and has had very little time for research. Some fine new specimens have been added to our collection but we shall need during the next few years to replace a considerable number that are becoming worn out through use. The department is much gratified that the University will be able next year to furnish additional electric power so that this summer new motors can be installed for the ice machine and the elevator. The use of these only at night during the past two years has caused much inconvenience and much loss to the College in the time of the attendant.

The Department of Histology and Embryology has been in charge of Professor Kingsbury who reports that in place of Instructor Smith, who left to accept a promotion in the University of California, two assistants, Messrs. Kingery and Shilliday, have divided the work. They have done their duty with energy and enthusiasm, devoting more than the prescribed time to making their teaching effective. He commends very highly Instructor Badertscher for his devotion and conscientiousness and his effectiveness as a teacher. He has had practically entire personal charge of the laboratory work of the Veterinary students and the research which he has done has been of a high order. One of the rooms in the basement has been fitted up as a research laboratory for the department. There has been a need for adequate quarters for the temporary storage of living animals for departmental work and for the breeding of small animals for embryological work. It is hoped that more adequate quarters may be provided by next year. A small amount of additional equipment in the way of more tables and microscopes is needed to keep the department on a modern basis; also additional means of illustrating by charts, lantern slides, and actual preparations. These will be gradually acquired from the yearly appropriation and through the activity of the staff. It is also desirable in this department that the work of janitor service should be separated from that of preparator. The large amount of technical work necessary in preparing microscopic specimens for the class and for research requires practically the whole time of a trained technician and this should be

supplied the department as soon as possible. During the year four papers have been published from the department and a number of important problems are being investigated.

In the Department of Physiology and Biochemistry the faculty has remained the same this year as last. The medical courses have not been materially changed. For some unexplained reason the attendance in the Arts course in Physiology has more than tripled this year and has overtaxed our facilities because of the large number. This has been remedied in the coming year by offering the course for both the first and second terms. To take care of the large number this year the class was divided, Professor Simpson teaching the larger part and Assistant Professor Dresbach about 60. Assistant Livingston was called upon for increased time and has been recommended for next year as an instructor. Many new pieces of apparatus have been made by the laboratory mechanic and added to the equipment. Many parts of the string galvanometer which was ordered more than a year ago are yet undelivered. The complete apparatus will, however, be received soon and will be a great addition to the laboratory. Arrangements have been made with the Veterinary College for the use of four stalls for the accommodation of our experimental animals in their abandoned contagious ward and it is planned this summer to enlarge the animal operating room on the basement floor.

The work in Biochemistry has been in charge of Assistant Professor Hunter and Instructor Givens. In response to the evident demand on the part of other than medical students for laboratory instruction in Biochemistry a new course has been instituted this year.

A partition which separated the east end of the general laboratory from the supply room was removed and arrangements were made for caring for the supplies in the research room. This enlargement of the laboratory made it possible to give the lectures and recitations in this room which is a decided advantage for work of this character. One of the rooms in the basement floor has been fitted up as a private laboratory for the Department of Histology and the Department of Biochemistry.

During the year twelve articles have been published from the Department of Physiology and Biochemistry and work is in progress upon a number of other problems.

The work for the year has been most satisfactory. The particular aim of the college here is not only to give a thorough training in the fundamental branches of the medical curriculum but also to foster the spirit of research. The effort of the college has been to prepare the students not only to be good practitioners of the healing art but also to make them scientific physicians who shall go progressively forward after graduation. The high entrance requirements with the correspondingly small attendance and at the same time increased expenditures to maintain the high standard will always make the instruction in the medical school very expensive. The very considerable number of students from other colleges of the University who receive instruction from the Faculty of the medical school decreases materially the per capita cost in this particular. The influence of the University upon the medical school and of the medical school upon the other departments of the University is a very important side of this matter. The Ithaca Division of the medical school has contributed in a very large degree

to the high standard of the medical college and the reestablishment of the second year's work at Ithaca would add greatly to the influence of the University upon the Medical School and of the Medical School upon the other departments of the University. I have pointed out repeatedly the opportunities here offered for some benefactor to endow the Ithaca Division of the Medical College.

Respectfully submitted,

ABRAM T. KERR,

Secretary of the Ithaca Division of the Medical College.

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## APPENDIX VII

### REPORT OF THE DIRECTOR OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to transmit herewith a report of the New York State Veterinary College for the academic year 1912-13.

#### GENERAL

The work of the year just closed has been very satisfactory. The number of students entering last fall was 14 per cent. larger than the previous year. The efficiency of the instruction has been greater than heretofore due largely to the retention of experienced teachers. The importance of the results of investigations relative to animal diseases has been equal to that of other years. Both Faculty and students have been encouraged by the prospects of having in the near future adequate hospital and clinic facilities which the new buildings will provide.

Very few changes have taken place in the teaching staff. The Faculty consists at present of five professors, two assistant professors, nine instructors and one student assistant. While this constitutes the Veterinary College Faculty, the fact should not be overlooked that the University, in keeping its agreement with the State to provide instruction in subjects included in the Veterinary curriculum which are taught elsewhere in the University, furnished instruction in Animal Husbandry, Chemistry, Embryology, Histology and one course in Animal Parasites. In return this college furnished instruction to such University students as care to take subjects in its curriculum. There are at present 133 students from other colleges taking the course in Veterinary Physiology and 16 the one in Bacteriology.

The necessary work in connection with the college office, care of buildings, experimental animals and attendance in the different departments requires a pay-roll of nine persons.

#### ATTENDANCE

The total number of students in the college this year is larger than in any previous year. The appended table gives the registration by years since 1896.

The drop in 1905-6 was due to the enforcement of a four-year high school course for entrance.

#### TOTAL REGISTRATION BY YEARS IN THE NEW YORK STATE VETERINARY COLLEGE

1896-7.....	11	1902-3.....	62	1908-9.....	93
1897-8.....	17	1903-4.....	86	1909-10.....	101
1898-9.....	23	1904-5.....	108	1910-11.....	106
1899-00.....	30	1905-6.....	88	1911-12.....	110
1900-1.....	45	1906-7.....	86	1912-13.....	123
1901-2.....	51	1907-8.....	80		

In the early days of this college when the student body was small and there was a great demand from the government and agricultural experiment stations and colleges for veterinarians, many of the graduates accepted positions outside of the State. During the last few years, however, a much larger number of the graduates have settled in this State to practise their profession. The following summary of the present occupation of the alumni may be of interest:

Total number of graduates 275. Of these 31 came from other states and countries. There are now 142 practising veterinary medicine; 47 in government service; 6 in United States army; 32 teaching (veterinary subjects); 10 in state and city veterinary work; 9 in sanitary work (dairy inspection); 4 in veterinary administrative work; 11 in human medicine and other business; 3 studying in colleges; 3 unknown; and 8 dead.

Of the 267 living graduates 166 are in New York State. Of these 118 are in practice and 13 are teaching. The others are engaged in veterinary inspection work, state veterinary service and government inspection work in packing houses in New York, Albany and Buffalo. It is important to note that with the attractive inducements to go out of the State to engage in various lines of professional work 44.2 per cent. of the graduates are actually practising their profession in New York State. Of those who have graduated since 1908, 61 per cent. are in practice in this State.

#### INSTRUCTION

The college is organized in six departments each of which has for its duties the teaching of the subjects which naturally come within its designation or which have been assigned to it.

The increasing demands upon the veterinarian necessitate definite knowledge of a much wider range of subjects than formerly and more than it is now possible to give in a three year course. In the near future the course must be extended to four years.

The department of Anatomy is now occupying its enlarged quarters which are rapidly being equipped with modern appliances for teaching that subject. It is hoped that in the near future the anatomical part of the museum will contain large numbers of skeletons and dissections that will be of much educational value to practising veterinarians.

The buildings for the medical clinics now under construction are expected to be ready for occupancy in a few months. Dr. Udall spent last summer in Europe studying methods of teaching Veterinary Medicine in the large veterinary colleges there. With the completion of the buildings and their equipment the departments of medicine for both large and small animals will for the first time

be adequately housed for giving thorough teaching in those subjects. The training that is being given in physical examination and the ambulatory clinic, which supplement the regular clinics, are two features in the practical teaching of medicine and surgery that are worthy of special mention. The clinics of the college provided during the last college year a total of 1749 cases.

In addition to the regular teaching we were favored during the year with instructive lectures from the following gentlemen: Dr. C. E. Clayton of New York; Dr. T. G. Brodie of Toronto; Dr. W. G. Hollingworth of Utica; Dr. J. J. Kinyoun of the Health Department of Washington, D. C.; Dr. George H. Berns of Brooklyn; Dr. J. G. Wills, Chief Veterinarian of the State Department of Agriculture, Albany; Dr. W. H. Phyfe of Middletown, N. Y.; Dr. Frank H. Miller of New York City; Dr. John W. Adams of the University of Pennsylvania; and Mr. Augustus S. Downing of the Education Department, Albany. These lectures were of much value in bringing the student into closer touch with practical veterinary work.

The department of Comparative Pathology and Bacteriology has continued the routine of diagnosis for veterinarians and live stock owners of the State and the preparation of certain biological products. A summary of the diagnosis work during the year 1911-12 is as follows:

Examinations for anthrax, 40 specimens; for glanders 555; for poultry diseases 76; for rabies 180; for tuberculosis 48; miscellaneous 139. There were prepared and distributed in the State 3,990 doses of anthrax vaccine; 4,237 doses of mallein. and 55,681 doses of tuberculin.

The calls for anti-hog-cholera serum have increased rapidly during the last year, the output (5751 doses) being nearly twice as much as in the preceding year. This serum is prepared by Drs. Milks and Birch.

#### RESEARCH

The essential subjects that have been under investigation during the year are as follows:

The elimination of tubercle bacteria from infected cattle.

The value of physical examination in the control of tuberculosis in cattle.

Infectious abortion.

Methods for diagnosing glanders.

The study of poultry diseases, especially bacillary white diarrhea.

The continuation of the investigation of methods for detecting bob veal.

John's disease.

(Reports on some of these have already been made.)

#### EXTENSION WORK

The extension work of the college consisted in "a conference for veterinarians," exhibitions at state and certain county fairs, lectures and correspondence. In January a two-day conference for veterinarians was held to which every licensed veterinarian in the State was invited. The response was splendid, there being fully 15 per cent. of the practitioners of the State in attendance.

During the year several members of the Faculty have given lectures at farmers' gatherings on the control and prevention of animal plagues. A course of lectures

on animal hygiene was given to the short-course students in Agriculture. Short special courses on the diseases of poultry and their prevention were also given to the students in the short course in Agriculture who were specializing in poultry husbandry.

#### NEEDS OF THE COLLEGE

In the original plans for the college the first two floors of the center part of the main building were set aside for a museum. The value of a properly arranged museum for veterinary anatomy, pathology and hygiene can not be fully measured. Many animal owners come here for information which could be given them best by the use of specimens. It has been necessary, however, from the beginning to use the second floor for a recitation room and laboratories and the offices for administration are small rooms temporarily partitioned off from the museum. It is also desirable that there should be a fireproof vault for the records of the college and for those of research work. The library is also much overcrowded. The college, therefore, needs the south wing to the main building for administration offices and auditorium and for the enlargement of the library. It is very important that the library facilities should be ample for the student body.

The laboratory of comparative pathology, bacteriology and meat inspection is very much crowded because of the space required for laboratory diagnosis and the preparation of tuberculin, mallein and anthrax vaccine. It is very unfortunate that this work must be done and the diagnostic agents prepared in a laboratory where students are being instructed. When the amount of this work was small it was possible to adjust it so as not to interfere with instruction. At present, however, this is impossible. There should be for the best results a suitable laboratory for the diagnosis work, and another for the preparation of the diagnostic agents and the vaccines. In order that this work may be properly done and that the museum may be restored it is necessary to construct a building for pathology and bacteriology, laboratory diagnosis and the preparation of diagnostic agents and vaccines. This would leave the third floor of the main building for physiology.

With the south wing and the laboratory the buildings for the college will be completed, except for such necessities as the future development of the various subjects may demand.

#### RECOMMENDATIONS

It is recommended that the Trustees ask the Legislature for the following appropriations for the year 1914-15:

For maintenance.....	\$ 67,500
For equipment for the clinical buildings now under construction	15,000
For south wing to main building.....	75,000
For laboratory for pathology, bacteriology and diagnosis.....	125,000

The faculty has continued to enter into the work of the college with enthusiasm and hearty co-operation. It is the spirit of the institution that every individual connected with it should give to the University and the State the maximum service possible.

Respectfully submitted,

V. A. MOORE.

Director of the New York State Veterinary College.



## APPENDIX VIII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE COLLEGE  
OF AGRICULTURE

To the President of the University:

SIR: The past year has been a time of unusual activity in the College of Agriculture. The increase in students has been large, the extension work has grown rapidly, the research projects have increased and some of them have matured, and many new movements and enterprises have been discussed and put under way. The wholesome spirit of the College (which is the propelling force in any educational institution) has been more effective than ever before. In all its activities, the College has had a year of unusual momentum.

The College is administered on a cooperative basis as between staff and students, all partaking freely in the work in a spirit of comradeship. The social element is a strong factor in the processes in the institution. The students are stimulated to take part in the government of the College and to make direct and useful suggestions touching the administration. They are encouraged to form discussion clubs representing the subject-matter of their work. Many such clubs are now established. All these clubs are free and open to all students and to all members of the staff. These bodies become essentially a part of the educational organization of the College. All of them are represented in a committee of the general students' organization, so that they are practically under control of the entire student body in the College of Agriculture. The Director's office is able to extend itself through these clubs when it desires to reach the student body. Inasmuch as these more or less organized units are partakers in the administration of the College, it is becoming evident that they should have headquarters either in separate small buildings or in a central students' building in which the groups may be found, which will make them responsible, and which will provide meeting places for discussion and room for the collecting of books and specimens and materials. The Lazy Club of the old Horticultural Department for years had a building of its own. There is a growing feeling in the College that other groups should have small buildings, erected in part or entirely by the groups themselves and properly placed in the regular landscape scheme. The tendency for colleges is to become too institutional in the character of the buildings. The large buildings are impersonal. In a college in which social cooperation is a strong element there should be small and personal units here and there at convenient and proper places, which are accessible to students on their own account and which may contribute something of the informality and unofficial character that is so essential to the best growing educational enterprises. If the students are to be cooperating factors, then the fact should be frankly and visibly recognized. Such buildings should, of course, belong to the institution and be under restriction as to use and management; but they should represent the interests of the student body.

## APPENDIX VIII

## STUDENTS AND STAFF

The registration of students in the New York State College of Agriculture for the year 1912-13 (including the Summer School of 1913) is as follows:

Graduate Students.....		111	
Regular students:			
Seniors.....	169		
Juniors.....	231		
Sophomores.....	303		
Freshmen.....	402	1105	
Special students.....		158	1263
Winter-course students:			
General Agriculture.....	266		
Poultry Husbandry.....	117		
Dairy Industry.....	86		
Horticulture.....	70		
Home Economics.....	58		
Summer School in Agriculture, 1913.....			597
			339
Total.....			2310

Women students in the New York State College of Agriculture for the year 1912-13:

Regular and special students.....	169
Winter-course students.....	97
Total.....	266

The general growth of the student body in the College of Agriculture is indicated in the following statement of the number of regular and special students that have registered in all the years from 1868 to the present:

1868-69		1877-78	
Regulars.....	30	Regulars.....	37
1869-70		Specials.....	5
Regulars.....	24	Graduates.....	1
1870-71			43
Regulars.....	20	1878-79	
1871-72		Regulars.....	34
Regulars.....	13	Specials.....	7
1872-73			41
Regulars.....	15	1879-80	
1873-74		Regulars.....	33
Regulars.....	7	Specials.....	2
1874-75			35
Regulars.....	17	1880-81	
Specials.....	1	Regulars.....	26
		1881-82	
1875-76		Regulars.....	16
Regulars.....	9	Specials.....	1
Specials.....	2	Graduates.....	1
			18
1876-77		1882-83	
Regulars.....	28	Regulars.....	15
Specials.....	1	1883-84	
		Regulars.....	13

# DIRECTOR'S REPORT—AGRICULTURE

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1884-85				1896-97			
Regulars	18			Regulars	34		
Specials	2	20		Specials	34		
				Graduates	22		
1885-86				Winter Courses	60	150	
Regulars	23						
1886-87				1897-98			
Regulars	33			Regulars	56		
Specials	5	38		Specials	28		
				Graduates	20		
1887-88				Winter Courses	93	197	
Regulars	33						
Specials	12	45		1898-99			
				Regulars	46		
1888-89				Specials	39		
Regulars	37			Graduates	17		
Specials	21			Winter Courses	89	191	
Graduates	2	60					
1889-90				1899-1900			
Regulars	28			Regulars	43		
Specials	21			Specials	45		
Graduates	3	52		Graduates	19		
1890-91				Winter Courses	83	190	
Regulars	32						
Specials	20			1900-01			
Graduates	6	58		Regulars	48		
1891-92				Specials	50		
Regulars	22			Graduates	23		
Specials	19			Winter Courses	94	215	
Graduates	12	53					
1892-93				1901-02			
Regulars	24			Regulars	49		
Specials	24			Specials	43		
Graduates	9			Graduates	22		
Winter Courses	48	105		Winter Courses	96	210	
1893-94							
Regulars	25			1902-03			
Specials	20			Regulars	60		
Graduates	9			Specials	53		
Winter Courses	61	115		Graduates	18		
1894-95				Winter Courses	121	252	
Regulars	24						
Specials	21			1903-04			
Graduates	9			Regulars	77		
Winter Courses	77	131		Specials	64		
1895-96				Graduates	21		
Regulars	30			Winter Courses	134	296	
Specials	21						
Graduates	13			1904-05			
Winter Courses	83	147		Regulars	98		
				Specials	90		
				Graduates	31		
				Winter Courses	199	418	
				1905-06			
				Regulars	128		
				Specials	102		
				Graduates	40		
				Winter Courses	248	518	

1906-07			1910-11		
Regulars .....	145		Regulars .....	597	
Specials .....	133		Specials .....	169	
Graduates .....	36		Graduates .....	80	
Winter Courses .....	244	558	Winter Courses .....	477	
			Summer School .....	128	1451
1907-08			1911-12		
Regulars .....	206		Regulars .....	806	
Specials .....	142		Specials .....	180	
Graduates .....	43		Graduates .....	119	
Winter Courses .....	270	661	Winter Courses .....	451	
			Summer School .....	223	1779
1908-09			1912-13		
Regulars .....	268		Regulars .....	1105	
Specials .....	145		Specials .....	158	
Graduates .....	58		Graduates .....	111	
Winter Courses .....	364	835	Winter Courses .....	597	
			Summer School .....	339	2310
1909-10					
Regulars .....	419				
Specials .....	120				
Graduates .....	57				
Winter Courses .....	371	967			

The conditions governing the entrance of special students have changed much in recent years. Only farm residents of New York State are now admitted as specials, and they are such persons as have had the proper common-school advantages and who have had sufficient experience and general training to enable them to make the most of optional courses of study extending over one or two years. Persons who have had the advantage of regular preparation for entrance are admitted to the regular courses. There are considerable fluctuations in the numbers of special students, but in proportion to the entire student body the percentage is now small. Some of the best and most competent students in the institution have always been amongst the specials. The experience of the College with these special students, extending now over many years, raises the question as to whether the formal entrance requirements of educational institutions represent the most essential elements in qualification for college work. The enrollment of special students in the College of Agriculture for the years 1907-08 to 1912-13 inclusive, is as follows:

	Total enrollment*	Enrollment of specials	Percentage of specials
1907-08 .....	348	142	41
1908-09 .....	413	145	35
1909-10 .....	539	120	22
1910-11 .....	766	160	22
1911-12 .....	986	180	18
1912-13 .....	1263	158	13

The entrance requirements in the College of Agriculture have been rigidly enforced. The Faculty has now gone so far as to take the very desirable action of admitting no student who has any shortage in points of entrance.

The staff of the College has necessarily grown rapidly to enable the institution to handle satisfactorily the increasing volume of work. The work is not alone

\*This includes regular four-year and special students only, and does not include post-graduate and winter-course students.

the teaching of students who come to the institution. The projects of investigation and research are demanding much attention, and the extension work has grown rapidly and is still not able to meet the demands. The total appointive staff in the College of Agriculture is now about 300 persons, of whom approximately 200 are engaged directly in teaching and investigation.

The number of separate courses to be given in the College of Agriculture in the year 1913-14, exclusive of winter courses and summer courses, is 236, distributed as follows:

Agricultural Chemistry.....	9
Animal Husbandry.....	11
Botany.....	14
Dairy Industry.....	17
Drawing.....	4
Entomology, Biology, and Nature Study.....	33
Extension Teaching.....	3
Farm Crops and Farm Practice.....	7
Farm Management.....	4
Floriculture.....	13
Forestry.....	19
Home Economics.....	16
Landscape Art.....	11
Meteorology.....	1
Plant-breeding.....	8
Plant Pathology.....	10
Pomology.....	13
Poultry Husbandry.....	13
Rural Economy.....	7
Rural Engineering.....	7
Soil Technology.....	8
Vegetable-gardening.....	8
Total.....	236

#### EXTENSION OF THE COLLEGE YEAR

Following a discussion extending over some years, the Faculty in Agriculture has taken action to make the college year match the natural year. This action has been approved by the Board of Trustees. It is expected that the enlargement of the college year will go into effect with the beginning of the summer term of 1914 or with the beginning of the regular college year in the autumn of 1914. It is proposed to establish three terms, covering the entire twelve months. The officers in the teaching staff are not to be allowed to teach more than nine months in any one year. The educational organization of the new plan is to be worked out by Committees and Faculty in the coming year.

It is not the idea to make the Summer School, which is now well established in the College of Agriculture, the third or summer term; but a regular term coordinate with other terms (except shorter in length) is to be added.

Even when the third term is established, it is expected that the Summer School will be held in addition thereto for teachers and others, in the same way in which the winter courses are held in addition to the regular college year. In fact, it may be expected that numbers of short and special courses of instruction will be added as necessities arise. The Faculty in Agriculture has recently established a ten-days' course in fancy-cheese and ice-cream making, and a one-week course

for managers of dairy establishments. The main body of instruction is to be continued throughout the twelve months, and it is hoped that the College will never be closed; and corollary to this general educational program will be the special courses and opportunities to meet the needs of the people. The College of Agriculture exists for the double purpose of providing thoroughgoing training for the students who matriculate, and to give aid, encouragement, and point of view to the residents of the state who are interested in its work.

Perhaps the most significant development in the way of side courses is the establishment of the School for Leadership in Country Life, a special account of which may now be given.

#### SCHOOL FOR LEADERSHIP IN COUNTRY LIFE

For a number of years the College of Agriculture was urged to establish a school for the training of social workers in rural communities. In response to this demand, there was held from July 21 to 28, 1911, a Training Conference for Rural Leaders. This conference lasted for eight days and consisted of three regular class periods in the forenoon, two in the afternoon, and one in the evening of each day. The total attendance was twenty-three persons, coming from five states. The second conference, held from June 25 to July 5, 1912, was lengthened to ten days and the attendance was increased to fifty-nine persons, coming from ten states.

The success of these two conferences indicated the desirability of establishing such a training conference as a part of the regular work of the College. From June 24 to July 4, 1913, the third of these conferences was held, under the name of the School for Leadership in Country Life. There was an attendance of ninety persons from twenty-two states, from Washington, D. C., and from Canada. The persons in attendance were farmers, farm women, rural teachers and principals, district superintendents of schools, college professors, college students, grange officers and workers, farmers' institute lecturers, farm bureau agents, rural librarians, rural social investigator, rural pastors, secretaries of rural Young Men's and Young Women's Christian Associations, rural Sunday School superintendent, representatives of rural philanthropic enterprises, boy scout officers, country merchant, civil engineer, and kindergartner. These persons came from the following states: New York, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Maryland, South Carolina, Georgia, Alabama, Mississippi, Kentucky, Illinois, Iowa, Minnesota, Missouri, Nebraska, Louisiana, Texas, Arizona, Montana, California, Washington, D. C., and Toronto, Canada.

From the beginning the purpose of the school has been to provide a course of training for all classes of rural leaders and to offer fundamental courses that would be of value to all rural social workers, rather than to offer specialized courses for particular classes of rural workers. The desirability of providing a three-years graded course leading to a certificate was foreseen, and in the school this year both first-year and second-year courses were offered. Third-year courses will be added to the school next year (to be held from June 23 to July 3, 1914, inclusive).

The courses of instruction offered this year were as follows:

*Courses in Rural Leadership.*—First-year students: (1) The Psychology of Leadership; (2) The Study of Human Nature. Second-year students: (1) The Pedagogy of Leadership; (2) Group organization.

*Courses in Rural Ethics.*—First-year students: (1) The Development of Rural Character. Second-year students: (1) Rural Personal Ideals; (2) The Family and the Rural Problem.

*Courses in Rural Sociology.*—First-year students: (1) Social Aspects of Rural Life; (2) Principles of Rural Sociology. Second-year students: (1) The Social Function of Rural Institutions; (2) Cooperation and Federation of Rural Social Agencies.

*Courses in Rural Economics.*—First-year students: (1) The Field of Rural Economics; (2) Some Applications of Economic Principles to the Problems of Rural Social Life. Second-year students: (1) Business Organization and Cooperation.

*Courses on the Farm Home and the Family.*—Second-year students: (1) The Farm Boy; (2) The Farm Girl; (3) The Farm Woman; (4) Leadership for Farm Women and Girls.

*Course on the Rural Social Survey*, for second-year students.

*Course in Extension Teaching in Agriculture*, for first-year students.

*Course in Rural Play*, for all students.

*Course in Rural Athletics*, for all students.

The afternoon and evening periods were devoted to demonstrations, conferences, field trips, recreation, entertainments, and the like.

The class instruction was supplemented by a large and carefully selected exhibit of the work of a number of country-life institutions.

Because of the very full schedule of required work and the distance between the College of Agriculture and the rooming houses, it was found desirable to house persons in attendance on the school in tents near the College; and this more or less informal "tent city" added much to the spirit and unity of the school.

From the beginning, the School for Leadership has been considered a college enterprise and has been directed from the general administration office. In working out the plans for the school, invaluable assistance has been given by Fred M. Hill, State Secretary of County Work of the Young Men's Christian Association, and John R. Boardman, of the Good Will Home Association, of Hinckley, Maine. Some of the courses have been given by members of the regular staff of the College and it has been necessary also to call in a number of specialists.

The Faculty for the school of 1913 was as follows:

#### STAFF OF SCHOOL FOR LEADERSHIP IN COUNTRY LIFE, 1913

##### Officers

THOMAS FREDERICK CRANE, Litt.D. . . . . Acting President of the University  
LIBERTY HYDE BAILEY, M.S., LL.D. . . . . Director of the College of Agriculture  
GEORGE NIEMAN LAUMAN, B.S.A., Professor of Rural Economy and Head of  
the School for Leadership in Country Life  
ALBERT RUSSELL MANN, B.S.A. . . . . Secretary and Registrar  
ROYAL GILKEY, B.S.A., Instructor in Extension Teaching, in charge of exhibits

##### Faculty

JOHN R. BOARDMAN, B.S., Good Will Home Association, New York City.  
Lecturer on Rural Leadership  
WILBERT L. ANDERSON, D.D., Amherst, Massachusetts. Lecturer on Rural  
Ethics

- FRED M. HILL, State Secretary of County Work, Young Men's Christian Association, New York City. Lecturer on Rural Social Surveys and Community Programs
- EDWIN L. EARP, Ph.D., Professor of Sociology, Drew Theological Seminary. Lecturer on Rural Sociology
- THOMAS N. CARVER, Ph.D., Professor of Economics, Harvard University. Lecturer on Rural Economics
- JESSIE FIELD, B.A., Secretary of Small Town and Country Work, National Board of Young Women's Christian Associations. Lecturer on Leadership for Farm Women
- RALPH HICKS WHEELER, B.S., Assistant Professor of Extension Teaching, Cornell University. Lecturer on Extension Teaching in Agriculture
- E. K. JORDAN, A.B., B.D., Secretary of County Committee, Young Men's Christian Association, Dutchess County. Lecturer on Rural Play
- W. H. BAXLEY, County Work Secretary for Westchester County, Young Men's Christian Association. Lecturer on Rural Athletics
- ALICE GERTRUDE McCLOSKEY, A.B., Associate in Rural Education, Cornell University. Lecturer on The Farm Girl
- MARTHA VAN RENSSELAER, A.B., Professor of Home Economics, Cornell University. Lecturer on The Farm Woman
- FRANKLIN K. MATHIEWS, Chief Scout Librarian, Boy Scouts of America, Scotch Plains, New Jersey. Lecturer on The Farm Boy

## EDITORIAL OFFICE

The general teaching, extension, and research work is visible and is well known to the casual observer. The mailing-room and editorial activities, however, are not evident except to one who takes the pains to inquire. Yet the editorial and publishing activities are probably some of the best indexes of the activities as well as of the complexities of the institution.

Of recent years the publication work of the College of Agriculture has increased very rapidly. The greatest increase in number of publications was occasioned in October, 1911, by the change in the organization of the Cornell Reading-Courses, whereby twenty-four issues instead of ten issues were published annually. In October, 1911, the monthly publication known as the Announcer was started, adding twelve additional issues in the year. With the enlargement of the staff of the College, the number of Experiment Station bulletins has also increased. In the year ending September 30, 1912, there were issued through the Editorial Office seventy-four completed publications, or an average of nearly one and one-half publications a week. The total number of printed pages for that year was 4,573. The total number of copies of completed publications printed was 2,122,415.

In the past year, a new series of publications to be known as memoirs has been started. These memoirs will provide a place of publication for many scientific papers that heretofore have been published in scientific journals. The memoirs are likely to be large publications, as they will carry much of the detailed data accumulated in the course of the investigations which they present.

Prior to October, 1911, all of the editorial work was handled by A. R. Mann, Professor of Agricultural Editing. At that time Miss Lela G. Gross was added to the staff as Assistant Editor, and has since given her entire attention to the editorial work in which she has shown great proficiency. In February, 1913, Miss Edith J. Munsell was engaged as an Assistant Editor, and has since given her full time to the editorial work.



Until the present, freehand drawings for the publications of the College have been made chiefly by Professor W. C. Baker of the Department of Drawing. Mechanical drawings have been prepared by whatever persons the departments were able to engage for the work. It has been impossible for Professor Baker to give as much time to illustrating the bulletins as is desirable from the standpoint of the publications. It has been necessary to use half-tones instead of line engravings in many cases when the latter would have been preferable. We are now attaching to the staff Miss Clara L. Garrett as Artist in the Editorial Office. Miss Garrett is prepared to give attention to both freehand and mechanical drawing. The entire editorial staff at present is as follows: A. R. Mann, General Editor; Lela G. Gross, Assistant Editor; Edith J. Munsell, Assistant Editor; W. C. Baker, Artist; Clara L. Garrett, Artist. It should be understood that Professors Mann and Baker give only part time to the editorial work.

There is a tendency on the part of many departments to submit to the Editorial Office for advice manuscripts that are not to be printed in the regular series of publications of the College, but that are to be published in scientific journals or are to be issued as publications of the particular departments. The Editorial Office is becoming a distinct department of the college work. The equipment of the office has been much increased during the past year and the facilities for efficient work are now practically complete.

Following is a summary of the work of the office from October, 1912, to July 1, 1913:

## EDITORIAL BUSINESS FROM OCTOBER 1, 1912, TO JULY 1, 1913

BULLETINS:		Number of pages in printed bulletin	Number of copies ordered
321	Computing rations for farm animals. . . . .	36	30,000
322	The larch case-bearer. . . . .	20	5,000
323	A study of feeding standards for milk produc- tion . . . . .	68	6,000
324	A study of the biology of the apple maggot ( <i>Rhagoletis pomonella</i> ), together with an investigation of methods of control. . . . .	64	9,500
325	Cherry fruit-flies and how to control them. . . .	16	15,000
326	Water-soluble matter in soils sterilized and reinoculated . . . . .	20	3,500
327	Methods of chick-feeding. . . . .	52	40,000
328	Hop mildew. . . . .	36	7,500
329	The fire blight disease in nursery stock. . . . .	60	7,000
330	Respiration of fruits and growing plant tissues in certain gases, with reference to ventila- tion and fruit storage. . . . .	36	7,000
331	The asparagus miner and the twelve-spotted asparagus beetle. . . . .	28	12,000
332	Oriental pears and their hybrids. . . . .	52	10,000
333	Control of two elm-tree pests. . . . .	24	10,000
334	A study of some factors influencing the yield and the moisture content of cheddar cheese (in press). . . . .	28	10,000
MEMOIRS:			
1	Some relations of certain higher plants to the formation of nitrates in soils (in press). . . . .	112	7,000
2	The action of certain nutrient and non-nutrient bases on plant growth (in press). . . . .	100 (approx.)	7,000

	Number of pages in printed bulletin	Number of copies ordered
<b>CIRCULARS:</b>		
13 Propagation of starter for butter-making and cheese-making .....	4	6,000
14 Working plans of Cornell poultry-houses.....	20	30,000
15 Legume inoculation.....	8	25,000
16 The improved New York State gasoline-heated colony-house brooding system.....	20	40,000
17 The formation of cow-testing associations.....	12	5,000
18 Milking machines: their sterilization and their efficiency in producing clean milk.....	12	15,000
19 Late blight and rot of potatoes.....	8	35,000
20 The fire blight disease and its control in nursery stock .....	12	15,000
<b>READING-COURSE LESSONS FOR THE FARM:</b>		
26 Computing rations for farm animals.....	32	20,000
28 Recent New York State laws giving relief from taxation on lands used for forestry purposes	12	15,000
30 Hotbed construction and management.....	16	40,000
32 Composition of milk and some of its products..	12	40,000
34 Home-garden planning.....	32	40,000
36 Culture of red and black raspberries and of purple-cane varieties.....	24	25,000
38 Principles and methods of plant-breeding.....	16	40,000
40 County, town, and village forests.....	12	20,000
42 Tilth and tillage of the soil.....	28	50,000
44 Methods of breeding oats (in press).....	16	30,000
46 Feeding and care of the horse (in press).....	16(approx.)	40,000
(11 discussion papers, 4 pages each).....	44	
<b>READING-COURSE LESSONS FOR THE FARM HOME:</b>		
25 Saving strength.....	16	35,000
27 Choice and care of utensils.....	24	40,000
29 Cost of food.....	12	40,000
31 Household bacteriology.....	20	40,000
33 Vegetable-gardening .....	28	50,000
35 The flower garden.....	20	40,000
37 Home economics at the New York State Col- lege of Agriculture.....	32	45,000
39 The farmhouse.....	32	50,000
(7 discussion papers—none for No. 37— 4 pages each).....	28	
<b>RURAL SCHOOL LEAFLETS:</b>		
November, 1912 .....	16	150,000
January, 1913.....	20	150,000
February, 1913 (Agricultural contests).....	96	30,000
March, 1913.....	32	175,000
September, 1913.....	212	55,000
<b>ANNUAL REPORT FOR 1912 .....</b>		2,000
		1900(about)
<b>ANNOUNCER:</b>		
October, 1912.....	4	55,000
November, 1912.....	4	48,000
December, 1912.....	4	49,000
January, 1913.....	4	60,000
February, 1913.....	4	70,000
March, 1913.....	4	58,000

# DIRECTOR'S REPORT—AGRICULTURE

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	Number of pages in printed bulletin	Number of copies ordered	
April, 1913.....	4	60,000	
May, 1913.....	4	100,000	
June, 1913.....	4	65,000	
July, 1913.....	4	60,000	
ANNOUNCEMENTS:			
Department of Forestry.....	18	2,500	
Summer School.....	24	7,000	
Regular Announcement of Courses.....	64(approx.)	20,000	
Winter Courses .....	40(approx.)	10,000	
SUMMARY			
Bulletins .....	14	540	172,500
Memoirs.....	2	212	14,000
Circulars .....	8	96	171,000
Reading-Course Lessons for the Farm.....	11	216	360,000
(With 11 discussion papers of 4 pages each)....		44	
Reading-Course Lessons for the Farm Home.....	8	184	340,000
(With 7 discussion papers of 4 pages each)....		28	
Rural School Leaflets .....	5	376	560,000
Annual Report.....	1	1900	2,000
Announcer .....	10	40	625,000
Announcements .....	4	146	39,500
Total.....	63	3782	2,284,000

## OTHER ITEMS

A significant recent development in country-life work is the rapid establishment of farm-bureau agencies. The College of Agriculture is not directly concerned in the organization of these agencies, but is glad to aid them and to cooperate with them on the educational and scientific side. As a result of cooperation between the United States Department of Agriculture and the College, a Supervisor or Leader of the farm-bureau work has been established at the College of Agriculture in the person of Lloyd S. Tenny. Not only does Mr. Tenny have charge of the farm-bureau work itself under the auspices of the United States Department of Agriculture, but he is to be a part of the regular staff of the College and to maintain a supervisory relation with former students in respect to their farming operations. Seventeen counties in New York now have organized farm-bureaus. These bureaus have administrative relations with the United States Department of Agriculture and the State Department of Agriculture, and educational relations with the College of Agriculture.

The College itself, through its Extension Department, has many representatives or agents in the different counties, who are to advise the institution as to the needs of the localities and who take part in the organization of the local extension enterprises.

The old Department of Horticulture has now been divided into three more or less natural units. One of these units is pomology, which was separated some years ago. At present the floriculture and the vegetable-gardening are being separated as coordinate departments. This means the enlargement of the floricultural and vegetable-gardening work, and expresses the desire of the College to adequately serve these great interests in the state.

Several new professors have recently been added to the staff. W. H. Chandler of the University of Missouri becomes a Professor of Investigation in the Department of Pomology; F. B. Moody of Wisconsin becomes Extension Professor in the Department of Forestry, giving that department four full professors and one assistant professor. K. M. Wiegand of Wellesley College takes charge of the new Department of Botany, in which a large staff is now provided. A number of assistant professors have been promoted to full professorships. The total number of full professors in the College of Agriculture devoting themselves exclusively to its work is now above forty.

We greatly regret to have lost the services of Dr. H. J. Webber, who has been called to the new work in California. Doctor Webber came to the College with an established reputation as an investigator and a plant-breeder, and has given the institution many years of spirited and devoted service. He leaves the Department of Plant-breeding with a high reputation.

The physical establishment has seen marked improvements within the year. The farms, some of which are recent purchases, are now beginning to show change. Large areas are devoted to special interests. About eighty acres, for example, are devoted exclusively to poultry husbandry. Large areas have been set aside for the fruit-growing, floricultural, and vegetable-gardening work. A farm is devoted to field investigations. A crop garden has been established. A number of minor buildings have been erected or improved on the farms. The dairy business has been extended. The College now owns four creameries or milk stations, covering a territory some twenty miles to the rear of the institution. The Dairy Department draws milk from more than twelve hundred cows.

The grounds are beginning to take shape, although there is not yet any proper road access to the College of Agriculture either from the main campus or from the public highways. Several new buildings are under way and under plan. The ten-year plan adopted some years ago by the Board of Trustees is probably at present about half completed. This plan must be speedily brought to a conclusion if the College is to be able to handle the increasing students effectively. I am convinced that the general plan as outlined, with such necessary extensions as develop in the meantime and with a properly increased staff, will enable the institution to handle more students than it now has and with efficiency and success.

Respectfully submitted,

L. H. BAILEY,

Director New York State College of Agriculture.

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## APPENDIX IX

### REPORT OF THE DIRECTOR OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit my annual report for the academic year 1912-13.

The work of the year has been fully up to the standard of the past few years and the "college spirit," that intangible influence that works so potently for efficiency or disorganization, has been unusually sane, strong, and helpful.

The second interscholastic competition in Architecture this year included the schools of architecture at Harvard, Massachusetts Institute of Technology, McGill, Syracuse, and Cornell. Pennsylvania carried off the first prizes, which was naturally a bit disheartening. All cannot be victors in a contest of this kind, however, and a careful comparison of the competitive drawings when the exhibition reached here on circuit provided a most gratifying relief from our apprehensions. While there was no ground for criticism of the jury of award, it seemed clear that the decision in the major competition had eventually turned, as indeed one of the jurors told me it had, upon a technical interpretation of the program about which there might legitimately be a difference of opinion. McGill and Syracuse submitted no drawings in this competition; but all of the other schools except Pennsylvania had taken one interpretation of the program, while Pennsylvania had taken the alternative interpretation which the jury by a majority vote decided to be the one intended by the writer of the program. Pennsylvania's victory was well and fairly won, but aside from the question on program decided in Pennsylvania's favor the Cornell drawings would rank second to none. They were simple, straightforward, legitimate, and particularly free from mere tricks of rendering intended to catch the eye and subvert the judgment, a thing that could not be said so readily of a number of the best looking drawings in the competition.

Some seven or eight years ago the Society of Beaux-Arts Architects was strongly urging the general adoption of the French Atelier System in American schools of architecture. In my annual report for 1906-07 I discussed this question at some length giving reasons why in my opinion the system could not be adopted by our schools without considerable modification. Columbia had at that time adopted the system practically in its entirety, much to the satisfaction of its advocates. It is, therefore, particularly interesting to note that in a recent official publication the new Director of the Columbia School of Architecture, himself a Beaux-Arts man, has announced the abandonment of the general Atelier System for precisely the reasons outlined in my report of six years ago, and the adoption of a modified Atelier System which is in all essentials the system that has been in successful operation here at Cornell for the past fifteen years. In the same report, 1906-07, I ventured to criticize adversely the Harvard system of inviting practicing architects to serve as instructors, alternating one with another at intervals of a few weeks, a system that was at that time being warmly commended and advocated by some of the strong men in the profession. It is worthy of note that this system was abandoned by Harvard two years ago in favor of the modified Atelier System now very generally recognized as the system best adapted to present day conditions in American schools.

A few years ago we were hearing much of "art commercialized," as if art for commercial ends or art in any sense except "art for art's sake" were a prostitution of a gift of the gods. But we have lived to appreciate that this seeming debasement was in reality a vitalizing movement. It was not the prostitution of art to commerce, but an awakening in commercial life to the value of art in the affairs of men. It was art coming to her own in the appreciation of the people, not the passing of art into bondage. All of this has meant a new era, new life, to the artist, the architect and their associates. As a result new schools are springing up everywhere and nearly every college or

university of importance in the country is either making a pretense of teaching architecture or talking about it, all of which is a perfectly natural response to a well recognized movement. While the reason for the development is perfectly obvious, the outcome is not so obvious. I fear, however, that one of the more immediate results is likely to be unwise, unnecessary and expensive competition, or much very bad teaching none the less fraudulent and reprehensible because given in ignorance and with honest intent.

To teach architecture properly for professional training is an expensive undertaking: expensive in buildings because of the relatively large space and light required per pupil; expensive in equipment not only in the outfitting of drafting rooms, but mainly in the books, photographs and other illustrative materials without which proper instruction in architecture is impossible; expensive in teachers, because in the major part of such work the instruction must be individual rather than class instruction and this instruction must be of the highest possible quality. Perhaps the demand will in the end justify the large increase in the number of schools offering professional training in architecture, and perhaps these schools will develop along proper lines, but I am doubtful on both points. Under our present social organization there is probably no way of managing the educational systems of the country as a whole efficiently and economically any more than there is of managing our business and government satisfactorily; but surely we ought to strengthen and broaden the schools already established on a sound basis before spending so much money and effort in starting new schools without proper foundation and equipment if we would meet efficiently and effectively the demand for professional training.

On the other hand there is a tremendous, popular interest in architecture and the other fine arts, and because these arts have so intimate a relation to humanity and civilization they should be recognized as a legitimate and desirable elective in any college or university making a pretense to liberal culture. Every university should have its professor of architecture just as much as it should have its professors of history, because in no other way is the history of civilization expressed more adequately or more eloquently than in its architecture; but the idea that every university should attempt professional instruction in architecture irrespective of fitness and equipment merely because there happens to be a demand for such instruction is likely to work little good and much mischief so long as the demand is not seriously taxing the resources of the established schools.

It is as true in education as in business that competition up to the point where it induces or stimulates efficiency is good. Beyond that it is demoralizing and is especially costly to the students who ought to be the beneficiaries, in that it takes the best years of their lives in the promise of a training which is not given them. We have complained from time to time—annually at least—of the meagreness of our equipment and of our general handicap through lack of financial resources; but, far short of the ideal as we are, our equipment, facilities and instruction will take rank with the best two or three schools in the country. Cornell has the traditions, the initial equipment, and an organization second to none in opportunity to do sound work in architecture and there remains only to hold fast that which we have and to press forward abreast of the times and the ever growing demand for better work in all lines of endeavor.

The question of the teacher is still one of the most vital and, at the present quite the most difficult of solution, partly because of the scarcity of good teachers with proper training and partly because of the great demand for good teachers in all art lines. The "brilliant but starving" art student is no longer a commodity to be picked up at an instructor's salary, because within the past decade the world has opened to him in other ways and there is little in teaching that seems to appeal to the painter or the architect. His soul longs for creative work, while teaching seems too much of mere drudgery, unless, indeed, the position of teacher brings with it opportunity for the ultimate goal of creative work. Such opportunity is, unfortunately, conspicuous for its lack in too many of our university positions, and the ultimate solution will be found I believe only in an adequate endowment for the work and a liberal policy of opportunity for the men who give themselves to it.

In respect to teachers Cornell has been most fortunate. In the strong competition for teachers caused by the ever growing demand and the scarcity of qualified candidates it has been a part of my business to know the men who are teaching; and man for man in the several important branches of the work, I find none in other schools for whom I would willingly exchange ours. In these men we have individual worth with a unity of spirit and purpose that mere money could not purchase, and I am especially grateful for the added measure of financial support that has enabled us to hold two of these men who were under the strongest temptation to leave at the end of the year. Even as I write, however, I learn that another strong school is negotiating with another of our staff for the head of one of its most important departments. While this is welcome as a tribute to the worth of our men, it becomes, after a while, a bit trying to those directly responsible for the organization.

In respect to the mere physical needs of the college, the time has come when some definite steps should be taken to secure a building to house all of the work of the college together. Even were an already existing building available there is none on the campus that would meet our peculiar needs better than our present quarters except perhaps in the detail of providing more space; therefore, any real relief means a new building. The vital center of this building should be our splendid library, enlarged, amplified, and in such physical relation to the rest of the building as to meet the need for ready and convenient reference at all times in all departments of the college work. Ample drafting rooms and class rooms would perhaps come next in importance; but in addition to these the building should provide ample exhibition rooms both for current work by the students and for the special exhibitions of various kinds that should be held several times each year—practically in continuous series—not only for the instruction of the students in architecture, but quite as much for the instruction and profit of the university community as a whole. A considerable collection of casts from antique sculpture would, as now, have to be provided for the department of drawing, but in addition to this there should be a museum for the assembling of models of architectural masterpieces and details. Such a museum might be started in a very simple way on a small scale, but plans for its expansion should recognize no limit other than the limit of funds available.

No school in America has anything that to my mind even approaches an ideally planned building for instruction in architecture. It is true that Harvard

has a very beautiful building and that Columbia's \$300,000 building is new within the year and that both were designed by distinguished architects; but certainly in its plan and conception neither is such a building as we should want as a workshop for instruction in architecture. In fact, Harvard's building, 'beautiful as it is, falls far short in many of the real advantages and facilities, particularly as to light and room, offered in our extemporized and divided quarters in the old buildings at Cornell.

I have not yet made any careful estimate of the cost of such a building as our work would require, but of one thing I am certain. It should be either a simple building designed frankly without pretense toward the monumental—a good workshop—or it should be designed to typify and exemplify in itself the art which it is intended to promote. Either would be good, and the latter may seem visionary in view of present financial restrictions; but I can conceive of no more fitting monument to some wealthy patron of the fine arts than just such a building in just such a stimulating natural environment as that at Cornell.

I should be ungrateful indeed, were I to close this report without acknowledgement of the generous contributions of Dr. Andrew Dickson White this year in providing two series of prizes in design amounting in the aggregate to \$135. Two of the prizes were for the best designs for a university auditorium with a memorial dining hall attached, and two were for the best designs for an entrance gateway at the northern end of the campus.

Another item of special moment in the events of the year was a meeting held in New York in the early spring by a number of the most distinguished of our alumni for the purpose of organizing in support of the college. While no comprehensive organization has yet been affected for definite work in detail, the spirit of the New York meeting brought much inspiration to the members of the Faculty in attendance, and I feel certain that there will come from this meeting an organization and a support that will go far toward helping to realize our ideals in the school.

Respectfully submitted,

CLARENCE A. MARTIN,

Director of the College of Architecture.

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## APPENDIX X

### REPORT OF THE DIRECTOR 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 1912-13.

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



## DIRECTOR'S REPORT—CIVIL ENGINEERING

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	First Term	Second Term
Graduates .....	5	8
Seniors .....	127	128
Juniors .....	113	105
Sophomores .....	132	126
Freshmen .....	109	104
Special .....	2	
Total .....	488	471

This list includes 10 graduates in the undergraduate courses; five of these entered the junior, and five the senior class.

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

	First Term	Second Term
Sibley .....	9	47
Architecture .....	6	5
Arts .....	4	8
Agriculture .....	27	24
Graduates .....	4	4
Total .....	50	88

The number of new students was 141, of which 109 entered the freshman, 22 the sophomore, 5 the junior and 5 the senior class. This is 1 less than the previous year. The total registration was 488 for the first term, which is 52 less than for the corresponding period last year, while the registration for the second term is 471 or 38 less than a year ago.

The finances of the College have not been such as to permit of adding anything new during the year to our equipment. The College is in great need of a new 200,000 pound tension and compression testing machine, a new impact machine, a new vibratory testing machine, and new machines for testing road material of all kinds. Our Materials Testing Laboratory is becoming more and more useful every day and at the same time is becoming so crowded that we must have more room. In fact the College is in need of more room in every department.

During the last two years the college work has been undergoing certain changes, incident to shifting the order of certain work and to introducing new courses. Happily these changes are now complete and the work of the coming year will be more regular. Hereafter the Camp course in Surveying will come at the end of the Sophomore year instead of the Junior year. It is believed this will materially help the juniors. They can now devote all of their summer vacation to practical work and possibly find positions that will pave the way to permanent employment after graduation. The College has already received application for a number of juniors for railroad work for the summer.

The College lost two of its assistant professors at the beginning of the year. Mr. Donald Derickson, Assistant Professor of Structural Engineering, tendered his resignation to accept the position of Professor of Civil Engineering at Tulane University. Mr. Samuel L. Boothroyd, Assistant Professor of Topographic and Geodetic Engineering, tendered his resignation to accept the position of Professor of Astronomy and Geodesy at the University of Washington. It was with many regrets that we saw these gentlemen leave Cornell. They were able teachers in their respective fields and universally beloved by all who knew them.

The several departments of the College have made good progress during the year in spite of many drawbacks due to lack of room. It is to be hoped that larger quarters can be had in the near future.

In my last annual report, I made note that the Board of Trustees had placed the matter of the enlargement of Lincoln Hall in the hands of architects for the preparation of plans and estimates of cost. The architects completed their labors and submitted a report under date of June 11, 1912.

The plans carry out in general the original idea, namely, a building in the form of a hollow square. They provide for changing the roof on the present building, completing its third story in masonry and changing the western entrances. Provision is made for an auditorium with a seating capacity of 300 and also for a large library and reading room. The drafting rooms are placed on the top or fourth floor, where they will have abundance of light.

The architects estimates are as follows:

1. Alterations to present building.....	\$ 85000.00
2. South wing.....	62000.00
3. North wing.....	62000.00
4. East front and Auditorium.....	116000.00
Total.....	<u>\$325000.00</u>

I have devoted sometime to a study of these estimates and have also made inquiry as to cost of several recently constructed engineering buildings, and my conclusions are that they are too high by \$50,000. I believe \$275,000 will carry out the plans of the architects in a thoroughly satisfactory manner.

As I have stated in previous reports, the College is in need of the enlargement of Lincoln Hall. It is also in need of a new Hydraulic Laboratory, a new Materials Testing Laboratory and a new Astronomic Observatory. More room is needed in every department of the College work.

Respectfully submitted,

E. E. HASKELL,  
Director of the College of Civil Engineering.

## APPENDIX XI

### REPORT OF THE DIRECTOR OF THE SIBLEY COLLEGE OF MECHANICAL ENGINEERING

To the President of the University:

SIR: I have the honor to submit this report of matters requiring consideration in Sibley College that have been brought out by the work of the current year 1912-13.

#### MATERIAL EQUIPMENT

Rand Hall, the new building that came to Sibley College through the generosity of Mrs. Florence O. R. Lang, has been in use during the year and has proved admirably adapted to the needs of the College. The machine shop is permanently

housed in the first story, the wood shop occupies the third floor, while the electrical laboratory is accommodated, temporarily, on the second floor. It is proposed eventually to devote this building exclusively to shopwork; for the electrical department should have its own building for laboratory, class-rooms and offices.

The presence of Rand Hall—a fine modern building—has brought out with greater clearness the inadequacy and unfitness of the old laboratory buildings for present needs. The competitors of Sibley College, almost without exception, have fine laboratory buildings of modern design and construction; and if Sibley College is to maintain its position among the leading institutions for technical education, new buildings must be supplied soon.

A complete general plan for these buildings has been worked out which includes a new mechanical laboratory, with a probable cost of \$150,000, a new electrical laboratory, at \$100,000, and a building to be devoted to research, at \$60,000. The University with its present resources cannot supply money for these buildings. The alumni of the College—who are chiefly young men with reputations and fortunes to make—cannot supply this money. But many of the former students of the College are in positions of trust with men who have made great fortunes. Some of these men, no doubt, would supply money for the help of technical education, or to establish a fitting memorial, like Rand Hall, if the matter were brought to their attention in the right way at the right time. The opportunity to do this will surely come sooner or later to some of those who have been students in Sibley College and it is their duty to watch for it. A serious effort has been made during the past year to bring this duty to the attention of old Sibley men, and it is hoped that eventually all of them will hold this as one of the serious purposes in their lives.

#### APPROPRIATION

Last year the Trustees found it necessary to reduce very materially the amount appropriated to Sibley College for purposes other than salaries. The appropriation in fact has only been sufficient to meet running expenses with strictest economy, and no new machines or apparatus have been added to the equipment. The advance in Mechanical Engineering is so rapid that the apparatus of shops and laboratories may become obsolete and need replacement at any time, in order to maintain efficiency. At the present time we are using a group of machines in the electrical laboratory that is utterly out of date. Such machines give students false ideas of modern practice, and moreover, because they were not designed for the current now used, they make a possible extra demand of about twelve horse-power on the power plant—an important matter in times of "peak-load" and low water. Sibley College needs from \$3000 to \$5000 a year for maintenance and increase of equipment. But the Trustees cannot furnish this money now, and the appropriation for next year is the same as for last year.

As soon as Mr. Hiram W. Sibley learned these facts, he promptly and generously offered \$10,000 to meet the need. This sum will be divided into three equal parts, one part to be used in each of the next three years. This gift is most opportune; it solves our most pressing present problem, and it deepens the gratitude that all who wish for the welfare of the College feel toward Mr. Sibley.

## ATTENDANCE

The number of students in Sibley College has shown extreme variations. From 1886 to 1894 there was a steady increase from 168 to 571. Then for the succeeding five years the number dropped to an average of 490. From 1899 to 1904 there was nearly uniform increase from 500 to 1060 and from 1904 to 1910 a less rapid increase to 1186. Since this maximum number was reached there has been a rapid decrease to about 925 during the current year.

There are many obvious causes for periodical falling off in numbers, and there are probably other causes that do not appear. Among the former are:

1. Raising of entrance requirements;
2. Maintaining a higher scholarship standard;
3. Industrial depressions and political and social movements that tend to affect the inception and carrying out of engineering work;
4. The development of competing technical schools;
5. The development of other great divisions of human activity like agriculture and industrial chemistry.

It is certain that all of these causes have been more or less active during the past three years; and yet the reduction in attendance may be due in large measure to other causes. If the reduction has been—as we believe—accompanied by increase in the average ability and earnestness of the students in the College, there has resulted an increase in efficiency; because the teaching effort has been more effectively applied and a certain number of students have been eliminated who would cost the University uselessly more than they would pay in fees. Reasoning from past experience would lead to the conclusion that probably a still further reduction in attendance will occur next year and that after that there may be a period of increase, though the rate will probably be much less than during previous periods.

## COMMERCIAL ENGINEERING

The development of modern engineering has necessitated the establishment of large organizations for sales and for the negotiation of matters connected with engineering undertakings. The work of these organizations requires men who have a fundamental understanding of engineering together with training in the underlying principles of business.

Statistics show that a relatively small proportion of the graduates of Sibley College make a life-work of pure engineering; some of them drift along the line of least resistance into other work; but a large and increasing number undertake work of negotiation related to engineering. Many men enter Sibley College with this end clearly in view, and there has been an increasing demand for a course to train men for this work. This demand has been met—partially at least—by several of the leading technical schools, and Sibley graduates can obtain such training by spending a fifth year in the College of Arts and Sciences. It would seem however, that a four year course should be organized to meet this demand. This would require careful consideration, but such a course could certainly be made up of the first three years in Sibley College together with a fourth year of work in subjects—now given in the University—related to law, economics, sociology and language.

## RESEARCH

It is believed that no technical school can do entirely satisfactory work in instruction without the stimulus of the co-ordinated department of research. During Dr. Thurston's régime considerable work of this kind was undertaken and in some cases the results were of great value to the profession. From 1904, however, until 1910—the time which was devoted to internal development of the College and to reorganization of the courses—the work of research failed to receive its proper share of attention; it was reorganized, however, in 1910 and since that time some quite important work has been done.

The research record for the current year is as follows:

1. Measurement of the flow of steam under low pressure.
2. Tests on the thermal conductivity of cement and concrete.
3. Comparison of various methods of measuring the flow of air and gas, using an absolute meter to check results.
4. Study of heat transfer through brick walls and loss of heat from air leakage around windows of buildings.
5. Extensive experiments of the new method for producing better hydration of cement and concrete.
6. Tests upon "damp-proofing material" used in concrete.
7. Tests of the new design Humphrey Gas Pump.
8. Investigation of the heat treatment of steels with varying carbon content as to the effects upon physical properties.
9. Tests upon the wearing qualities of quick moving steam valves under high pressure and temperature.
10. A complete test has also been made of the University power plant and the resulting data have been compared with results of theoretical formulae.
11. An extensive investigation on cables is in progress.
12. Experiments on an electric welder.
13. Experimental determination of the magnetic field and fringes in various parts of electrical machinery to check theoretical data.
14. Development of an adjustable scale for electrical instruments to expedite calibration and to make correction curves unnecessary.

It is planned to continue and amplify this work of research so that Sibley College may fulfil its duty of making important additions to the data of engineering.

Respectfully submitted,

ALBERT W. SMITH,  
Director of the Sibley College of Mechanical Engineering.

## APPENDIX XII

## REPORT OF THE DIRECTOR OF THE SCHOOL OF EDUCATION

To the President of the University:

SIR: I beg to report for the School of Education as follows:

## REGISTRATION

Eleven courses of instruction were given in the Department of the Science and Art of Education during the year. The total registration in them was 197, by 100 individuals,—45 men and 55 women. The proportion of women is less than last year and seems likely to suffer a further decrease, due partly to the larger numbers of young women who look forward to other occupations than teaching, and especially to the steadily increasing number of women who elect the course for B.S. in Household Economics in the College of Agriculture. In the classes for graduates men outnumber women, as they did last year.

The total number of students taking work in Education is considerably greater than the figures just given indicate. The courses for teachers given in different departments, and the work of many students in the Graduate School, are being directed toward teaching as a profession. If we should classify separately all prospective teachers, calling them, as is done in many places, students in the School of Education, the figures given would probably be doubled. At the risk of tiresome iteration I beg to repeat once more my urgent request for provision in the way of fellowships, or scholarships, or graduate assistantships, for students of superior ability. Almost alone of the departments in the University, Education has absolutely no provision of this kind.

## SOME FEATURES OF THE YEAR'S WORK

A special feature in the development of the work of the educational laboratory is an arrangement for co-operation with the officers of the George Junior Republic at Freeville. By this future applicants for admission to that institution will be examined for the detection of mental or physical peculiarities before being received as citizens of the Republic.

Observational studies have been carried on during the year to verify certain widely held theories as to the reliability of tests of school children. The results have proved important, and will form the basis of a monograph to appear soon.

During the year a thesis, the study for which was made in 1912, dealing with the marking system as actually employed in the classes of Cornell University, has been completed. This study will be a valuable contribution to the literature of the subject. It will be published within a few months.

Professor Whipple has been absent in Europe on leave one half the year. His careful and extensive studies of laboratories and departments of educational psychology in England and on the continent are of direct service to us. He has pointed out the value of collections of apparatus illustrating the work in these

laboratories, and so far as the limited funds at command permit, we hope to make a beginning at least of such collection.

#### RELATIONS TO DIFFERENT COLLEGES

The School of Education includes more than the Department of the Science and Art of Education. In its organization two large fields were included—industrial education and rural education. As yet we have no professor named for either. In the first Professor D. S. Kimball has been of great service, especially in the summer. His lectures and his supervision of young men looking forward to educational work in this large field have been generously given and characteristically efficient. We still lack a professor of rural education, but hopefully this place will be filled soon by the appointment of a man to such chair in the College of Agriculture. Both of these men should be members of the College of Arts and Sciences. Industrial education today enters so largely into the various curricula of public schools that no man is fitted to become a principal or superintendent who lacks theoretical training at least in the subject. In the State of New York, which is probably not exceptional, three fourths of the public high schools are in smaller towns and villages. In order to be an efficient principal in such a school a man must have some knowledge of what is comprehended under the term rural education. He must know something of the economic conditions in these places, something of the proper relation of the school to its environment. For this reason at least, every graduate of the College of Arts and Sciences who may begin teaching outside a city should have instruction from a professor of rural education.

The change by which the College of Agriculture now confers the degree of B.S. instead of B.S.A. indicates the purpose of that faculty to give a general rather than a technical training during the four years of the regular undergraduate course. A steadily increasing number of its graduates look forward to teaching. In order to secure a teacher's license in New York, as in other states, their course will have to be so planned as to include some work in psychology, in education, and probably in history and language. A large part of this work will naturally fall to the Department of Education and the interrelation between students who are candidates for A.B. and those for B.S. will be correspondingly closer. Without separate organization or degree peculiar to itself, the School of Education can and must serve a larger number in the various colleges. To a lesser degree the statement just made for the course in Agriculture applies to the engineering schools. Sibley College, for example, has furnished many excellent teachers of subjects closely related to its curriculum. But public school positions are increasingly difficult to obtain without some systematic training in psychology and in other work which is fundamental for the profession of teaching.

#### COMMERCIAL EDUCATION

Another large field in which college graduates are being called for in greater numbers is that of commercial education. It is the fixed policy of the State of New York that in its high schools college graduates alone shall give instruction. Just now comparatively few graduates are qualified to give instruction in commercial subjects. By this term is not meant primarily shorthand writing and typewriting, but commercial geography, business arithmetic, economics, and accounting, both theoretical and practical. We have already in the Department

of Economics in the College of Arts and Sciences a good foundation for this training. With one additional teacher sufficient work could be done to supply well equipped, educated men for this important work.

#### PRACTICE TEACHING

The demand by superintendents and principals that preparation for teaching shall not be theoretical only is very insistent. At a number of educational meetings during the past year this feature of the training of teachers has received large attention. Our situation at Cornell, distant from a large system of public schools, puts us at a disadvantage. Our seniors ought to have more practice, practice under expert supervision, before going out to teach on their own responsibility. Under present conditions the smaller schools, the schools of the smaller towns, serve as practice schools for young teachers. The injustice to the students in these schools is apparent. It is well recognized that in the high schools of our villages are found from time to time boys and girls of exceptional mental brightness. These boys and girls are not so apt to be spoiled by the commercial atmosphere so common in our large cities. It is among them that we have a right to look for future scholars, and to them the universities are indebted for much of their best material. This latent ability will best be called out by the exceptionally efficient teacher, and efficiency in teaching comes with practice.

Some remedy for this condition must be found. One solution for the problem might be to let a student who had finished most of his academic work, say in February, receive a leave of absence for perhaps the rest of the year, and obtain through arrangements with the school authorities of some city, an opportunity for practice teaching. Such arrangements are made for university students in large cities. The difference in our case would be that our students would be obliged to live away from Ithaca. The resulting gain to the individual, however, and ultimately to the University, might more than compensate the loss of residence.

#### THE CALL FOR TEACHERS

The calls upon the University for well equipped teachers, both men and women, are constant. We have had no difficulty in finding places for our best students. In fact we have had many more calls than we could fill. The salaries for teachers in public and private schools are advancing. They are still, especially in departments of science, too low to equal in attractiveness commercial and industrial opportunities. This is especially true in Chemistry. I believe, however, that the position of the public school teacher, in spite of some recent discouraging experiences in various cities, is one of increasing worth and of recognized importance and influence. But to succeed a man must be a first class man, and a woman a first rate woman, as well as a thoroughly trained student in some branch of knowledge.

In conclusion, I beg to say once more that to meet our duty to education, we need funds to extend the range of instruction. Other institutions command for the purpose of education revenues many times our own. Without some extension of our work we can hardly advance, and standing still means retrogression in comparison with others.

Respectfully submitted,

GEORGE P. BRISTOL.

Director of the School of Education.



## APPENDIX XIII

## REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR: I beg to submit my eighth annual report as Director of the Summer Session, July 7 to August 15, 1913.

## TEACHING STAFF

One hundred persons were engaged in giving instruction, of which 79 are members of the regular teaching force of the University and 21 were invited from outside. Of the latter some had been here in previous seasons. New members of the staff this year were: William Betz, Head of the Department of Mathematics, East High School, Rochester; Edgar A. Doll, Psychologist in the Training School, Vineland, N. J.; Harley L. Edick, Teacher of Manual Training, State Normal School, Cortland; Mable D. Ely, Head of Department of Drawing and Art, High School of Commerce, Cleveland, Ohio; Pierre F. Giroud, Lecturer on French Literature, Johns Hopkins University, and University of Pennsylvania; Clarence F. Hale, Professor of Physics, State Normal College, Albany; Frederick Monteser, Head of Department of German, DeWitt Clinton High School, New York City; Stella Stark, Teacher of Music, State Normal School, Buffalo.

With hardly an exception the work of the teachers this summer has been worthy the best standards of the University. Student after student has come to me expressing their appreciation and gratitude for the unselfish devotion of their instructors. The Session has been a successful one in every way and the chief cause for this is, as it must always be in education, the work of the teachers.

## STATISTICS OF ATTENDANCE

	1908	1909	1910	1911	1912	1913
Teaching staff.....	71	79	99	101	105	100
Number of students.....	841	889	987	1029	1053	1098
Cornell students of previous year.....	372	375	387	404	405	411
Former Cornell students.....	84	116	130	139	195	193
Graduates of Cornell University.....	15	22	37	28	34	57
Graduates of other colleges.....	125	141	145	185	172	222
Non-graduates from other colleges.....	107	62	136	129	137	144
New York State.....	326	372	428	424	467	469
Outside New York State.....	515	517	559	605	586	629

In addition to the persons enumerated above there were 338 students registered in the Summer School in Agriculture. Of these 171 were teachers, 103 of whom were registered in that College only. While the two great divisions of the University's summer work are administratively separate, they form an educational unit, and all persons studying here feel themselves members of a common university community. The statistics which follow are made to include all teachers present in both groups.

## Number and classification of teachers in attendance:

	1908	1909	1910	1911	1912	1913
Whole number.....	294	331	377	400	437	598
Teaching in Colleges.....	32	40	26	41	30	42
Normal Schools.....	12	15	15	13	10	21
High Schools.....	147	129	160	161	166	186
Elementary Schools.....	82	131	134	100	135	236
Private Schools.....	8	11	3	6	15	23
Superintendence and Supervision.....	13	21	39	79	81	90

The states from which more than ten teachers each attended are: New York, 265; Pennsylvania, 124; New Jersey, 52; Maryland (with District of Columbia), 31; Massachusetts, 17; Virginia, 16; Connecticut, 11. Twenty-four other states were represented.

The total registration for all branches of summer study is 1392, excluding all duplication of names in the count. In addition there have been, as usual, a number of advanced students doing independent work with the aid of the libraries and laboratories. Our total summer academic population would be not less than 1600.

## THE PECULIAR SERVICE OF THE SUMMER SESSION

This lies in bringing to a large number of persons, the majority of whom are public school teachers, the opportunity for deepening and broadening their knowledge, and for catching some inspiration to new lines of thought and action; and at the same time the chance for revising their methods of teaching, and for learning what is best in the theory and practice within their own special fields. These ends may be reached best by a combination of work which shall include one course of an advanced character in some branch of learning; one course, in the same field of study, which treats the subject in relation to its teaching, and in connection with which there is a "model class" if possible; and with these two a third course of a general cultural value. Inspection of many programs marked out by our students shows that they have decided on this general plan of work. With this information in mind it is perfectly clear that elementary courses in literature, history, or science perform a double service in the summer session. To increase the opportunity for at least a little acquaintance with the modern progress in learning our evening lectures have been of great help. We have had three on topics in Chemistry, two by members of the teaching staff, and one by Professor Dennis who very generously gave the amount of time required for a lecture illustrated by experiments. To Professor S. H. Gage also we are indebted for a most instructive lecture on theories of vision, and no less to Dr. Hendrik van Loon, of Washington, for a lecture of unique character on Dutch Social Life in the Seventeenth Century. Dr. Homer B. Sprague gave three lectures on English literature to audiences which taxed the capacity of the lecture rooms.

## GENERAL COMMENT ON THE SESSION

We have been able to extend this year the courses treating specially the problems of high school teaching to the Department of Mathematics, in which Mr. William Betz has conducted with great success one regular course with a class, and has held many personal conferences with teachers from secondary and elementary schools; and also to German, in which Dr. Frederick Monteser has

given a course in the teaching of German, and has also taught daily a class of children in the presence of teachers and others. Dr. Hale has carried on a teachers' course in Chemistry, and one of the two offered in Physics.

In a measure we are able to care for two of the three essentials for teaching: knowledge of the subject matter and of its presentation to students. The third important element in the preparation for teaching, practice—under expert supervision—is still almost entirely lacking. Probably we can not hope to supply this in the brief time of a summer session, for most high school subjects. In the manual work, however, practice and theory go hand in hand. Under the general oversight of Professor Kimball this part of our work, is, for the fields it aims to cover, substantially complete. If, as seems true, the teaching of the manual arts in our schools is especially effective, it would be well for teachers in other branches (and for the trainers of such teachers) to consider the probable causes for such success, and not to spend their time and strength, as is too often the case, in decrying the value of the manual work.

The growth of the Department of Music has continued in such a way that the numbers of students have become embarrassing. The recognition by the leaders of public school music in the country of the strength of our work is the best possible tribute to the ability of Professor Dann and his faithful associates in organizing and conducting the department. They have found a way to realize for their subject the three essentials mentioned above.

The increased number of students in German, especially in the advanced courses, must be regarded as a further proof of the correctness of our plans. In every possible way the gaining of power in use of the language is urged. The advanced lectures are given largely in German, the German table at Sage College has been of great help, and illustrated lectures in the evening have been followed by singing and games. I believe we may plan to have next summer a separate house for our students in which German only shall be spoken. Dr. Pope's class in first year German is not only a highly efficient course for beginners, but a perfect model class for high school teachers.

The field work at Cornell has always been an attractive feature of the summer, especially the excursions to which members of the session generally are admitted. This year more students than ever before have gone on these trips, which have included, in addition to near by points, Watkins Glen and Niagara Falls. Professors Von Engeln, Perrine, Whitbeck and Rowlee planned and carried them through without any accident and to the great pleasure of hundreds. They were materially assisted by Lieutenant Twisten, and the comfort of the parties was much increased by the curtesy of the Lehigh Valley Railroad which gave us special trains to Watkins and to Niagara. Early morning walks to study bird-life, with an interesting lecture descriptive of the birds of this region, were conducted by Dr. Allen.

For the reasonable entertainment of the summer community we have had several lectures on travel and natural scenery. Twice each week the chapel has been crowded to listen to Mr. Johnston's masterly organ playing. It is with regret that we take leave of him. He has, as always, been most generous in giving his music. The annual concert by the pupils in Music, and the dances on the lawn by the students in Physical Education were appreciated by all.

With the growth in numbers during the summer session the problem of the right proportion of purely social amusement has come, as during the winter time, to be a difficult one. With a larger number of the fraternity houses open there is a tendency toward an amount of entertaining which hinders the real work of the session. This is but one aspect of a larger problem,—how to prevent the presence of persons not thoroughly in earnest, whose object is not primarily work but fun. Their number is small, but their influence is considerable, and is a hindrance to the efficiency of others.

The Saturday evening dances at the armory have been well attended by persons willing to accommodate themselves to the known wishes of the University authorities as to the character of the dancing.

My report would be incomplete without mention of a new feature this year,—a daily paper. Messrs. Hays, Hamilton, and Vanderslice have furnished us each morning a faithful chronicle of the events of the previous day, and have given us a daily calendar of the greatest possible service. They have shown us that we cannot get along in future without such a convenience, and they receive the thanks due to pioneers who are at the same time public benefactors.

Respectfully submitted,

GEORGE P. BRISTOL,  
Director of the Summer Session.

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## APPENDIX XIV

### REPORT OF THE ADVISER OF WOMEN

To the President of the University:

SIR: I have the honor to submit my report as Adviser of Women for the academic year 1912-13.

The attendance of women in the University has again increased somewhat over that of the preceding year. In 1909-10 the total number of women registered was 397; in 1910-11 it was 428; in 1911-12 it was 447; in 1912-13 it was 466—a steady if not very rapid increase during the four years. During the same period the number of women registered in Arts has steadily declined, while the number registered in Agriculture has increased. The number registered in Arts this year was 233; the number in Agriculture, 169. Of the latter 128 were in the Department of Home Economics.

Besides the University dormitories there were in use this year for the accommodation of women students four houses of sufficient size to organize under the student government association. These four houses provided accommodations for sixty women. Eighty-eight students the first term and eighty-four the second term were "day" students, resident in their own homes or with relatives. Fifteen students were working in private families for room and board. Nearly seventy-five were scattered in small groups of two, three, or four in a place.

Many of these scattered students have been living outside the dormitory for financial reasons. Some of them have boarded themselves either wholly or

in part. Some have found employment in the Dryden Road and College Avenue cafeterias and in the cafeteria in the Home Economics building, receiving board in return for their services. Some have rendered service in the houses in which they resided, receiving in return room only, and have earned or partly earned their board by means of work in offices or other employment by the hour.

This problem of the self-supporting or partially self-supporting woman student will greatly complicate the enforcement of the rule of the Board of Trustees requiring residence in the University dormitories. This rule made and enforced in the early years of Sage College, but now long in abeyance by reason of the inadequacy of dormitory facilities, becomes again operative with the completion of Prudence Risley Hall.

There is no question of the desirability of the general enforcement of the rule. It is only the very exceptional student who finds outside the residential halls, conditions, either physical or social, in any wise comparable to those provided within them. Of the seventy or seventy-five women living in scattered groups not a few are living in more or less undesirable physical surroundings and very few under social conditions wholly to be approved. Nevertheless, it is unquestionable that the rigid enforcement of the residence rule would make impossible for a considerable number of students the continuation of their college course.

An effort will be made toward the partial solution of this problem by offering to such students as may need it the opportunity to wait table for their board in the dormitories. Until this year this opportunity had been open only to men students. This year it was offered for the first time to women students living outside the dormitories, and a few availed themselves of it. Whether on the larger scale on which it will be undertaken next year it will prove satisfactory to management and students alike remains to be seen. It is avowedly an experiment and is entered upon with some misgivings on both sides, the management questioning somewhat the physical ability and the general efficiency of the women as compared with the men, the students somewhat hesitant lest the rendering of such service in the dormitory should create social distinctions.

With the development of the work in home economics it becomes increasingly clear that there is needed at least one residential hall that offers room only without board. Opportunities within the home economics department by which the student in the regular course of her work may render service in return for board are already fairly numerous and are continually increasing. Under our present arrangement we compel these students either to forego this financial advantage or to forego the social advantage of living in the dormitory. I would recommend that the newly created Committee on Residential Halls be asked to consider the possibility of providing an additional dormitory that shall offer room only, together with adequate social supervision.

The ambitious woman student struggling to achieve an education on nothing or next to nothing offers a problem of ever increasing magnitude. When I entered upon my office four years ago the number of women seeking the opportunity for partial self-support while doing university work was comparatively small and I could be moderately certain of finding sufficient employment to meet the needs of all applying for such help. Each year the number seeking assistance has increased, until this year it is appallingly large. I have come almost to dread the day's mail with its practical certainty of more or less pathetic appeals for assistance that cannot and perhaps should not be given.

I am convinced that the problem of the self-helping woman student demands a more careful consideration than the University has yet given it. What limitations if any shall be placed upon the amount and kind of work to be undertaken, whether and how far the University is responsible for the conditions under which such work is performed, whether the University shall itself deal directly with the problem of placement of students seeking employment, whether and how far it is wise to give assistance and what are the best methods of giving it,—these problems, particularly in the case of the woman student, require for their satisfactory solution more wisdom than any one official is likely to be able to bring to them. In view of the increasing magnitude of the problem, and in view of its complication with the University's policy in the matter of residence requirements and social oversight for its women, I believe the time is at hand when through some committee, whether of Faculty or of Trustees, the problem should be given adequate consideration and a consistent policy adopted.

The health of the women students has been on the whole excellent throughout the year. We have had no contagious disease, and most of the admissions of women to the Infirmary have been for very slight illnesses. There was one operation for appendicitis, entirely successful.

On the other hand this year for the first time since my official connection with it, the Sage College community suffered loss by death during the college year. On the second of December Ruby Madsen, a senior in Arts, died at the Infirmary after a brief illness from pneumonia. Her family had been notified as soon as her illness took an alarming turn and her mother was with her during the last two days. The community was further saddened by the appalling drowning accident of May 17th when two more of its members, Mary Cornelia Mallett and Martha McCormick, together with two of their classmates, lost their lives on Cayuga Lake.

I would again call attention to the very excellent work of our medical examiner, Dr. Esther Parker. She has given time and strength to this work far beyond any obligation laid upon her by her contract with the University. In addition to her work as medical examiner and her regular daily dispensary hour she has given a short course of lectures on hygiene, open to all women in the University. Attendance was, of course, necessarily voluntary. In this connection I should like to reiterate the recommendation made in my last report—namely, that this instruction be expanded into a regular course covering at least one semester, that it be required of all entering women, and that it be given university credit.

It is possible that a thorough-going course in hygiene, presented in such a way as really to "get hold" of the student at the beginning of her course might do something toward correcting a condition that I am certain exists and that is at least partly revealed by an analysis of the causes for which women are admitted to the Infirmary. Out of 123 admissions to the Infirmary considerably more than a third were for causes indicating physical or nervous overstrain. Twenty-three cases were diagnosed as insomnia, eleven were merely "tired," five were cases of nervousness, three of hysteria, two of neurasthenia, one of asthenia,—a total of forty-five. I am convinced that practically all of this illness and loss of time could have been prevented by a rational mode of life. In this connection I wish to say again and as emphatically as I can what I have said in a previous report, that it is *overplay* not overwork that sends our women students into the Infirmary

to recuperate. In my four years' experience with this body of young women I have never known a single case of impairment of health that could be attributed to the pressure of university work alone.

I am convinced that the demands made upon many, perhaps upon most, of our women students by the various "activities" and social diversions of the college life are so continuous and so exhausting as seriously to menace their health and their future efficiency. Most of the great co-educational institutions in the country are grappling with this problem through a Social Committee of the Faculty. In the absence of any such authoritative body here, I have been obliged to stem the tide as best I could with the more or less reluctant assistance of the Women's Student Government Association. If I gauge student sentiment accurately, however, we cannot soon hope for student legislation that will impose anything like the necessary restrictions. Here again is a situation that demands consideration, not of one official merely, but of a committee, whether of Faculty or of Trustees, with power to legislate and to enforce its legislation.

The Student Government Association has done its work on the whole more effectively than during any of the three preceding years. It is extremely difficult, however, to arouse the sense of individual responsibility and the community spirit necessary to the really successful operation of such an organization. This has been particularly difficult heretofore because we have had during the year only one or two meetings of the whole body of women students and there has been no regular channel of communication between the students and those responsible for their supervision, and no means of influencing student public opinion. Toward the end of the year, however, it was decided to hold one general mass meeting each month, and the few that have been held have proved successful beyond expectation. These will be continued next year.

During the year several conferences have been held between the Chairman of the Faculty Committee on Student Affairs and the Adviser of Women and one between the chairman of the Committee and the executive committee of the Student Government Association in the effort to establish somewhat more definitely the relations between the Committee and the Association. This matter is still under advisement and the Chairman of the Committee hopes to establish such relations as will greatly strengthen the committees of the Association when they are obliged to deal with recalcitrant students.

Before closing may I again urge your consideration of the final recommendation of my last annual report. I suggested there the appointment of a Faculty Committee on the education of women in the University. So far co-education has meant everywhere offering the *same* education to men and women. This was indeed what the leaders in the movement for the education of women at first, and rightly, demanded and insisted upon. It was a necessary and inevitable stage in the emancipation of woman. It seems to have been necessary for woman to prove her capacity for the man's task in order to gain the opportunity to train properly for the woman's. Today the leaders in the movement for the education of women see that the social task of men and women, though complementary, is diverse and demands in each case special education. Here and there in our higher educational institutions through the establishment of departments of home economics, we are beginning to grope more or less blindly toward a partial solution of the problem; but nowhere, so far as I know, has any institution set consciously

before itself the task of considering the whole problem of the education of women in the light of its social bearings, or proposed modifications of its curriculum in accordance with a rational plan based upon such consideration. Surely there still lives in Cornell enough of the pioneering spirit to break new paths through this field also.

Respectfully submitted,

GERTRUDE S. MARTIN,  
Adviser of Women.

## APPENDIX XV

### REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my seventeenth annual report as Registrar of the University. The report covers the academic year 1912-13, including the Summer Session of 1913.

#### THE YEAR

	Days in Session	Sun- days	Holi- days	Vaca- tion	Total
First term, Sept. 23-Feb. 5.....	102	16	3	..	121
First term, vacation, Feb. 6, 7.....	..	..	..	2	2
Christmas vacation, Dec. 22-Jan. 5....	..	..	..	15	15
Second term, Feb. 8-June 18.....	105	18	1	..	124
Easter vacation, April 3-April 9.....	..	..	..	7	7
Summer vacation, June 19-July 6.....	..	..	..	18	18
Summer Session, July 7-Aug. 15.....	35	5	..	..	40
Summer vacation, Aug. 16-Sept. 21.....	..	..	..	37	37

In addition to the 242 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 were also open during nearly all the vacation period for special work.

#### STUDENTS

The table given on page lxxxii, which shows the attendance for 1912-13, gives the number of students who have received instruction this year, including those in the 1913 Summer Session, in the 1913 Summer School in Agriculture, in the 1913 Summer Graduate work and in the 1912-13 Winter Courses in Agriculture, but excluding duplicates, as 6,315 an increase over last year's attendance of 467.

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 207. Special



# REPORT OF REGISTRAR

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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 2239 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 matriculants, but for convenience are listed in this table.

Graduates.....	90	Coll Ent. Board Exams.....	13
Advanced standing.....	232	Medical (N. Y. City).....	70
Regents' credentials.....	404	Medical (Ithaca).....	..
School certificates.....	601	Veterinary students.....	46
By examination.....	11	Summer session (1913).....	493
As special students.....	96	Summer School in Agr. (1913) ...	179
		Summer Graduate work 1913.....	5
Total.....	2240		

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 twenty-seven years, is, as nearly as may be ascertained, 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

\*No data prior to 1896-97.

# ATTENDANCE FOR THE YEAR 1912-1913

DEPT. & COLL. DEGREES CLASSIFICATION	GRADUATE A.M., Ph.D., M.M.E., Etc.			ARTS & SCIENCES A.B.			LAW LL.B.			MEDICINE M.D.			AGRICULTURE B.S.			VETERINARY D.V.M.		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	322	60	382	160	58	218	74	...	74	17	3	20	150	19	169	31	...	31
Class of 1913	...	...	...	176	46	222	47	1	48	16	5	21	203	28	231	37	...	37
Class of 1914	...	...	...	237	61	298	100	1	101	21	3	24	261	42	303	52	...	52
Class of 1915	...	...	...	300	65	365	63	...	63	36	2	38	341	61	402	...	...	...
Class of 1916	...	...	...	6	3	9	10	1	11	43	4	47	139	19	158	...	...	...
Specials	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	322	60	382	879	233	1112	294	3	297	133	17	150	1094	169	1263	120	...	120
Duplicates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Net total	322	60	382	879	233	1112	294	3	297	133	17	150	1094	169	1263	120	...	120
Short Winter Agr.	...	...	...	...	...	...	...	...	...	...	...	...	500	97	597	...	...	...
Summer	80	27	107	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	402	87	489	879	233	1112	294	3	297	133	17	150	1594	266	1860	120	...	120
Duplicates	68	26	94	...	...	...	...	...	...	...	...	...	10	1	11	...	...	...
Net totals	334	61	395	879	233	1112	294	3	297	133	17	150	1584	265	1849	120	...	120
DEPT. & COLL. DEGREES CLASSIFICATION	ARCHITECTURE B.Arch.			CIVIL ENG. C.E.			MECH. ENG. M.E.			SUMMER SESSION			SUMMER SCHOOL IN AGR.			TOTAL		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	322	60	382
Class of 1913	27	1	28	125	...	125	235	...	235	...	...	...	...	...	...	819	81	900
Class of 1914	19	...	19	133	...	133	218	...	218	...	...	...	...	...	...	849	80	929
Class of 1915	37	1	38	125	...	125	228	...	228	...	...	...	...	...	...	1061	108	1169
Class of 1916	43	1	44	118	...	118	265	...	265	...	...	...	...	...	...	1166	120	1286
Specials	15	...	15	2	...	2	10	...	10	...	...	...	...	...	...	225	27	252
Totals	141	3	144	503	...	503	956	...	956	...	...	...	...	...	...	4442	485	4927
Duplicates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	105	10	115
Net Totals	141	3	144	503	...	503	956	...	956	...	...	...	...	...	...	4337	466	4803
Short Winter Agr.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	500	97	597
Summer	...	...	...	...	...	...	...	...	...	601	406	1007*	175	164	339*	856	687	1543
Totals	141	3	144	503	...	503	956	...	956	601	406	1007*	175	164	339*	5693	1250	6943†
Duplicates	...	...	...	...	...	...	...	...	...	388	23	411	91	21	112	557	71	628
Net Totals	141	3	144	503	...	503	956	...	956	213	473	686	84	143	227	5136	1179	6315†

\*Includes 53 registered in both Summer Session and Summer Agriculture.

†Deducting 124 duplicates of regular session.

## FIRST DEGREES

## ADVANCED DEGREES

[illegible]

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

	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13				
Graduate School.....	..	..	..	2	6	11	61	13	23	30	21	9	14	22	36	21	33	35	41	52	69	70	84	133	170	240	185	145	161	166	190	174	205	189	201	197	211	232	239	249	310	309	372	383	382				
*Optional.....	81	159	164	146	138	133	61	145*	55	62	46	43	30	23	18	59	76	80	133	157	151	110	88	53	46	47	66	77	75	...	624	631	680	755	831	795	734	684	705	748	820	902	970	1017	1031	1112			
Arts and Sciences.....	40	45	41	36	34	27	36	43	33	46	60	69	52	40	33	26	30	33	54	77	98	129	143	171	174	165	152	166	200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Letters.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Literature.....	...	...	...	...	28	31	26	48	51	36	37	26	25	23	14	7	11	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Philosophy.....	28	44	37	25	...	...	12	17	29	9	23	22	22	17	11	14	23	28	58	67	58	57	77	104	111	121	137	155	157	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
History and Political Science.....	...	...	...	...	...	...	...	...	...	...	...	...	11	8	13	23	16	23	31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Mathematics.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Science and Letters.....	143	206	228	206	56	122	145	201	147	139	152	130	110	107	109	116	106	122	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Science.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Natural History.....	14	10	10	14	15	6	16	17	29	20	15	16	9	7	9	14	12	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Chemistry.....	10	4	8	13	10	10	18	16	12	9	6	2	6	8	5	12	11	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Medical Preparatory.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Agriculture.....	30	24	20	13	15	7	18	17	29	42	41	35	26	17	15	13	20	23	38	45	58	49	52	41	48	45	45	51	68	84	85	88	99	92	114	142	189	230	278	348	415	539	761	967	1263				
Mechanical Engineering.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mechanic Arts.....	27	12	24	15	24	38	58	56	54	44	33	29	33	31	34	37	63	69	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Electrical Engineering.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Industrial Art.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Civil Engineering.....	39	59	75	104	97	95	95	82	70	58	43	39	38	49	64	77	93	95	112	111	128	135	137	139	131	120	123	122	152	179	185	203	183	214	252	326	385	425	466	511	569	559	558	539	503				
Architecture.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</																

\*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.

†Summer Session of 1892.

## APPENDIX XVI

## REPORT OF THE CHAIRMAN OF THE INFIRMARY COMMITTEE

To the Acting President of the University:

DEAR SIR: I have the pleasure of transmitting to you my report as chairman of the Infirmary Committee, for the college year 1912-13.

The large addition to the Infirmary, which has been in process of construction for the past two years, was occupied at the beginning of the year. It relieved the overcrowded condition of the original Infirmary and the Schuyler annex, and proved its worth in the better accommodations and care which could be furnished to patients. The large number of students suffering from Grippe, Tonsilitis and Influenza, in the early part of the winter, showed that it was none too large for the future needs of the University. The addition is of strictly fire-proof construction, with three floors devoted to the care of patients, and containing normally 62 beds, scattered through wards well arranged for the isolation of diseases. Nine screened balconies opening off of the wards offer abundant outdoor room when needed, as does also the roof of the corridor connecting the addition with the original building. The kitchen, laundry and other service rooms are in the basement, with the heating and power plant under a one-story addition, containing a well equipped operating room. Of the original building, the former home of Mr. Henry W. Sage, and the gift of his sons to the University; the first floor is used for office, library and visiting rooms. The second floor is reserved for the use of convalescent patients when the new addition is not sufficient, and the third floor and attic is occupied by nurses and servants. The Schuyler House annex is at present reserved for emergencies.

The following Infirmary statistics for the year are of interest:

Number of patients, men .....	913	
women .....	140	
	—	1053
Total number of day's service .....		6008
Average cost per day per patient .....		\$2.99
Average daily service .....		22.6
Average days per patient .....		5.7
Maximum days' service—Dec. 17th .....		61
Medical cases .....		788
Surgical cases .....		265
Operations .....		80
Discharged, cured .....		1027
improved .....		14
not improved .....		4
not treated .....		6
died .....		2

The work of the University Medical Advisers has been carried on during the year with increased efficiency. I attach the report of Dr. Esther E. Parker, the Medical Adviser for women, and of Dr. Munford, the Medical Adviser for men. You will note that Dr. Parker examined 350 women during the year, many of

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 and eighty-five in February, 1913. 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 under certain conditions relieve all students from taking entrance examinations. Regents' pass cards for single subjects are accepted if the grade be 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 1913 Commencement as well as those of former years. 14,667 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.

## AGE AT GRADUATION

The following table shows the age in years and months of students at graduation for the ten year classes 1870-1910. It also shows the age separately for men and women. The Masters' degrees are listed in one group and the Doctors' in another. The age at graduation of the youngest member of the graduating class and also that of the oldest member are given as well as the median age.

	Arts		Law		Medicine		Veterinary		Agriculture		Arch.	Civil Eng.	Mech. Eng.	Masters		Doctors	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Men	Men	Men	Women	Men	Women
Class of 1870:																	
Minimum.....	20- 4																26- 0
Median.....	21-11																26- 0
Maximum.....	28- 5																26- 0
Class of 1880:																	
Minimum.....	18-11	19- 8							20- 6		19- 6	21- 0	23- 0	29- 3			22- 9
Median.....	22- 3	22- 2							21- 0		21- 5	22- 8	25- 1	29- 3			22- 9
Maximum.....	32- 8	24- 6							30- 0		23- 5	25- 9	28- 1	29- 3			22- 9
Class of 1890:																	
Minimum.....	19- 9	20-11	20- 1						20- 1		20- 7	19- 2	20- 2	20- 7	23- 5	28-10	
Median.....	22- 4	23- 0	22- 6						23- 2		23- 9	22-11	23- 1	24- 1	26-10	29- 6	
Maximum.....	32- 6	27- 1	36- 2						25- 3		26-11	27-10	36- 1	29-10	31- 5	30- 3	
Class of 1900:																	
Minimum.....	20- 0	20- 6	19- 6		21- 3	23- 6	22- 0		22- 7		21- 2	20-11	19- 9	22- 0	21-11	24- 0	30- 8
Median.....	22-10	22-11	22- 5		24- 5	26- 9	25- 1		23-10		23- 0	23-10	22-10	24- 9	36- 6	30-10	31- 3
Maximum.....	36- 3	33- 8	34- 4		38- 4	38- 2	34- 9		28- 2		28- 1	28- 8	30- 0	40- 2	42- 0	41- 0	33- 0
Class of 1905:																	
Minimum.....	19-11	20- 6	20- 9	22- 1	20- 9	21-10	20-11		20- 9	27- 6	22- 2	20- 5	20- 4	21- 4	23-11	23- 5	37- 5
Median.....	22- 6	22-10	23- 5	22- 1	23- 6	29-10	25- 5		23-10	27- 6	24- 4	24- 1	23- 3	25- 1	29- 3	31- 2	37- 5
Maximum.....	33-10	52- 5	29- 3	22- 1	38-10	38- 4	33- 0		38- 3	27- 6	30- 0	33- 8	32- 6	36- 1	32- 5	40- 4	37- 5
Class of 1910:																	
Minimum.....	20- 1	20- 8	20-10	22- 6	21- 3	27- 6	21- 0	24- 8	20- 9	21-10	22- 3	19- 9	20- 2	21- 7	29- 8	23- 0	26- 5
Median.....	22- 5	22- 6	22-10	22- 6	23- 9	30- 8	23- 7	24- 8	24- 0	23- 0	23- 0	23- 5	22-11	26- 1	29- 8	28-10	29- 6
Maximum.....	34- 7	45- 2	26- 9	22- 6	33- 9	39-11	47- 0	24- 8	34-10	24- 2	36- 4	31-11	32- 7	32- 4	29- 8	38- 7	36- 1

# REPORT OF THE REGISTRAR

LXXXIII

Year	Arts	Phil.	Let.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	For- estry	Law*	Vet.	Med.	No. of Cases
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

Of the 232 admitted in 1912-13, 91 registered as freshmen, 78 as sophomores, 43 as juniors, and 20 as seniors.

During the last twenty-seven years there have been admitted from 534 other institutions of collegiate rank, 3,760 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:

	*97-8	*98-9	*99-00	*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
Certificate .....	193	199	275	296	357	308	315	317	380	324	465	578	574	524	517	601
Regents .....	140	154	164	198	212	219	220	238	233	185	244	287	329	311	420	404
Examination .....	25	22	24	26	39	19	18	27	18	18	41	12	14	8	12	11
Coll. Ent. Exam. Bd. .	..	..	..	..	9	11	20	27	29	37	33	23	27	14	18	13
N. Y. C. Ex. ....	..	..	..	..	..	..	..	..	..	20	9	5	..	..	..	..
Total .....	358	375	463	520	617	557	573	609	658	584	792	905	944	857	967	1029

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 will be 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.

\*No data prior to 1896-7.



them requiring several examinations and considerable study. The total consultations of the Advisers for men was 10,877, and included 380 house visits. I think that the work is well done and will continue to increase in value to the student body. The Medical Advisers both for men and women are seriously handicapped by inadequate and inconvenient quarters. These quarters should be close to the respective gymnasiums and besides furnishing additional room for examination, should provide some laboratory facilities.

I also submit with this report the financial statement of the Infirmary for the year, as it will appear in the Treasurer's report, and a list of the diseases treated furnished by the superintendent.

Respectfully submitted,

CHAS. D. BOSTWICK,

Chairman of the Infirmary Committee.

## APPENDIX XVII

### REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I have the honor to submit herewith my annual report on the University Library for the year ending June 30th, 1913.

The following table shows the additions made to the various more or less independent collections composing the University Library and the present extent of each:

	Volumes Added 1912-13	Present extent in	
		Volumes	Pam phlet
General Library .....	11,280	362,019	64,000
Law Library .....	1,627	44,797	
Flower Veterinary Library .....	169	4,139	
Barnes Reference Library .....	104	2,003	
Goldwin Smith Hall Library .....	82	1,940	
Stimson Hall Medical Library .....	49	1,309	
Agricultural College Library .....	552	6,198	
Forestry Library .....	7	1,165	
Totals .....	13,870	423,570	64,000

The President White Library, the Fiske special collections and the eight seminary collections are not separately enumerated in the table, being included in the statistics for the general library. Of the additions to the general library (numbering 11,280 volumes) 3,766 volumes were gifts. Of the accessions to the other collections named in the table the gifts number 463 volumes for the Law Library, 5 volumes for the Flower Library, 11 volumes for the Stimson Hall Library, 29 volumes for the Goldwin Smith Hall Library, and 32 volumes for the Agricultural College Library.

Among the noteworthy gifts of the year are the following: From Mr. Arnold Haultain, five boxes containing papers bequeathed to him by Goldwin Smith, comprising diaries, accounts, correspondence, albums of newspaper cuttings, and also Mr. Haultain's own card bibliography of Goldwin Smith's writings; from the Rev. W. E. Griffis, three small collections of books on Dutch Literature, English Nonconformity, and the Pilgrim fathers of New England, a welcome addition to the resources of the Library; from D. N. Crouse, an illuminated Arabic manuscript of the Koran; from the University of Michigan, a facsimile of the Washington manuscript of the Four Gospels in the Freer Collection; from the Royal Society of London, the memorial volume issued for the 250th anniversary of the Society, containing facsimiles of the signatures of the Founders, Patrons, and Fellows of the Society from its foundation to the present time; from A. R. Reed, '92, the privately printed Journal of Dr. John Morgan of Philadelphia in 1764; from the National Library of Chile, 110 volumes of Chilean documents; from the Rev. J. J. Rankin, a set of the Minutes of the General Assembly of the Presbyterian Church in the United States from 1855 to 1902; from Mrs. L. B. Warner, the *Eclectic Magazine* from its beginning in 1841 to 1873, completing the Library set. Ex-President White and Professor J. M. Hart have continued to show their interest in the Library by many important gifts, and valuable contributions have also been received from C. W. Wason, '74, T. Stanton, '76, and L. Coville, '86. To yourself and to many members of the University staff the Library as usual is greatly indebted for frequent gifts. From the United States government and from many state and municipal governments the usual supply of federal, state, and municipal documents has been received, and the British, Canadian, and Australian Patent Offices continue to send regularly to the Library their valuable publications. These and the other gifts of the year have been duly acknowledged and a complete list of the donors is submitted as an appendix to this report.

In addition to the income from the Sage Book Fund, one-third of the free income from the Fiske Fund was, by resolution of the Trustees, this year made available for the purchase of books, periodicals and for binding. This welcome addition to the current book funds made it possible to purchase a considerable number of important works and serials asked for by various departments. Noteworthy among these are the following: a collection of English plays, formed by T. F. Dillon Croker, comprising about 1700 plays, chiefly of the period from 1850 to 1880; *Le Museon*; *Horae Semiticae*; *Studia Sinaitica*; *Giornale della Societa Asiatica Italiana*; *Archivio Storico Lombardo*; *Revue des Etudes Grecques*; *Le Moyen Age*; *Hessische Blätter für Volkskunde*; *Mittheilungen der Schlesischen Gesellschaft für Volkskunde*; *Kritische Vierteljahrschrift für Gesetzgebung und Rechtswissenschaft*; the publications of the Canterbury and York Society, the Hampshire Record Society, the Somerset Record Society, the Worcestershire Historical Society, the William Salt Archaeological Society and the Yorkshire Archaeological Society; the Reports of the Commission on Municipal corporations in England and Wales; the Reports of the Jesup North Pacific Expedition; *Archiv für Zellforschung*; the *Ibis*; *Novitates Zoologicae*; *Internationale monatschrift für Anatomie und Physiologie*; *Macquart's Diptères exotiques*; *Festschrift für E. Haeckel*; *Festschrift für R. Hertwig*; *Hooker's Flora Antarctica*; *Hagen's Atlas Stellarium variabilium*; *Kent's Manual of the*

Infusoria; Testut's *Traité d'Anatomie humaine*; *Handwörterbuch der sozialen Hygiene*; *Encyclopaedia of Accounting*; *Foster's English Factories in India 1618-41*; Zeiller's *Spalato*; Planat's *Le Style Louis XIV*; Uhde's *Baudenkmäler in Grossbritannien*; Vitry's *Hotels et Maisons de la Renaissance française*; *Allgemeines Lexikon der bildenden Künstsler*; Gout's *Le Mont-Saint-Michel*; Vallance's *Old Colleges of Oxford*; *Early Records of the Town of Providence*; the *Bostonian Society's* publications; Paulding's works; *Bibliographica*; Haslewood's edition of the *Mirror for Magistrates*; the 1692 edition of Ben Jonson's *Works*; P. L. Roederer's *Oeuvres complètes*; the 1539 edition of Boccaccio's *De Claris Mulieribus*; the 1494 edition of Strabo *De Situ Orbis*; facsimiles of Cicero's *De Natura Deorum* (codex Heinsianus), and of Lucretius *De Rerum Natura* (codex Vos ianus); a brief life of Petrarch, based upon the life by Rovillio, printed about 1600, on a folio sheet of vellum, from a 14th century manuscript, from which the writing has been erased, leaving traces partly legible; of this typographical curiosity only three copies seem to be known, one in the National Library, Paris, one in the British Museum, and this one in the Fiske Petrarch collection. During the year the following sets have been completed: *Proceedings of the Boston Society of Natural History*, *Gazette des Beaux Arts*, *Kongliga Svenska Vetenskaps Akademiens Handlingar*, *Revue de Philologie*, and progress has been made in completing several others.

Dr. A. C. White reports that the work of the accessions and classification department has gone on regularly during the year. Only two changes of importance have been made; the collection of annual laws of the principal continental European nations, previously shelved with *Law* has been re-marked to the division of Public Documents (D) in anticipation of its transfer to the new stacks now in process of erection; general periodicals, which were placed with the literature of their respective languages, have now been made a separate division (B), and will also be shelved in the new stacks.

From the catalogue department Miss Thornburg reports that the number of volumes, pamphlets, and maps catalogued for the general card catalogue during the year was 13,891; for these 16,572 cards were written and 2,407 printed cards were obtained from the Library of Congress, making a total of 18,979 cards added to the catalogue. In September Miss C. A. Van Natten resigned her position as cataloguer to accept an appointment in the New York Public Library, and in her place Miss Elizabeth Van Denburgh (A.B. '11) was appointed.

Miss Fowler, the curator of the Dante and Petrarch collections, reports that, besides caring for the regular accessions, the revision of Mr. Fiske's card catalogue of the Petrarch collection, in preparation for printing it, has been carried on steadily throughout the year and the work is now well advanced.

Mr. Hermannsson, the curator of the Icelandic collection reports that the revised catalogue of the collection is now passing through the press, and that he has read the page proofs of 476 pages. He has also prepared, as volume six of *Islandica*, a list of living Icelandic authors, giving brief biographical sketches and lists of their writings. This is also in the hands of the printer and will be issued in July.

Professor Burr, the Librarian of the President White Historical Library, makes the following report:

Owing to my absence last year on sabbatical leave, no report has been made you from the President White Library since two years ago. During the interval the growth of the library has been steady. The income of the *Warfare of Science*, which in 1911 amounted to \$307, was in 1912, \$248, and has been used mainly, as hitherto, to build up the collections in which the library is eminent; and this fund has been supplemented by many fresh gifts from Ex-President White. The appreciative words of the young scholar who has lately given the world the first careful book on the history of witchcraft in England, and who in it, after thanking the great public and academic libraries in which he made research in England and America, acknowledges his deeper obligation to "the unrivalled White collection at Cornell," have quickened Mr. White's interest, I think, in this side of his library, and he has authorized me to become a bidder for the notable collection of a European jurist in this field, or, in case of our failure to secure it, to expend the same amount in other purchases on this subject.

One of our graduates who has since been a member of the Faculty of another University has this summer undertaken a study of our annotated volumes which once belonged to Leigh Hunt; and our discovery in connection with this that one of these works had strayed from the locked presses to the open shelves led us to a general verification of all the treasures received from Mr. White—the books from the libraries of Buckle, Macaulay, Gray, Southey, Lamb, Webster, Maximilian of Mexico, and other men of note. From Buckle's library we find that we possess no less than 217 volumes, nearly all annotated or marked by him, though a considerable number of Mr. White's purchases from this library remained to him as duplicates of books already possessed by the University. Though no harm seems to have come to these beside legitimate wear and the loss of a couple of bookplates, and though we do not find that any other of these treasures has been lost since they entered into the full possession of the University Library and were recorded in its shelf-lists, it has seemed wise to list them now more carefully, to restrict more closely their use, and to withdraw a larger number of them to the custody of the locked presses.

Mr. W. H. Austen, Assistant Librarian in charge of the reference and loan departments of the general library, in submitting the statistics of the recorded use of the books, reports as follows:

The removal of many books, not duplicates, from the general library to department collections has gone on as heretofore, and each year the increased number of such books limits the usefulness of the general library. Most of these department collections being closed before 9 a.m. and after 5 p.m. works hardship to those needing the books for use during these hours, as copies are not to be had in the general library. To obviate this the books so transferred should be limited to duplicates, or these collections should be open evenings. With the increased number of users of the library the problem of preventing, as much as possible, the inevitable conflict of use increases in difficulty. This conflict is seldom found between students and teachers, but rather between readers of these respective classes. Experience has shown that teachers rarely need books out in the hands of students, although students do frequently ask for books drawn out by instructors. The most serious problem for a long time was that of preventing one teacher from interfering with others, working in his own field or in a totally different one. This came from one man's having out at one time more books than he could constantly be in need of, and chiefly from his practice of retaining books long after they were no longer needed. This was particularly true in regard to bound periodicals. It is now several years since the rules of limiting books not in a teacher's own field of work to one month, and also of putting a time limitation on all periodical literature were put into practice. These two restrictions have served to recall to the library much material that was no longer needed, and in that way the subsequent demands for these books have been met when made without waiting to recall such books when asked for. At the present time volumes of bound periodicals are not charged to laboratory accounts, unless the set as a whole may properly be so dealt with, but are carried on personal accounts and

the borrower reminded at the end of each month that the volume is wanted back in the library as soon as the present need is satisfied. This is also true of books apparently lying outside a borrower's own field of work, and in this way an attempt is made to limit the books out of the library to those in actual use. It might be possible to enforce more strictly the rule limiting the number of books any one borrower may have out at a given time, and thus prevent any one borrower from retaining more books, even in his own field, than he can be in need of.

The following table shows the recorded use of the books, representing, probably, about one-third of the actual use made of the books in the library:

REFERENCE AND DEPARTMENT USE		
	1911-12	1912-13
Volumes used in reading room.....	77,064	86,187
Volumes sent to seminary rooms.....	3,602	3,882
Volumes sent to departments.....	5,521	5,654
HOME USE		
Volumes from general library.....	24,236	24,998
Volumes from open shelf circulating library.....	6,050	5,657
Lent to other libraries.....	274	196
Total recorded use.....	116,747	126,574

The registered users of the general library are as follows: University officers 461, students 621, special borrowers 10. During the year we have borrowed from other libraries 159 volumes and have lent to other libraries 196 volumes. The number of students who have registered and taken books for home use from the open shelf circulating collection was 829 and the number of officers 261. The number of readers who took advantage of the open shelf arrangement and used the books in the room, without taking them for home use, was 4,303. During the year 26 volumes were temporarily recalled from this collection for class use in the general library.

The recommendation made in my last report concerning the erection of book stacks in the lecture room was adopted by the Trustees, and a contract was made with the Art Metal Construction Company for the erection of a two-story stack, containing 9,194 feet of steel shelving, which is now being installed and will be ready to use before the end of the summer session. This will relieve the congestion in the present stacks and provide for the ordinary accessions of the next few years.

Mr. W. W. Ellis, curator of the shelves reports that the inventory of the shelves revealed 292 volumes on the wrong shelves as against 274 last year and 318 the year before. More than this number were also found misplaced numerically though on the right shelf. The number of books missing from the stacks this year is 523. In addition to the regular routine inspection of new books before sending them to the shelves, Mr. Ellis has prepared carefully detailed plans for the changes to be made in consequence of our occupation of the new stacks, in order that no unnecessary moving or confusion may take place when the book-moving begins. The changes planned involve the transfer of so many books from the west and south stacks, and the consequent re-arrangement of so large a portion of the library, that it will be necessary to employ some extra help in order to complete the work before the opening of the next term in September.

In the first term of the year Mr. Austen gave his regular course of lectures on the arrangement and use of books, and in the second term a course of practical exercises. In the second term the two-hour course in general bibliography was given by the Librarian. The annual record of publications by the University and its officers has been prepared by Miss Thornburg and the list of donors by Miss Leland and will accompany this report.

On the occasion of the centenary of the birth of Richard Wagner, an exhibition of works by and about the composer was prepared, with the assistance of Professor Pope, for the show cases in the White Historical Library. Here were displayed many portraits of Wagner and his friends, facsimiles of his autograph musical scores and letters, and a number of handsomely illustrated editions of his operas.

Notwithstanding the additional appropriation made this year for the purchase of books and periodicals, the library is still relatively no better able to meet the demands made upon it than it was twelve years ago. There are many subjects of importance for which no regular provision can be made from the present library funds. Here, as I have more than once pointed out, a great field is open to the Alumni, with numerous opportunities to help in building up the library by contributions, either of books, or of money for the purchase of books. Even small endowments of one or two thousand dollars, the income to be spent for the purchase of books in a given field or period, would gradually build up important collections, which would greatly enhance the value and usefulness of the library for scholarly work. Gifts of miscellaneous publications, especially of privately printed works and of local historical material, such as society and municipal reports and documents, are always welcome.

Respectfully submitted,

GEO. WM. HARRIS,  
Librarian.

## APPENDIX XVIII

## PUBLICATIONS, 1912-13

## Under the Auspices of the University

- Official publications of Cornell University. Vol iii. no. A-C., no. 14-18; vol. iv. no. A-B, no. 1-12. Ithaca, 1912-13. 22 nos. 8°. Illus.
- Contents:—iii. A. The dedication of Rand Hall, May 23, 1912.
- iii. B. Directory, Cornell University, first term, 1912-13.
- iii. C. Report of the Treasurer of Cornell University for the fiscal year ending August 1, 1912.
- iii. 14. N. Y. State College of Agriculture: announcement, 1912-13.
- iii. 15. N. Y. State College of Agriculture: announcement of winter courses, 1912-13.
- iii. 16. General Circular of Information, 1912-13. New ed. Oct. 1, 1912.
- iii. 17. N. Y. State College of Agriculture, announcement of the Department of Forestry, 1912-13.
- iii. 18. Twentieth annual report of President Schurman, 1912-13.
- iv. A. Directory, Cornell University, second term, 1912-13.
- iv. B. Ezra Cornell; the first Goldwin Smith lecture, delivered on Founder's Day, January 11th, 1913, by James Morgan Hart.
- iv. 1. General Circular of Information, 1913-14.
- iv. 2. Announcement of the Sibley College of Mechanical Engineering and the Mechanic Arts, 1913-14.
- iv. 3. Announcement of the Graduate School, 1913-14.
- iv. 4. Announcement of courses for the training of teachers and supervisors of music in the 22d Summer Session, July 5 to August 15, 1913.
- iv. 5. Announcement of the College of Civil Engineering, 1913-14.
- iv. 6. Announcement of the N. Y. State Veterinary College, 1913-14.
- iv. 7. Announcement of the 22d Summer Session, July 7-August 15, 1913.
- iv. 8. Announcement of the 3rd Summer School in Agriculture, July 7-August 15, 1913.
- iv. 9. Announcement of the College of Law, 1913-14.
- iv. 10. Samples of entrance and scholarship examination papers, 1912.
- iv. 11. Announcement of the College of Arts and Sciences, 1913-14.
- iv. 12. Announcement of the College of Architecture, 1913-14.
- Announcer of the College of Agriculture, published by the New York State College of Agriculture at Cornell University. Vol. ii. no. 1-9. Oct., 1912-June, 1913. Ithaca. 9 nos. f°.
- Bulletin of the Cornell University Agricultural Experiment Station. No. 317-333. July, 1912-June, 1913. Ithaca, 17 nos. 8°. Illus.
- Circular of the Cornell University Agricultural Experiment Station. no. 13-20. Oct. 1912-May, 1913. Ithaca. 8 nos. 8°.
- The Cornell civil engineer, Vol. xxi. Oct., 1912-June, 1913. Ithaca. 8°. pp. iv. + 388 + (2). Illus.
- The Cornell Countryman, Vol. x. Oct. 1912-June, 1913. Ithaca. 8°. pp. 296. Illus.
- The Cornell reading-courses. Vol. i, no. 19-24; ii. no. 25-40. Oct., 1912-June, 1913. Ithaca. 18 nos. 8°. Illus.
- Cornell rural school leaflet; A. G. McCloskey, editor. Vol. vi. Sept., 1912-March, 1913. Ithaca. 8°. pp. 350. Illus.
- Cornell University medical bulletin. Vol. ii. no. 1-3. New York, 1912-1913. 3 nos. 8°. Illus.
- Contents:—ii. 1. Announcement of the Medical College, New York and Ithaca, 1912-1913.
- ii. 2. Studies from the Department of Physiology.

ii. 3. Studies from the Department of Medicine, including therapeutics, applied pharmacology, and dermatology.

Cornell University weekly calendar. Vol. v. no. 1-35. Sept. 23, 1912-June 13, 1913. Ithaca. 35 nos. f°. Broadside.

The Cornell veterinarian. Vol. ii. no. 2-iii. no. 1. Jan.-June, 1913. 2 nos. 8°. Illus.

Islandica: an annual relating to Iceland and the Fiske Icelandic Collection in Cornell University Library, edited by G. W. Harris. Vol. vi. Ithaca, 1913. 8°. pp. xiv. + 69.

Contents:—vi. Icelandic authors of to-day, by H. Hermannsson.

Journal of physical chemistry; editor, W. D. Bancroft. Vol. xvi. no. 7-xvii. no. 6, Oct. 1912-June, 1913. Ithaca, 1913. 9 nos. 8°. Illus.

Issued monthly except in July, August, and September.

The philosophical review, edited by J. E. Creighton with the coöperation of J. Seth. Vol. xxi. no. 4-xxii. no. 3. July, 1912-May, 1913. 2m. New York. 6 nos. 8°.

The physical review, a journal of experimental and theoretical physics; conducted, with the coöperation of the American Physical Society, by E. L. Nichols, E. Merritt, and F. Bedell. Vol. xxxv., July-Dec., 1912. Lancaster, Pa., 1912. pp. iv + 494. 8°. Illus.

Publication transferred to the American Physical Society after 1912.

Publications of Cornell University Medical College: Studies from the Department of Anatomy. Vol. iii. New York, 1912-13. 8°. pp. var. Illus.

Report of the New York State Veterinary College for the year 1911-12, transmitted to the Legislature Jan. 27, 1913. Albany, 1913. 8°. pp. 182.

#### 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, 1911, to June 30, 1912, with some titles omitted in previous lists.

Adams, J. Q., jr. Every woman in her humor, and The dumb knight. (Mod. Philol., x (1913), 413).

— Peter Hausted's The rival friends, with some account of his other works.

(Jour. of English and Germ. Philol., xi (1912), 433.)

— Some notes on Hamlet. (Mod. Lang. Notes, xxviii (1913), 39.)

— [Review of] How a man may choose a good wife from a bad, edited by

A. E. H. Swaen. (Same, xxviii (1913), 107.)

— associate editor. Materialien zur Kunde des älteren englischen Dramas. Louvain, Belgium. 1912-1913.

Albee, E. [Reviews of] Founders of modern psychology, by G. S. Hall. (Philos. Rev., xxii (1913), 222.); Kant and his philosophical revolution, by R. M. Wenley. (Same, xxi (1912), 683.); The principle of individuality and value, by B. Bosanquet. (Same, xxii (1913), 308.); A short history of ethics, Greek and modern, by R. A. P. Rogers. (Same, xxi (1913), 701.)

Alexander, C. P. The American species of adelphomyia Bergroth (tipulidæ, dipt.). (Pomona Jour. of Entomol., iv (1912), 829.)

— A Bromeliad-inhabiting crane-fly (tipulidæ, dipt.). (Entomol. News, xxiii (1912), 415.)

— New nearctic tipulidæ (diptera). (Psyche, xix (1912), 163.)

— New neotropical antochini (tipulidæ, dipt.). (Same, xx (1913), 40.)

— New neotropical tipulinae (tipulidæ, dipt.). (Annals of the Entomol. Soc. of America, v (1912), 343.)

— A new species of dixia from Chili (dixidæ, dipt.). (Entomol. News, xxiv (1913), 176.)

— New species of furcomya (tipulidæ). (Canadian Entomologist, xlv (1912), 333, 361.)

— A new tropical gonomyia (tipulidæ, dipt.). (Entomol. News, xxiii (1912), 418.)



— On the tropical American rhipidiæ (tipulidæ, dipt.). (Bull. of the Brooklyn Entomol. Soc., viii (1912), 6.)

— A revision of the genus *brachypremna* Osten Sacken (tipulidæ, dipt.), (Jour. of the N. Y. Entomol. Soc., xx (1912), 225.)

— A revision of the South American dipterous insects of the family ptychop-teridæ. (Proc. of the U. S. National Museum, xlv (1913), 331.)

— A synopsis of part of the neotropical crane-flies of the sub-family limnobiinæ. (Same, xlv (1913), 481.)

— and **M. D. Leonard**. A new palæarctic geranomyia (tipulidæ, dipt.). (Canadian Entomologist, xlv (1912), 205.)

**Allen, A. A.** Bird boxes. (Cornell Rural School Leaflet, vi (1913), 209.)

— How the swallows learned to hunt. (Country Life in America, xxiii (1913), 43.)

— The peeper (*hyla Pickeringii*). (Cornell Rural School Leaflet, vi (1913), 337.)

— Phoebe vs. catbird, a study in adaptability. (Bird Lore, xiv, (1912) 269.)

— and **H. H. Knight**. The duck hawks of Taughannock gorge. (Same, xv (1913) 1.)

**Anderson, R. P.** A portable Pettersson-Palmqvist apparatus (Jour. of the Amer. Chem. Soc., xxxv (1913), 162.)

**Andrews, A. L.** Notes on North American sphagnum. III-IV. (Bryologist, xv-xvi (1912-1913), 63, 70, 20.)

— Philological aspects of the "Plants of Wineland the Good." (Rhodora, xv (1913), 28.)

— Studies in the Fornaldarsögur Nordrlanda. I. The Hrómundar saga Gripssonar §6. (Mod. Philol., x (1913), 601.)

**Atkinson, G. F.** *Gautieria* in the eastern United States. (Botan. Gazette, liv (1912), 538.)

— Is the biennial habit of *oenothera* races constant in their native localities? (Science, xxxvii (1913), 716.)

— The perfect stage of the ascochyta on the hairy vetch. (Botan. Gazette, liv (1912), 537.)

[Papers from the laboratory of G. F. Atkinson.] The brown leaf spot of colt's foot, *tussilago farfara* L., by F. A. Wolf. (Annales Mycologici, x (1912), 65.); A disease of the cultivated fig, *figus carica* L., by F. A. Wolf. (Same, ix (1911), 622.); Life history of some species of ascochyta, by R. E. Stone. (Same, x (1912), 565.); A new wood-destroying fungus, by A. Ames. (Botan. Gazette, lv (1913), 397.); The perfect stage of *actinonema rosae*, by F. A. Wolf. (Same, liv (1913), 216.); Some fungous diseases of the prickly pear, *opuntia Lindheimeri* Engelm., by F. A. Wolf. (Annales Mycologici, x (1912), 114.); Spore formation in *podospora anserina* (Rabh.) Winter, by F. A. Wolf. (Same, x (1912), 60.); Studies in pleurotus, by C. D. Learn. (Same, x (1912), 542.); Studies in the development of *xylaria*, by H. B. Brown. (Same, xi (1913), 1.)

**Austen, W.** Rights of the users of a college and University library, and how to preserve them. (Public libraries, xviii (1913), 6.)

**Bailey, E. J.** Studies in English masterpieces, xxi-xxiv. Albany, N. Y., 1912. 4 nos. 32°.

— Outlines of English masterpieces; a series of ten articles. (Amer. Education, xvi (1912-1913).)

— [Review of] Browning and his century, by H. A. Clarke. (South Atlantic Quarterly, xii (1913), 175.)

**Bailey, H. C.** See Murlin, J. R., and H. C. Bailey.

**Baldwin, W. M.** Die Entwicklung der Fasern der Zonula Zinnii im Auge der weissen Maus nach der Geburt. (Archiv für mikroskopische Anatomie. lxxx (1912), 274.)

— Muscle fibres and muscle cells of the adult white mouse heart. (Anatomischer Anzeiger. xlii (1912), 177.)

— The relation of muscle cell to muscle fibre in voluntary striped muscle. (Zeitschrift für allgemeine Physiologie, xiv (1913), 130.)

— The relation of muscle fibrillae to tendon fibrillae in voluntary striped muscles of vertebrates. (*Morphologisches Jahrbuch*, xlv (1913), 249.)

— The relation of the sarcolemma to the muscle cells of voluntary vertebrate striped muscle fibres and its morphological nature. (*Zeitschrift für allgemeine Physiologie*, xiv (1913), 146.)

**Bancroft, W. D.** The chemical action of light. (8th Internat. Congress of Applied Chem., xx (1912), 31.)

— Chemical production of light. (*Jour. of the Franklin Institute*, clxxv (1913), 129.)

— Chemiluminescence. (8th Internat. Congress of Applied Chem., xx (1912), 25.)

— The double spectrum of sodium chloride. (Same, xx (1912), 37.)

— The effect of bromide. (Same, xx (1912), 45.)

— The latent image. (Same, xx (1912), 51.)

— The permanency of paintings. (Same, xx (1912), 59.)

Also in the *Jour. of Physical Chem.*, xvi (1912), 529.

— The photochemical oxidation of benzene. (Same, xx (1912), 75.)

Also in the *Jour. of Physical Chem.*, xvi (1912), 556.

— The photographic plate IX. (*Jour. of Physical Chem.*, xvii (1913), 93.)

— The study of environment. (*Biochem. Bull.*, i (1912), 382.)

— The theory of emulsification. IV-V. (*Jour. of Physical Chem.*, xvi-xvii (1912-1913), 739, 501.)

— and **T. R. Briggs.** Blue gelatine-copper. (8th Internat. Congress of Applied Chem., xxii (1912), 7.)

Also in *Jour. of Industrial and Engineering Chem.*, v (1913), 9, and *Trans. of the Amer. Electrochem. Soc.*, xxii (1912), 287.

— and **M. A. Gordon.** The silver equivalent of hydroquinone. (Same, xx (1912), 101.)

— The protective action of sulphite. (Same, xx (1912), 115.)

— and **J. M. Lohr.** The tensile strengths of the copper-zinc alloys. (Same, ii (1912), 9.)

— and others. Rapid testing of dyes and pigments, by W. D. Bancroft,

**A. S. Elsenbast** and **G. E. Grant.** Same, xx (1912), 91.)

— The second positive, by W. D. Bancroft, **A. S. Elsenbast** and **G. E. Grant.** (Same, xx (1912), 83.)

— Study of a small carborundum furnace, by W. D. Bancroft, **L. V. Walker**, and **C. F. Miller.** (Same, xxi (1912), 19.)

Also in *Trans. of the Amer. Electrochemical Soc.*, xxii (1912), 73.

[Papers from the laboratory of W. D. Bancroft, published in the 8th Internat. Congress of Applied Chem.]: Color photography of luminescence by **E. F. Farnau** and **J. M. Lohr**, xx (1912), 137; The effect of pressure on the color of amorphous substances by **E. F. Farnau**, xx (1912), 129; The effect of temperature on cathodoluminescence by **E. F. Farnau**, xx (1912), 133; Experiments on crystal-luminescence, by **E. F. Farnau**, xx (1912), 127.

[Papers from the laboratory of W. D. Bancroft, published in the *Jour. of Physical Chem.*]: Anhydrous sodium sulphate and water by **D. T. Wilber**, xvii (1913), 556; Colloidal suspension of graphite by **H. L. Doyle**, xvii (1913), 390; The electro-chemical production of colloidal copper by **T. R. Briggs**, xvii (1913), 281; Indirect analysis of a ferric oxide gel. by **H. B. Weiser**, xvii (1913), 536; The photosensitiveness of Fehling's solution by **A. Leighton**, xvii (1913), 205; Rapid testing of dyes and pigments by **G. E. Grant** and **A. S. Elsenbast**, xvi (1912), 546; The second positive by **A. S. Elsenbast** and **G. E. Grant**, xvi (1912), 662; The silver equivalent of hydroquinone by **M. A. Gordon**, xvii (1913), 47; Studies on cellulose by **E. G. Parker**, xvii (1913), 219.

Also about sixty book reviews in the *Journal of Physical Chemistry*.

— editor. *Journal of Physical Chemistry*.

**Barnard, W. N.** See **Hirshfeld, C. F.**, and **W. N. Barnard**.

**Barnes, F. A.** See **Crandall, C. L.**, and **F. A. Barnes**.

**Barrus, M. F.** Late blight and rot of potatoes. (*Circular of the Cornell Univ. Agr. Exp. Sta.*, no. 19 (1913), 77.)

**Bauer, J.** The accountancy of interest and discount on notes. Article 1. (Jour. of Accounting, xiii (1912), 248.)

—— Same. Article 2. (Same, xv (1913) 341.)

—— The moral aspects of the increasing cost of living. Address delivered at the First Baptist Church, Sunday evening 26 Jan., 1913. (Ithaca Daily Jour., 28 Jan., 1913.)

—— N. Y. Workmen's Compensation Act unconstitutional. (Amer. Economic Rev., i (1911), 634.)

—— The problem of rural credit. (Cornell Countryman, x (1913), 218.)

—— Rising prices and the public. (Popular Science Monthly, lxxi (1912), 564.)

—— Washington Workmen's Compensation Act unconstitutional. (Amer. Economic Rev., ii (1912), 187.)

—— [Reviews of] Depreciation and wasting assets and their treatment in assessing annual profit and loss, by P. D. Leake. (Same, iii (1913), 387; Insurance science and economics, by F. L. Hoffman. (Same, ii (1912), 690.); Selected articles on compulsory insurance, by E. D. Bullock. (Same, iii (1913), 433.); Uniform classification of accounts for gas corporations prescribed by the railroad commission of the state of California; adopted Oct. 23, 1912; effective Jan. 1, 1913; For electric corporations, For water corporations. (Same, iii (1913), 188.); Abstracts and annotations of current articles on accounting. (Same, ii-iii (1912-1913), 471, 744, 991, 223, 497.)

**Beal, A. C.** The business of floriculture. (Cornell Countryman, x (1913), 102.)

—— Culture of the sweet pea (Sweet pea studies III). (Bull. of the Cornell University Agr. Exp. Sta., no. 320 (1912), 657.)

—— Horticultural nomenclature; a report of the botanist. (Proc. of the 28th Annual Convention of the Soc. of Amer. Florists, (1912), 139.)

—— Professor John Craig. (Cornell Countryman, x (1912), 10.)

—— Winter flowering sweet peas (Sweet pea studies II). (Bull. of the Cornell University Agr. Exp. Sta., no. 319 (1912), 618.)

**Bedell, F.** Systems of units. (Standard Dictionary of the English Language, (1913), 2610.)

—— editor. The Physical Review, 1912-1913.

**Benjamin, E. W.** Community co-operation for the sale of poultry and eggs. (Tompkins County Breeders' Jour., ii (1912), no. 6.)

—— Co-operative marketing of poultry and poultry products. (Poultry Husbandry, viii (1913), 1.)

—— Poultry and eggs as demanded by the consumers. (Ottawa Valley Jour., xxii (1912) 9.)

—— The preservation of food for the home: III. Preservation of eggs. (Cornell Reading Courses: Lesson for the Farm Home, i (1912), 298.)

**Bennett, C. E.** The claims of cultural studies. (Cornell Era, xlv (1913), 345.)

**Bennett, C. W.** Electro-deposition of brass and bronze. (Trans. of the Amer. Electrochem. Soc., xxiii (1912), 251.)

Also in the Metal Industry, ii (1912), 170.

—— Electro-deposition of copper. (Same, xxiii (1912), 233.)

—— Glycerol as sensitizer. (8th Internat. Congress of Applied Chem., lxx (1912), 121.)

Also in Jour. of Physical Chem., xvi (1912), 614.)

—— Photochemical reduction of copper sulphate. (Same, xx (1912), 123.)

Also in Jour. of Physical Chem., xvi (1912), 782.

—— and **C. O. Brown.** Concentration changes in the electrolysis of copper sulphate solutions. (Jour. of Physical Chem., xvii (1913), 373.)

Also in Trans. of the Amer. Electrochem. Soc., xxiii (1913), 383.

—— and **H. N. Gilbert.** Some tests of the Edison storage battery. (Same, xvii (1913), 322.)

Also in Trans. of the Amer. Electro-chem. Soc., xxiii (1913), 359.

Also seven signed book reviews in the Journal of Physical Chemistry.

- Bentley, J., jr.** The care of the farm woodlot. (Bull. of the N. Y. State Dept. of Agr., no. 37 (1911-12), 1388.)
- Forest planting at Cornell University. (Amer. Forestry, xvii (1912-176.)
- Practical forestry at Cornell. (Cornell Countryman, x (1912), 14)
- Tree Study. (Cornell Rural School Leaflet, vi (1912), 153.)
- Birch, R. R.** Serum as a factor in inter-herd control of hog cholera in New York. (Report of the N. Y. State Vet. Coll., (1911-1912), 131.)
- Bizzell, J. A.** See **Lyon, T. L.**, and **J. A. Bizzell.**
- Blakey, R. G.** "American beet sugar and the tariff." (Independent, lxxiv (1913), 1179.)
- Beet sugar and the tariff. (Jour. of Polit. Econ., xxiii (1913), 540.)
- The proposed sugar tariff. (Polit. Sci. Quarterly, xxviii (1913), 230.)
- Bogert, G. G.** The sale of goods in New York: a commentary on the Sales Act of 1911 and related statutes. Northport, L. I., 1912. 8°. pp. 400.
- Bolton, R. R.** See **Williams, W. L.**, and others.
- Boring, E. G.** Introspection in dementia precox. (Amer. Jour. of Psychology xxiv (1913), 145.)
- The negative reaction under light-adaptation in the Planarian. (Jour. of Animal Behavior, ii (1912), 299.)
- joint author. New apparatus for acoustical experiments, by M. Bentley, E. G. Boring, and C. A. Ruckmich. (Amer. Jour. of Psychology, xxiii (1912), 509.)
- Bradley, J. C.** The siricidae of North America. (Jour. of Entomology and Zoology, v (1913), i.)
- and others. Concerning nomina conservanda and a referendum to all zoologists, by J. C. Bradley, J. H. Comstock, J. F. Needham, H. D. Reed, W. A. Riley, Anna H. Morgan, G. W. Herrick, C. R. Crosby, A. H. Wright, R. Matheson, G. C. Embury. (Science, n.s. xxxvi (1912), 10.)
- Bretz, J. P.** [Review of] History of the British post office, by J. C. Hemmeon. (Amer. Hist. Rev., xviii (1912), 145.)
- Brown, C. O.** [Reviews of] Elementary applied chemistry, by L. B. Allyn. (Jour. of Physical Chem., xvii (1913), 370.); General and industrial inorganic chemistry, by E. Molinari. (Same, xvii (1913), 558.); Reviews, questions and problems in chemistry, by M. S. H. Unger. (Same, xvii (1913), 371.); A text book of physics, by A. W. Duff. (Same, xvii (1913), 180.)
- See also **Bennett, C. W.** and **C. O. Brown.**
- Brown, H. P.** Growth studies in forest trees. (Botan. Gazette, liv (1912), 386.)
- Pith-ray flecks in wood. (Circular of the U. S. Agr. Dept., no. 215 (1913), 1.)
- Brown, H. W.** Connections for synchronizing. (Electric Jour., ix (1912), 634.)
- Burnett, S. H.** Arterial sclerostomatosis in the horse. (Report of the N. Y. State Vet. Coll., (1911-1912), 70.)
- Also in the Cornell Veterinarian, ii (1912), 72.
- Sclerostomatosis of the arteries in the horse. (Proc. of the Amer. Vet. Med. Assoc., (1912), 302.)
- Vermineous asteritis in the horse. (Proc. of the 23d Annual Meeting of the N. Y. State Vet. Med. Soc., (1912), 171.)
- editor. Cornell Veterinarian, 1913.
- Burr, G. L.** Anent the Middle Ages. (Amer. Hist. Rev. xviii (1913), 710.)
- associate editor. American Historical Review, 1912-1913.
- Burrows, M. T.** Rhythmical activity of isolated heart muscle cells in vitro. (Science, n.s., xxxvi (1912), 90.)
- Rhythmische Kontraktionen der isolierten Herzmuskelzelle ausserhalb des Organismus. (Münchener Medizinische Wochenschrift, no. 27 (1912).)
- Carpenter, C. K.** Thermometer and mercury-column readings on high-vacuum condensers. (Power, xxxvii (1913), 681.)

- Carpenter, R. C.** The automobile as a product of research and investigation. (Sibley Jour. of Engineering, xxvii (1913), 341.)
- Critical speeds of automobile shafting; discussion. (Trans. of the Soc. of Automobile Engineers, viii, pt. 1 (1913), 190.)
- Horse power formulae for automobile engines. (Same, viii (1913), 148.)
- Probable future four cylinder car. (Same, viii (1913), 173.)
- Catterall, R. C. H.** Anglo-Dutch relations, 1654-1660. (Annual Report of the Amer. Hist. Assoc. (1910), 101.)
- Chamot, E. M.** Sanitary Chemistry. (Amer. Year Book. (1912), 638.)
- The standard methods for the bacteriological examination of water. (Amer. Jour. of Public Health, iii (1913), 371.)
- Church, I. P.** [Review of] The principles of structural mechanics, treated without the use of the higher mathematics, by P. J. Waldram. (Cornell Civil Engineer, xxi (1913), 308.)
- Clark, E. D.,** joint author. Biochemical studies on soils subjected to dry heat, by F. J. Seaver and E. D. Clark. (Biochemical Bull., i (1912), 413.)
- Coca, A. F.,** and **E. S. L'Esperance.** A modification of the technic of the Wassermann reaction. (Zeitschrift für Immunitätsforschung, xiv (1912), 139.)
- Also in Archives of Internal Med., ii (1913), 84.)
- See also **Weil, R.,** and **A. F. Coca.**
- Coffen, F. H.** See **Meara, F. S.,** and others.
- Cole, L. G.** Preliminary report on the diagnosis of postpyloric (duodenal) ulcer by means of serial radiography. (N. Y. Med. Jour., xcvii (1913), 960.)
- Serial radiography in the differential diagnosis of carcinoma of the stomach, gall-bladder infection, and gastric or duodenal ulcer. (Archives of the Roentgen Ray, xvii (1912), 172.)
- The value of serial radiography in gastro-intestinal diagnosis. (Jour. of the Amer. Med. Assoc., lix (1912), 1947.)
- Coleman, W.** Five years' experience with the high calory diet in typhoid fever. (Jour. of the Amer. Med. Assoc. lix, (1912), 363.)
- Nutrition and dietetics. (Therapeutics of internal diseases, in four volumes; edited by F. Porschheimer. i (1913), 599.)
- Weight curves in typhoid fever. (Amer. Jour. of the Med. Sciences, cxliv (1912), 659.)
- Coley, W. B.** Bullet wound of the spinal cord between the first and second dorsal vertebrae; laminectomy; removal of the bullet; complete recovery. (Annals of Surgery, lvi (1912), 60.)
- Chapter on "hernia." (Progressive Medicine, ii (1913), 17.)
- "Myositis ossificans traumatica." (Annals of Surgery, lvii (1913), 305.)
- Comfort, W. W.** Adenet le Roi: the end of a literary era. (Quarterly Rev., ccxviii (1913), 413.)
- On starting right. (Springfield Sunday Republican, 21 July, 1912.)
- Trials of a housekeeper in 1400. (Nation, xevi (1913), 281.)
- Comstock, A. B.** John Walton Spencer. (Arbor Day Annual, N. Y. State Education Dept. 1913.)
- Nature study and elementary agriculture. (Nature Study Review, viii (1912), 217.)
- Nature study as a servant. (Same, viii (1912), 131.)
- Comstock, J. H.** See **Bradley, J. C.,** and others.
- Conner, L. A.** A contribution to the symptomatology of thrombophlebitis in typhoid fever. (Archives of Internal Med., x (1912), 534.)
- Cooke, R. A.** The fate of parenterally introduced glycogen in human and experimental diabetes. (Proc. of the Soc. for Exp. Biol. and Med., x (1912), 39.)
- Paroxysmal hemoglobinuria. (Amer. Jour. of the Med. Sci., cxliv (1912), 203.)
- Cooper, Lane.** Aristotle on the art of poetry; an amplified version, with supplementary illustrations: for students of English. Boston, 1913. 8°. pp. xxix + 101.
- Methods and aims in the study of literature. Ithaca, 1912. 8°. pp. 17.

- Ancient and modern letters. (*South Atlantic Quarterly*, xi (1912), 234.)  
 Appeared also, in part, in the *Classical Weekly*, vi (1912), 73.
- The first person in Wordsworth and Shakespeare. (*Notes and Queries*, 11th ser., v (1912), 65.)
- Lamb on Wordsworth's 'To Joanna.' (Same, vii (1913), 223.)
- 'Visto'='Vista.' (Same, vi (1912), 437.)
- [Reviews of] *Le génie littéraire*. par A. Rémond et Paul Voivenel. (*Philosophical Rev.*, xxii (1913) 86); Lord Byron as a satirist in verse, by C. M. Fuess. (*Dial*, liv (1913), 48.)
- Crandall, C. L.** Address at the annual banquet of the Association of Civil Engineers. (*Cornell Civil Engineer*, xxi (1913), 408.)
- Report of Committee XV on iron and steel structures. (*Proc. of the 13th Annual Convention of the Amer. Railway Engineering Assoc.*, xiii (1912), 81.)  
 Also in the *Bull. of the Amer. Railway Engineering Assoc.*, no. 152 (1912), 81.)
- and **F. A. Barnes.** Railroad construction. New York, 1913. 8°. pp. viii + 321. Illus.
- Crane, T. F.** Address before the New York Iota of the Phi Beta Kappa, May 25, 1912. (*Bulletin of the University of Rochester: The commencement of 1912 and autumn announcements*, viii (1912), 28.)
- The exemplum in England. [Review of] *The exemplum in the early religious and didactic literature of England*, by J. A. Mosher. (*Mod. Lang. Notes*, xxvii (1912), 213.)
- New analogues of old tales. [Review of] *Exempla aus Handschriften des Mittelalters* herausgegeben von J. Klapper. (*Mod. Philol.*, x (1913), 301.)
- Robert Collyer and Cornell University: an address delivered in Sage Chapel at the service held in memory of Robert Collyer, Feb. 2, 1913. (*Christian Register*, xcii (1913), 271.)
- Crehore, A. C.** See **Meara, F. S.**, and others.
- Creighton, J. E.** The Copernican revolution in philosophy. (*Philos. Rev.*, xxii (1913), 133.)
- The government of American universities. (*University control*, ed. by J. M. Cattell (1913), 393.)
- [Reviews of] *The evolution of educational theory*, by J. Adams. (*Philos. Rev.*, xxi (1912), 608.); *Immanuel Kant's Leben*, by K. Vorländer. (Same, xxi (1912), 609.)
- American editor. *Kant-Studien*. 1912-1913.
- editor. *The Philosophical Review*. 1912-1913.
- Crosby, C. R.** See **Bradley, J. C.**, and others.
- Dana, C. L.** The doctor's future; address at the anniversary meeting of the New York Academy of Medicine, 27 Nov., 1912. (*N. Y. Med. Jour.*, xcvi (1913), 1.)
- Mental tests; read at a meeting of the Practitioners' Society of New York, 1 Nov., 1912. (*Med. Rec.*, lxxxiii (1913), 1.)
- Occupational nervous and mental diseases. (*Amer. Labor Legislation Rev.*, ii (1912), 217.)
- The occupational neuroses; a clinical study of one hundred cases; read at a meeting of the New York Academy of Medicine, 4 Jan., 1912. (*Med. Rec.*, lxxxii (1912), 451.)
- Rest and play. (*N. Y. Times*, 16 Sept., 1912.)
- Daugherty, R. L.** Flow of water over weirs. (*Power*, xxxvii (1913), 682.)
- Theory of the reaction turbine. (*Sibley Jour. of Engineering*, xxvii (1913) 299.)
- Water rheostats. (*Power*, xxxvii (1913), 857.)
- De Garmo, C.** Aesthetic education. Syracuse, N. Y., 1913. 8°. pp. xi + 161. Plates. (*Cornell study bulletins for teachers*, No. 6.)
- Dennis, L. M.** Gas analysis. New York, 1913. 8°. pp. xvi + 434. Illus.
- Eine neue Form des Orsatapparates. (*Jour. für Gasbeleuchtung und Wasserversorgung*, lvi (1913), 400.)
- A new form of Orsat apparatus. (*Jour. Ind. Eng. Chem.*, iv (1912), 898.)

— and **W. J. O'Brien**. The determination of phosphorus in commercial acetylene. (Same, iv (1912), 834.)

**Douglas, J. F. H.** The propagation of electric energy by standing and travelling waves. (Electrical World, lx (1912), 311.)

**Dresbach, M.** Examinations of the eyes of college students. (Med. Record, lxxxii (1912), 190.)

— and **S. A. Munford**. Interpolated extrasystoles of frequent occurrence, in an otherwise normal human heart. (Proc. of the Soc. for Exp. Biol. and Med., x (1912), 6.)

**Du Bois, E. F.** The absorption of food in typhoid fever. (Archives of Internal Med., x (1912), 177.)

— See also **Wiggers, C. J.**, and **E. F. Du Bois**,

**Durham, C. L.** Formal Latin and informal Latin. (Classical Weekly, vi (1913), 97.)

**Eames, A. J.** The Morphology of *agathis australis*. (Annals of Botany, xxvii (1913), 1.)

**Edgar, J. C.** The practice of obstetrics, 4th ed., revised. 22d thous. Philadelphia, 1912. 4°. pp. xxii + 1062 Illus.

— The infant pulmotor; an apparatus for artificial respiration on asphyxiated new born infants. (Amer. Jour. of Obstetrics, lxxvii (1913), 1.)

**Eggleston, C.** Biological standardisation of the digitalis bodies by the cat method of Hatcher. (Amer. Jour. of Pharmacy, lxxxv (1913), 99.)

— Clinical observations on the duration of digitalis action. (Jour. of the Amer. Med. Assoc., lix (1912), 1352.)

— The relative value of the "natural" and the synthetic salicylates. (Same, lix, (1912), 2057.)

— and **R. A. Hatcher**. The emetic action of the digitalis bodies. (Same, lx (1913), 499.)

— See also **Hatcher, R. A.** and **C. Eggleston**.

**Embury, G. C.** Crustacea; a key to the common genera occurring in fresh waters of the eastern United States, prepared for students of fish culture. Ithaca, N. Y., 1913. 8°. pp. .

— [Reviews of] *Atlantisch-Salme im Süßwasser*, von C. G. Atkins. (Oesterreichische Fischerei-Zeitung., x (1913), 165.); Bericht über die an den Surveywerken auf dem Illinois River erzielten Resultate, von Dr. S. A. Forbes. (Same, x (1913), 126.); Bringen die Brutstätten der grossen Seen dem handeltreibenden Fischer Nutzen? von S. W. Downing. (Same, x (1913), 164.); Ecological notes on the fishes of Walnut Lake, Michigan, by T. L. Hankinson. (Same, ix (1912), 464.); Increasing and insuring the natural food supply of small-mouth black bass fry, and notes on combination of breeding and rearing ponds, by D. Lydell. (Same, ix (1912), 464.); The investigation of a river system in the interest of its fisheries, by S. A. Forbes. (Same, ix (1912), 464.); Ist Berieselung der Forellenkulturen schädlich? von W. T. Thompson. (Same, x (1913), 126.); The magnitude and scope of the work of the United States Bureau of Fisheries, 1910, by R. S. Johnson. (Same, ix (1912), 464.); Notes on black bass, by T. H. Bean. (Same, ix (1912), 463.); Observations on the small-mouthed black bass, by W. E. Meehan. (Same, ix (1912), 464.); Rescue work; the saving of fish from overflooded lands, by S. P. Bartlett. (Same, ix (1912), 464.)

— See also **Bradley, J. C.**, and others.

**Erdman, S.** The acute effects of caisson disease or aeropathy; a paper read before the XVth Internat. Congress of Hygiene and Demography, 24 Sept., 1912. (Amer. Jour. of the Med. Sci., cxlv (1913), 520.)

**Faust, A. B.** Commencement address at the Normal College of the North American Gymnastic Union, at Indianapolis, June 22, 1912. (Mind and Body, xix (1913), 355.)

— [Reviews of] *Geschichte der Schweizerischen Eidgenossenschaft*, von Johannes Dierauer. (Amer. Hist. Rev., xviii (1913), 362.); Guide to the manuscript materials relating to American history in the German State Archives. (Same, xviii (1912), 149.)

**Hatcher, R. A.** The persistence of action of the digitalins. (*Archives of Internal Med.*, x (1912); 268.)

— and **C. Eggleston.** The emetic action of the digitalis lo lies; from the Laboratory of Pharmacology of Cornell University Medical College, New York City. (*Jour. of Pharmacol. and Exp. Therapeutics*, iv (1912), 113.)

— — — Observations on the keeping properties of digitalis and some of its preparations. (*Amer. Jour. of Pharmacy*, lxxxv (1913), 203.)

— — See also **Eggleston, C.**, and **R. A. Hatcher.**

**Hayes, A.** The birth and purposes of the progressive party. (*Cornell Daily Sun*, 26 Oct. 1912.)

— — Direct primaries. (*Ithaca Daily News*, 23 May, 1913.)

**Haynes, I. S.** Acute palmar bursitis with rice bodies. (*Annals of Surgery*, lvi (1912), 463.)

— — Biliary colic without gall stones; read at the annual meeting of the Medical Society of the State of New York, Apr. 17, 1912. (*N. Y. State Jour. of Med.*, xii (1912), 496.)

— — Congenital, internal hydrocephalus; its treatment by drainage of the cisterna magna into the cranial sinuses. (*Annals of Surgery*, lxxvii (1913), 449.)

— — Gangrenous appendicitis with resection of fourteen inches of ileum. (Same, lvi (1912), 461.)

— — Ligation of the internal iliac arteries, with report of six cases. (*Amer. Med.*, n.s. vii (1912), 535.)

— — Sublingual thyroid, removal, acute myxedema. (*Annals of Surgery*, lvi (1912), 465.)

— — The surgical treatment of meningitis; its scope and accomplishment. (*Laryngoscope*, xxii (1912), 865.)

— — The surgical treatment of pyogenic meningitis by drainage of the cisterna magna. (*Papers of the 9th Internat. Otological Congress* (1912), 291.)

— — The treatment of meningitis by drainage of the cisterna magna. (*Archives of Pediatrics*, xxx (1913), 84.)

**Hermannsson, H.** Icelandic authors of to-day. Ithaca, N. Y., 1913. 8°. pp. xiv + 69 (Islandica, vi.)

— — *Hid islenzka Fraedafélag i Kaupmannahöfn.* (Lögberg, xxv (1912), 5.)

— — [Review of] *Arbok Haskola Islands.* (Lögberg, xxvi (1913), 4.)

**Herrick, G. W.** Notes on insects of economic importance; outlines of lectures in economic entomology. Ithaca, N. Y., 1912. 8°. pp. 122.

— — A text book in general zoölogy. [6th ed.] New York, 1912. sm. 8° pp. 338. Illus.

— — The cabbage louse and other aphids. (*Cornell Rural School Leaflet*, vi (1912), 108.)

— — The Colorado potato beetle. (Same, vi (1912), 87.)

— — Control of two elm-tree pests. (*Bull. of the Cornell University Agr. Exp. Sta.*, no. 333 (1913), 491.)

— — The imported cabbage butterfly. (*Cornell Rural School Leaflet*, vi (1912), 105.)

— — The larch case-bearer. (*Bull. of the Cornell University Agr. Exp. Sta.*, no. 322 (1913), 39.)

— — Plant-lice on apples, cherries, plums, etc. (*Announcer of the College of Agr.*, Cornell University, i (1912), 43.)

— — Some external insect parasites of domestic fowls. (*Jour. of Econ. Entomol.*, vi (1913), 81.)

— — Some troublesome orchard pests of the past season and how to fight them in 1913. (*Proc. of the 12th Annual Meeting of the N. Y. State Fruit-Growers' Assoc.* (1913), 35.)

— — The squash stink-bug. (*Tribune Farmer*, 1 Aug., 1912, 24.)

— — White grubs and their control. (*Announcer of the College of Agr.*, Cornell University, ii (1912), 3.)

— — [Articles in the *Rural New Yorker*, July, 1912–May, 1913, vol. lxxiii–lxxiv]. Caterpillars on huckleberries, 28 Sept., p. 995; Controlling apple lice, 1 Mar., p. 288; Controlling white grubs, 19 Oct., p. 1071; Cutworms and kaint, 24 Aug., p. 888; Do spiders bite hard? 28 Sept., p. 994; The elm leaf miner,



5 Apr. p. 502; The ground-cherry seed-moth, 20 July p. 815; The hookworm disease, 14 Dec., p. 1243; Lime and the strawberry weevil, 13 July p. 781; The raspberry cane-borer, 9 Nov., p. 1137; "Spring-tails" in the milk 3 Aug. p. 840; The strawberry leaf-roller, 22 June, p. 720.

— See also **Bradley, J. C.**, and others.

**Hess, H. D.** Machine design; hoists, derricks, cranes. Philadelphia, 1912. 8°. pp. vi. + 368. Illus.

— Graphics and structural design. New York, 1913. 8°. pp. 434. Illus.

**Hewett, W. T.** The price of English books in America. (Nation xcvi (1913), 466.)

— The taxation of productive and residential property. (Cornell Daily Sun, 25 Apr., 1913.)

**Higgins, B. B.** The perfect stage of cylindrosporium on prunus avium. (Science, xxxvii (1913) 637.)

**Hirshfeld, C. F.** Desirable improvements in American gas engine design. (Machinery, xviii (1912), 866.)

— Production of gasoline from natural gas. (Engineering Mag., xliii (1912), 880.)

— and **W. N. Barnard.** Elements of heat power engineering. New York, 1913. 8°. pp. xvi. + 813. Illus.

— and **T. C. Ulbricht.** Farm gas engines. New York, 1913. 8°. pp. iv. + 238. 188 figs.

— Gas power. New York, 1913. 8°. pp. x. + 209. Illus. (Wiley technical series.)

**Hoch, A.** Early manifestations of mental disorders. (Proc. of the Mental Hygiene Conference, (1913), 201.)

— The problem of toxic-infectious psychoses. (State Hospitals Bull., V. (1912), 384.)

— [Review of] Bleuler's Schizophrenia. (Rev. of Neurology and Psychiatry, x (1912), 259.)

**Hoguet, J. P.** See **Hartwell, J. A.**, and **J. P. Hoguet.**

**Hoobler, B. R.** Diseases influencing growth; the conditions which underlie them. (N. Y. Med. Jour., xcvi (1913), 769.)

— The effect of humidity, temperature, and barometric pressure on the blood pressure. (Heating and Ventilating Mag., x (1913), 17.)

— Effects of cold air on blood pressures of children and young adults in various stages of tuberculosis. (Amer. Jour. of the Diseases of Children, iv (1912), 307.)

— Nitrogen and mineral salt metabolism in healthy infant fed on modified cow's milk, with especial reference to ratios existing between nitrogen and the various mineral salts in relatively low, medium, and high fat feeding. (Med. and Surgical Report of the Presbyterian Hospital in the City of New York, ix (1912), 164.)

— Protein metabolism in infants fed on protein milk. (Amer. Jour. of Diseases of Children, v (1913), 308.)

— The standardization of blood pressure readings by means of an automatic device for indicating systolic and diastolic blood pressure in children. (Same, iv (1912), 46.)

**Hoy, D. F.**, compiler. Address book of the Kappa Sigma Fraternity, 1869-1912. Ithaca, N. Y., 1912. 16°. pp. 495.

**Hunter, A.** The influence of experimental cretinism upon nitrogen metabolism in the sheep. (Proc. of the Soc. of Exper. Biol. and Med., x (1913), 98.)

— and **M. H. Givens.** The metabolism of endogenous and exogenous purines in the monkey. (Jour. of Biol. Chem., xiii (1912), 371.)

— Purine catabolism in the monkey. (Original Communications, 8th Internat. Congress of Applied Chem., xix (1912), 149.)

— See also **Givens, M. H.**, and **A. Hunter.**

**Hurwitz, W. A.** On the pseudo-resolvent to the kernel of an integral equation. (Trans. of the Amer. Math. Soc., xiii (1912), 405.)

— [Review of] *Die Integralgleichungen und ihre Anwendungen in der mathematischen Physik*; by A. Kneser. (Bull. of the Amer. Math. Soc., xxi (1913), 406.)

**Hutchinson, J. I.** See **Snyder, V.**, and **J. I. Hutchinson.**

**Irvine, F.** The ethics of advocacy. (Amer. Law School Rev., iii (1913), 277.)

**Jacoby, H. S.**, joint author. Report of Committee no. VII on wooden bridges and trestles; to be presented to the 14th Annual Convention of the American Railway Engineering Association. (Bull. of the Amer. Railway Engineering Assoc., xiv (1913), 652.)

Also in Proc. of the 14th Annual Convention of the Amer. Railway Engineering Assoc., xiv (1913), 652.

— [Review of] *Structural design, I. Elements of structural design*, by H. R. Thayer. (Cornell Civil Engineer, xxi (1912), 100.)

**Johannsen, O. A.** Fungus gnats of North America, Pt. 4. (Bull. of the Maine Agr. Exp. Sta., no. 200 (1912), 57.)

— Insect notes for 1912. (Same, no. 207 (1912), 431.)

— *Macrobrachius* in America. (Entomol. News, no. 24 (1913), 228.)

— *Potato flea beetle*. (Bull. of the Maine Agr. Exp. Sta., no. 211 (1913), 37.)

— *Spruce bud moth* and *spruce leaf miners*. (Same, no. 210 (1913), 13.)

— *A tertiary fungus gnat*. (Amer. Jour. of Science, xxxiv (1912), 140.)

**Johnson, A. S.** The child and social reform. (Dial, liii (1912), 380.)

— An ethical aspect of the new industrialism. (South Atlantic Quarterly, xii (1913), 1.)

— *Woman and economics*. (Dial, liii (1912), 15.)

**Johnston, E. F.** *Autumn*; organ piece. New York, J. Fischer, 1912.

— *Christ is risen*; song. New York, Schirmer, 1913.

— *Cuddle down*; song. New York, J. Fischer, 1912.

— *The drum major*; operetta (two acts). New York, J. Fischer, 1912.

— *God that madest earth and Heaven*; song. New York, Schuberth, 1912.

— *I will set His dominion*; song. New York, Schirmer, 1912.

— *In the hour of trial*; song. New York, Schuberth, 1912.

— *Midsummer caprice*; organ piece. New York, J. Fischer, 1912.

— *When I think of you*; song. Boston, Oliver Ditson, 1912.

— *Where dreams are made*; song. New York, Schuberth, 1912.

**Johnston, J. C.** Speculations as to the causation of eczema. (Jour. of Cutaneous Diseases, xxxi (1913), 3.)

**Jones, F. S.** *Avian tuberculosis*. (Report of the N. Y. State Vet. Coll., (1911-1912), 159.)

— *Bacillary white diarrhea in chickens*. (Proc. of the Amer. Vet. Med. Assoc., (1912), 379.)

— An outbreak of an acute disease in adult fowls, due to bact. pullorum. (Report of the N. Y. State Vet. Coll., (1911-1912), 140.)

Also in Jour. of Med. Research, xxvii (1913), 471.

The value of the macroscopic agglutination test in detecting fowls that are harboring bact. pullorum. (Same, (1911-12), 149.)

Also in Jour. of Med. Research, xxvii (1913), 481.

**Jones, H. L.** *Lysias*. xxiv. 14. — Plato, *Apology*, 29A. (Classical Jour., viii (1913), 257, 258.)

**Karapetoff, V.** The cat and I and the magnetic circuit, a poem. (Sibley Jour. of Engineering, xxvii (1913), 335.)

— The closing lecture to the '09 senior class. (Same, xxvii (1913), 336.)

Reprint from *Addresses to engineering students*; edited by Waddell and Harrington

— *Entropy and temperature, illustrated by analogs*. (General Electric Rev., xvi (1913), 7.)

Also in *Engineering News*, lxi (1913), 406, with the title *A new entropy analog*.

— *Grading of instructors*. (Proc. of the Soc. for the Promotion of Engineering Education, xx (1913), 394.)

— *New conception of industrial work*. (Cornell Daily Sun, 5 May, 1913.)

— El sistema concentrico de educacion en ingenieria; traducido por G. Ossa. (Boletín de la Sociedad de Fomento Fabril, año xxix (1912), 444.)

Also in *Anales del Instituto de Ingenieros de Chile*, año xi (1911), 521.

— Socialism in Hungerborough, a parable. (*Cornell Daily Sun*, 29 Oct., 1912.)

— [Review of] *Die Veranschlagung elektrischer Licht und Kraftanlagen unter Benutzung vorgedruckter Formulare*, by B. Jacobi. (*Engineering News*, lxi (1913), 336.)

**Kennard, E. H.** Dielektrika und unipolare induktion. (*Physikalische Zeitschrift*, xiv (1913), 250.)

— The effect of dielectrics on unipolar induction. (*Physical Rev.*, ii ser. i (1913), 355.)

— Unipolare induktion und im magnetfeld rotierender kondensator. (*Physikalische Zeitschrift* xiii (1912), 1155.)

**Keyes, E. L., jr.** A case of carcinoma of the bladder controlled by the high frequency current. (*Surgery, Gynecology and Obstetrics*, xxxi (1913), 79.)

— Death after the use of salvarsan. (*Jour. of Cutaneous Diseases*, xxx (1912), 478.)

— Notes on salvarsan. (Same, xxx (1912), 420.)

— Survival after operation in spite of unusually low output of phenol-sulphonephthalein. (*Amer. Jour. of Urology*, viii (1912), 601.)

— joint author. The temperature after perineal section under spinal anesthesia, by E. L. Keyes and D. W. MacKenzie. (*N. Y. Med. Jour.*, xcvi (1912), 941.)

**Kimball, D. S.** Appearance in design as affected by function. (*Sibley Jour. of Engineering*, xxviii (1913), 368.)

— Industry and education. (*Annual Report of the Board of Education of the City of Ithaca*, (1912), 89.)

— Practical studies and liberal education. (*Cornell Era*, xlv (1913), 413.)

— The principles of management. (*Amer. Machinist*, xxxvi (1912), 965.)

— Scientific management (discussion). (*Trans. of the Amer. Soc. of Mech. Engineers*, xxxv (1913).)

— The work of the engineer. (*Cornell Daily Sun*, 12 Dec. 1912.)

**Kingsbury, B. F.** Amphibian tonsils. (*Anatom. Anzeiger*, xlii (1912), 593.)

**Knowlton, H.** Directions for canning and jelly-making. (*Cornell Rural School Leaflet*, vi (1913), 309.)

**Knudson, L.** Inception, season, and duration of cambial activity in American larch (*larix laricina* (DuRoi) Koch). (*Bull. of the Torrey Bot. Club*, xl (1913), 271.)

— Tannic acid fermentation. I-II. (*Jour. of Biol. Chem.*, xiv (1913), 159, 185.)

**Kramm, H. E.** On the occurrence of manganese at New Ross in Nova Scotia. (*Trans. of the Canadian Mining Institute*, xv (1912), 210.)

**Lamoureux, A. J.** The Agricultural Library and how to use it. (*Cornell Countryman*, x (1912), 64.)

— [Geographical and statistical articles in the *Encyclopaedia Britannica*, 11th ed., 1910-1911.]: Argentina, ii, 460; Asuncion (Paraguay), ii, 821; Atacama, ii, 822; Bogotá, iv, 120; Bolivia, iv, 166; Brazil, iv, 438; Buenos Aires, iv, 752; Caracas, v, 298; Chile, vi, 142; Colombia, vi, 700; Ecuador, viii, 910; La Paz, xvi, 194; Lima, xvi, 689; Mexico, xviii, 317; Pará, xx, 745; Paraguay, xx, 756; Peru, xxi, 264; Quito, xxii, 763; Rio de Janeiro, xxiii, 353; Rio Grande do Sul, xxiii, 357; Santiago (Chile), xxiv, 191; Sao Paulo (Brazil), xxiv, 199; Venezuela, xxvii, 988.

Also the greater part of the minor geographical and statistical articles on the South American republics and Mexico in the same work.

**Lee, M. A.** Gauge for measuring small differences of pressure. (*Sibley Jour. of Engineering*, xxvii (1913), 279.)

**Leonard, M. D.** Additions to the New Jersey tipulidae (diptera), with the description of a new species. (*Entomol. News*, xxiv (1913), 247.)

— See also **Alexander, C. P.**, and **M. D. Leonard**.

- L'Esperance, E. S.** See Coca, A. F., and E. S. L'Esperance.
- Lohr, J. M.** The tensile strength of the copper-zinc alloys. (*Jour. of Physical Chem.*, xvii (1913), 1.)
- See also Bancroft, W. D., and J. M. Lohr.
- Love, H. H.** Comparisons of yield between hybrids and selections in oats. (*Amer. Breeders' Mag.*, iii (1912), 289.)
- The relation of certain ear characters to yield in corn. (Report of the Amer. Breeders' Assoc., vii (1911), 29.)
- The relation of seed ear characters to earliness in corn. (Same, viii (1912), 330.)
- A study of the large and small grain question. (Same, vii (1911), 109.)
- Lunt, W. E.** The account of a papal collector in England in 1304. (*English Hist. Rev.*, xxviii (1913), 313.)
- The first levy of papal annates. (*Amer. Hist. Rev.*, xviii (1912), 48.)
- [Reviews of] American colonial government, 1696-1765, by O. M. Dickerson. (*Annals of the Amer. Academy of Political and Social Science*, xlii (1912), 363.); Current political problems, by J. D. Rees. (Same, xlv (1913), 286.); European arms and armour in the University of Oxford, principally in the Ashmolean and Pitt-Rivers Museums, by C. Ffoulkes. (*Amer. Hist. Rev.*, xviii (1913), 388.); The exchequer in the twelfth century, by R. L. Poole. (*Annals of the Amer. Academy of Political and Social Science*, xlvii (1913), 305.); The great roll of the pipe for the twenty-ninth year of the reign of King Henry the Second, A. D. 1182-1183. (*Amer. Hist. Rev.*, xviii (1913), 388.); A history of witchcraft in England from 1558 to 1718, by W. Notestein. (*Annals of the Amer. Academy of Political and Social Science*, xlv (1912), 179.); Liberalism and wreck of Empire, by Viscount de Fronsac. (Same, xlii (1912), 368.); Les papes d'Avignon, 1305-1378, par G. Mollat. (*Amer. Hist. Rev.*, xviii (1912), 123.); Political unions, by H. A. L. Fisher. (*Annals of the Amer. Academy of Political and Social Science*, xlii (1912), 368.)
- Lusk, G.** Calorimetric observations. (*Med. Rec.*, lxxxii (1912), 925.)
- editor. Animal calorimetry, I-VII. [Papers based on researches in the Physiological Laboratory of Cornell University Medical College, issued under the direction of G. Lusk: published in the *Jour. of Biol. Chem.*, xii-xiii, 1912-1913.]
- Contents:—I. A small respiration apparatus by H. B. Williams, xii (1912), 317. II. Metabolism of the dog following the ingestion of meat in large quantity by H. B. Williams, J. A. Riche and G. Lusk, xii (1912), 349. III. Metabolism after the ingestion of dextrose and fat, including the behavior of water, urea and sodium chloride solutions by G. Lusk with J. A. Riche, xiii (1912), 27. IV. Observations on the absorption of dextrose and the effect it has on the composition of the blood by G. Fisher and M. B. Wishart, xiii (1912), 49. V. The influence of the ingestion of amino-acids upon metabolism by G. Lusk with J. A. Riche, xiii (1912), 155. VI. The influence of mixtures of food-stuffs upon metabolism by G. Lusk with J. A. Riche, xiii (1912), 185. VII. The metabolism of a dwarf by F. H. McCrudden and G. Lusk, xiii (1913), 447.
- Lyon, T. L., and J. A. Bizzell.** Experiments with reinoculation of steamed soils. (*Proc. of the Eighth Internat. Congress of Applied Chem.*, xv (1912), 159.)
- The influence of a preceding crop on nitrification in soil. (*Jour. of Industrial and Engineering Chem.*, v (1913), 136.)
- The influence of alfalfa and timothy on the production of nitrates in soils. (*Centralblatt für Bakteriologie*, xxxvii (1913), 161.)
- The plant as an indicator of the relative density of soil solutions. (*Proc. of the Amer. Soc. of Agronomy*, iv (1912), 35.)
- Water-soluble matter in soils sterilized and reinoculated. (*Bull. of the Cornell Univ. Agri. Exp. Station*, no. 326 (1913), 207.)
- McClendon, J. T.** Echinochrome. (*Jour. of Biol. Chem.*, xi (1912), 435.)
- The effects of alkaloids on the development of fish (*fundulus*) eggs. (*Amer. Jour. of Physiol.*, xxxi (1912), 131.)
- Preparation of material for histology and embryology, with an appendix on the arteries and veins in a 30 mm. pig embryo. (*Anat. Record*, vii (1913), 51.)

— The rate of absorption of water by the skin of the frog in relation to M. H. Fischer's theory of Edema.—The dynamics of a model of cell division. (Proc. of the Soc. for Exp. Biol. and Med., x (1913), 125. 126.)

**McCloskey, A. G.**, editor. Cornell Rural School Leaflet, vi, 1912-13.

**McKelvey, J. V.** [Review of] Anharmonic coordinates, by H. W. L. Hime. (Bull. of the Amer. Math. Soc., xix (1913), 416.)

**Macomber, S. S.** The Cornell University hydro-electric power plant. (Sibley Jour. of Engineering, xxvii (1912), 53.)

**Mann, A. R.** A word about journalism. (Illinois Agriculturist, xvii (1913), 380.)

**Meara, F. S.** The general practitioner: an idealization. [Delivered at the Harvard Medical School, under the auspices of the Alpha Omega Alpha Society.] (Boston Medical and Surgical Jour., 18 July, 1912.)

— and **M. Goodridge.** The relationship between erythema nodosum and tuberculosis, with the report of a case. (Amer. Jour. of the Med. Sciences, cxliii (1912), 393.)

— and others. A comparison of simultaneous polygraph and micrograph tracings, by F. S. Meara, F. H. Coffen and A. C. Crehore. (Jour. of Exp. Med., xvi (1912), 280.)

**Miller, C. F.** See **Bancroft, W. D.**, and others.

**Minns, E. R.** The rotation of farm crops. (Cornell Reading Courses: Lesson for the Farm, i (1912), 217.)

**Montgomery, E. G.** Alfalfa for New York. (Cornell Reading Courses: Lesson for the Farm, i (1912), 181.)

**Moore, E.** Man and his environment in Africa. (Jour. of Geog., xi (1912), 1.)

**Moore, V. A.** Bovine tuberculosis and its control. Ithaca, N. Y., 1913. 8°. pp. x. + 134. Plates.

— Principles of microbiology; a treatise on bacteria, fungi, and protozoa pathogenic for domesticated animals. Ithaca, N. Y., 1912. 8°. pp. xi. + 506.

— Report of the New York State Veterinary College for the year 1911-1912, transmitted to the Legislature, January 27, 1913. Albany, 1913. 8°. pp. 182.

— Some important factors in the control of communicable diseases. (Amer. Vet. Rev., xlii (1912), 166.)

Also in the Proc. of the Amer. Vet. Med. Assoc., (1912), 337.

— The value of physical examination and clinical diagnosis in the control of tuberculosis in cattle. (Amer. Jour. of Vet. Med., viii (1913), 10)

Also in the Report of the N. Y. State Vet. Coll. (1911-1912), 169, and in the Proc. of the U. S. Live Stock Sanitary Assoc. (1912), 51.

— and **C. P. Fitch.** A study of the specific reactions for the diagnosis of glanders. (Report of the N. Y. State Vet. Coll. (1911-1912), 51.)

**Mulford, W.** Recent New York State laws giving relief from taxation on lands used for forestry purposes. (Cornell Reading Courses: Lesson for the Farm, ii (1912), 33.)

**Murlin, J. R.** Some observations on the protein metabolism of normal pregnancy and the normal puerperium. (Surgery, Gynecology and Obstetrics, xvi (1913), 43.)

— and **H. C. Bailey.** Protein metabolism in late pregnancy and the puerperium. (Jour. of the Amer. Med. Assoc., lix (1912), 1522.)

— and **S. R. Benedict.** Determination of the amino-acid nitrogen in the urine. (Proc. of the Soc. for Exp. Biol. and Med., ix (1912), 109.)

— and **B. Kramer.** The influence of pancreatic and duodenal extracts on the glycosuria and the respiratory metabolism of depancreatized dogs. (Same, x (1913), 171.)

— and others. The carbon dioxide and oxygen content of the blood after ligation of the abdominal aorta and the inferior vena cava; by J. R. Murlin, L. Edelmann and C. W. Giles. (Same, x (1913), 174.)

— [Paper written under the direction of J. R. Murlin.] The role of the lipids and particularly lecithin in narcosis, by B. Kramer. (Jour. of Exp. Med., xvii (1913), 206)

**Myers, C. H.** Principles and methods of plant-breeding. (Cornell Reading Courses: Lesson for the Farm, ii (1913), 129.)

**Nammack, C. E.** Abortion—its social and ethical aspects. (Med. Rec., lxxxii (1912), 479.)

— The differential diagnosis of lobar pneumonia. (Same, lxxxiii (1913), 611.)

— How much of eugenics is scientific? (N. Y. Med. Jour., xcvi (1913), 740.)

— Mistakes in the diagnosis of typhoid fever. (Med. Rec., lxxxii (1912), 1123.)

— Salvarsan in cryptogenetic pernicious anemia. (Same, lxxxiii (1913), 847.)

All these articles have been separately reprinted.

**Needham, J. G.** General biology, 5th ed. Ithaca, N. Y., 1913. sm. 8°. pp. xiv + 542. Illus.

— [Review of] Applied biology, by M. A. and A. N. Bigelow. (Science n.s. xxxvii (1913), 714.)

See also **Bradley, J. C.**, and others.

**Nichols, E. L.**, editor. Physical Review, xxxv, 1912.

**Northup, C. S.**, joint author. An elementary English grammar with composition, by Miss A. Blount and C. S. Northup. Revised ed. New York, 1912. 8°. pp. x + (2) + 330.

— joint author. English composition for grammar grades, by Miss A. Blount and C. S. Northup. New York, 1913. 8°. pp. vii + (1) + 144. (Progressive Studies in English, iii.)

— Austria and her people. (Dial, liv (1913), 465.)

— A bibliography of Phi Beta Kappa, i. (Phi Beta Kappa Key, i, no. 12 (1913), 3.)

— Chaucer in prose. (Dial. liii (1912), 436.)

— A French study of Chaucer. (Same, liv (1913), 185.)

— The hope for peace. (Christian Register, xcii (1913), 344.)

— On a school play of 1648. (Englische Studien, xlv (1912), 154.)

— Recent studies of Gray. (Same, xlvi (1912), 114.)

— Ubi sunt heroes? (Mod. Lang. Notes, xxviii (1913), 106.)

— [Review of] W. M. Praed: sein Leben und seine Werke, von M. Kraupa. (Englische Studien, xlv (1912), 325.)

— coöperating editor. Jour. of English and Germanic Philology, 1912-13.

**Nussbaum, F. L.** The compromise tariff of 1833; a study in practical politics. (South Atlantic Quarterly, xi (1912), 337.)

**O'Brien, W. J.** See **Dennis, L. M.**, and **W. J. O'Brien**.

**Ogden, H. N.** Imhoff tanks. (Proc. of the Amer. Soc. of Municipal Improvements (1912), 74.)

— Inspection of city water supplies: Cortland. (32d Annual Report of the N. Y. State Dept. of Health, (1911), 1070.)

— Investigation of complaints relating to stream pollution: Olean. (Same, (1911), 829.)

— Investigation of outbreaks of typhoid fever: Gloversville—Canastota. (Same, (1911), 802, 810.)

— Investigation of public nuisances not arising from stream pollution: Watkins. (Same, (1911), 856.)

— Investigation of sanitary conditions of cities and villages: Kingston—Lockport—Oneonta. (Same, (1911), 882.)

— Investigations ordered by the Governor: Onondaga Lake. (Same, (1911), 864.)

— Pollution of inter-state waters. (Same, (1911), 1161.)

— The public control of non-navigable streams from a sanitary standpoint. (Jour. of the Cleveland Engineering Soc., v (1913), 213.)

Also in Engineering-Contracting, xxxix (1913), 361.

— Rural sanitation in New York State. (Proc. of the Annual Conference of the Health Officers of the State of New York, (1912), 141.)

Also in the *Med. Rev. of Reviews*, xix (1913), 204 and in the *North Amer. Jour. of Homeopathy*, (1913).

**Olmsted, E. W.** Cornell's musical clubs. (*Cornell Era*, xlv (1913), 235.)

— The reed. (*Neale's Monthly*, i (1913), 76.)

— To a dancing girl (villanelle). (Same, i (1913), 397.)

— and **A. Gordon**. *Gramática castellana: a Spanish grammar for schools and colleges*, 2d ed. New York, 1912. sm. 8°. pp. xii + 519.

**Orndorff, W. R.**, and **E. H. Nichols**. Octochloroindigo and some derivatives of tetrachloroanthranilic and tetrachlorophthalic acids. (*Amer. Chem. Jour.*, xlviii (1912), 473.)

**Orth, S. P.** Socialism and democracy in Europe. New York, 1913. sm. 8°. pp. iv + (1) + 352.

— The battle line of labor: The armies of the trusts and of the wage earners; The warfare; The price of turmoil; Will there always be war? (*World's Work*, xxv (1912-1913), 49, 197, 275, 431.)

— Democracy in Europe. (*North Amer. Rev.*, xcvi (1912), 406.)

— Destiny of America wrapped up in that of England. [Review of *Invincible alliance*, by F. Grierson.] (*N. Y. Times, Sunday Mag.*, 30 March, 1913.)

— England's co-operative movement affects millions. Same, 6 Oct., 1912.)

— The French Socialist National Convention of 1911 at St. Quentin. (Same, 20 Oct., 1912.)

— The German meat famine. (Same, 1 Dec., 1912.)

— Germany; a model or a warning? (*World's Work*, xxiv (1913), 315.)

— Germany and England's attitude toward trusts. (Same, xxv (1913), 679.)

— Germany, the land of efficiency. (*N. Y. Times, Sunday Mag.*, 8 Sept., 1912.)

— The trust problem in Germany. (Same, 15 Sept., 1912.)

— [Review of] *La gestion par l'état et par les municipalités*, par Y. Guyot. (*Political Science Quarterly*, xxviii (1913), 338.)

**Rahe, A. H.** Studies in canine distemper. (*Jour. of Med. Research*, xxvii (1913), 291.)

**Ranum, A.** Lobachevskian polygons trigonometrically equivalent to the triangle. (*Jahresbericht der Deutschen Mathematiker-Vereinigung*, xxi (1913), 228.)

— On the projective differential geometry of  $n$ -dimensional spreads generated by  $\infty^1$  flats. (*Annali di Matematica Pura ed Applicata*, xix (1912), 205.)

— [Review of] *Non-euclidean geometry*, by R. Bonola and H. S. Carslaw. (*Bull. of the Amer. Math. Soc.*, xix (1912), 22.)

— editor. *Bulletin of the American Mathematical Society*, 1912-13.

**Recknagel, A. B.** Border cuttings. Washington, D. C., 1912. 8°. pp. 8. Illus.

— The theory and practice of working plans (forest organization). 1st ed. New York, 1913. 8°. pp. xii + (1) + 235. Illus.

— Border cuttings; a suggested departure in American silviculture. (*Proc. of the Soc. of Amer. Foresters*, vii (1912), 145.)

— County, town and village forests. (*Cornell Reading Courses: Lesson for the Farm*, ii (1913), 146.)

— European study for foresters. (*Forestry Quarterly*, x, (1912), 417.)

— Some aspects of European forestry. (Same, xi (1913), 42, 53, 135, 143.)

— Some developments in European forestry. (*Yale Forest School News*, i (1913), 4.)

**Reddick, D.** The apple scab situation. (*Proc. of the West. N. Y. Hort. Soc.*, 913), 86.)

— Brown rot canker of the peach. (*Proc. of the N. Y. State Fruit Growers' Assoc.*, (1913), 61.)

— Diseases of the violet. (*Trans. of the Mass. Hort. Soc.*, (1913), 85.)

— Factors influencing successful orchard spraying; New York State Orchard spraying. (*Proc. of the N. Y. State Fruit Growers' Assoc.*, (1913), 51.)

— Onion smut. (*Proc. of the Western N. Y. Hort. Soc.*, 1913), 194.)

- Reed, H. D.** See **Bradley, J. C.**, and others.
- Reese, R. G.** Dystrophia epithelialis corneae. (*Ophthalmic Rec.*, xxii (1913) 131.)
- Read at the N. Y. Academy of Medicine, Nov. 18, 1912
- Rhodes, F. H.** The detection and determination of cyanogen and hydrogen cyanide. (*Jour. of Industrial and Engineering Chem.*, iv (1912), 562.)
- Richards, J. H.** The Wassermann reaction in diabetes mellitus with special reference to its relation to acidosis. (*Jour. of the Amer. Med. Assoc.*, lx (1913), 1139.)
- Riche, J. A.** See **Lusk, G.**, editor. Animal calorimetry, II. III, V, VI.
- Richtmyer, F. K.** Correcting the Hefner lamp for humidity. (*Illuminating Engineer*, v (1912), 397.)
- Some phenomena of physiological optics. (*Good Lighting*, i (1913), 156.)
- Riegger, H. E.** Bells and chimes, with particular reference to those at Cornell University. Ithaca, 1913. 8° pp. 20. Photo-engrs.
- Ries, H.** Building stones and clay products. 1st ed. New York, 1912. 8°. pp. xv + 415. Illus.
- Fire clay deposits of Canada. (*Bull. of the Amer. Institution of Mining Engineers*, no 75 (1913), 429.)
- Results of tests on some bricks from the provinces of Western Canada. (*Trans. of the Amer. Ceramic Soc.*, xiv (1912), 82.)
- [Review of] Mineralogy, by A. H. Phillips. (*Eng. News*, lxxviii (1912), 1121.)
- Riley, W. A.** Notes on animal parasites and parasitism. Ithaca, 1912. 8°. pp. 55.
- Concurrent infection by five species of intestinal worms, including schistosoma mansoni. (*Science*, n.s. xxxvi (1912), 531.)
- Some remarkable discoveries regarding a common household insect. (Same, n.s. xxxvi (1912), 865.)
- Some sources of laboratory material for work on the relations of insects to disease. (*Entomol. News*, xxiv (1913), 172.)
- [Reviews of] The depths of the ocean, by J. Murray and J. Hjort. (*Nation*, xcvi (1913), 17.) Injurious insects, how to recognize and control them, by W. C. O'Kane. (Same, xcvi (1913), 314.); The life and love of an insect, by J. H. Fabre; translated by A. Teixeira de Mattos. (Same, xciv (1912), 645.); Life of the Spider, by J. H. Fabre, translated by A. Teixeira de Mattos. (Same, xcvi (1913), 579.); Moths of the Limberlost, by G. Stratton-Porter. (Same, xcv (1912), 217.); Social life in the insect world, by J. H. Fabre; translated by B. Miall. (Same, xcv (1912), 109.)
- See also **Bradley, J. C.**, and others.
- Rogers, C. A.** Constitutional vigor in poultry. (*Bull. of the Cornell University Agr. Exp. Sta.*, no. 318 (1912), 569.)
- Improved New York State gasoline-heated colony-house brooding system. (*Circular of the Cornell University Agr. Exp. Sta.*, no. 16 (1913), 33.)
- Working plans of Cornell poultry houses. (Same, no. 14 (1912), 5.)
- editor. Proceedings of the International Association of Instructors and Investigators in Poultry Husbandry. 1912.
- Roper, J. C.** Bronchitis. (*Reference Handbook of the Medical Sciences*, ii (1913), 489.)
- Rose, F.** Cost of food. (*Cornell Reading Courses: Lesson for the Farm Home*, ii (1913), 41.)
- The preservation of food in the home. Pt. ii-iii. (Same, i (1912), 282, 297.)
- Rosenbaum, J.** Experiment on the control of the "fiber rot or rust" of ginseng. (*Special Crops*, xi (1912), 186.)
- Formalin treatment of seed-beds of ginseng. (Same, xi (1912), 182.)
- Fungicides for ginseng. (Same, xi (1912), 207.)
- Infection experiments with thielavia basicola on ginseng. (*Phytopathology*, ii (1912), 192.)



**Ross, H. E.** Composition of milk and some of its products. (Cornell Reading Courses: Lesson for the Farm, ii (1913), 61.)

**Ruckmich, C. A.** History and status of psychology in the United States. (Amer. Jour. of Psychology, xxiii (1912), 517.)

— A note on apparatus. (Psychological Bull., ix (1912), 247.)

— The use of the term 'function' in English textbooks of psychology. (Amer. Jour. of Psychology, xxiv (1913), 99.)

— joint author. New apparatus for acoustical experiments, by M. Bentley, E. G. Boring, and C. A. Ruckmich. (Same, xxiii (1912), 509.)

— joint author. Psychology—Psychical research—Psychotherapy, by M. Bentley and C. A. Ruckmich. (New Internat. Yearbook (1912), 594.)

— [Reviews of] A beginner's history of philosophy, by H. E. Cushman. (Mind, n.s. xxi (1912), 458.); Handbook of mental examination methods, by S. I. Franz. (Philos. Rev., xxii (1913), 336.); Mental mechanisms, by W. A. White. (Same, xxii (1913), 335.)

**Sampson, M. W.,** editor. Milton's *L'allegro*, *Il penseroso*, *Comus* and *Lycidas*; edited by M. W. Sampson. New York, 1912. 16°. pp. xxxii + 96. Port. (English readings for schools.)

— editor. Shakespeare's *The two gentlemen of Verona*. New York, 1912. 16°. pp. xvi + 118. (Tudor Shakespeare.)

**Savage, E. S.** Computing rations for farm animals. (Bull. of the Cornell University Agr. Exp. Sta., no. 321 (1912), 1.)

Also in Cornell Reading Courses: Lesson for the Farm, ii (1912), 1.

— A study of feeding standards for milk production. (Same, no. 323 (1912), 57.)

— editor. Tompkins County Breeders' Journal. Vol. 3. 1911-12.

**Schmidt, N.** Anne Fitzhugh Miller. (Addresses in Memory of Anne Fitzhugh Miller, (1912), 21.)

— Christian socialism. (Twentieth Century Mag., vi (1912), 69.)

— Christianity and the well being of man. [Adin Ballou Lecture.] (Quarterly Bull. of the Meadville Theological Seminary, viii (1913), 12.)

— The fundamental positions of the democratic party. (Cornell Daily Sun, 28 Oct., 1912.)

— Neutralize the air. (Bull. of the Aeroclub of Amer., i (1912), 16.)

— The way of the Lord. (Independent, lxxiii (1912), 405.)

— [Review of] Philosophy as a science; a synopsis of the writings of Paul Carus. (Internat. Jour. of Ethics, xxiii (1913), 374.)

**Schoder, E. W.** Facts about hydrant, hose, nozzle and first stream. (Proc. of the Central N. Y. Volunteer Firemen's Assoc., (1912), 58.)

— Kutter and Bazin formulas: notes on coefficients of roughness. (Engineering News, lxxviii (1912), 351.)

— A method of plotting stage discharge data. (Engineering Rec., lxxi (1912), 138.)

**Schurman, J. G.** Cornell University: 20th annual report of President Schurman, 1911-12, with the treasurer's report, and the reports of the deans of faculties, directors of colleges, the registrar, the librarian, and other officers. Ithaca, 1912. 8°. pp. 47 + (1) + cxx. Folding tables. (Official Publications of Cornell University, vol. iii, no. 18.)

— Report of the New York State Veterinary College for the year 1911-1912, transmitted to the Legislature, January 27, 1913. Albany, 1913. 8°. pp. 182.

**Schwartz, H. J.** The complement fixation test in the differential diagnosis of acute and chronic gonococcal arthritis. (Amer. Jour. of the Med. Sciences, cxliv (1912), 369.)

— and A. McNeil. Further experiences with the complement fixation test in the diagnosis of gonococcus infections of the genito-urinary tract in the male and female. (Same, cxliv (1912), 815.)

**Sharpe, F. R.** The mechanical force between moving electric charges. (Physical Rev., xxxv (1912), 231.)

— [Review of] Dynamic meteorology and hydrography. Part I: Statics, by V. Bjerknes and J. W. Sandström. (Science, xxxvii (1913), 223.)

**Sicard, M. H.** Further experiences with the high calory diet in typhoid fever. (Med. Rec., lxxxiii (1913), 523.)

**Silverman, L. L.** On the definition of the sum of a divergent series. Columbia, Mo., 1913. 8°. pp. vi + 96. (University of Missouri Studies: Mathematics Series, Vol. i no. 1.)

**Simpson, S.** Age as a factor in the effects which follow thyroidectomy and thyro-parathyroidectomy in the sheep. (Quarterly Jour. of Exp. Physiol., vi (1913), 119.)

— The motor cortex and pyramid tract in the raccoon (*procyon lotor*, Linn.). (Proc. of the Soc. for Exp. Biol. and Med., x (1912), 46.)

— The pyramid tract in the Canadian porcupine (*erethizon dorsatus*, Linn.) (Same, x (1912), 4.)

— The rate of growth in the dog. (Same, x (1913), 97.)

— The relation of external temperature to hibernation. (Same, x (1913), 180.)

[Papers from the laboratory of S. Simpson]: The effect of thyroid extirpation on the hypophysis cerebri in the rabbit, by Miss L. M. Degener. (Quarterly Jour. of Exp. Physiol., vi (1913), 111.); Effect of thyroidectomy and castration, respectively, on the pituitary in the rabbit, by Miss L. M. Degener and A. E. Livingston. [Proc. of the Amer. Physiol. Soc.] (Amer. Jour. of Physiol., xxxi (1913), xxiv.); Improved form of electrical drop recorder, by B. R. Macmillan. (Quarterly Jour. of Exp. Physiol., vi (1913), 109.)

**Smith, F. M.** On the charm of college in summer. (Independent, lxxiv (1913), 1332.)

**Snyder, V.** Fifth International Congress of Mathematicians. (Bull. of the Amer. Math. Soc., xix (1912), 107.)

— Fifth International Congress of Mathematicians, sectional meetings. (Same, xix (1912), 175.)

— Münster meeting of the Deutsche Mathematiker-Vereinigung. (Same, xix (1913), 191.)

— Surfaces invariant under infinite discontinuous groups of birational transformations. (Trans. of the Amer. Math. Soc., xiv (1913), 105.)

— [Review of] A treatise on the analytic geometry of three dimensions, by G. Salmon. (Full of the Amer. Math. Soc., xix (1912), 80.)

— and **J. I. Hutchinson.** Elementary text-book on the calculus. New York, 1912. 8°. pp. 353.

— editor. Bulletin of the American Mathematical Society. 1913.

— editor. Hart and Feldman's Plane and Solid geometry. New York, 1912. 8°. pp. 488.)

— editor. Hart and Feldman's Solid geometry. New York, 1912. 8°. pp. xvi + 299 — 486.

**Spedden, E. R.** Apostrophe to Easter. (Northern Christian Advocate, lxxviii (1913),.)

— Reaching the world market. (Business America, xiv (1913),.)

**Sprigg, E.** From carpenter to general builder. (Amer. Carpenter and Builder, xii (1912), 36.)

**Spring, S. N.** Appendix. (Report of the Special Commission on Taxation of Woodland, State of Connecticut, Hartford, Conn., Dec., 1912.)

Field work and preparation of appendix done under his direction as State Forester of Conn. and member and secretary of the Commission.

— Forest planting in Connecticut. (Report of the Conn. Agr. Exp. Sta., (1912), 485.)

— Forests and taxation. (Cornell Countryman, x (1913), 228.)

**Stevenson, R. L.** Cooperation in University laboratory work. (Proc. of the Soc. for the Promotion of Engineering Education, xxi (1913).)

**Stewart, V. B.** The fire blight disease and its control in nursery stock. (Circular of the N. Y. Agr. Exp. Sta., no. 20 (1913), 85.)

— The fire blight disease in nursery stock. (Bull. of the N. Y. Agr. Exp. Sta., no. 329 (1913). 315.)

- Injury of nursery stock in storage. (*National Nurseryman*, xxi (1913), 232.)
- Stockard, C. R.** The artificial production of structural arrests and racial degeneration. (*Trans. of the N. Y. Pathological Soc.* (1913).)
- An experimental study of racial degeneration in mammals treated with alcohol. (*Archives of Internal Med.*, x (1912), 369.)
- Is the control of embryonic development a practical problem? (*Proc. of the Amer. Philos. Soc.*, li (1912), 191.)
- The location of the optic anlage in amblystoma and the interpretation of certain eye defects. (*Proc. of the Soc. of Exp. Biol. and Med.*, x (1913), 162.)
- and **D. M. Craig.** An experimental study of the influence of alcohol on the germ cells and the developing embryos of mammals. (*Archiv für Entwicklungsmechanik der Organismen*, xxxv (1912), 569.)
- Stone, J. L.** What the College of Agriculture is doing to help students get practical experience on farms. (*Cornell Countryman*, x (1913), 280.)
- Sunderville, E., and C. P. Fitch.** A note on the anatomical relationship and nomenclature of the so-called plexiform ganglion of the dog in connection with the diagnosis of rabies. (Report of the N. Y. State Vet. Coll. (1911-1912), 165.)
- Tanner, J. H.,** editor. Hart and Feldman's Plane and solid geometry. New York, 1912. 8°. pp. 488.
- editor. Hart and Feldman's Solid geometry. New York, 1912. 8°. pp. xvi + 299 — 486.
- Tarr, R. S., and O. D. von Engeln.** A laboratory manual for physical and commercial geography. New York, 1913. 8°. pp. vii + 214.
- Thilly, F.** Friedrich Albert Lange. (*Cyclopedia of Education*, iii (1913), 623.)
- Friedrich Paulsen. (Same, iv (1913), 614.)
- Philosophy. (*New Internat. Year Book* (1912), 524.)
- Relation of consciousness and object in sense-perception. (*Philos. Rev.*, xxi (1912), 415.)
- Romanticism and rationalism; presidential address before the Amer. Philos. Assoc., Columbia University, Dec. 27, 1912. (Same, xxi (1913), 107.)
- Thomas Hill Green. (*Cyclopedia of Education*, iii (1913), 176.)
- editor. *International Journal of Ethics*, 1912-1913.
- Thompson, W. G.** The educational value of the trained nurse; address, commencement exercises, School of Nursing, May 18, 1911, The Presbyterian Hospital in the City of New York. [New York, 1912.] 8°. pp. 10.
- Centennarians and nonagenarians. (*N. Y. Med. Rec.*, lxxxiii (1913), 277.)
- Industrial lead poisoning. (8th Internat. Congress of Applied Chem., xvi (1912), 49.)
- Occupational poisoning in chemical trades. (*Jour. of Industrial and Engineering Chem.*, iv (1912), 454.)
- Prevention of occupational diseases. (*N. Y. State Jour. of Med.*, xii (1913), 96.)
- Titchener, E. B.** Professor Martin on the Perky experiments. (*Amer. Jour. of Psychol.*, xxiv (1913), 124.)
- Prolegomena to a study of introspection (Same, xxiii (1912), 427.)
- The schema of introspection (Same, xxiii (1912), 485.)
- and **W. S. Foster.** A bibliography of the scientific writings of Wilhelm Wundt. (Same, xxiii (1912), 532.)
- A list of the writings of James Ward. (Same, xxiii (1912), 457.)
- American editor. *Mind*, a Quarterly Review of Psychology and Philosophy, 1912-13.
- associate editor. *The American Journal of Psychology*, 1912-13.
- editor. *Cornell University Studies in Psychology*. No. 74. E. Jacobson. Further experiments on the inhibition of sensations. (*Amer. Jour. of Psychol.*, xxiii (1912), 345.)
- Same. 75 M. Bentley, E. G. Boring, and C. A. Ruckmich. New apparatus for acoustical experiments. (Same, xxiii (1912), 509.)

- Same. 76. C. A. Ruckmich. The history and status of psychology in the United States. (Same, xxiii (1912), 517.)
- Same. 77. L. M. Day. The effect of illumination on peripheral vision. (Same, xxiii (1912), 533.)
- Same. 78. C. A. Ruckmich. The use of the term 'function' in English text-books of psychology. (Same, xxiv (1913), 99.)
- Same. 79. E. G. Boring. Introspection in dementia precox. (Same, xxiv (1913), 1451.)
- Torrey, J. C.** Studies in canine distemper, by ———. (Jour. of Medical Research, xviii (1913), 291.)
- Tuttle, E. M.**, associate editor. Cornell Rural School Leaflet, vi, no. 2-6, 1912-13.
- Tuttle, J. R.** [Reviews of] A brief history of modern philosophy, by H. Höffding; translated by C. F. Sanders. (Philos. Rev., xxii (1913), 338.); A contribution to a bibliography of Henri Bergson. (Same, p. 339.); Erkennen und Leben, von R. Eucken. (Same, p. 339.); The science of logic, by P. Coffey. (Same, p. 90.); William James, by E. Boutroux; translated by A. and B. Henderson. (Same, p. 88.)
- Udall, D. H.** Veterinarian's handbook of materia medica and therapeutics. Ithaca, N. Y., 1912. 16°. pp. 178.
- A report on the outbreak of cerebro-spinal meningitis (encephalitis) in horses in Kansas and Nebraska in 1912. (Cornell Veterinarian, iii (1913), 17.)
- editor. Cornell Veterinarian, 1913.
- Ulbricht, T. C.** See **Hirshfeld, C. F.**, and **T. C. Ulbricht.**
- Upton, G. B.** A peculiar relation in torsion loading. (Sibley Jour., xxvii (1913), 373.)
- Specific heats of gases for engineering calculations. (Same, xxvii (1913), 259.)
- and **A. W. Gilbert.** An algebra of mendelism and its application to a mixed hybrid population. (Proc. of the Amer. Breeders Assoc., vii (1912), 312.)
- and **G. W. Lewis.** The development of a toughness or fatigue testing machine. (Amer. Machinist, xxxvii (1912), 633, 678.)
- Usher, A. P.** A college education. (Cornell Era, xlv (1913), 491.)
- [Reviews of] Common land and inclosure, by E. C. K. Gonner. (Annals of the Amer. Academy of Political and Social Science, xlv (1912), 162); England's industrial development, by A. D. Innes. (Same, xlvi (1913), 216.); Oxford studies in social and legal history, edited by P. Vinogradoff. (Same, xlvii (1913), 315.); Studies in the history of English commerce in the Tudor period, by V. Gerson and N. R. Deardorff. (Same, xlv (1913), 280.)
- Vandegrift, G. W.** Edema of the lids. (N. Y. Med. Jour., xcvi (1913), 110.)
- The etiology of iritis. (Med. Rec., lxxxiii (1913), 341.)
- The treatment of interstitial keratitis by salvarsan. (Same, lxxxii (1912), 760.)
- Van Rensselaer, M.** Household bacteriology. (Cornell Reading Courses: Lesson for the Farm Home, ii (1913), 53.)
- joint author. Saving strength, by E. M. Bishop and M. Van Rensselaer. (Same, ii (1912), 1.)
- editor. Cornell Reading Courses; Lesson for the Farm Home, July 1912-June 1913.
- von Engeln, O. D.** Excursions and laboratory outlines, recitation assignments, examination schedule, and general directions for students. Course: Geology I. Ithaca, 1912. 8°. pp. 16.
- A guide for laboratory geography teaching. New York, 1913. 8°. pp. iv + 20.
- Existing glaciers of the western hemisphere. (Annals of the Assoc. of Amer. Geographers, i (1911), 111.)
- A method for combining the topical, regional and cultural phases of physiography study in the laboratory. (Same, i (1911), 148.)
- See also **Tarr, R. S.**, and **O. D. von Engeln.**

**Ward, G. G., jr.** The causes and results of constipation in relation to pelvic disorders of women. (N. Y. Med. Jour., xcv (1912), 1309.)

— A further report on the relation of thyroidism to the toxæmia of pregnancy. (Surgery, Gynecology and Obstetrics, xiv (1912), 192.)

— Some aids to the bimanual examination of the uterine adnexa. (Post-Graduate, xxvii (1912), 863.)

**Warren, G. F.** Farm management. New York, 1913. sm. 8°. pp. xviii + 590. (Rural text-book series.)

— Education in agriculture. (Bull. of the N. Y. State Education Dept.: Proc. of the 27th Annual Meeting of the Association of Academic Principals and Elementary School Principals and Teachers, Syracuse, 1911, p. 58.)

— The importance of the place in the rotation at which fertilizers are applied. (Proc. of the Amer. Soc. of Agronomy, iv (1912), 58.)

— The institution farm. (Proc. of the Conference of Agricultural Education for Dependent and Delinquent Boys; N. Y. Child Welfare Committee, (1912), 9.)

— The relationship of hay and forage problems to farm management. 15th Texas Farmers' Congress, 1912. (Bull. of the Texas Dept. of Agr., no. 29 (1913), 208.)

— Some business questions involved in the interpretation of fertilizer tests. (Proc. of the Amer. Soc. of Agronomy, iv (1912), 62.)

— Some factors of successful farm management. 15th Texas Farmers' Congress, 1912. (Bull. of the Texas Dept. of Agr., no. 29 (1913), 122.)

**Weil, R.** The nature of anaphylaxis. (Jour. of Med. Research, xxvii (1913), 497.)

— On a new factor in passive anaphylaxis. (Proc. of the Soc. for Exp. Biol. and Med., x (1913), 110.)

— and **A. F. Coca.** The nature of anti-anaphylaxis. (Zeitschrift für Immunitätsforschung, xvii (1913), 141.)

**Weld, H. P.** The Clark meeting of experimental psychologists. (Psychol. Bull., ix (1912), 236.)

— An experimental study of musical enjoyment. (Amer. Jour. of Psychol., xxiii (1912), 243.)

— [Review of] Experimental psychology and pedagogy, by R. Schulze. (Same, xxiv (1913), 292.)

**Whipple, G. M.** Are we afraid of competition? (Jour. of Educational Psychol., iii (1912), 474.)

— The correlation of the four ages: a neglected field of investigation. (Same, iii (1912), 410.)

— The ethics of patented education. (Same, iii (1912), 344.)

— Eye movements in reading. (Education, xxxiii (1913), 552.)

— Foreign-language teaching in German schools. (School and Home Education, xxxii (1912), 123.)

— German teachers and some observations on the Forest-School at Charlottenburg. (Same, xxxii (1913), 201.)

— Meningitis. (Cyclopedia of Education, iv (1913), 194.)

— Menstruation. (Same, iv (1913), 195.)

— Mumps. (Same, iv (1913), 328.)

— Notes on English schools. (School and Home Education, xxxii (1913), 283.)

— Ophthalmia neonatorum. (Cyclopedia of Education, iv (1913), 552.)

— Psychology of testimony and report. (Psychological Bull., ix (1912), 264.)

— Rate of mortality among Children. (Cyclopedia of Education, iv (1913), 320.)

— The school psychologist in London. (Jour. of Educational Psychol. iv (1913), 176.)

— Some recent literature on criminology. (Same, iv (1913), 46.)

— Tests of hearing. (Cyclopedia of Education, ii (1911), 383.)

— [Reviews of] Enzyklopädisches Handbuch des Kinderschutzes und der Jugendfürsorge. (Jour. of Educational Psychology, iii (1912), 587.); Experi-

mental psychologie und Berufswahle, by H. Münsterberg. (Same, iii (1912), 468.); Suggestion and psychotherapy, by G. W. Jacoby. (Same, iv (1913), 104.); Les témoignages d'enfants dans un proces retentissant, by J. Varendonck. (Jour. of Criminal Law and Criminology, iv (1913), 150.)

— editor. Educational Psychology Monographs. Nos. 7-9.

— associate editor. Journal of the American Institute of Criminal Law and Criminology. 1912-1913.

— co-editor. The Journal of Educational Psychology. 1912-1913.

**Wiggers, C. J.** Studies on the pulmonary circulation. 1. The pressure variations in the pulmonary circulation of the dog studied by a new pulse pressure instrument. (Amer. Jour. of Physiology, xxx (1912), 233.)

— and **E. F. Du Bois.** Methods for the production of temporary valvular lesions. (Proc. of the Soc. for Exp. Biol. and Med., x (1913), 87.)

**Wilder, B. G.** Ode to life savers. Words and music. Quartet.

— Old Ironsides. Words by Oliver Wendell Holmes. Song for baritone or bass. Boston, The Oliver Ditson Company, 1912. 4°. pp. 5.

— Assails fox hunting. Likens the sport to lynching by mobs. Letter to the editor. (Washington (D. C.) Post, 28 Nov., 1912.)

— The brain as a guide to the affinities of vertebrates, read before the Biological Society of Washington, 8 Feb., 1913. Abstract. (Science, n.s. xxxvii (1913), 426.)

— The British dilemma; a new proposal is made for coping with the hunger strike. Letter to the editor. (New York Tribune, 5 Apr., 1913.)

— Charles Carroll Soule; an appreciation. Letter to the editor. (The Brookline (Mass.) Chronicle, 1 Feb., 1913, p. 4.)

— Daniel Lyon's brain weighed 24 ounces. Letter to the editor. (New York Tribune, 30 Aug., 1911.)

— Electrical men of the times: Vladimir Karapetoff. (Popular Electricity Mag., v (1913), 1334.)

— The elusive correspondent; letter writers should give street addresses. Letter to the editor. (New York Tribune, 15 Jan., 1913.)

— Gov. Wilson on March 3; suggests a smokeless Princeton smoker. Letter to the editor. (New York Tribune, 24 Feb., 1913.)

— Is the academic costume worth while? Letter to the editor. (Science, n.s. xxxvii (1913), 178.)

— The methods of a veteran investigator and teacher. Letter to the editor. (Science, n.s. xxxiv (1911), 121.)

Reprinted with the paper "Some mistakes by the writer and others."

— The name and brain of the gar. Letter to the editor. (Science, n.s. xxxv (1912), 691.)

Reprinted as a four page leaflet.

— Raps official handshaking; custom snobbish and wastes the public servant. Letter to the editor. (New York Tribune, 9 Jan., 1913.)

— Reprobrates public smoking. Letter to the editor. (Boston Daily Traveler, 15 Dec., 1911.)

— Some misapprehensions as to the brain. Letter to the editor. (Boston Daily Globe, 15 Sept., 1912.)

— A tribute to integrity; tells of incidents in Whitelaw Reid's life. Letter to the editor. (New York Tribune, 24 Dec., 1912.)

— Valedictory; views on student conduct. Interview. (New York Tribune, 15 June, 1911.)

Reprinted in Ithaca Daily Jour. of same date and as a leaflet.

— The weight of Gambetta's brain. Letter to the editor. (New York Tribune, 26 Aug., 1911.)

**Wilkinson, A. E.** Modern strawberry growing. Garden City, N. Y., 1913. 8°. pp. 210. (Garden library.)

— The flower garden. (Cornell Reading Courses: Lesson for the Farm Home, ii (1913), 105.)

— Home-garden planning. (Cornell Reading Courses: Lesson for the Farm, ii (1913), 73.)

- Hotbed construction and management. (Same, ii (1912), 45.)
- Some interesting figures on the cabbage industry. (Market Growers Jour., xii (1913), no. 13.)
- Spraying celery. (Vegetable Grower, n.s. iii (1913), 7.)
- Value of a garden to the farm and home. (Tribune Farmer, xii (1913), no. 597.)
- Vegetable gardening. (Cornell Reading Courses: Lesson for the Farm Home, ii (1913), 73.)
- Willcox, W. F.** City and country boys; letter to New York Evening Post. (N. Y. Evening Post, 7 Feb., 1913.)
- Indexes of progress; letter to New York Evening Post. (N. Y. Evening Post, 22 Jan. 1913.)
- Ithaca's relation to other cities. (Ithaca Daily News, 29 May, 1913.)
- A lesson in divorce; letter to New York Times. (N. Y. Times, 6 Dec., 1912.)
- Letter as to candidacy of Prof. Hayes for Justice of Supreme Court.). (Cornell Daily Sun, 4 Nov., 1912.)
- Mortality according to marital condition. (Monthly Bull., N. Y. State Dept. of Health, n.s. viii (1913), 134.)
- The need of social statistics as an aid to the courts; annual report as president of the American Statistical Association. (Quarterly Publication of the Amer. Statistical Assoc., xiii (1913), 329.)
- Also in the Amer. Law Rev., xlvii (1913), 259, and the Amer. Jour. of Sociology, xviii (1913), 601.)
- Problems of population. (Amer. Year Book, (1913), 364.)
- Report on cost of student board and lodging. (Official Publications of Cornell University, iii, no. 18: President's Report, (1911-12), lxxxix.)
- Special report on vital statistics. (32d Annual Report of the N. Y. State Dept. of Health, (1911), 233.)
- A statistician's idea of progress. (Internat. Jour. of Ethics, xxiii (1913), 270.)
- Statistics at the XIVth International Congress on Hygiene and Demography. (Quarterly Publication of the Amer. Stat. Assoc., xiii (1912), 191.)
- Statistics at the XVth International Congress on Hygiene and Demography, Washington, Sept. 23-28, 1912. Same, xiii (1912), 298.)
- [Review of] The control of trusts, by J. B. Clark and J. M. Clark. (Amherst Graduates' Quarterly, ii (1913), 251.)
- Williams, E. L.** Report of the treasurer of Cornell University for the fiscal year ending August 1, 1912. Ithaca, N. Y., 1912. 8°. pp. 66. (Official Publications of Cornell University, vol. iii, no. C.)
- Williams, H. S.** Recurrent tropidoleptus zones of the Upper Devonian in New York. Washington, 1913. 1.8°. pp. 103. Illus. (U. S. Geological Survey. Professional paper 79.)
- Correlation of the paleozoic faunas of the Eastport Quadrangle, Maine. (Bull. of the Geological Soc. of Amer., xxiii (1912), 349.)
- Some new mollusca from the Silurian formations of Washington County, Maine. (Proc. of the U. S. National Museum, xlii (1912), 381.)
- Williams, W. L.** Sterility in cattle. (Annual Report of the Amer. Vet. Med. Assoc., (1912), 261.)
- and others. Abortion and sterility in cattle, by W. L. Williams with the collaboration of C. P. Fitch, J. N. Frost, and R. R. Bolton. (Report of the N. Y. State Vet. Coll. (1911-1912), 79.)
- Contagious abortion, by W. L. Williams with the collaboration of J. N. Frost, C. P. Fitch, and R. R. Bolton. (16th Annual Meeting of the U. S. Live Stock Sanitary Assoc. (1912), 111.)
- Wilson, C. S.** Culture of red and black raspberries and of purple-cane varieties. (Cornell Reading Courses: Lesson for the Farm, ii (1913), 105.)
- The culture of the currant and gooseberry. (Same, i (1912), 197.)
- Wilson, W. M.** The farm climate and the yield of corn. (Tribune Farmer, 13 Feb., 1913.)

- Fitting crops to local climate. (Same, 16 Jan., 1913.)
- Frosts and frost protection. (Same, 6 Feb., 1913.)
- Local and general climate in relation to fruit culture. (Same, 20 Feb., 1913.)
- Monthly climatological summary for the North Atlantic States. (Monthly Weather Rev., xl-xli (1912-1913).)
- Winans, J. A.** Concerning voice training. (Public Speaking Rev., ii (1912) 108.)
- Judging debates. (Same, ii (1913), 187.)
- More about voice training. (Same, ii (1913), 171.)
- What is good "Contest literature"? (Same, ii (1913), 165.)
- Wing, H. H.** Milk and its products, a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. Revised and enlarged. New York, 1913. sm. 8°. pp. xv + 433. Illus. (Rural Science series.)
- Wing, L. A.**, joint author. The thyroid and its relation to pregnancy and the puerperal state, by J. W. Markoe and L. A. Wing. (Bull. of the Lying-In Hospital, of the City of New York, viii (1912), 153.)
- joint author. The thyroid in pregnancy; a report on an additional series of cases, by J. W. Markoe and L. A. Wing. (Same, ix (1913), no. 2.)
- Winters, J. E.** Infant feeding in its relation to infant mortality.—Practical infant feeding.—Feeding formulas. [Read at the N. Y. Academy of Medicine before the Medical Assoc. of the Greater City of New York.] New York, 1912. 8°. pp. 20.
- Woodbury, R. M.** Wages and ability. (Quarterly Jour. of Economics, xxvi (1912), 787.)
- Wright, A. H.** Early records of the Carolina paroquet. (Auk, xxix (1912), 343.)
- Ein mundloser Karpfen. (Oesterreichische Fischerei-Zeitung, x (1913) 5.)
- The passenger pigeon; early historical records, 1534-1860. (Bird Lore, xv (1913), 85.)
- and A. A. Wright. Animals to be recognized in 1912-1913. (Cornell Rural School Leaflet, vi (1912), 82.)
- See also **Bradley, J. C.**, and others.
- Zinnecker, W. D.** [Review of] The philosophy of Schiller in its historical relations, by E. C. Wilm. (Philos. Rev., xxi (1912), 713.)





## OFFICIAL PUBLICATIONS OF CORNELL UNIVERSITY

Issued at Ithaca, New York, monthly from July to November inclusive, and semi-monthly from December to June inclusive.

[Entered as second-class matter, August 31, 1910, at the post office at Ithaca, New York, under the Act of July 16, 1894.]

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Announcement of the College of Arts and Sciences, May 15, 1913.

Announcement of Sibley College of Mechanical Engineering and the Mechanic Arts, January 1, 1913.

Announcement of the College of Civil Engineering, February 15, 1913.

Announcement of the College of Law, April 15, 1913.

Announcement of the College of Architecture, June 1, 1913.

Announcement of the New York State College of Agriculture, June 15, 1913.

Announcement of the Winter Courses in the College of Agriculture, July 1, 1913.

Announcement of the Department of Forestry, July 15, 1913.

Announcement of the Summer School in Agriculture, April 1, 1913.

Announcement of the New York State Veterinary College, March 1, 1913.

Announcement of the Graduate School, January 15, 1913.

Announcement of the Summer Session, March 15, 1913.

Annual Report of the President, November 1, 1913.

Pamphlets on scholarships, fellowships, and prizes, samples of entrance and scholarship examination papers, special departmental announcements, etc.

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Ithaca, New York.