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TWENTY-SEVENTH ANNUAL REPORT BY PRESIDENT SCHURMAN 1918-1919

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

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**Forms for bequests to Cornell University will be found at the close of the
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PRESIDENT'S REPORT

FOR 1918-1919

TO THE BOARD OF TRUSTEES:

The President of the University has the honor to submit to the Board of Trustees the following Report for the year 1918-1919. That year falls into two periods. The first embraces the months of October, November, and December, 1918, in which the University's primary business was to give the special academic and military training prescribed by the War Department to the members of the Students' Army Training Corps whom the University agreed to accept. The arrangements for this work were described in the Report for last year. Further details regarding it will be found in the reports of the deans of the several colleges accompanying this Report and forming a constituent part of it. Detailed statistics, given in a report presented to the University Faculty by Professor Durham, will be found in Appendix No. XVI.

The armistice having been signed on November 11, 1918, and the war practically terminated, the authorities of Cornell University decided to institute a new academic year beginning December 31, 1918. In order that it might approximate the length of the regular academic year which begins in the autumn it was extended well into the summer, ending in the College of Law on July 26, in the Colleges of Arts and Agriculture (with the Summer Session) August 15, and in the Colleges of Architecture and Engineering on August 30. Students doing their work satisfactorily in their respective colleges and completing the prescribed number of hours received credit for a full year's work. In carrying out this suddenly improvised programme many difficulties had to be overcome and many special adjustments made. The University adopted the policy of admitting all students who had been in the Army or Navy whenever they returned provided only they were qualified to join classes at the stage of instruction they had then attained. But with abundant good will and devotion to the common interest and the universal readiness to make sacrifices the task was performed and the results on the whole were far more satisfactory than could have been anticipated. Aid fortunately came with the return of members of the instructing

staff who had been mustered out of the military service. The different colleges of the University had their own special problems and to the reports of the deans reference is made for the description of the manner in which they were severally met.

The Report for 1917-18 specified and discussed some of the leading problems of reconstruction which confronted the University on the educational side. It is proposed therefore in the present Report to consider some fundamental questions of reconstruction on the financial side which are now urgently pressing for solution. But before proceeding to them I wish to make a brief report on the Semi-Centennial Celebration.

THE SEMI-CENTENNIAL

The celebration began on Friday morning, June 20, and continued throughout Saturday and Sunday, ending with the Commencement exercises on Monday, the 23d. It was a purely domestic affair and the registration showed an attendance of 4241 Cornellians and 1020 guests and it is certain that many others were present who did not register. The speakers at all the exercises were Cornellians, being either present or former students or members of the faculty, or Board of Trustees.

It is not necessary here to reproduce the programme or describe the manner in which the successive features were enacted. It is enough to say that from beginning to end it was a great and unqualified success. In the words of the report of the *Alumni News*: "Surprise followed surprise; the expectations aroused by advance notices were in every case exceeded; not an event was held that was not profitable from the point of view of an educational institution."

It was a great and inspiring family gathering. The members of the household, assembled in unparalleled numbers, found themselves drawn together by a common devotion to their Alma Mater, a common pride in her achievements, a common faith in her future, and a common determination to work for her prosperity and efficiency. In those gatherings of the family of Cornellians the true spirit of the University seemed to reveal itself to them. And while amusement and even frolic were not wanting, there was a pervasive dignity, a serious pride in the University, and a solicitous sense of responsibility for it, not only appropriate to a gathering of educated persons, but highly encouraging for the future of the institution.

The celebration could not have been so successful without an enormous amount of preparatory work by volunteer committees and individuals. Among them should be mentioned as especially deserving of gratitude the Trustee Committee under the chairmanship of Henry W. Sackett, A.B. '75, and the vice chairmanship of Charles H. Hull, Ph.B. '86, the Associate Alumni Committee under the chairmanship of E. N. Sanderson, M.E. '87, the Treasurer, the Manager of the residential halls and his associates, notably Miss Mary Louise Thatcher, B.S. '15, the Director of the dining rooms of the University, and lastly, the young men and women of the student body who, with a spirit of loyalty and helpfulness beyond all praise, volunteered to wait on the tables and in that service contributed notably to the success of the university luncheons and dinner and the alumni supper.

SEMI-CENTENNIAL ENDOWMENT FUND

In connection with the Semi-Centennial Celebration the Trustees in November 1918 appointed a committee "to secure gifts for University endowment." This committee consisted of the following Trustees: Walter P. Cooke, Henry R. Ickelheimer, Henry J. Patten, Charles M. Schwab, John L. Senior, Edwin N. Sanderson, Charles E. Treman, John C. Westervelt, and J. DuPratt White, whom the committee subsequently selected as chairman. To co-operate with this committee of the Trustees the Associate Alumni appointed the following committee: John L. Tiernon, Chairman, Romeyn Berry, Donald R. Cotton, John P. Dods, Raymond P. Morse, and Harold D. North. The Cornellian Council, which for some years past has been successful in securing annual contributions for the University, also appointed to assist in raising the endowment, the following committee: Edward L. Stevens, Chairman, Walter P. Cooke, George D. Crofts, James K. Fraser, and Clarence A. Snider. J. DuPratt White and Walter P. Cooke were elected alternate chairmen of the joint committee. Harold Flack was appointed Campaign Director.

The Committee will appeal to the old students and alumni of the University and to the general public for contributions to the endowment fund. The prime object of the Committee is to secure funds to enable the University to provide suitable salaries for professors and instructors. Generally speaking the best form of giving to the University is without restriction, but in the present instance it matters little whether donors give to a general unrestricted endowment

fund or designate specific endowments for professorships. In any event at least \$5,000,000 is needed to put the salaries of the present teachers at Cornell on anything like a reasonable or satisfactory basis.

CORNELL SALARIES

The salaries of professors and instructors at Cornell University have always been too low. Inadequate as the compensation of teachers is everywhere, it has always been lower at Cornell than at other large eastern universities.

For many years, in my Annual Reports and otherwise, I have been pleading for a readjustment of these salaries to the needs and just claims of the members of our instructing staff. Thus in my Annual Report for 1904-05 I devoted to the discussion of the subject several pages, from which I here make the following extracts:

"The first and fundamental reform demanded in the interest of higher education in America is the improvement of the financial condition of the professors and instructors in our colleges and universities. Whether the matter be regarded from the point of view of recognition of the teacher or of efficiency of instruction or of productivity in research the remedy for the existing evil is one and the same. What is wanted is to attract the best brains and the most highly trained intellects to the teaching profession and having induced them to enter upon the profession, to retain them in its ranks.

* * * *

"The plea for a larger salary does not overlook the fact that professors will always be to a greater or less extent knights of poverty; no man who is in quest of wealth or gain should enter the teaching profession, nor should salaries ever be large enough to tempt such mercenary spirits. It is primarily a question of raising professorial salaries in America to such an extent that professors may be able to furnish their families the modest comforts of life, to educate their children, and to gratify at least in a limited degree those refined and scholarly tastes by which they are qualified for the professorial career and which first strongly induced them to enter it. As much as this is essential to the efficiency of American professorships; and if the dignity of the position is to be maintained and augmented something more will be necessary.

* * * *

"Are not American colleges and universities to-day 'impoverished of learning by the penury of their provisions'? At Cornell the 'penury of provisions' has already been indicated. The University now needs large additional endowments for the augmentation of existing professorial salaries and for the establishment of some additional professorships and many additional assistant professorships. When one considers that each professorship calls for \$100,000 and each assistant professorship for \$60,000, it will be recognized that the University's needs for these objects are legitimately measured by millions of dollars. But such an investment in intellectual power ought to prove attractive to wise and far-seeing philanthropists."

Reverting to the subject in my Annual Report for 1908-09 I said:

"The low salary paid to professors and instructors in American universities is a great reproach, and until its removal we are likely to see the successful competition of other professions and vocations for the best brains of the country. The matter cannot be more clearly or forcibly expressed to-day than it was by Lord Bacon in his 'Advancement of Learning,' three hundred years ago.

'It is necessary to the progression of sciences that readers [i.e. professors] be of the most able and sufficient men; as those which are ordained for generating and propagating of sciences, and not for transitory use. This cannot be, except their condition and endowment be such as may content the ablest man to appropriate his whole labour and continue his whole age in that function and attendance; and therefore must have a proportion answerable to that mediocrity or competency of advancement which may be expected from a profession or the practice of a profession'."

Discussing the needs of the University in my Annual Report for 1910-11 I again declared that the greatest need of Cornell was that of proper professorial salaries:

"What makes a university is its faculty. And the greatest need at Cornell University to-day is that of well-endowed chairs for members of the instructing staff. As Sir William Ramsey said the other day in his presidential address before the British Association for the Advancement of Science, 'unless the income of a professor is made in some degree commensurate with the earnings of a professional man who has succeeded in his profession, it is idle to suppose that the best brains will be attracted to the teaching profession. And it follows that unless the teachers occupy the first rank, the pupils will not be stimulated as they ought to be'."

That was three years before the outbreak of the Great War, which has left the whole civilized world so patently dependent on education, knowledge, and scientific research for recovery and progress that every thoughtful person must recognize the teacher as the one indispensable functionary of the new era. And with Europe prostrate, it devolves upon America to establish not only industrial and financial, but also intellectual leadership. At the date of the armistice I wrote in my Annual Report for 1917-18 the following:

"The supreme condition, however, at the present time of any marked improvement in American colleges and universities is the raising of the salaries of the members of the instructing staff. The pecuniary attraction of the teaching profession must be very considerably increased. Of course there will always be men who enter the profession from the love of the work and the opportunity it offers of realising their highest ideals of life. Such men will become teachers whatever the pecuniary sacrifice involved. These, however, will always be a minority, and other motives as well must be appealed to in the case of the average individual if the normal supply of good teachers is to be maintained. The teacher must be paid, if not in proportion to the value of the high service he performs for society at least on the basis of the compensation received by men of equal intelligence, education, and energy in other professions. And the sooner the profession of teaching is put on that sound economic basis the better it will be for the cause of education in America. Little improvement has been made in the salaries of the professors and instructors in the colleges and universities of the country since the opening of the twentieth century. And the colleges and universities are bound to deteriorate if they are unable to pay the professor a salary which will afford a decent livelihood for his family, or which is near the equivalent of what he himself might earn in another profession. If the public wants good teachers it must adopt the obvious, but hitherto very generally disregarded, principle of paying them fair salaries. No doubt the colleges and universities get much unpaid service from affection, from loyalty, from disinterested sentiment. But the laborer is worthy of his hire and should receive it. Speaking for Cornell University the President has no hesitation in declaring that no reform is so much needed or would be productive of such important and valuable results. Philan-

thropists who would inaugurate a statesman-like policy in higher education should give their money for the liberal endowment of professorships."

The crisis for our colleges and universities has been precipitated by the war. The Bureau of Education at Washington has made a calculation of increased living costs from July 1914 to July 1919 and reports the average over the country at about seventy per cent. Now while the wages of the industrial workers have been advanced to cover this increase the salaries of professors have been practically stationary. Furthermore, the new age on which the world is entering is making heavier demands on teachers than ever before; and Europe, which has lost in this long and cruel war most of the intellectual leaders of the rising generation, faces the danger of retrogression for lack of knowledge. The appeal is to America to enlighten the world—as in the political sphere with the rays of liberty so in the intellectual with the torch of learning and science.

And at this moment when the inexorable logic of the situation summons the United States of America to undertake the intellectual leadership of the world our universities, through whose agency alone this high task can be accomplished, are paying their professors salaries smaller than the wages received by carpenters, mechanics, and trainmen and their instructors less than unskilled laborers and ditch-diggers!

THE MENACE TO HIGHER EDUCATION

This fateful discrimination against intellect and education is conspicuous in the scale of salaries at Cornell. Nothing but the loyalty, devotion, and self-sacrifice of the members of the instructing staff could, under the influence of the blighting privations they have endured, have kept the University in such vigorous life. Cornell salaries in 1918-19 were practically the same as they were in 1900, averaging for professors \$3285, for assistant professors \$1751, and for instructors \$1029. And although they have been increased for next year the average addition for professors and assistant professors is only \$400 and for instructors still less.

Yet the Trustees, to provide for even this increase, were compelled to raise the rate of tuition to students from \$150 to \$200. In this direction it is impossible to go farther. Even this increase in the cost of education to students, most of whom have narrow means, is a truly deplorable necessity. But there was no other way of providing increases of teachers' salaries, to which the larger portion of the income from unrestricted endowments was already devoted.

It is impossible to exaggerate the gravity of the situation. But seriously as it concerns Cornell professors and instructors that is only a small sample of the impending danger. The very life of the higher education of the United States is menaced. Somehow or other the members of the present faculties in our colleges and universities will manage to eke out a living, even if they are compelled to use up their savings or perhaps let their insurance policies go. They will endure privations and sacrifices, but they will stick to their jobs—stick to them either from choice or necessity.

But where are their successors to come from? What able and ambitious youth will enter a secular profession which offers to him only the prospect either of enforced celibacy for himself or destitution for the wife and children he naturally expects to have? There's the rub. The teaching profession will be deserted by the capable, forceful, and aspiring youth of the Nation and become the monopoly of dull and unambitious mediocrity.

The education of its youth—and especially the higher education—is the supreme interest of the Republic. The question of proper professorial salaries at Cornell and other universities is at bottom and in general terms the question of the maintenance of the teaching profession in the United States in a high state of efficiency. Are Americans to be pre-eminent in industry, trade, and finance, but without high intelligence, humane learning, and scientific discovery? The answer to that question depends on how the public treats the teachers in their schools and especially the professors in their colleges and universities. What is at stake in this matter of professorial salaries is nothing less than the future of American civilization.

THE RECORD OF CORNELL UNIVERSITY

Of that civilization the colleges and universities are the hearth and altar. Among them Cornell has held a high and honorable place. Opened fifty years ago it has had a great growth and rendered a unique and valuable service. Unawed by traditions of the past it has found the materials of education not only in classical antiquity but in the culture, achievements, and even in the industries of contemporary humanity, while it has always stressed the importance of natural science—that is, systematic knowledge of the physical world in which we live and move—as an essential element of a complete modern education. The aim at Cornell has been to train men both for living and for living well, to furnish both liberal and practical

education, to turn out both men of thought and men of action. It has aimed to combine both the idealism of Athens and the industrialism of America. And European scholars struck with its essentially indigenous character have described Cornell as peculiarly American and racy in character. The Cornell type of education has made a strong appeal to the public. In 1882 the University had 384 students; in 1917 when America entered the war it had over 5500. These students for a good many years have been coming from practically every state in the Union and every continent on the globe. In the faculty are many eminent scholars and scientists, not a few with an international reputation.

The life of the institution is vigorous and intense, its ideals high, its Americanism ardent and devoted. In the war 6850 Cornell men were in uniform; and of the 5276 in active service, 3226 were commissioned officers. The number of decorations received by Cornell men was 162, and the number of those who gave their lives for the great cause 216.

The benefactors of the University have been both scholars and men of affairs. Ezra Cornell, the mechanic who grew rich by his own brain and hand, was the Founder. Andrew D. White, the first president, enriched the library with valuable collections. Henry W. Sage, the hard-headed man of business, bestowed gifts of nearly a million and a quarter of dollars, and his sons, also business men, imitated his generosity. Goldwin Smith, the scholar, man of letters and incomparable writer of English prose, dying in Canada, left his estate of nearly three quarters of a million dollars to Cornell University for the promotion of the humanities and liberal arts. Col. Oliver H. Payne provided the Medical College with a local habitation at a cost of about \$1,000,000 and then endowed it with about \$5,000,000. With three beautiful stone buildings George F. Baker inaugurated the new system of residential halls for men students, for which the University had waited many years. Willard Fisk, scholar and teacher, bequeathed to the Library a fund of over \$500,000 besides giving it in his lifetime the invaluable Dante and Petrarch collections and thousands of other volumes. The generosity of Hiram Sibley and his son Hiram W. Sibley provided spacious halls for instruction in mechanic arts and engineering and an endowment for a professorship in mechanic arts. The F. W. Guiteau Student Loan Fund, now amounting to nearly \$350,000, was the gift of a blind man, a gentleman of leisure and culture living on the banks of

the Hudson River, who never visited the University and had no connection with it but who had been greatly impressed with the value of its work for American youth and American civilization.

AN ENDOWMENT OF \$5,000,000 FOR SALARIES

All these and others of like generosity and public spirit have made the life and work of Cornell University possible in the past. But a new era is upon us. And the University has other and larger needs. It appeals to the public, on the record of its services and aims, to supply those needs. And first of all the University must have at least \$5,000,000 to provide adequate salaries for the members of the instructing staff. At five per cent this would enable the University to raise the minimum salary of professors, assistant professors, and instructors to a respectable figure. More than \$5,000,000 is needed to provide salaries above this minimum; and it is earnestly hoped that more may be secured. But as much as \$5,000,000 is absolutely essential if Cornell is hereafter to secure and retain first-class men for its faculty. Cornell University has many needs. But first of all, most essential, most vital to the life and activity of the institution, is this endowment for teachers' salaries.

Contributions to this Salaries' Endowment Fund may be made without any further restriction. A donor may, however, prefer to endow a professorship or instructorship, and in that case he should be permitted to attach a name to his foundation. There is no branch of learning or of science, pure or applied, for which endowments would not be welcomed. The University already has the Sage Professorships of Philosophy, and the Goldwin Smith Professorships of Latin, etc. In the modern languages and literatures, in history, economics and politics, in law, in science, in engineering in all branches, in architecture and the fine arts the University needs similar endowments. The endowment for a professorship should not be less than \$125,000, for an assistant professorship \$60,000 to \$70,000, and for an instructorship \$35,000 to \$45,000. A splendid example has already been set by John Stambaugh of Youngstown, Ohio, of the class of '84, who last year on his own initiative and without any solicitation or representations from others generously endowed a professorship in history, which the Trustees designated the John Stambaugh Professorship of History and to which, on the nomination of the President, Dr. George L. Burr was transferred as the first professor. With like spontaneity, in 1912, Jacob H. Schiff gave the

University \$100,000, the income of which, in conformity with Mr. Schiff's desire, is to be used for study and instruction in the field of Human Civilization.

FURTHER ENDOWMENT OF \$5,000,000 FOR GENERAL PURPOSES

The first endowment fund of at least \$5,000,000 is needed to provide suitable salaries for Cornell teachers, salaries which will enable them to live at least decently. It will not permit any such rate of increase as the wage-earners of the country have already received. And the proposed scale of compensation would be moderate even if wages and prices should return to their pre-war level, of which there is not the slightest prospect at the present time. All that such an endowment of \$5,000,000 would do is to keep the University on its present plane of activity. The institution would be saved from sinking. But there would be no provision for further improvement and further growth, for meeting the new and exigent calls of a progressive nation and an experimenting age, or even responding to the enlarged opportunities which the war has thrown open to American universities. A salaries' endowment fund of \$5,000,000 would rescue Cornell University from decline, but unless additional endowments are secured, the institution will remain stationary. Such a condition in the end spells stagnation, not to say retrogression.

This is recognized at other institutions. In addition to the Sterling bequest of \$11,000,000 Yale is appealing to the public for larger endowments. Harvard has its great MacKay fund available for future uses, but it is now making an appeal for \$15,000,000. The Massachusetts Institute of Technology is raising an additional endowment of \$8,000,000, and the anonymous benefactor who had already contributed \$7,000,000 for other purposes now offers to give also one-half of this \$8,000,000. Princeton University is appealing for \$14,000,000.

If Cornell is to have funds not merely for moderate present salaries, but also for maximum salaries and for new professorships and to provide new equipment and facilities for research and instruction and to pay the enhanced cost of fuel, supplies, labor, and operating expenses generally it must have a very considerable enlargement of its unrestricted funds. For that purpose an additional endowment of at least \$5,000,000 would be a very moderate estimate.

Besides adding to the general funds the drain upon them may be relieved by the endowment of one or more of the constituent schools,

colleges, or divisions of the University. Extraordinary opportunities for investments yielding the highest returns to civilization are offered in Cornell University by the Schools of Engineering, Pure Science, Law, the Liberal Arts, Architecture and the Fine Arts, and the proposed Schools of Commerce and Education.

THE NEW CHEMICAL LABORATORY

The President announced at the meeting of the Board of Trustees in June that he had received a gift of a million and a half dollars for a new chemical laboratory. It is the largest gift that the University has ever received whether for endowment or building on this campus. In the financial history of the University it is surpassed only by the gift of Col. Oliver H. Payne to the Cornell University Medical College in New York City, which consisted at first of about a million dollars for the building and subsequently of about five million dollars for endowment.

The former chemical laboratory was destroyed by fire in 1916 and since that time the work of the chemical department has been carried on partly in the ruins of that laboratory and partly in other halls on the campus. The situation was rendered tolerable by the great falling off of students in consequence of the war, but the need of a new chemical laboratory remained very acute and very urgent. Happily the present gift satisfies it in an entirely adequate and even magnificent fashion.

As the donor has stipulated that his name shall not be disclosed, it is not possible for the University publicly to give any expression of its appreciation of his generosity. He has, however, come to the assistance of the University at a most vital point. I venture to think also that in providing for this splendid chemical laboratory at Cornell he is making a notable contribution to the development, not only of one of the great fundamental sciences, but also of a science which in consequence of existing world-conditions is now of indispensable importance to the advancement and prosperity of American industries.

At the present time chemistry touches almost every branch of human activity and it is probably more closely associated with the physical well-being of our citizens and the industrial prosperity of our Nation than is any other division of science. Chemistry guides the preparation and the safeguarding of the quality of man's food and drink, his protection from disease, the devising of remedies for

the cure of disease, and in a thousand other ways chemical science promotes the comfort and health of the individual and enhances his enjoyment. The bearing of chemistry upon our national industrial success and advancement is shown by the fact that chemical science directly underlies the growing of crops, the increasing of the yield of the soil, the lighting of our factories and cities, the extraction of metals from their ores, the refining of petroleum and the preparation of many valuable products from the crude oil, the manufacture of iron and steel and of aluminum, glass, cement, cloth, leather, paper, soap, rubber goods, inks, and of many products from coal and coal tar including the useful coal-tar dyes.

It is of vital importance to the Nation that our universities be equipped to give adequate and effective training in chemistry to the young men who are to enter into, and who are eventually to direct and control these great chemical industries. The possible fields of activity of the chemist are so numerous and so diverse as to render it necessary that his training be both broad and thorough. Such training can naturally best be given by the large universities that possess strong departments, not only of chemistry, but also of physics, of mechanical and electrical engineering, and of those other branches of instruction that should be included in the course of study of the chemist. In all of these experimental sciences the success of the instruction (and that usually exerts large influence upon the success of the young man in his life work) will greatly depend upon the character and extent of the laboratory facilities that are available.

Long before the destruction of the former chemical laboratory the President in planning for the future of the University had selected as a site for the next chemical laboratory the plot on which his house and the adjoining cottages stood and his recommendation to that effect was adopted by the Trustees. This site, between Reservoir Avenue, East Avenue, and Fall Creek Gorge, is a very commanding situation and it is centrally located for every college and department in the University in which chemistry is a part of the course of instruction.

For a chemical laboratory on this site many preliminary studies had been made which will be of great assistance to the Committee on Buildings and Grounds in the preparation of the plans for the new laboratory for which funds have now been provided Gibb and Waltz of Ithaca and Day and Klauder of Philadelphia—

the architects of Baker Court—have been appointed architects of the new building. The Committee on Buildings and Grounds have been pushing forward the work with energy and it is expected that plans and specifications will be completed so that bids for the building may be advertised for in the winter and the work of construction begun in the early spring. It is of course possible that strikes, advancing prices, or other unfavorable conditions may interfere with the carrying out of this programme. But with the enrollment of students in the University mounting rapidly as it is, it is very desirable that the new chemical laboratory shall be completed at the earliest practicable date.

AN ENDOWED COLLEGE OF CHEMISTRY

It is expected that the new laboratory at Cornell University will be the largest and best equipped in America. On the material side it will afford the University unequaled facilities for instruction and research in chemistry. But for instruction and research the University needs able, well-trained, energetic, and inspiring professors and instructors and it is now unable to pay the salaries to secure them.

The importance of the science of chemistry, alike to the University and to the Nation, the growth of the chemical department at Cornell and the high reputation which it has attained both in this country and abroad, combined with the gift of a splendid chemical laboratory, make the present occasion appropriate for the consideration of the question of the future of the department. I believe that the department should be reorganized as an independent college of chemistry and should have a separate endowment sufficient for its maintenance and growth.

The pre-war figures regarding the work and growth of the department of chemistry at Cornell were very impressive. In 1915-16 the number of students enrolled in the department was 2091 and the number of student registrations in the various courses offered 4144. The number of graduate students engaged in research with major and minor subjects in chemistry was 85 of whom 38 were candidates for the degree of Doctor of Philosophy in Chemistry. No course in the University has grown more rapidly than the special course in chemistry leading to the degree of Bachelor of Chemistry organized in 1910. The annual registration since the beginning has been as follows: 1910-11, 108; 1911-12, 118; 1912-13, 134; 1913-14, 175; 1914-15, 188; 1915-16, 201; 1916-17, 224; 1917-18, 208; 1918-19,

214. Many of the graduates of this course are already occupying important positions in the leading chemical industries of the country and the demand for Cornell chemists is greatly in excess of the supply.

The funds necessary for the endowment of a college of chemistry at Cornell University at the present time should be not less than from \$3,000,000 to \$4,000,000. The college would include departments of inorganic chemistry, organic chemistry, analytical chemistry, chemical microscopy, physical chemistry, sanitary chemistry, agricultural chemistry, industrial chemistry, and biochemistry. The college would provide for instruction and research in all these branches and provision would be made for keeping the scientific investigations in close touch with the practical world. The direct advantages of the college would be enjoyed by its students, but indirectly they would be felt in agriculture and the industries, in hygiene and medicine, and in many of the arts that minister to the necessities and comforts of human life. The establishment of such a college of chemistry at Cornell University offers to-day to public-spirited philanthropy an opportunity far superior to that of adding a new and separate institution to the already overgrown list of American colleges and universities.

ENGINEERING NEEDS AN INDEPENDENT FOUNDATION

The Great War was to a large extent a contest between engineers and chemists. It demonstrated that no nation was secure against subjection that had not developed engineering and chemistry to a high degree of perfection. The same sciences constitute the foundation of the arts of peace. Few realize how completely human existence depends upon engineering and engineering methods. In all progressive countries the empirical handicraft methods of our forefathers have been discarded for methods based upon applied science and accurate knowledge. There are few things that minister to our necessities, comforts, or luxuries that do not depend in some manner upon the skill and knowledge of the engineer. Engineering supplies the farmer with his tools and carries his product to our doors. It makes possible the vast mechanical developments of production and transportation. Without engineering methods there would be no telephone, telegraphs, railroads, steamships, or electric lights. More important still, without these methods humanity at large could not benefit by the discoveries of science. In them lies the best hope of material civilization; only those countries that have adopted

them have made marked progress either along intellectual or economic lines. Industry and commerce, in general, are so closely interwoven with engineering and engineering processes that a course of study in a college of engineering has come to be regarded as the best preparation for many kinds of commercial life.

From the very beginning the engineering colleges of Cornell University have stood in the foremost rank of such institutions. Thousands of their graduates now occupy important administrative and engineering positions and not a few have become eminent for their scientific attainments. The contributions to scientific knowledge resulting from research in the laboratories of these colleges are noteworthy and an astonishingly large number of Cornell graduates have become eminent teachers of engineering. The record of the engineering colleges of Cornell University is one of which every alumnus may well be proud, and even the reputation of the University, as a whole, is due in no small measure to the work of the colleges of engineering.

Engineering instruction has been developed at Cornell under two colleges largely because of accidental circumstances. The Board of Trustees has now voted to consolidate these two colleges into one administrative organization in the expectation of greater efficiency and better use of all existing facilities. With a present attendance of over 1500 students this combined college is one of the largest, if not the largest, institution in this country devoted solely to engineering education. The combined faculty numbers about 110 men. The present time seems opportune, therefore, to consider carefully the needs of the college, especially in view of the fact that all institutions of learning are facing changed conditions and new problems, both educational and financial. The engineering colleges of Cornell University have always ranked among the foremost in the world. In the strength of their faculties, in educational standards, in equipment they have been second to none.

In recent years other engineering schools have obtained remarkably strong financial support either in the form of private endowment or of state appropriations. The friends of the Massachusetts Institute of Technology have erected a large and costly group of buildings, have given it a fair endowment, and are now seeking an additional \$8,000,000 endowment, of which half has already been promised by one donor. The engineering departments of state universities, such as those of Minnesota and Illinois, are operating on budgets representing very large endowments and are spending more than

twice as much on instruction for each engineering student as is being spent at Cornell. With such funds some of these schools have been able to pay much higher salaries than Cornell and to secure superior equipment and to enlarge more satisfactorily the scope of their activities in response to the demands of the industrial field. It has become increasingly difficult for the engineering colleges of Cornell to keep pace with modern conditions and requirements. This has been markedly true in research work in which these colleges so long stood pre-eminent. The situation is indeed critical and unless the friends of engineering education at Cornell rally to its assistance the promise of improved conditions, because of the consolidation, may not be realized.

The first and foremost need is for higher salaries for the teaching staff. The recent small increases in salaries must be looked upon only as a palliative. Then additional courses are needed if Cornell is to meet adequately modern industrial developments. The existing courses in naval architecture, sanitary engineering, and industrial management should be strengthened and enlarged. Courses in marine machinery and in transportation should be developed and a course in chemical engineering should be instituted in connection with the department of chemistry. In this development special attention should be given to research. No technical college can be great, in fact it is doubtful if good teaching can long exist, if it is not closely connected in some way with independent scientific achievement. A strong effort should be made at once to provide men, money, and equipment for this crowning activity of the institution.

If these additions and improvements are to be secured the present salary scale must be changed. Professors should receive from \$4500 to \$6500, assistant professors from \$3000 to \$4000, and instructors from \$1800 to \$2500. It will not be possible to attract or retain good men for less than these amounts and several large institutions have already adopted such a scale. It should be remembered that the greatest danger does not lie in the probable loss of the able men in the present staff. Many of these will remain through loyalty at smaller salaries than are paid elsewhere, because of long association with the institution and a disinclination to make a change. The great danger lies in the quality of the new men. The strongest and most useful men on any faculty are usually those that have joined it while young and have grown into its spirit and ideals. The quality of the recruits to the Faculty of Cornell University is already a serious

problem and in the engineering colleges it is becoming a real menace to the quality of the work.

To provide a competent teaching staff for the College of Engineering on such a salary will require about \$350,000 annually. Assuming that the tuition remains as at present, \$150,000 of this amount can properly be secured from this source, leaving \$200,000 to be provided from endowment funds. *The new combined engineering college really needs an independent endowment of \$4,000,000 for present salary needs, or making provision for moderate growth, an endowment of \$5,000,000 is required to insure the future of engineering education at Cornell University so far as the faculty is concerned.* Does the entire educational field offer public-spirited men any greater or more deserving opportunity for advancing technical education and the industrial interests of our country?

The material needs of the College of Engineering embrace both buildings and equipment. The buildings most urgently needed are the following: A new main building for civil engineering, costing about \$300,000; a new hydraulic laboratory, \$300,000; a new mechanical laboratory, \$300,000; a new building for electrical engineering, \$250,000; a new building for forge and foundry, \$200,000.

While the existing equipment is excellent in many respects, many additions are needed and not a little of the older machinery should be replaced with modern. It should be remembered that in these days of rapid industrial progress machinery and apparatus soon become obsolete and useless for purposes of instruction. It is not possible at present with the limited appropriations available for this purpose to keep the laboratory equipment up to date. Gifts of apparatus, machinery, and supplies are especially desirable; or better still, an endowment of \$350,000, the income of which could be used to purchase equipment. In a similar manner an endowment of \$300,000 would insure material and supplies for research work, a want now most keenly felt in the present straitened financial circumstances of the University.

The funds called for in the preceding statement look large, but they are not really large when the size of the College of Engineering and the lowered purchasing power of money are considered. They are less than are being sought for similar purposes by other institutions. They are certainly needed. The cause is worthy, and the institution has demonstrated its fitness to serve the country. The College of Engineering at Cornell University confidently appeals to the public

for generous support on the strength of the contributions it has made to the scientific, the industrial, and the commercial interests of America.

RESEARCH MUST BE FOSTERED

The World War has brought to us a very vivid realization of the importance of science as a factor in national progress. Without applied science the war would have found us helpless. We realize as never before that our prosperity in the past has been very largely the result of the applications of science to agriculture and to industry, and that in the future it will be more essential than ever before that this country shall not lag behind in the utilization of scientific knowledge. Clearly it is the duty of the University to do its part in promoting the scientific progress upon which the future prosperity of the country will so greatly depend.

That the University must make every effort to provide the best possible training in science and engineering is obvious. We must have better equipment in our laboratories, and above all a larger number of able teachers so that our students may receive the inspiration of personal contact with men of high scientific attainment and ideals. But the teaching of science is only one of the ways in which the university can and should contribute to scientific progress. In science, and in other branches of learning, it is not sufficient that our university teachers should merely pass on to the new generation the knowledge that we have inherited from our predecessors or which has been developed by others. The university must be a producer as well as a distributor of knowledge. This duty of the university, though less generally recognized in this country, is no less real and no less urgent than that of training our students to use the knowledge that already exists. Adequate support for scientific investigation by advanced students and members of our faculty is one of the most urgent needs of our University.

The absolute necessity of supporting scientific research, and more particularly the necessity of supporting such research in our great universities, is shown by the history of virtually every great achievement in applied science. Consider for example the recent remarkable developments in the field of radiotelegraphy and telephony, which have played so important a part during the war, and which promise to be of still greater importance in peace. As a means of communication over great distances the work was begun by Marconi

and continued by numerous other able engineers, who in most cases were not university men. But the discovery of electric waves and the study of their properties, which laid the scientific foundation upon which all applications of these waves must rest, were due to such men as Kelvin, Maxwell, and Hertz, professors in the Universities of Glasgow, Cambridge, and Bonn.

One of the most important aids to the surgeon in the treatment of wounds is furnished by the X-rays. As a result of the accurate diagnosis made possible by their use, thousands of lives have been saved during the last five years which would otherwise have been lost. Great credit is due to the able surgeons and engineers who perfected the necessary apparatus and used it under the difficult and dangerous conditions of war. But the discovery of X-rays is due to Roentgen, a university professor, and came as the culmination of a series of investigations by other university men like Crookes, Hittorf, and Lenard. Without their work, in a field which then seemed to have no possible application to practical life, no one would even have thought of the possibility of such an aid to surgery.

Every great achievement in applied science has essentially the same history. First comes discovery and progress in pure science, then its application to some useful purpose. There can be no applied science unless there is science to apply. Pure science without useful applications is incomplete; but without a basis of pure science applications are impossible.

Through the scientific work of the past a foundation has been laid for many useful applications that are not yet made or perhaps even thought of. But unless work in pure science continues our fund of knowledge will be exhausted. The far-sighted forester cuts down trees for lumber with all possible skill and efficiency. But he also plants seeds and cares for the young growth. We cannot afford to trust to chance for the development of the fundamental scientific principles and the accumulation of scientific facts upon which the useful applications of the future must depend.

The support of pure science is undoubtedly one of the duties of the national government. But it is also a duty of our universities; and if we may judge by the experience of the past the endowment of university research is far more likely to lead to important results. With very few exceptions the great fundamental discoveries of science—the discoveries which have opened up entirely new fields for useful applications—have been made in the universities, although

unfortunately only too rarely in the universities of our own country. With only a few exceptions, such as Darwin and Franklin, the great names in science have been those of university teachers. The home of pure science has always been the university, and there is no reason to expect that efforts to transplant it into a different environment will be any more successful in the future than in the past.

The function of the university as a center of research is so closely connected with its effectiveness as an educational center that it is scarcely possible to separate the two. It is plainly our duty to provide for the training of investigators, both in pure science and in its application. But that is not possible unless there are facilities for carrying on investigation and teachers who are themselves investigators. A swimming school without water and conducted by teachers who do not know how to swim does not make a strong appeal to the man who is looking for practical results. Even in our undergraduate work the presence in our faculty of eminent investigators is a source of inspiration of the highest educational value, for the qualities of mind that are essential to the successful scientific investigator—such as freedom from prejudice, and willingness to follow the truth wherever it may lead—are among those that it is most desirable to cultivate.

If Cornell is to be true to her traditions and to maintain her honorable position in science and in education, we must retain and foster the scientific spirit and the high ideals by which the faculty has always been animated. When we find a man whose presence at Cornell will contribute to this end we must be able to make a position in our faculty sufficiently attractive to keep him here. When we discover a young man who gives evidence of unusual ability as a teacher and investigator, we must be able to give him an opportunity to develop. An increase in salaries will help. In fact without such increase the situation is hopeless. But increase in salaries is not sufficient. We must improve the conditions under which our scientific work is done. The chief inducement which leads men into the scientific departments of our universities is the opportunity which they expect to find there for scientific work. We must make positions in our faculty attractive by providing adequate facilities for scientific work and by offering to the investigator some relief from routine teaching and the details of administration. And we must develop among faculty, alumni, trustees, and the American public the feeling that scientific investigation is a duty which is co-ordinate with that of teaching.

What is most needed to make this possible is an endowment fund for research in Pure Science. Such a fund should be used solely to promote research. It should not be available even in emergency for other purposes, however large the list of undergraduates. The income might well be administered by a Council composed of members of the Board of Trustees and of the representatives elected by the Graduate School, and grants would be made to departments and individuals according to their scientific activity and needs. In this way we should secure the stimulus of competition among the different departments; the Trustees would become more familiar with the scientific work of the University, which is a source of justifiable pride in spite of the difficult conditions under which it is now done; and much needed encouragement would be given to every member of the faculty by this concrete evidence that scientific work will be appreciated and supported. To produce an income which would permit the full development of our possible scientific activity would require an endowment of at least \$1,000,000. In the case of a fund of not over \$100,000 it would perhaps be advisable for the donor to designate some particular science for which it is to be used, although even a small general fund would be of value out of all proportion to its amount. It is a question whether any endowment fund, aside from that for salaries, can be expected to bring such large returns on the investment and results of such far-reaching importance to our country as the endowment of research.

LIBERAL SCHOLARSHIP—THE SOUL OF THE UNIVERSITY

Although Cornell University has from the time of its foundation given a prominent place to the sciences of Nature, and to their applications to the practical arts, it has never failed to emphasize the importance of humanistic studies and to provide liberally for both undergraduate instruction and advanced scholarship in these fields. In facing the future, then, it is necessary to recognize the need of maintaining and improving this most essential side of the University's work. Indeed, Cornell University is committed to nothing more definitely by its past history than to the support of liberal studies: languages and literatures, both ancient and modern, history, philosophy, political and social sciences. The great gifts to the University by its first president, by Henry W. Sage, by Goldwin Smith, and by other benefactors, involve an obligation on the part of the Trustees to maintain at a high level this side of the University, and to make

additional provision for this purpose as new circumstances and the development of new interests demand. In endowing the Sage School of Philosophy Mr. Sage stipulated that in order to provide permanently for philosophical instruction and investigation of the highest order, the Trustees should whenever it was needed, supplement the proceeds of his endowments with appropriations from the general funds of the University. A like obligation was, implicitly at least, involved in the acceptance of the gifts of the other benefactors to whom reference has just been made.

The Great War has brought home to us the necessity of strengthening and rendering more vital in our universities those studies which deal with the spiritual life of man. We have had a striking illustration of how even a learned nation may relapse into barbarism when it loses its ability to appreciate the great ideals of liberty, justice, and fraternity, upon which civilized human life and society rest. However much importance we attach to the physical sciences, pure and applied, it still remains true that in a real sense "the proper study of mankind is man." Our departments lodged in Goldwin Smith Hall cannot be permitted to sink to the level of a preparatory school purveying instruction on elementary humanistic subjects to its own students or to those of the other divisions of the University. For the sake of the University as a whole they must increasingly develop as a great center of humanistic influence, and must continue to send out for service in the Nation men of broad sympathy and sound thought who have been trained by the discipline of severe studies and painstaking research for leadership in social and political life.

At the present time, as already pointed out, this division of the University should be strengthened by separate endowments for existing and for new professorships (like those founded by Henry W. Sage, Goldwin Smith, and John Stambaugh) especially in modern languages and literatures—English, French, Italian, Spanish, German, Russian—in history, ancient and modern, American, European, Asiatic—and in politics, economics, and social science. For each chair an endowment of \$125,000 would be necessary. It is essential also that additional instructorships should be established in several departments, each requiring an endowment of \$30,000 to \$50,000. This is necessary both to improve the quality of instruction of students by reducing the size of classes, which are at present often too large to enable the individual student to obtain proper attention, and also to relieve professors who are overburdened with

the instruction of large undergraduate classes and find little time for original investigation and writing. These are conditions that cry loudly for remedy. Humanistic learning can be vitalized and made effective only when it can be made a personal message to the individual student and when it is possible to afford him opportunity for expression and inquiry. Moreover, a high standard of teaching cannot be maintained in a department where teachers are unable to kindle and keep alive the spirit of open-mindedness and impartial inquiry by themselves participating in extending the boundaries of knowledge. The torch must be kept alive if it is to give light.

An endowed University Press, such as that which exists at several of the larger institutions, or endowments for publication in the different departments, would serve to stimulate productive scholarship in the humanities, and as a consequence, to infuse new life into the instruction in these departments. It is true that at present many of the best teachers are also well-known as distinguished writers and scholars. But scholarship in this division of the University is seriously hampered by the difficulty in obtaining funds for the publication of solid researches, as well as through the burden imposed by the excessive demands of undergraduate teaching and administration.

In the humanities, then, as the University faces the demands of the future, there is an urgent call for the endowment of existing and of new chairs, for an addition to the staff of instructors, and for a fund to provide for publication. In the past, wise and generous benefactors have recognized the importance of keeping strong and vigorous this center of the University's life. To that policy the Trustees are committed. For they recognize that these departments are in a special degree occupied with subjects that are of universal human interest, and that all the members of the University share in the benefits which they receive. It is essential for the welfare of Cornell University as a whole, and for the work it has to do, that its departments of humanistic study shall be active centers of humanizing influence which shall penetrate and leaven the life of the whole community.

THE COLLEGE OF LAW AND THE LAW LIBRARY

The Cornell Law School has now completed the thirty-second year of its history. Its graduates number over fifteen hundred and these graduates together with a large number of other former students who have received instruction in law at Cornell constitute a body of men who in the aggregate have had no small influence upon legal,

political, and civic life, particularly in New York State. Some of them are justices of the supreme court and a considerable part of them are county judges, surrogates, and district attorneys in this State.

There are needs of the school, one of which is insistent, that must be met if the influence and reputation of the school are to be maintained and enhanced. An increase in the salaries of the staff of the Law School is the insistent need. In the appointment and retention of professors of the law faculty the College of Law is subject to a double competition. On one hand is the appeal of the pecuniary reward and interesting activities of a successful practitioner, and on the other hand is the sharp and increasing demand for successful teachers by the leading law schools of the country. The maximum salary recently attained at one law school is \$10,000 a year. The schools of highest reputation are now paying from six thousand to ten thousand a year for experienced law teachers of established reputation. The salaries of the professors of our College of Law are incommensurate, whether reckoned by the extent and quality of service rendered or by the increased cost of living or by the salaries paid by the best law schools. It is well to be specific in this matter. Within the past two years, three of the five full professors in the law faculty have received offers to go elsewhere at substantially increased salaries, but have been persuaded to remain out of loyalty to the college, re-enforced by such increase of pay as the University in its financial perplexity has managed with extreme effort to allow in the confidence that some way would be found in the immediate future to meet the emergencies of the competition which has been described. Fortunately Cornell is able to present to desirable teachers a few attractions that counterbalance in some degree the lower salaries. I refer to the very complete facilities offered by our law library and to the generally pleasant environment. But unless some provision is secured for an increase in salaries we shall remain badly handicapped and find it necessary to fill future vacancies with inexperienced young men of promise in the hope that we may benefit during the process of the fulfillment of the promise, although with the expectation that we shall not be able to attain the ultimate fruition. We cannot hope that the good fortune which has hitherto usually attended the selection of our law faculty will continue in the face of the competitive influence just stated. An endowment of \$1,000,000 for professorial salaries would put the College of Law on a secure foundation.

Another urgent need of the College of Law is an addition to Board-

man Hall. There is housed in this building one of the most valuable law libraries in the country, but the building is not fireproof. The college needs a fireproof addition in which our more valuable books may be protected. It would cost from \$100,000 to \$150,000.

Furthermore our Law Library should be endowed in order that its necessary growth may be placed beyond interruptions occasioned by such reductions as have occurred in the past in the amount of annual appropriations made for the library. Such reductions as have occurred have brought sharply to attention the inconvenience and the substantial loss we are caused by restriction of our appropriations. The library constitutes the working tool of our professors and students. We should have a sufficient endowment to remove the possibility of disturbance to the growth and efficiency of the library. In the creation of our law library the emphasis has hitherto been laid entirely upon the acquisition of a full collection in the field of the English common law and its extension into all parts of the British Empire and the United States. In this respect we have been markedly successful and the law library is one of unusual extent and value. But in the field of the law of continental Europe our library possesses substantially nothing. The next direction for the growth of the library should therefore be towards the collection of books on the law of continental Europe. A substantial endowment for the creation of a collection in this field is greatly desired. In this country large collections on this subject are possessed by the law libraries of Harvard University, Northwestern University, and the National Library. A gift of \$100,000 would at present make a satisfactory endowment for the law library.

And last, but not least, is the appeal of the *Cornell Law Quarterly* for a small endowment. The alumni of the college have by their subscriptions given loyal support to the enterprise. To our former students who are subscribers it is the tie that connects them most closely with the present activities of the school, and many of our alumni have expressed their great pride in the publication. The *Quarterly* substantially enhances the spirit of mutual service between the College of Law, Cornell lawyers, and other members of the Bar; it helps by intelligent discussion and investigation towards the solution of legal problems; and most important of all it stimulates within the college itself, among the students and faculty, a desire to advance beyond the point of classroom instruction the cause of legal education in the larger sense. An endowment of the *Quarterly*

to the extent of \$15,000 or \$20,000 would relieve those responsible for its success who are burdened by concern over the financial obligations connected with its publication.

ARCHITECTURE AND THE FINE ARTS

Of the Fine Arts—music, painting, sculpture, architecture—it is architecture which has been longest established at the University and has had the fullest development. But the new era is making heavy demands on the architectural colleges in this country. The practice of architecture has become many-sided. Strictly speaking it is no longer a single profession but rather a name covering a wide field of activities, running through the gamut of the builder, the architect, the interior decorator, to the mural painter and sculptor. The real school of architecture is the one visualizing all these professions and looking to the day when it may teach the principles underlying each and by teaching each broaden its outlook upon all. This can only be attained as the result of natural development.

During the past three months the faculty has been studying and revising its central course of instruction in architecture with the thought constantly in mind of making it the main trunk from which by natural evolution will develop collateral branches along the lines outlined. This has been accomplished by the introduction of freer elective studies, and the offering within the college of such courses as are possible by the present staff along lines allied with architecture.

The development of a full course in interior decoration is now being planned as a definite step towards the creation of a broad school of art. Such a course contemplates combining and co-ordinating, as in architecture, the technique with the æsthetic, the scientific with the artistic. Instruction in the requisite scientific subjects will be furnished by the other colleges within the University; instruction in the æsthetic branches will be given by the staff of the College of Architecture and practitioners will be brought to the University to lecture on the technical subjects. Furniture design and construction, textile arts, and fabric design are examples of specific branches of the general subject.

One of the natural outgrowths from such a course is decorative modeling and design and later mural painting. From this to the creation of a full art school is but a step.

The assembly of the whole college within one building with space for its various activities is a desideratum of the highest importance.

The moral influence upon staff and students cannot be overstated. Teaching and the acquisition of knowledge—not learning—seems to be so much a matter of personality that anything which increases the esprit of the teaching and student body is to be sought after.

For this building the University must await a special gift. But in the College of Architecture as in every other college of the University the first, the most urgent and crying need is of endowments to provide adequate salaries for the professors and instructors who really constitute the colleges which the buildings are to house.

It is still a long way from these beginnings to a well-rounded school of fine arts at Cornell. Already, however, there is a professorship of drawing and painting in the College of Architecture which is filled by Professor O. M. Brauner, an artist of first-rate ability and of growing reputation, whose paintings in recent years have found a place in the art exhibitions of the leading cities of the country.

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

A university department of music may aim to teach the theory and history of music and train composers or to satisfy the general demands of a university community for good music, creating a musical atmosphere, providing the means of musical enjoyment, and stimulating musical appreciation. For the former purpose there should be a school of music with a considerable faculty including some men of distinctive musical genius. But Cornell University must await a special endowment for such an addition to its educational resources. Meanwhile at a comparatively small expense, by utilisation of the musical talent of members of the student body with the occasional co-operation of outside musical organizations or individual artists of the highest standing, a great deal has been done by Professor Dann and Assistant Professor Quarles to make the best music an element of education and a source of enjoyment to all the members of the university community, students and teachers alike. Of the limited means at its disposal for the cultivation of music Cornell has made a most fruitful use. If instead of one talent she had ten or a hundred, a corresponding increase might reasonably be expected in the musical education of the students.

A UNIVERSITY PRESS

An important element of the complete university, an element which Cornell lacks, is a university press. In a university press the essential thing is not a printing shop; that is not even necessary: what is essential is a capital fund whose income can be used for the publication of the university's product. Productive scholarship thrives where scholars enjoy free interchange of thought with the world of scholars. Isolated from the world, it withers. The printing press has opened the world's widest channel for the interchange of thought. But the printing press is, for the most part, controlled by men whose purpose is to supply what the market demands. And the fine fruit of scholarly thought and research is not of great or immediate commercial value. It wins public recognition too slowly to tempt publishers to invest their capital in it. In many a university an endowed press brings the scholars of that particular community out of isolation and gives them the vital stimulus of audience. Cornell's work suffers for want of that stimulus. The old English universities—Oxford and Cambridge—each has a university press. Many of the most valuable productions in England have been issued by the Clarendon Press of Oxford University. In America Harvard, Yale, Princeton, Chicago each has a university press. Scholarship at Cornell suffers from lack of it. A good beginning could be made here with only a few thousand dollars a year. An endowment of \$100,000 would put it on a solid foundation.

DEVELOPMENT OF AGRICULTURAL AND VETERINARY EDUCATION

This subject was treated at length in the Report for 1915-16 and again in the Report for 1917-18. In the meantime progress has been made both by the New York State College of Agriculture at Cornell University and the New York State Veterinary College at Cornell University. Representations will be made this year by the Trustees of the University to the Governor and to the Legislature of the State recommending the carrying out of the plans already carefully framed for the further development of these State Colleges. For this effort I bespeak in advance the support of all good citizens who recognize the importance of stimulating and advancing, by means of scientific education, the agricultural interests of the State and the protection of its flocks and herds against disease and destruction. (See the reports of Dean Moore and Dean Mann, Appendices VII and VIII.)

THE PROPOSED COLLEGE OF BUSINESS ADMINISTRATION

The creation of special courses of training preparatory to business pursuits has been one of the most notable new developments in the work of American universities during the past twenty years. During this period enough experience has accumulated to prove beyond any reasonable doubt the practical value, both to the student and to society, of higher commercial education.

Cornell University, a pioneer and leader in other fields of technical and vocational education, has been forced to lag behind in this highly important new development of the scope of university instruction and research, merely because the funds required to support it on an adequate basis could have been provided only by curtailing and crippling long-established and equally important departments of the University's activities.

In 1916 a report from a special committee of the University Faculty, embodying a plan for the organization of commercial education at Cornell, received the unanimous approval of that faculty. The project was also approved by the Trustees, after it had been carefully canvassed by a special committee of the Board, which expressed its entire agreement with the faculty plan and made some valuable supplemental recommendations.

As against the alternative of establishing a curriculum in business subjects within one of the existing colleges of the University, the plan calls for the creation of a new and distinct College of Business Administration, offering a two years' curriculum leading to a master's degree. The college would be open to (a) college graduates, (b) students who had completed three years of work in any of the undergraduate colleges of Cornell University or in other colleges of similar grade, and, under careful restrictions, to a limited number of mature students with business experience, not candidates for a degree. The plan contemplates the establishment of a distinctly technical or professional college, with high standards of instruction and research, utilizing the other resources of the University but with its own special staff of teachers giving a large part of its instruction and interested in solving its special educational problems. In particular its work would be so organized that it could be joined to that of any of the undergraduate colleges of the University, so that the prospective lawyer or engineer or farmer, as well as the student in the College of Arts, would be able to supplement his other general or special education by a training in fundamental business subjects.

Here there is a useful and almost necessary extension of the University's field of usefulness, already approved by the Faculty and the Trustees, and for which plans had been carefully matured, awaiting only the provision of funds necessary for its adequate support. Detailed estimates of the amount that would be required have not yet been made. But from the experience of other institutions it is safe to infer that an initial endowment of between \$600,000 and \$1,000,000 would be needed in order to cover adequately the necessary expense of instruction in business subjects. The report of the special committee of the Board of Trustees, mentioned above, recommends: "That the plans for such a college be made sufficiently broad eventually to cover instruction in matters relating to preparation for the public service, and to provide for the foundation of a library and for the erection of a building for the purpose of the college." To put these wise and broader plans into execution would require a considerably larger sum,—possibly \$1,500,000 may be an approximate indication of the amount required.

A gift or gifts for this purpose would enable the University to meet what is not merely an increasingly urgent demand but also a real and highly important need, and to increase and broaden its services to the State and to the Nation.

CORNELL MUST TRAIN TEACHERS

One of the most vital needs of Cornell University is a college for the professional training of teachers. While considerable funds, both Federal and State, are now available in the College of Agriculture to train teachers of agriculture and domestic science no special provision is made by the University for the training and equipment of teachers, principals, and educational specialists in the broad field of general secondary education. If the University is to discharge this highly important function it must have a fund of at least \$1,500,000 to endow a college of education. With the income from such a fund chairs could be established in educational administration and management; in secondary education and methodology; in the history of education; in the psychology and philosophy of education; and in experimental education—including mental diagnosis, clinical and remedial psychology. In addition to these professorial chairs, at least an equal number of assistant professors and instructors would be needed; and provision should also be made for fellowships and scholarships.

A second phase of this development concerns the selection and appointment of a group of instructors of varying rank competent to direct teachers' courses in those branches of learning and science which are included in the curriculum of high school instruction: Latin, French, Spanish, German, history and government, mathematics, geography, physics, chemistry, the biological sciences, and the industrial arts. A third phase of the programme would concern itself with opportunity for practice teaching by those who are fitting themselves to undertake the work of a teacher immediately upon graduation.

The urgency of the demand for more and better trained teachers and educational experts is at the present time too obvious to require extended discussion. It has been estimated that fully half of the 600,000 teachers of our country are ill-trained and poorly educated. Many of our college and university students are for this reason wretchedly prepared. As regards the low salaries which teachers in the public schools have been wont to receive, a favorable reaction is already to be noted, and conditions will improve as rapidly as competent persons are available to fill the educational posts. In addition to the obligation put upon us by the crying need of the Nation for more and better trained teachers, it is likewise obvious that Cornell University in her own interests should do more for teacher-training. If we expect to receive well prepared students we must, among our other duties, accept that of training some of the teachers who will prepare these students for us. A university which fails to accept this obligation is in so far parasitic; for it lives on the products of other institutions. For these reasons, no more appropriate expansion of Cornell University can be made than by correlating, organizing, and supplementing its forces and equipment for the professional training of teachers. Above all it is a duty that the University owes to the Nation and the world. The War, which destroyed millions of lives and devastated whole provinces and even national territories, has wrought an upheaval in the minds of men, unsettled the foundations of society and government, and profoundly disturbed the thoughts and sentiments of mankind. The call is now for reconstruction. In that work the teacher will have the foremost place. He is to train and so mould the rising generation. Cornell must train teachers.

THE MEDICAL COLLEGE IN NEW YORK CITY

The problems and needs of the Cornell University Medical College in New York City were fully set forth in the Report for 1917-18 under the heading "The Crisis in Medical Education." The head and front of all needed improvements is the establishment of an effective union between the Medical College and a first-class hospital. The following extracts from the Report of 1917-18 describe concisely both the crisis and the solution:

"For lack of a hospital under its own control the Medical College is greatly hampered in its educational work and in scientific investigations. It suffers from being compelled to do its work in separate and water-tight compartments. Yet a course in medicine more than in any other subject demands a constant and effective inter-relationship between the constituent studies.

* * *

"Yet all this co-ordination, which is so indispensable to the teaching of modern medicine, is impossible unless medical school and hospital are parts of one establishment on a single site with a common administration and as closely united in work and spirit as the constituent departments of a school of engineering or of chemistry. This unification of hospital and medical school is equally essential for the prosecution of research in medicine, particularly in pathology and the clinical subjects.

* * *

"In the city of New York, by far the largest city in the country, the hospitals and the medical colleges are still conducted as independent units. The great opportunities which the city offers both for medical education and research and the care and treatment of the sick can never be adequately utilized under these conditions. The beginning of reform lies in the combination of a first-class medical school and a first-class hospital. That alliance need not of course interfere with the legal independence of either institution or the authority which its board of trustees now exercises over it. All that is called for is the organization of a plan of co-operation for a common end—an end which cannot be attained by either institution working separately.

"The President believes that the Cornell University Medical College should consider sympathetically any proposals leading to that consummation. It would need large gifts for a new site and buildings and for the improvement of existing departments, especially for full-time clinical departments. But a large, disinterested, and statesmanlike measure of public policy of this sort should make a striking appeal to the generous public of the City of New York. And if the plan is taken up seriously there should be combined with it provision for a School of Public Health and Hygiene, which is undoubtedly

the great medical subject of the future. In the allied medical school and hospital the prevention of disease and its cure should be regarded as equally essential parts of medical education and medical practice."

BUILDINGS

As regards buildings the principal needs at the present time are the following:

A new central heating plant, which will cost about \$500,000.

A fireproof addition to the Library building, already over-crowded, which would cost from \$250,000 to \$500,000 according to its size.

A fireproof addition to the building occupied by the College of Law for housing the valuable law library, which would cost not less than \$100,000.

A mechanical library and an hydraulic laboratory for the College of Engineering, each of which would cost about \$300,000.

Several residential halls for students, costing, according to size, from \$150,000 to \$300,000.

A central dining hall for young men in the residential halls, costing about \$500,000.

A building as a social center for the University, a kind of Cornell Union, costing about \$500,000.

A new gymnasium, costing about \$500,000.

A new gymnasium and playground north of Fall Creek Gorge for women students, costing not less than \$250,000.

An administration building for the University, costing from \$250,000 to \$350,000.

There is great need of a fund to be used for the beautifying of the campus, gorges, ornamental grounds, and for the repair and reconstruction of roads and paths. An immediate outlay for these purposes of \$150,000 or \$200,000 would provide much needed practical improvements and effect an æsthetic transformation.

REMARKABLE LIBRARY DEVELOPMENT

Starting with the few small collections purchased by Ezra Cornell and President White at the opening of the University, the growth of the Library was not large, because of lack of funds and adequate housing, until 1888, when Henry W. Sage came to its relief by erecting the present building at a cost of \$296,020.90 and endowing the book-purchasing fund with \$300,000.

Up to the opening of the new building in 1891 the total number of books was but 84,330 volumes. To this number was added at that time the valuable collection given by Dr. White, numbering some 30,000 volumes.

From this time the Library has grown apace. The Sage endowment fund, and afterwards the Fiske fund, enabled the many divisions of the University to purchase research materials, as well as books needed for instruction, until the Library now contains 600,000 books, maps, manuscripts, etc., making the fourth largest university library in the United States.

Besides the books purchased from the endowment funds, valuable collections have been purchased and given by friends of the University. Among these gifts are numbered some of the most nearly unique collections in the world. The Dante, Petrarch, and Icelandic collections attract scholars interested in these fields from all parts of the United States. The last annual inventory of university property in the library building showed a total valuation of nearly a million dollars, of which nearly \$900,000 is the value of books.

Built originally to hold some 475,000 volumes, by utilizing the lecture rooms, originally a part of the equipment, the capacity of the Sage library building has been increased to hold at least 100,000 more volumes, but now the limit has been reached. No more space can be utilized for storing books, and the need for more work rooms as well as book stacks, is pressing. Within the past twelve months some five or six libraries have been given to the University and the problem of storing these books so as to make them readily accessible has taxed the library staff to its utmost.

The growth of library resources has greatly increased the labor of classifying, cataloguing, and caring for the books, so as to make them at all times available for use. The number of workers is still smaller than that of any of the large university libraries, and there are twelve university libraries that have a larger salary budget than Cornell.

The immediate need is the enlargement of the library building, both in storage capacity and reading room space. Not less than \$500,000 will be necessary to furnish an adequate addition to the original building. The second need, not less insistent, concerns the library staff, which is at present both too small and under-paid.

THE RESIDENTIAL HALLS

The tract bound by West Avenue and University Avenue and Stewart Avenue has been set aside for Residential Halls for the young men of the University. The plan of development has been carefully studied and the location, form, and size of the different buildings determined. On the revised plot plan the halls are designated by letters which begin with A and run through the alphabet to U.

The halls are all to be built of local undressed stone in the collegiate Gothic style of architecture. Halls A, B, C, and D are already completed and Hall E is now under consideration by a friend of the University. The remaining sixteen halls, from F to U inclusive, offer opportunities to donors of buildings for memorial and other purposes unsurpassed and perhaps unequaled in America if account be taken of the marvelous beauty of the site, the fine texture and color of the local stone, the dignified and historic architecture, and the incalculable utility and advantage of the halls to the young men of Cornell University. And the Dining Hall embraced in the group and, as it were, crowning it, would be the finest monument of all. These halls would cost according to size from \$150,000 to \$300,000 and the dining hall not less than \$500,000.

Approximately 15 per cent of the students in the University are women. Not half of them can now be accommodated in the two women's halls—Sage and Risley. A large tract of land for the location of additional halls for women has already been secured to the north of Fall Creek Gorge. And such halls, along with a playground and gymnasium for women, are among the foremost material needs of the University. The cost of these halls would be from \$150,000 to \$300,000 according to size.

FINANCES

The total income for the year 1918-19 applicable to current expenses, exclusive of the two State Colleges, was \$2,386,970. This was in excess of the total expenses by \$32,684.81, which reduced the accumulated deficit of current income from \$72,684.81, as reported a year ago, to \$40,000. This favorable result was due to generous contributions received from the alumni through the Cornellian Council and also to the increased amount of tuition received from students because of the larger registration resulting, in the first half

of the year, from the Army schools and, later, from the return of former students from the military service. The income of the State College of Agriculture, received as appropriations from the State of New York, amounted to \$795,135.15 and from tuition and other student fees \$47,112.36. The income of the State College of Veterinary Medicine, received as appropriations from the State of New York, amounted to \$83,193.72 and from tuition and other student fees \$4,059.55. The total income for the year 1918-19 applicable to current expenses was therefore \$3,316,471.76. These figures do not include an item of \$209,968.16 which was received by the two State Colleges for sales and services because these receipts were absorbed by the cost thereof.

The property account of the University was on July 1, 1919, as follows:

Productive Funds:	
University at Ithaca.....	\$ 9,978,370.04
Medical College, New York.....	4,998,176.79
Residential Halls.....	1,096,789.26
	<hr/>
	\$16,073,336.09
Income due Special Funds	251,379.86
Premium and Discount (Univ.).....	130,371.38
Premium and Discount (Medical).....	31,198.43
	<hr/>
	\$16,486,285.76
Current Income Balance.....	215,491.61
	<hr/>
	\$16,701,777.37
Real Estate, educational, etc.....	4,022,616.81
Equipment.....	2,333,420.37
	<hr/>
Total University property exclusive of 280 acres of Western Land	\$23,057,814.55
State Game Farm.....	11,150.00
State Drill Hall.....	341,670.70
State College Buildings.....	1,545,294.57
State College Equipment.....	502,458.38
	<hr/>
	\$25,458,388.20

The University has extensive grounds and an unsurpassed location. Its buildings for educational purposes are numerous, large, and commodious and the equipment and facilities, if not always adequate, are modern, well-selected, and reasonably satisfactory. The serious defect brought out by the foregoing table is in the productive funds. Excluding the endowment of the Medical College in New York City, there remains for the maintenance of the University only an endowment of \$9,978,370.04, which in 1918-19 yielded an income at the

rate of 5.14%. To this is to be added the income from the residential halls (representing \$1,096,789.26) which in 1918-19 amounted to \$25,703.35. Apart from student fees this is all Cornell University, with an enrollment of between 5000 and 6000 students, has to live on. This endowment should be doubled at once. Indeed with the figures of Harvard, Yale, Columbia, and Chicago before me I feel it would be within the bounds of moderation to say that Cornell should have its endowment trebled.

Among the more important gifts received during the year were the following:

From the Alumni through the Cornellian Council \$78,811.71; from the estate of Col. Oliver H. Payne, as additional endowment for the Medical College in New York City, \$500,000; from John Stambaugh, '84, for endowment of professorship in history, \$100,000; from John Knickerbacker, '87, for endowment for the establishment of bursaries for meritorious students \$25,000; from William Metcalf, jr., '01, to the Semi-Centennial Endowment Fund \$10,000, and from two anonymous benefactors to the same Fund \$25,000 each; from Simon H. Gage, '77, and Henry Phelps Gage, '08, for Susanna Phelps Gage Fund for research in physics, \$10,000; from Elon H. Hooker, '94, for fellowship in hydraulic engineering, \$8500; for endowment of Irving P. Church Book Fund, the gift of former students of Professor Church, \$2500; for scholarship and endowment in memory of William Delmore Thompson, M.E. '18, \$2000.

STUDENTS, 1919-20

The enrollment of students for 1919-20 is the largest in the history of the University. The registration on October 12, 1916, the previous maximum, was 4746. The registration on October 11, 1919, was 5152. These figures do not, in either case, include the registration in the Medical College in New York City. There will also be some late registrations this term, and a good number of new students are in the habit of entering at the opening of the second term in January. It is estimated that the total enrollment of regular students from September to June, 1919-20, will be between 5600 and 5700. (It was 5549 in 1916-17.) To complete the enumeration there must be added to this number the enrollment in the Summer Session and Summer Term of 1919, namely, 2540.

CONCLUSION

The distribution of the 5152 students enrolled in the University October 11, 1919, was as follows:

Arts and Sciences.....	1732
Engineering	1516
Agriculture	1180
Architecture	121
Law.....	168
Veterinary Medicine.....	98
Medicine (1st year).....	36
Graduate School.....	301
	5152

CONCLUSION

Such are the needs, such the financial condition of Cornell University. The institution celebrated its fiftieth Commencement in June last. Its record of achievement is a part, and a very honorable part, of the history of higher education in America. That record is known, at least in a general way, to the public. And to the public, especially to men and women who have wealth to devote to educational objects, and to its own alumni and old students, the University, entering on a second half century, now appeals for additional endowments. It needs these figures to enable it to meet the educational demands of the new era, to give better instruction to students, to devote more energy to original research, and to make the compensation of professors (on whom in the end everything depends) adequate to attract and retain men of first-class ability, high training, and intellectual energy and ambition in the teaching profession. Our object is to make Cornell more than ever a vital and radiating center of intellectual life, scholarly research, and scientific activity, ranking among the few truly great universities in the world.

JACOB GOULD SCHURMAN
President.

REPORT OF THE
COMPTROLLER OF CORNELL UNIVERSITY
1918-1919

To the Board of Trustees:

I have the honor to submit herewith a financial statement of Cornell University covering the fiscal year from July 1, 1918, to July 1, 1919.

INCOME AND EXPENSE

The total income for the year 1918-1919 applicable to current expenses, exclusive of the State Colleges, was \$2,386,970.98; the total expenses \$2,250,209.56. The excess of income over the amount expended was \$136,761.42. From this latter sum should be deducted the amount transferred to the fund representing income due special funds, \$99,981.76, and the amount of increase in reappropriations to meet obligations already incurred, \$4,094.85. This represents an actual surplus for the year of \$32,684.81 which reduces our accumulated deficit of current income from \$72,684.81, as reported a year ago, to \$40,000. This favorable result was due largely to the increased amount of tuition received from students because of the larger registration resulting from the Army schools and the returning of men from service, and generous contributions of the Alumni through the Cornellian Council, which are mentioned in detail hereafter.

STATE COLLEGES

The income of the New York State Veterinary College amounted to \$107,714.11 and the expense to \$104,024.88. The State College of Agriculture received during the year from appropriations from the State and from student fees and sales of products \$1,031,754.83. The expenses of the college aggregated \$1,048,643.27.

THE UNITED STATES ARMY SCHOOLS

During the year there were received from the Army schools the following amounts:

School of Military Aeronautics.....	\$108,990.38
War Vocational School (afterwards known as Students' Army Training Corps, Section B).....	158,735.99
Students' Army Training Corps, Section A.....	163,469.28
Students' Army Training Corps, Naval Unit.....	36,631.03
Students' Army Training Corps, Marine Unit.....	2,009.59
 Total	 \$469,836.27

There remains unadjusted an account against the Naval Unit of the Students' Army Training Corps of about \$9,000 which will probably be satisfactorily settled within a short time. The expenses of the Army schools were so largely interwoven with the regular expenses of the University for instruction that it is impossible to state the exact result, but it is estimated that, except as the tuition was based upon the regular rate of tuition and not the cost, the cost of the schools was covered with a balance sufficient to restore the buildings used to their former condition.

CONDENSED AND COMBINED INCOME STATEMENT

(See Schedule II of Treasurer's Report)

	University at Ithaca	University at New York	State Veterinary College	State Agricultural College	Total
Tuition	\$272,401.94	\$22,025.00	\$3,135.00	\$30,492.50	\$328,054.44
Summer Session	32,315.00			2,161.30	34,476.30
Laboratory and other fees	113,840.30	6,818.64	924.55	14,458.56	136,042.05
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$418,557.24	\$28,843.64	\$4,059.55	\$47,112.36	\$498,572.79
From invested funds	\$472,925.61	197,755.07			670,680.68
College Land Scrip Fund	34,428.80				34,428.80
Residential halls	94,563.20				94,563.20
Dining rooms	288,161.21				288,161.21
From United States	182,192.38				182,192.38
From State of New York	10,427.64		83,193.72	795,135.15	888,756.51
From School of Military Aeronautics	108,990.38				108,990.38
From S. A. T. C. Unit	163,469.28	9,154.88			172,624.16
From Naval Unit	36,631.03				36,631.03
From Vocational Unit	158,735.99				158,735.99
From Marines Unit	2,009.59				2,009.59
Rents of buildings	3,693.68				3,693.68
Donations for current expenses	69,297.98	9,584.54			78,882.52
Donations for increase of plant	16,723.53				16,723.53
Departments for sales and services	34,278.67	20,480.52	20,460.84	189,507.32	264,727.35
Miscellaneous	26,066.12				26,066.12
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$2,121,152.33	\$265,818.65	\$107,714.11	\$1,031,754.83	\$3,526,439.92

CONDENSED AND COMBINED EXPENSE STATEMENT

(See Schedule III of Treasurer's Report)

	University at Ithaca	University at New York	State Veterinary College	State Agricultural College	Total
Salaries for instruction and research	\$487,475.94	\$111,105.01	\$38,762.28	\$483,127.12	\$1,120,470.35
Departments	142,489.69	27,487.59	14,143.85	298,849.33	482,970.46
Administration salaries	63,433.51	8,250.00	7,800.00	71,213.50	150,697.01
General expenses	47,242.09	8,062.05	4,532.02	56,883.39	116,719.55
Operation and Maintenance of plant	98,082.56	65,125.15	19,449.50	72,889.70	255,546.91
Prizes, scholarships, fellowships, and loans	26,131.63	702.00			26,833.63
Residential halls	73,959.57				73,959.57
Dining rooms	288,161.21				288,161.21
Summer Session	24,666.78				24,666.78
Federal Experiment Station and extension work	127,058.02		649.88	41,328.40	169,036.30
Library	47,042.82				3,059.05
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
					50,101.87

PROPERTY ACCOUNT

PROPERTY ACCOUNT			
	July 1, 1918	July 1, 1919	Increase
Productive Funds:			
University at Ithaca	\$9,723,819.41	\$9,978,370.04	\$254,550.63
Medical College, New York	4,498,176.79	4,998,176.79	500,000.00
Residential halls	1,080,065.73	1,096,789.26	16,723.53
	<hr/>	<hr/>	<hr/>
	\$15,302,061.93	\$16,073,336.09	\$771,274.16
Income due special funds			
Premium and discount (Univ.)	151,398.10	251,379.86	99,981.76
Premium and discount (Medical)	99,422.86	130,371.38	30,948.52
	5,000.00	31,198.43	26,198.43
	<hr/>	<hr/>	<hr/>
Current income balance	\$15,557,882.89	\$16,486,285.76	\$928,402.87
	178,711.95	215,491.61	36,779.66
	<hr/>	<hr/>	<hr/>
	\$15,736,594.84	\$16,701,777.37	\$965,182.53
Real Estate, educational, etc.			
Equipment	4,021,265.17	4,022,616.81	1,351.64
	2,242,238.03	2,333,420.37	91,182.34
	<hr/>	<hr/>	<hr/>
Total Univ. property exclusive of 280 acres of Western land	\$22,000,098.04	\$23,057,814.55	\$1,057,716.51
State Game Farm	11,150.00	11,150.00	
State Drill Hall	341,670.70	341,670.70	
State College buildings	1,545,203.55	1,545,294.57	91.02
State College equipment	432,688.25	502,458.38	69,770.13
	<hr/>	<hr/>	<hr/>
	\$24,330,810.54	\$25,458,388.20	\$1,127,577.66

The Productive Funds increased during the year as follows:

Alumni Fund Permanent.....	\$ 500.00
Church, Irving P., Book Fund.....	2,500.00
Class of '89 Endowment.....	712.00
Fiske, Willard, Library Endowment Fund.....	5,179.06
Gage, Susan Phelps Fund, for Research in Physics.....	10,000.00
Guiteau Loans repaid and interest.....	9,268.89
Hooker Fellowship in Hydraulics.....	8,500.00
Kenney, E. C., Endowment Fund.....	3,391.72
Knickerbacker, John, Fund.....	25,000.00
Semi-Centennial Endowment Fund.....	61,280.00
Smith, Goldwin, Fund.....	4,000.00
Smith, Horace I., Fund.....	3,428.44
Stambaugh, John, Professorial Fund.....	100,000.00
Thompson, Wm. Delmore, Endowment Fund.....	1,000.00
Thompson, Wm. Delmore, Scholarship Fund.....	1,000.00
By transfer from Income to Principal of Funds.....	20,152.81
	<hr/>
	\$255,913.46

Reduced by:

Cottage Renewal Fund.....	\$ 1,362.83
	<hr/>
	\$ 1,362.83
	<hr/>
	\$254,550.63

Productive Building account increased:

Founders Hall.....	\$ 16,723.53
	<hr/>
	\$ 16,723.53
	<hr/>
	\$271,274.16
Medical College endowment increased.....	\$500,000.00
	<hr/>
	500,000.00
	<hr/>
	\$771,274.16

Premium and Discount increased by excess of discounts over premiums paid on securities purchased during the year as follows:

University at Ithaca.....	\$ 30,948.52
Medical College at New York.....	26,198.43
	<hr/>
	\$ 57,146.95

To the Real Estate Account there was added:

Agricultural Farms paid on account.....	\$ 1,351.64
	<hr/>
	\$ 1,351.64

The average rate of interest received during the year of 1918-1919 was 5.1425.

THE PRODUCTIVE FUNDS OF THE UNIVERSITY WITH THE PURPOSE FOR WHICH EACH FUND IS INTENDED
AND THE INCOME RECEIVED DURING THE YEAR ARE AS FOLLOWS

		July 1, 1918	Additions During Year	July 1, 1919	Income
	Alumni Endowment Fund: Gift of Alumni to the Endowment Fund of the University. Established 1908	\$550.00		\$550.00	\$28.28
	Alumni Fund: 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.....	22,422.00	\$500.00	22,922.00	1,153.05
4	Baker, Charles H., Prize Fund: Gift of Charles H. Baker, 1886, to found a public speaking prize for the benefit of the Junior and Senior students in the College of C.E., but available likewise to those in Mechanic Arts, Architecture, and similar avocational courses. Established 1912	3,000.00		3,000.00	154.27
	Barnes Library Endowment Fund: Gift of Mrs. Harriet Barnes Newberry and A. Victor Barnes in memory of their father, the late Alfred Cutler Barnes. Established 1904.....	5,000.00		5,000.00	257.13
	Barnes, Mrs. A. S., Shakespeare Prize Fund: Gift of Mrs. A. S. Barnes the income to be appropriated as a prize to the undergraduate student who shall present the best essay upon the writings of Shakespeare. Established 1887	1,000.00		1,000.00	51.42
	Bennett, James Gordon, Prize Fund: Gift to endow the prize established in 1912 by Mr. Bennett for work done in local and generalized anaesthesia, especially in small animals. Established 1916	1,050.00		1,050.00	53.99
	Bennett, Philo S., Fund: Gift from the estate of Mr. Bennett, the income to be used for a prize for the best essay discussing the principles of Free Government. Established 1905	400.00		400.00	20.57

		July 1, 1918	Additions During Year	July 1, 1919	Income
Botsford, W. Hull, Memorial Fund:					
Gift of friends in class of W. H. Botsford to the College of Architecture, to be administered by the Faculty of that College. The income to be used for the purchase of books for the Architectural Library. Established 1915	\$255.00		\$255.00		\$13.11
Caldwell, George Chapman, Prize Fund:					
Gift of Mrs. Grace Caldwell Chamberlain and Prof. Frank Caldwell to establish in memory of their father a prize of \$50 a year, to be annually awarded in money and accompanied by a certificate on parchment, to a member of the Senior class in the Chemical course for general excellence in chemical work. The award to be made by the staff of the Chemical Department. Established 1913	1,100.00		1,100.00		56.56
Church, Irving P., Book Fund:					
Gift of former students in College of Civil Engineering, the income to be devoted to the purchase of additions to the Library of the College of Civil Engineering. Established 1917		\$2,500.00		2,500.00	128.56
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		97.00
Class '89 Endowment Fund:					
A University endowment fund being raised by the class of 1889. Established at its 25th reunion in 1914	3,190.00	712.00	3,902.00		164.04
Class '91 Memorial Fund:					
Gift of Class of 1891, the income to be added to the principal until class action. Established 1891	904.00	46.49	950.49		46.49
Class '94 Memorial Debate Prize Fund:					
Gift of Class of 1894, as a foundation of a prize in debate	1,894.00		1,894.00		97.40
Class '96 Memorial Fund:					
Gift of Class of 1896 as a nucleus for a fund which shall be used for the establishment of a University Club.....	1,359.85	69.91	1,429.76		69.91
Class '98 Alumni Hall Fund:					
Gift of Class of 1898 to be added to the fund for the establishment of a University Club	589.47	30.32	619.79		30.32
Class 1905 Endowment Fund:					
Established by the Class of 1905 "this money in total or in interest, as the council may see fit, to be applied to supplementing professors' salaries, at the discretion of the proper University authorities." Established 1915..	7,703.00		7,703.00		396.12

Class 1908 Fund:

Established by Class of 1908, to be invested with University funds, the income on \$500 less 5% transferred to University Insurance Reserve 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

2,057.38 105.79 2,163.17 105.79

Class 1912 Fund:

Established by Class of 1912 to be invested by the University with its funds, the income less 5% transferred to University Insurance Reserve Fund to be subject to call of Life Secretary of Class. The Fund when no longer needed by the class to revert to the University for general University purposes unless the Class at some five-year reunion meeting designates a particular University purpose for its use. Established 1912

813.38 813.38 41.82

Class 1913 Fund:

Established by Class of 1913 on same basis as the 1912 fund

1,450.00 1,450.00 74.55

Class 1914 Fund:

Established by Class of 1914 on same basis as the 1912 fund

800.00 800.00 41.14

Class 1915 Fund:

Established by Class of 1915 on same basis as the 1912 fund

1,618.91 1,618.91 83.25

Class 1916 Fund:

Established by Class of 1916 on same basis as the 1912 fund

2,850.00 2,850.00 146.56

Class 1917 Fund:

Established by Class of 1917 on same basis as the 1912 fund

1,122.88 1,122.88 57.74

College Land Scrip Fund:

Consists of proceeds received by State of New York from sale of Land Scrip apportioned to the State by the United States under the Morrill Act of 1862

688,576.12 688,576.12 34,428.80

Comstock, John H., Memorial Fund:

Raised by students and alumni as a memorial to Prof. Comstock at the time of his retiring from active service and presented by Prof. Comstock to the University as a Fund for the purchase of books for the benefit of the Department of Entomology. Established 1914

2,516.42 2,516.42 129.40

Cornell Endowment Fund:

Consists of the \$500,000 given by Ezra Cornell, pursuant to his agreement with the State, for the founding of the University, together with the net profits derived from the sale of lands located under the scrip purchased by him under his contract with the State, of August 4, 1866, except those in the Cascadilla Hall Fund

5,381,026.14 5,381,026.14 276,719.71

		July 1, 1918	Additions During Year	July 1, 1919	Income
Corson, Caroline, French Prize Fund:					
Gift of Professor Hiram Corson in memory of his wife, Caroline Rollin Corson, income to be awarded as a French prize. Established in 1902 as a Dante Prize and converted into a French Prize in 1905		\$1,281.25		\$1,281.25	\$65.89
Corson, Hiram, Browning Prize Fund:					
Gift of Professor Hiram Corson, income to be awarded as a Browning Prize. Established 1902		1,051.80		1,051.80	54.09
Cottage Renewal Fund:					
Consists of surplus income from Cottages owned by University, in excess of 5% of investment value transferred annually to current income, fund to be held to renew the cottages or replace investment therein. Established 1904					
Crandall, Charles Lee, Prize Fund:					
Gift of the Alumni of the College of Civil Engineering "to provide prizes intended to encourage original research, to stimulate interest in matters of public concern, and to inspire in the students an appreciation of the opportunities which the profession of Civil Engineering offers them to serve their fellow men as intelligent and public spirited citizens." Established 1916		21,066.02	*\$279.53	20,786.49	1,083.30
Daughters of the Revolution Endowment Fund:					
Gift of Miss Mary F. Hall, in honor of the New York State Society of the D. A. R., income to be added to fund during Miss Hall's lifetime and then provided principal amounts to \$1,000 to be used for publication of such original studies in American History as are of permanent value, or as a suitable prize or prizes for research or superior attainment in American History. Established 1908		2,602.36		2,602.36	133.83
Dearstyne, Florence, Fund:					
Gift under the will of Miss Florence E. Dearstyne, income to be used under direction of Federation of Cornell Women's Clubs, in assisting needy young women students. Established 1914		816.56	41.98	858.54	41.98
Eastman Stage Fund:					
Gift of A. R. Eastman of Waterville, N. Y., in 1918 to endow the annual stage maintained by him by annual gift since 1909. The administration of the fund to be in the hands of the Dean of the College of Agriculture for the purpose of maintaining a stage or speaking contest each year on questions of public interest to agriculture and country life		2,367.71		2,367.71	121.75
*Dedication.					
		3,000.00		3,000.00	120.00

	Fayerweather Fund: Gift under will of Daniel B. Fayerweather. Established 1892	331,528.56	331,528.56	17,048.86
	Fiske, Willard, Library Endowment Fund: Gift under will of Willard Fiske to be used and expended for uses and purposes of Library of the University. Established 1906.....	450,055.00	5,179.60	455,234.60
	Fiske, Willard, Icelandic Book Fund: Gift under will of Willard Fiske, income to be used for purpose of making additions to Icelandic Collection in the Library of the University. Established 1906.....	8,000.00	8,000.00	411.40
	Fiske, Willard, Icelandic Salary Fund: Gift under will of Willard Fiske, income to be used for purpose of paying salary of an Icelandic amanuensis, whose time shall be given to care of Icelandic collection and who shall be a native of Iceland, educated or principally educated in Iceland, and recommended for said work by the Rector of the Latin School of Reykjavik. Established 1906.....	30,000.00	30,000.00	1,542.75
15	Fiske, Willard, Petrarch Salary Fund: Gift under will of Willard Fiske, income to be used in paying salary or part salary of capable amanuensis, a portion of whose time shall be given to care of Petrarch and Dante Collections. Established 1906	12,000.00	12,000.00	617.10
	Fiske, Willard, Petrarch Book Fund: Gift under will of Willard Fiske, income to be used for purposes of increasing Petrarch and Dante collections in Library of the University. Established 1906	6,000.00	6,000.00	308.55
	Fiske, Willard, Icelandic Publication Fund: Gift under will of Willard Fiske, income to be used for purpose of publishing an annual volume relating to Iceland and the Icelandic collection in the Library of the University. Established 1906	5,000.00	5,000.00	257.13
	Flower, R. P., Library Endowment Fund: Established in 1901 by a gift of Mrs. Sarah M. Flower of \$10,000.00, 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	565.68
	Fraser Scholarship 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, income to be awarded in two scholarships of \$100.00 and \$50.00 respectively to seniors in Law, the award to be based on scholarship, financial need, and character. Annual surplus to be paid to Cornellian Council. Established 1911	4,000.00	4,000.00	205.70

	July 1, 1918	Additions During Year	July 1, 1919	Income
Fuertes Medal Fund: Gift of 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	\$51.42
Gage, Simon H., Fellowship Fund: Raised by former students and friends of Prof. Gage to establish a fellowship in Animal Biology. The income is to be added to the principal until such time as the fund shall be sufficient to yield an annual income of \$500. Established 1916	3,099.11	\$159.37	3,258.48	159.37
Gage, Susanna Phelps, Fund for Research in Physics: Gift of Simon Henry Gage, B.S., '77, and Henry Phelps Gage, A.B., 1908, Ph.D., 1911, as a memorial to Susanna Phelps Gage, Ph.B., 1880, the income to be used in any way which at the time gives promise of advancing knowledge in Physics. Established 1918	10,000.00		10,000.00	514.25
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	5,451.05
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	29.39
Guiteau Student Loan Fund: Gifts under the wills of Frederick W. Guiteau (\$178,767.34) and Mrs. Nancy G. Howe (\$94,689.03), together with loans repaid, the income to be used in advancing and assisting needful, worthy young men in pursuing their studies in the University. Established 1904	330,150.10	9,268.89	339,418.99	16,977.99
Guilford Essay Prize Fund: Gift under will of James B. Guilford to establish a prize the object whereof shall be the promotion of a high standard of excellence in English Prose Composition. Established 1902	3,000.00		3,000.00	154.27
Hall, Mary F., Scholarship Fund: Gift of Miss Mary F. Hall, income to be paid to her during her lifetime, and at her death to be used for scholarships. Established 1902	16,500.00		16,550.00	848.51

Harris, Lucy, Fund:				
	Gift of George W. Harris as a memorial to his wife, Lucy Thurber Harris, income to be expended each year in purchase of English poetry of the Victorian Era and of biography and criticism connected therewith.			
	Established 1893	1,000.00		1,000.00
				51.42
Haviland Scholarship Fund:				
	Gift of \$500 under the will of John G. Haviland of Glens Falls, N. Y., to be invested until such time as a bequest under the will of his daughter, Bernice Haviland Guernsey, shall be paid to the University when the income of both is to be applied to scholarships for girls residing in Warren County, N. Y. Established 1916	571.04	29.36	600.40
				29.36
Hooker, Elon H., Fellowship Fund:				
	Gift of Elon H. Hooker, the income to be paid over to Mrs. Mary P. Fuertes, wife of the late Esteven A. Fuertes during the term of her life and at her death to be used for the establishment of a Fellowship in Hydraulic Engineering. Established 1919		8,500.00	8,500.00
Infirmary Endowment Fund:				
55	Gift of Dean and William H. Sage, 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
				5,142.50
Irvine, Frank, Lectures:				
	Founded by the Conkling Chapter of Phi Delta Phi, income to be used in providing special lectures in College of Law. Established 1913	1,743.25		1,743.25
				89.64
Kenney Endowment Fund:				
	Gift of Eudorus C. Kenney of the Class of 1882 the net income to be used for one or more scholarships with preference to students from the town of Truxton, Cortland County, N. Y. Established 1918.....	38,522.52	3,391.72	41,914.24
				2,155.47
Knickerbacker, John, Fund:				
	The gift of John Knickerbacker, 1887, to provide financial aid to students in Cornell University who lack means for adequate support and have good minds, healthy and strong bodies, good moral character, sound moral opinions and beliefs, are earnest and persevering workers and come from parents known to be or to have been good citizens and both born in the United States. Established 1919.....			
Law School Fund:				
	Gift of Douglass Boardman, income to be used for a Law Prize. Established 1887	2,000.00		2,000.00
				102.85

		July 1, 1918	Additions During Year	July 1, 1919	Income
Messenger, Luana L., Prize Fund:	Gift of H. J. Messenger in memory of his mother, for an annual prize to the student writing the essay giving evidence of the best research and most fruitful thought in the field of human progress or the evolution of civilization. Established 1902.	\$5,000.00		\$5,000.00	\$257.13
Meyer, Edgar J., Memorial Fellowship Fund:	Gift of Mr. Eugene Meyer and his wife Harriet Meyer, in memory of their son, income to be awarded annually as a fellowship in 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	514.25
Pack, C. Lathrop, Fund:	Gift of Charles Lathrop Pack to be used "in the interests of forestry." The interest is now used by the Faculty of the Department of Forestry as an annual prize. Established 1915.	500.00		500.00	25.71
Padgham, Frank William, Scholarship Fund:	Gift of Amos Padgham to found a scholarship in Sibley College in memory of his son. Established 1892.	3,000.00		3,000.00	154.27
Polish Student Loan Fund:	Gift from Polish students at Cornell to be disbursed to candidates presented by members of the Polish Club of the University. Established 1909.	128.00		128.00	6.58
Professorial Pension Fund Income:	Consists of payments by professors admitted to the benefits of the Pension Fund, with accrued income.	44,048.85	\$3,279.76	47,328.61	2,351.74
Ring Memorial Fund:	Gift under will of Charles A. Ring, income to be used in advancement of Horticultural Science. Income is to be added to the principal of fund till it amounts to \$1,000, original bequest. Established 1913.	960.69	39.31	1,000.00	49.41
Roberts, Charles H., Scholarship Fund:	Gift of Charles H. Roberts of Oakes, Ulster Co., New York, income to be used in payment of five equal annual scholarships in College of Agriculture and open to all races of mankind, regardless of color, or political or religious creeds, of good moral character and required qualifications, preference to be given to intelligence and financial inability. Established 1906.	30,000.00		30,000.00	1,200.00

Sage College Endowment Fund: Gift of Henry W. Sage. Established 1872	109,300.00	109,300.00	5,620.57	
Sage, Dean, Sermon Fund: Gift of Dean Sage in 1872 as an endowment of Sage Chapel and increased by recent gifts from Mrs. Sage	75,000.00	75,000.00	3,856.88	
Sage, Library Endowment Fund: Gift of Henry W. Sage for endowment of Library. Established 1891.....	300,000.00	300,000.00	15,427.51	
Sage, Sarah M., Endowment Fund: The income or in the discretion of the University, the principal also, to be used to promote the advancement of medical science by the prosecution of research at Ithaca, in connection with any and all the subjects at any time embraced in the curriculum of the Cornell University Medical School. Established 1915	50,000.00	50,000.00	2,571.25	
Sage, Susan E. Linn, Professorial Fund: Gift of Henry W. Sage, to endow the chair of Ethics and Philosophy. Established 1885.....	50,000.00	50,000.00	2,571.25	
Sage, Susan E. Linn, School of Philosophy Fund: Gift of Henry W. Sage to enlarge basis of Susan Linn Sage Foundation and establish the Susan Linn Sage School of Philosophy. Established 1891..	200,000.00	200,000.00	10,285.01	
S Sage, William H., Pension Fund: Gift of \$150,000 to found a pension fund for full professors excluding professors in the Medical College in New York City, or in State or National Institutions at Ithaca, or elsewhere, together with income received thereon. Established 1903	316,326.81	13,540.03	329,866.84	16,096.81
Sampson, Frances, Fine Arts Prize Fund: Gift of Prof. Martin W. Sampson in memory of his wife, to be awarded in books or artistic reproductions and not in money to that student in the University who shows the most intelligent appreciation of the graphic arts and architecture. Established 1909.	600.00	600.00	30.85	
Schiff, Jacob H., Endowment Fund: Foundation for Human Civilization. Established 1912	100,000.00	100,000.00	5,142.50	
Seidell, William C., Book Fund: Gift of Mr. and Mrs. Gerritt S. Miller, income to be used to purchase books for poor young men working their way through College of Civil Engineering. Established 1905	1,165.16	1,165.16	59.90	
Semi-Centennial Endowment Fund: Gifts toward the increase of the permanent endowment of the University. Established 1918-19	61,280.00	61,280.00		

	July 1, 1918	Additions During Year	July 1, 1919	Income
Sibley College Endowment Fund: Gift of Hiram Sibley. Established 1884	50,000.00		50,000.00	2,571.25
Smith, Goldwin, Fund: Gift under will of Goldwin Smith to be used for promotion especially of liberal studies, language ancient and modern, literature, philosophy, history and political science, for which provision was made in Goldwin Smith Hall. Established 1911. One hundred seventy-five thousand dollars of this fund is set aside, the income to be used for the Goldwin Smith Special or Supernormal Salary Fund, Lectureship Fund, Faculty Prize Fund, Reading Room or other appropriate purposes.....	679,016.29	4,000.00	683,016.29	34,968.46
Smith, Goldwin, Hall Reading Room Fund: A portion of the \$4,000 gift of Mr. Goldwin Smith made in 1909 for the Reading Room in Goldwin Smith Hall. Converted in 1914 into a fund, income to be available for the maintenance of same	2,700.00		2,700.00	138.85
Smith, Horace I., Fund: Gift under the will of Mr. Smith, the income to be added to the principal until the fund shall reach the sum of \$20,000, then the income to be expended in assisting deserving needy students under specified restrictions. Established 1916.....	2,836.17	3,660.00	6,496.17	231.56
Smith, Judson N., Scholarship Fund: Gift of Mrs. Sarah L. Smith to found a scholarship in the College of Civil Engineering in memory of her son, and to be awarded, under such rules as the University may enact, on the basis of intelligence and financial inability, provided, however, that the student be of good moral character and meet the required qualifications. Interest at the rate of four per cent upon the fund to be paid to Mrs. Smith during her lifetime, the scholarship taking effect at her death	3,250.00		3,250.00	167.13
Stambaugh, John, Professorship Fund: Gift of John Stambaugh, 1884, the income to be devoted to the salary of a Professor of History. Established 1919		100,000.00	100,000.00	
State Scholarship Alumni Fund: Being the nucleus of a fund to assist needy students. Established in 1914 by a gift of G. W. Graves, A.B., 1905, M.D., 1908, of the equivalent of the state scholarship held by him		401.00	401.00	20.62
Thompson, William Delmore, Endowment Fund: Gift of Mrs. Bertha D. Higgins to the University Endowment in memory of William Delmore Thompson, 1918. Established 1919		1,000.00	1,000.00	

Thompson, William Delmore, Scholarship Fund:

Anonymous gift to found a scholarship in memory of William Delmore Thompson for the benefit of self supporting students in Mechanical Engineering to be awarded at the entrance of the Junior year and if the student's work proves satisfactory to continue through his Senior year. Established 1919.....

1,000.00 1,000.00

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

128.56

Vail Endowment Fund:

Gift under the will of Edwin G. Vail of Dutchess County, the income to be expended in the aid of needy students from Dutchess County, who may in the annual examinations therefor succeed in winning a State Scholarship in Cornell University. Established 1916

10,000.00 10,000.00

514.25

White Veterinary Prize Fund:

Gift of Horace K. White, income to be awarded as prizes to meritorious students in Veterinary Science

500.00 500.00

25.71

White Spanish Prize Fund:

Gift of J. G. White, Class of 1885, to found three annual prizes of \$100 each, in Spanish, any excess of income or profit from the sale of the securities to be added to the principal. Two of the prizes to be given for excellence in Spanish to students who are citizens or residents of the United States, one to a student in the engineering colleges and the other in any of the other colleges, the third prize to be given, for excellence in English, to students who are citizens or residents of the Latin-American Republics, and for the next ten years, of Porto Rico or the Philippines.

Established 1914.....

6,785.80 348.95

348.95

Wilson Endowment Fund:

Gift under the will of Mrs. Mary Northrup Wilson to carry out the wish of her son, Fred Lewis Wilson, to found a scholarship of not more than two years each for undergraduates in Sibley College

3,851.35 3,851.35

198.05

Women's Guild Fund:

Gift of women interested in the University, income to be used to aid needy sick students. Established 1892

6,557.41 6,557.41

337.21

Women Students' Loan Fund:

Consists of former Students Loan Fund, income to be loaned to needy women students, and increased in 1913 by \$7,000 temporarily assigned to the fund by the late President Andrew D. White from funds placed at his disposal by Trustee Andrew Carnegie

25,562.95 1,146.68

1,314.56

		July 1, 1918	Additions During Year	July 1, 1919	Income
Woodford Medal Fund:	Gift of Stewart L. Woodford, for prizes in Oratory. Established 1870.....	2,500.00		2,500.00	128.56
Wurts Loan Fund:	Gift of \$2,000 by Alexander Jay Wurts, in memory of his mother, income to be loaned to students of Sibley College to "help lift the man's burden from the boy's shoulders." Additions by Sibley students. Established 1912	2,267.74		2,267.74	116.61
		\$9,733,819.41	\$244,550.63	\$9,978,370.04	\$499,734.42
Medical College Endowment Fund:	The gift of Col. O. H. Payne, the income to be applied to the maintenance and operation of the Cornell University Medical College in the City of New York. Established 1913	\$4,350,000.00	\$500,000.00	\$4,850,000.00	\$191,455.07
Medical Increment Fund:	Established on recommendation of Medical College Council, "the sum of \$5,000 to be set aside annually to constitute an 'increment fund' the income of which may be expended, and the principal of which or any portion thereof may from time to time be expended in case of need for permanent betterments or additions to the plant of the Medical School in New York City." Established 1914	20,000.00		20,000.00	1,028.50
Loomis Laboratory Endowment Fund:	Consists of endowment of Loomis Laboratory turned over to the University by its Trustees at the time laboratory was transferred to Cornell. Established 1899.....	118,176.79		118,176.79	6,077.24
Polk, J. M., Prize Fund:	Gift of William M. Polk to found a prize in the Cornell Medical College at New York in memory of his son. Established 1905	10,000.00		10,000.00	514.25
		\$14,231,996.20	\$744,550.63	\$14,976,546.83	\$698,809.48

Residential Halls Funds Reserve:				
Baker Court Fund:				
The gift of George F. Baker for the construction of the residential halls for men known as Baker Court	\$358,249.24		\$358,249.24	\$3,383.73
Cascadilla Hall Fund:				
A portion of the Cornell Endowment Fund invested in Cascadilla Hall.....	120,000.00		120,000.00	*2,469.95
Founders Hall Fund:				
The gift of the Alumni of the University through the Cornellian Council to cover, with the net income of the building, the cost of the residential hall for men known as Founders Hall	85,000.00	16,723.53	101,723.53	929.68
Prudence Risley Hall Fund:				
The gift of Mrs. Russell Sage for the construction of the residential hall for women named Prudence Risley in memory of the mother of Mr. Sage...	293,154.34		293,154.34	4,157.47
Sage College Building Fund:				
65 A portion of the Sage College Endowment Fund, and income from the building, used for the construction of the residential hall for women named Sage College	210,662.15		210,662.15	13,836.05
Three Central Avenue Fund:				
A portion of the income of the University invested in the building at 3 Central Avenue and now used as residential hall for unmarried members of the staff and for the University Club	13,000.00		13,000.00	766.65
	<hr/>	<hr/>	<hr/>	<hr/>
Income due special funds	\$15,312,061.93	\$761,274.16	\$16,073,336.09	\$719,413.11
Premium and discount	151,424.76		251,379.86	
Cash balance current income less amount due special funds	104,422.86		161,569.81	
	<hr/>	<hr/>	<hr/>	<hr/>
	178,685.29		215,491.61	
	<hr/>	<hr/>	<hr/>	<hr/>
	\$15,746,594.84		\$16,701,777.37	

*Decrease

CORNELLIAN COUNCIL

There was received during the year from the Alumni through the Cornellian Council, the sum of \$78,811.71, of which \$16,723.53 was applied on the cost of Founders Hall. This payment completed the gift of the Alumni to the University of Founders Hall, constructed at a cost of \$101,723.53. \$14,250.00 was applied to the emergency salary contribution to the members of the instructing staff, and the balance to certain designated capital accounts and toward the running expenses of the University.

DONATIONS 1918-1919

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

Agricultural Alumni Association, for a prize.....	\$ 25.00
Anonymous, to Semi-Centennial Endowment Fund	25,000.00
" " William Delmore Thompson Scholarship.....	25,000.00
Chapin, C. W., unrestricted.....	1,000.00
Class 1919, 1920, Women of, to Women's Dormitory Fund.....	500.00
Contributions, for Cornell Paris Bureau	50.00
Cornellian Council, for Women's Dormitory account.....	161.50
" " for Class of 1889 Endowment Fund.....	3,062.27
" " for Founders Hall.....	712.00
" " for emergency salaries.....	16,723.53
" " for Semi-Centennial Endowment Fund (St. Louis Association)	14,250.00
" " for Alumni Endowment Fund.....	1,280.00
" " unrestricted	500.00
Dalton, William, to Fuertes Telescope Fund.....	42,283.91
du Pont de Nemours & Co., E. S., Industrial Fellowship.....	1,000.00
Eastman, A. R., for Eastman Stage.....	1,500.00
Federation Cornell Women's Clubs, for French Student Scholarship	60.00
Fiske, Willard, Estate, Library Endowment.....	200.00
Foster, Miss J. M. G., to Law Library.....	5,179.00
Funnell, C. L., to Guiteau Fund.....	13.00
Gage, Simon H. & Henry P., for Susanna Phelps Gage Fund for Research in Physics.....	10.00
Gray, J. A., to Guiteau Fund.....	10,000.00
Greenlawn Pickle Growers Assoc. Industrial Fellowship.....	13.00
Higgins, Mrs. Bertha D., for William Delmore Thompson Endow- ment Fund.....	1,000.00
Hollingworth, W. G., for Veterinary Honorarium	50.00
Hooker, Elon H., for Fellowship in Hydraulic Engineering, stock of the Hooker Electro-Chemical Co.	8,500.00
Kenney, Eudorus C., Scholarship Endowment Fund.....	3,391.72
Knickerbacker, John, for aid for Students.....	25,000.00
Lockwood, L. D., to Guiteau Fund.....	7.40
Medical Alumni Association for credit of association.....	51.58
Metcalf, William, jr., Liberty Bonds for Semi-Centennial Endow- ment	10,000.00
Miller, Dr. Frank H., for Jane Miller Veterinary Prize.....	50.00
Morrison, J. T., Estate, for prize in Poetry.....	100.00
N. Y. State Branch Nat'l League for Women's Service to Sedowa Club	100.00
Payne, Col. O. H., Estate, Medical Endowment.....	500,000.00
Reid, Mrs. Whitelaw, for Medical salaries in Bellevue Hospital.....	1,000.00
Roessler & Hasslachler Chemical Co., for Industrial Fellowship.....	3,000.00

Sheldon Memorial Fellowship, Medical College at New York City	850.00
Stewart, S. L., Dairy Prize.....	50.00
Smith, Goldwin, Estate, to Endowment Fund.....	4,000.00
Smith, Horace I., Estate, for Scholarship Fund.....	3,428.44
Stambaugh, John, First Mortgage Bonds of New York Shipbuilding Corporation, for endowment of Professorship in History.....	100,000.00
Tioga Mill and Elevator Co., for engravings for study of Oat Diseases	100.00
Washburn, Lucy M., to Semi-Centennial Endowment Fund.....	50.00
White, Andrew D., for purchase of books.....	762.44
Whitney, Payne, for expenses Medical Clinic.....	6,000.00
Williamson Vegetable Association for Industrial Fellowship.....	1,062.50
Wilson Growers for Industrial Fellowship.....	1,000.00

\$819,077.29

CLASSIFICATION OF INVESTMENTS

Domestic Public Securities.....	.079	\$ 1,335,826.12
Foreign Public Securities.....	.031	522,868.00
Railroad Bonds.....	.143	2,386,710.41
Public Utilities Bonds.....	.241	4,023,441.50
Lumber Bonds.....	.013	214,000.00
Industrial Bonds.....	.209	3,489,000.00
Miscellaneous Bonds.....	.009	144,518.03
Railroad Stocks.....	.072	1,192,800.00
Bank Stocks.....	.006	103,750.00
Industrial Stocks.....	.034	574,300.00
Miscellaneous Stocks.....	.012	195,659.25
Real Estate Mortgages.....	.053	881,991.12
Loans on Collateral.....	.001	12,699.75
Real Estate (Investment).....	.011	183,271.15
Land Contracts.....	.000	2,700.00
Residential Halls.....	.066	1,096,789.26
Special Deposits.....	.006	105,540.31
Cash and Ledger Balances.....	.014	235,912.47

1.000 \$16,701,777.37

BUILDINGS AND GROUNDS

In addition to the regular maintenance work the Department was employed in restoring the property to its pre-war conditions, in bettering the campus roads, and in preparing for the Semi-Centennial Celebration. Special improvement work was carried on as vigorously as circumstances would permit.

Itemized reports of the Treasurer and the Superintendent of Buildings and Grounds are appended hereto.

Respectfully submitted,

E. L. WILLIAMS,
Comptroller.

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

FORMS OF BEQUESTS TO CORNELL UNIVERSITY

GENERAL BEQUESTS

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

.....

BEQUEST FOR ENDOWMENT OF PROFESSORSHIP

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

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

.....

BEQUEST FOR SCHOLARSHIP

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

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

.....scholarship.

BEQUEST FOR A PARTICULAR PURPOSE DESIGNATED BY THE TESTATOR

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

.....(insert purpose).

APPENDIX I

REPORT OF THE SECRETARY OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: I have the honor to submit the following report of the University Faculty for the year 1918-1919.

During the year forty-three members of the Faculty were absent on leave. In most cases these members were engaged in national service. On May 1, 1919, there were 285 members resident in Ithaca and 50 members of the Medical Faculty resident in New York City, making a total of 385 members of the University Faculty on that date.

Since the writing of my last report the Faculty has lost from its rolls by death Professor George Francis Atkinson, Professor Rolla Clinton Carpenter, Professor Albert Philo Mills, and Professor Kenneth Bertrand Turner.

Professor Edward Leamington Nichols and Professor John Lemuel Stone have retired from active service and have been appointed professors emeriti.

Owing to the establishment of a branch of the Students' Army Training Corps here, which required a course of instruction covering approximately two-thirds of a semester, the Faculty abandoned the semester plan of calendar and adopted a three-term system and voted that this system should continue "so long as the Students' Army Training Corps is maintained at Cornell University". After the signing of the armistice the general question of the relative desirability of a two-term or three-term calendar was discussed by the Faculty with the following results: For a University year of two terms, 95 votes; for three terms, 55 votes. In 1919-1920 the University will return to the calendar schedule adopted November 12, 1909.

In order to assist students returning from the army, navy, or other branches of national service the Faculty voted that "the University's work between January 1 and September 1, 1919, should be so adjusted that opportunity may be given students to obtain credit for a full year of work between the dates specified, and that the details of such adjustment be worked out by each college for itself". The Faculty has been anxious to promote in every possible way the academic progress of those students who have patriotically given their services to the country. It has made liberal provision for granting scholastic and residence credit to seniors who left the University for service six weeks prior to the time of graduation and has approved the principle of crediting the student with six semester hours for work done in army or navy schools, whenever such work could be equated with our requirements, the application of the principle being left to the discretion of the several colleges. In order to carry out the Faculty's provision for a full year of credit between January and September, the following colleges established summer terms for 1919 or continued their third term into the summer: Agriculture, Architecture, Arts and Sciences, Civil Engineering, Law, Mechanical Engineering, Medicine, Veterinary Medicine.

The question of practicable means of recognizing and promoting scholarship has been under discussion in the Faculty at various times for a number of years.

APPENDIX I

The scholarships and prizes offered by the University are undoubtedly a great stimulus to a considerable number of students, but these honors in the mind of the average student are unfortunately inferior in value to the honors won by the members of athletic teams or even by the managers of numerous student organizations. It is very difficult under such circumstances to find adequate means for giving the undergraduate who has distinguished himself in scholarship a prominence at all comparable with the prominence of students who excel in sports or the management of sports. It is a problem worthy of the most persistent study by University faculties. The question has been commonly attacked from the standpoint of the regulation of athletics. A more hopeful method is to be found in the stimulation and recognition of scholarship and in the discovery of means for increasing the prestige of the scholar in the undergraduate community. Until this question of relative values is properly settled, or as long as athletic skill secures for the undergraduate a higher social esteem than does intellectual attainment, it will not be possible for scholarship to fill that place in the aims and ideals of students, which is essential to a university's welfare as an organ of education. For this perverted scale of values the Faculty must assume responsibility. As a step towards the solution of the problem, the Faculty adopted the following recommendations of a special committee:

1. That a University Convocation be held early in the academic year, which shall be devoted in part to the recognition of scholarship.
2. That the Faculty request its standing committee on prizes to consider and report upon means whereby those prizes which appear to be commonly neglected may be made more effective incentives to intellectual effort.
3. That the Faculty suggest to the several college faculties that in each college honorary undergraduate scholarships, without stipend, be annually awarded on the basis of scholastic rank.
4. That the Faculty suggest to the several college faculties the recognition of honor groups, consisting of the best students in each class in each college, whose names could be published in the University Bulletin and announced at the proposed Convocation.

In regard to the establishment of a regular Third Term (in distinction from the long established Summer Session), the Faculty has placed itself on record as disapproving of a Third Term for general undergraduate work and involving a large part of the teaching staff. On the other hand, it considers a summer term designed to promote graduate work and to utilize the laboratories and equipment of the University as desirable.

In respect of the administration of the Summer Session the Faculty has recommended to the Board of Trustees the establishment of an Administrative Board consisting of five members: A chairman and a secretary to be appointed by the Trustees on the nomination of the President, the Dean of the Graduate School, the Dean of the College of Arts and Sciences, and a fifth member to be appointed by the President to represent the interests of the professional colleges.

During the past year the subject of an "educational survey" of the University was discussed by the Faculty. While the Faculty did not arrive at any very definite conclusions regarding the scope of such a survey or the methods by which it might be conducted, it was of the opinion that any general inquiry having for its object educational reconstruction should be undertaken and carried

out by the teaching staff, as the body most conversant with and interested in the University's educational aims and problems. A special committee was appointed to study the subject. The committee submitted the following report which the Faculty approved:

1. That so far as courses and methods of instruction are concerned, these may be said to be under perpetual survey of an intense and searching kind:
 - a. By frequent conferences of the staffs of the various departments;
 - b. By frequent and regular meetings of standing committees on "educational policy", etc., in the several colleges;
 - c. On behalf of the University as a whole by collaboration of the President and the Deans;
 - d. By attendance of members of the staff at the meetings of strong and active national societies dealing with university matters, whereby they are in touch with the latest and best thought on educational problems;
 - e. By the influx of Faculty members from other institutions who bring to us the benefit of their experience. In consequence of this continual interchange of views and of the migration of teachers from one institution to another it is probable that no profession is more thoroughly standardized.
2. That as regards the maintenance and improvement of material equipment, however, there is much to be gained by a proper survey.
3. That the most important problem is to secure the best possible conditions for research in all subjects, since the advancement of knowledge is the prime function of a true university and since, moreover, productive scholarship on the part of every member of the staff is essential to the highest quality of teaching. The Faculty holds that this offers the most fruitful field for investigation.

Respectfully submitted,

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

APPENDIX II

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I have the honor to present the Report of the Graduate School for the year 1918-1919.

At the opening of the year the University found itself in great measure transformed into a military post for the training of members of the Students' Army Training Corps. For the time all the other interests of the University were subordinated to that of assisting the Government in training men for officers in the Army or Navy. In these circumstances, the work of the Graduate School was

naturally affected, and the number of students fell to considerably less than one-half of that of recent years. In the first term of the year there were registered 55 women and 112 men, most of the latter being men who had been exempted from military service in order to assist in the work of instruction carried on by the University, and in the circumstances finding it difficult to carry on their own studies.

During the second and third terms the normal life of the University was gradually resumed, and, as a part of this life, the instruction of graduate students and the work of investigation, which had never ceased, received more attention and was carried on as in previous years. Graduate students enrolled as they returned to the University, and at the end of the year the registration in the Graduate School had risen to 257, which is somewhat less than two-thirds of that of normal years.

The total number of advanced degrees granted during the year was 70, as against 81 in 1917-1918, and 109 in 1916-1917. The numbers of respective degrees were: Doctor of Philosophy, 28; Master of Arts, 23; Master of Science, 5; Master of Science in Agriculture, 4; Master in Landscape Design, 2; Master in Architecture, 1; Master of Civil Engineering, 5; Master of Mechanical Engineering, 2.

It seems reasonable to anticipate that with the opening of the academic year 1919-1920 the Graduate School will approximate in numbers the years immediately preceding the war. The experience through which the country and the University have passed during the past two years has made even more evident than before the importance of fostering in the higher institutions of learning the spirit of research and inquiry. This is seen to be necessary not merely for the sake of practical results, but for the promotion of freedom and liberality of mind. The Graduate School cannot claim to be the sole guardian of these interests in the University. They are interests that are shared by all the colleges. But by the very terms of its organization it is devoted in a special sense to the advancement of scholarship and investigation, and made definitely responsible for keeping alive this spirit within the University.

The policy of the Graduate School is determined by the Faculty of that organization, the membership of which is composed of the teachers in the different divisions of the University who are actively engaged in directing the work of graduate students. In this Faculty every division of the University is represented. The Faculty is also divided into five Groups, each Group being composed of those members of the Faculty who represent subjects that are somewhat closely related. Each Group meets at least once during the year for the discussion of matters pertaining to the interests of graduate work, and from time to time makes suggestions to the Faculty regarding desirable legislation. The General Committee of the Graduate School is composed of ten members with the Dean as chairman. Five of the members of this Committee are elected by the Faculty as a whole, and one member by each of the five Groups. This Committee meets frequently through the year, coöperating with the Dean in the work of administration, and making recommendations to the Faculty regarding methods of furthering the interests of graduate work. During the year which has just closed no legislation of fundamental importance has been adopted. The Faculty has, however, under consideration a recommendation made in the last Report of the Dean to the

effect that the Board of Trustees be requested to create a joint Council, composed of representatives of the Board and of the Faculty, with the President as chairman, in order to ensure the continuous consideration of policies for maintaining and extending the interests of advanced study and original investigation in the University.

Respectfully submitted,

JAMES E. CREIGHTON,
Dean of the Graduate School.

STATISTICS OF ATTENDANCE

In the Graduate School, during the academic year 1918-1919, there were registered 305 students, in addition to 96 during the summer of 1918.

	1918-19	1917-18	1916-17	1915-16	1914-15
Number of students registered during the academic year	305	279	467	482	390
Number of students registered during the summer of 1918:					
1. Summer Session.....	35	33	55	45	39
2. Third Term.....	42	68	128	85	28
3. Personal Direction.....	13	22	30	17	65
Total in Summer.....	90	123	213	147	132

Classified according to the degrees for which they were candidates:

	Academic Year	Summer
Honorary Fellows.....	2	
Doctors of Philosophy	123	34
Masters of Arts	59	31
Masters of Science	19	11
Masters of Science in Agriculture.....	16	4
Masters in Forestry	—	—
Masters in Landscape Design	6	1
Masters of Architecture.....	2	—
Masters of Civil Engineering.....	14	—
Masters of Mechanical Engineering.....	12	1
Not candidates for a degree.....	48	2
Unclassified	4	6

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

	1918-19	1917-18	1916-17	1915-16	1914-15
Group A, Languages and Literatures.....	24	35	39	52	56
Group B, History, Philosophy, and Political Science	37	35	61	62	45
Group C, Physical Sciences.....	52	40	77	75	95
Group D, Biological Sciences.....	150	149	259	243	220
Group E, Engineering, Architecture.....	34	17	26	50	30
Unclassified	6	7	5		
Honorary Fellows.....	2	1			

APPENDIX II

Among the students registered in the Graduate School during the year 1918-1919, there were graduates of 102 different institutions, distributed as follows:

Albion College.....	1	Middlebury College.....	1
Alfred University	4	University of Minnesota.....	1
Allegheny College	1	University of Missouri.....	3
University of Amsterdam.....	1	University of Montana.....	1
Arkansas University.....	1	Mount Holyoke College.....	5
Barnard College.....	2	University of Nevada.....	1
Bethany College	1	University of North Carolina.....	1
Brazil Espanola Superior Agricola	4	North Carolina A. and M. College	1
Bridgewater College	1	North Dakota Agricultural College	2
Brigham Young University	2	Northwestern University.....	1
Bucknell University	4	Oberlin College.....	2
University of California	1	Ohio State University.....	2
University of Chicago.....	1	University of Oregon.....	1
Colgate University.....	1	Ottawa University.....	1
Colorado Agricultural College....	1	University of Pei-Yang.....	1
Colorado College	1	Pekin Government University....	3
Columbia University.....	2	University of Pennsylvania.....	4
Connecticut Agricultural College.	1	Pennsylvania State College.....	1
Cornell University.....	143	University of Pittsburgh.....	1
Dartmouth College.....	1	Purdue University.....	1
Denver University.....	1	Queen's University	2
D'Youville College.....	1	Radcliffe College	2
Elmira College.....	1	St. John's University.....	1
Emory and Henry College.....	1	Sappora.....	1
Furman University.....	1	Smith College.....	3
Government Institute of Technology, China	1	University of South Dakota.....	1
Grove City College.....	2	Stanford University.....	1
Harvard University.....	1	John B. Stetson University.....	1
Hobart College.....	1	Tangshan Engineering College ...	4
Hohenheim University.....	1	University of Texas.....	1
Huron College	1	Texas A. and M. College.....	1
University of Illinois.....	6	Tohoku Imperial University.....	1
University of Indiana.....	5	University of Tokyo.....	2
Iowa State Teachers College	2	University of Toronto.....	1
University of Kansas.....	6	Tufts College.....	2
Kansas State Agricultural College	2	Tulane University.....	1
State University of Kentucky....	1	Utah Agricultural College.....	1
Kyoto Imperial University.....	1	University of Utah.....	1
Lawrence College.....	1	Valparaiso University.....	1
Laval University.....	1	Vassar College.....	2
Lehigh University.....	1	Wabash College.....	1
McGill University.....	1	Washington and Jefferson College.	1
Maryville College	1	University of Wasoda.....	1
Massachusetts Agricultural College	2	Wellesley College.....	7
Massachusetts Institute of Tech- nology	1	Wells College.....	1
Miami University	2	Western Reserve University.....	1
University of Michigan.....	2	University of West Virginia.....	1
Michigan Agricultural College....	3	University of Wisconsin.....	2
		Yale University.....	2

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: As Dean of the College of Arts and Sciences I have the honor to submit to you the following report for the year 1918-1919.

THE STUDENTS' ARMY TRAINING CORPS

It was not to be expected that the entrance of our country into the world war would leave the life of our College untouched. In the spring of 1917 a large number of our students abandoned their customary tasks in order to engage in some service directly or indirectly connected with the winning of the war, and many others failed to return to us in the beginning of the year 1917-1918 for the same reason. Of those who remained in attendance a portion found it difficult to concentrate their attention upon the business at hand; but the work of instruction went bravely on, in spite of the depletion of classes and the disturbed state of mind of the dwindling academic community. In the fall of 1918 came the Students' Army Training Corps, which created new problems and produced more or less confusion and disorganization in the business of instruction. The Faculty, however, showed a magnificent spirit in dealing with the difficulties suddenly thrust upon it; and it deserves credit for the manner in which it adapted itself to new conditions and met the demands and wishes of the government regarding the intellectual training of student soldiers. And if the experiment of reconciling the ways of Minerva with the ways of Mars did not prove altogether successful, the reason cannot be sought in any lack of honest good will on the part of the teaching staff.

After the passing of the student army the President called together the entire body of university instructors and urged upon them the necessity of considering the problem of university education in the spirit of the new age and with a view to rendering the best possible service to the nation and the world in the great period of reconstruction lying ahead. Following the suggestions of the President's address the committees of our College devoted themselves to an earnest study of the ways in which the work of the College might be improved—a task with which we are constantly occupied and which, though never finished, no institution of learning can neglect without becoming a dead thing.

THE WORK OF FRESHMEN AND SOPHOMORES

One of the questions which has for many years engaged the attention of the Faculty concerns the work of underclassmen. There is a growing belief, not only here but elsewhere, that the members of the lower classes at least should be protected against the dangers of free election either by further restriction in their choice of studies or by the establishment of an advisory system that may be depended upon to prevent unwise selections. In 1907 an Administrative Board

in Charge of Freshmen and Sophomores was created by the joint action of the Board of Trustees and the Faculty with full power to supervise their work and to provide means for making it effective. The object was to ensure "greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students." Whatever may have been the reasons for the Administrative Board's failure to achieve the desired ends, the fact remains that it did not realize its ideal; and it was superseded in 1916 by the Committee on Advice to Underclassmen, which was vested with power "to consider and recommend to the Faculty measures for making the work of freshmen and sophomores more effective."

After a full and careful study of the whole problem in the light of its experience, this committee reached the conclusion at the end of the current year (1918-1919) that the purpose of the Faculty could not be accomplished without a revision of the curriculum and the creation of a body possessing larger powers than had been delegated to the Committee on Advice to Underclassmen. It therefore recommended, among other things, that the underclass requirement of stipulated hours be raised from 24 to approximately 42 to 48, that an Underclass Board be created with power to determine the number and the distribution of hours required, and to direct the work of freshmen and sophomores.

The Faculty refused to increase the underclass requirements in this way or to delegate its legislative power, but at a later meeting adopted in principle the following recommendations:

1. That there be created an Advisory Board for Underclassmen to consist of nine members to be appointed by the President. The purpose of the Board is to study the needs and difficulties of underclassmen in respect to the general plan of their education, to counsel and to advise them in respect to their choice of studies and their obligations as college students, and to render such assistance in the prosecution of their work as may be possible.
2. That for the carrying out of this purpose the Board be empowered to establish and administer an advisory system for Freshmen and Sophomores. As incidents of this system it is understood that the Board will select such additional advisers as may be necessary, and will require of the student a plan in his choice of studies.
3. That the Board be given power to administer the cases of Freshmen and Sophomores now administered by the Committee on Academic Records.
4. That the Board be instructed to present to the Faculty from time to time such recommendations as it may think likely to promote the welfare of the underclassmen.

It is to be hoped that this new attempt to solve an old problem will meet with better success than the former ones. The object of the Faculty is not to compel the student to follow a fixed educational scheme foisted upon him from above, but to leave him free to arrange a program of studies in accordance with a reasonable plan of his own. If the efforts of the new Board result in nothing more than improving the advisory system so that the student may be induced to reflect upon his opportunities and duties as a citizen of an academic community and to justify his choices to his reason and his conscience, some little progress will have been made. I myself should feel no hesitancy in leaving the decision concerning the rationality of his conclusions to a body of nine men chosen from the different departments, because I am convinced that such a jury would go about its business in a spirit of liberality and with a sympathetic regard for the legitimate aims of

the young persons who come to us in order to be educated. And if it should happen that those who come for no other purpose than to have what they call a good time were prevented from doing as they please, I should not grieve, feeling that no offense had been committed against intellectual liberty. Among the parents there would certainly be fewer conscientious objectors to this kind of paternalism than there are to the systemless system of *laissez faire*.

The Faculty has also passed a rule to the effect that the underclass requirement in foreign language shall hereafter be satisfied only by *college* courses in this field. This means that, in order to receive the A.B. degree, the candidate must have completed satisfactorily advanced language courses, for example fourth year French or Spanish or German, or fifth year Latin. The regulation does not prevent the student from beginning any language he chooses and counting it toward the degree nor does it compel him to continue the language in college that was offered for entrance. He cannot, however, any longer limit himself to the study of an elementary course in language at the University, but must gain such a degree of proficiency in some language as may be had by studying it for a period of years, either by continuing the language for which he received credit at entrance, or by beginning a new language in the College and continuing it until he has completed a course of university grade.

THE WORK OF JUNIORS AND SENIORS

In a former report attention was called to the weakness of the upperclass-group requirement, the object of which is to make the student devote at least a small fraction of his time to the study of some particular field during the junior and senior years. It was pointed out that our upperclass-group system, although sound in principle, fails of its purpose because we have not carried out our good intentions by providing the courses demanded by the principle: indeed there is a lamentable dearth of such courses. "In theory, the student is required to begin a limited degree of 'specialization' in his junior year; in practice, he is prevented from doing any such thing because only a few departments offer him the chance. The weakness of the system becomes even more apparent when we remember that the student is not restricted to any one department but may, in many cases, range over an entire group of departments during his last two years, in choosing the twenty hours required by the upperclass rule." The Committee on Educational Policy has been considering a plan which would oblige every candidate for the degree of A.B. to follow a progressive sequence of courses, in some particular field of study, extending over a number of years, in which the succeeding parts rest upon what has gone before. The plan has been laid before the departments of the College; and the Committee hopes to be able to present it to the Faculty next year for consideration.

THE DEGREE WITH HONORS

In 1917 the Faculty established the degree with honors as an incentive to students of high standing to pursue advanced studies within a given department or departments in a more intensive and independent way than is possible in the ordinary classes. I regret to say that only a few students have availed themselves of the privileges and benefits afforded by this scheme. It would, perhaps, become more popular if the different departments took a more active interest in it, and

encouraged their good students to take work leading to honors for the sake of the intellectual stimulus connected with it and the growing sense of mental development which it gives.

THE SUMMER TERM

In response to the recommendation of the University Faculty, approved by the Board of Trustees, "that a summer term be established for the purpose of offering opportunities for advanced studies," the Faculty of our College recommended "that the Summer Session of 1919 be enlarged and enriched by such courses of instruction as will prove of particular benefit to students of the College of Arts and Sciences who may desire to continue their studies during the summer." The end aimed at has been realized in a modest way by an increase in the number of courses in some six departments already represented in the Summer Session and by the offering of courses in a few departments not heretofore represented. The action was taken mainly in order to enable men returning from service to make up for lost academic time; but there is every prospect that many other students will avail themselves of the larger opportunities offered, and it seems possible that the policy adopted for this year may be made permanent.

GENERAL NEEDS OF THE COLLEGE

Besides the special subjects mentioned above, the Faculty, early in the second quarter, took up the general question of the needs and greater efficiency of the College, brought forward in the President's address. At a special meeting of the Faculty held on February 13, 1919, the following report presented by a committee consisting of the Conference Committee of the College and four additional members was adopted without a dissenting voice:

1. The proportion of the number of teachers to the number of students is too low in some departments to make the instruction as effective as it might otherwise be. Thorough training in English and in the foreign languages cannot be given in overcrowded classes, nor is adequate laboratory training possible in courses in which there is a lack of instructors and assistants. In large lecture-courses the size of the sections is often too large to afford to students the opportunity for active participation in the work by means of frequent discussions, questionings, and written exercises.

2. The proportion of the number of professors and assistant professors to the entire number of teachers in the College is too low. Not only are some of the classes too large but they are sometimes taught by assistants whose training is not yet complete, who have not yet received the undergraduate degree.

3. Owing to the amount of time and effort required for underclass instruction or for administrative tasks or for both, some of our teachers are unable to devote themselves to the work of investigation and to intensive study. It should be the policy of the College to encourage and to promote scholarly research among all the members of the staff; but it is not possible for men to perform the essential functions of the university teacher whose time and strength are consumed in undergraduate teaching and departmental management. It should never be forgotten that no man can render adequate service as a teacher of undergraduate subjects who is not also, in some measure, an independent worker in his field. Without this productive scholarship, not only the graduate but also the undergraduate work will stagnate.

4. Several important professorial chairs have been unoccupied for a number of years which should be filled as soon as feasible.

5. The salaries of most of the members of our staff are too meagre to enable us to retain in the Faculty, or to attract to it, men of the type needed in order that

we may maintain our scholastic standing in the academic world. It is not always possible to fill a vacancy with a teacher equal in ability to the one who leaves us. Nor can we expect men in a profession like ours to do their best whose minds are constantly disturbed by financial cares and who are deprived of the opportunities for growth.

6. One of the most serious obstacles in the way of our progress is the inability of the University to make the necessary financial provision for carrying on the work of the College. The Faculty has not been remiss in its care of the educational interests entrusted to it, and it is striving to make its work as useful as the adverse circumstances in which it is placed, permit. It cannot, however, perform its duties with satisfaction to itself and to the University with an undermanned and underpaid staff of teachers.

EXTENT AND IMPORTANCE OF THE COLLEGE'S WORK

In considering the place and the significance of the College of Arts and Sciences in the University, it is important to keep in mind the variety of functions which the College performs. The College not only gives instruction to those officially registered in it as candidates for its degrees, but teaches the fundamental subjects which constitute a large part of the curriculum of nearly every other college on the Campus. Indeed, in the year 1911-1912, when the last statistics were gathered, the members of our staff gave more student hours of instruction to persons enrolled in the other colleges than to those who belonged to the College itself; and it is worth noting that one-third of the teaching of the "humanities" went to students in the professional schools. There is no reason to suppose that, except for the war period, this situation had materially changed since 1912. It is necessary to emphasize this fact in order that the extent and the importance of the service which the College renders to the University may be appreciated, and that the problems arising from its relation to the other schools be fully understood.

In addition to this work, which comprises so large a part of its duties, the College is charged with the task of instructing the young men and women who come under its own educational supervision. Of these, from fifteen to twenty per cent are candidates for the degree of Bachelor of Chemistry, a technical degree that is based upon a prescribed curriculum, practically all the subjects of which are taught by members of our own faculty. The remaining 80 to 85 per cent, forming the great majority of the constituency of the College, are candidates for the degree of Bachelor of Arts the requirements for which keep in view the ideal of liberal education. This is an ideal which Cornell University has always cherished, and which it aimed to realize in its instruction at the very beginning of its existence when it established "general courses": these had "chiefly in view the culture of the mind" (as the *Register* put it), and were organized into fixed curricula leading to the degrees of A.B., B.Ph., B.L., and B.S. The College of Arts and Sciences is the direct lineal descendant of the former "special faculties," "departments," "standing committees," and "colleges," which as organs of the old University Faculty, outlined and supervised these courses. A wide measure of freedom is, however, given to the present-day student in arranging a program that will enable him either to acquire a general education, in accordance with his individual needs, tastes, and talents, or to combine with this ideal the preparation for some special calling. While educating himself for the general life of the human being and the citizen, he may at the same time, under the guidance of a department, fit himself for the work of teaching or for some of the newer vocations, which

call for special training in English, history, economics, finance, statistics, politics, social science, mathematics, or the natural sciences, and which vocations may eventually be cared for in separate colleges.

Another and very important duty which the College faculty undertakes is the training of graduates in the work of investigation and research in all the fields of study represented in its domain: more than one-half of the students enrolled in the Graduate School receive their instruction from teachers in our College.

In the light of the statements set forth above, it is not an exaggeration to say that the College of Arts and Sciences forms the most vital part of the University, and that upon its well-being and development the efficiency of Alma Mater must ultimately depend.

THE NUMBERS OF STUDENTS AND OF TEACHERS

The number of students registered in the College as candidates for the degrees of A.B. and B.Chem. in 1918-1919, was 1219, which was the largest college enrollment on the Campus. This figure shows a decrease from the registration reached in 1916-1917, the year before we entered the war, when there were 1483 persons enrolled in the College. Counting also the students in other colleges of the University to whom our departments give instruction, we may say that in normal times our College has a membership of about 3000 pupils.

The fact of our service to the University at large will account for the size of our instructing staff, which, in the normal year of 1916-1917, consisted of 288 persons: 59 professors, 42 assistant professors, 60 instructors, and 127 assistants. (It should not be forgotten that about 12 per cent of these teachers belonged to other (professional) faculties but gave also instruction in our College.) It will be observed that 65 per cent of the teachers are assistants and instructors, and that only 35 per cent hold the rank of professor or assistant professor. It must be borne in mind that two-thirds of the undergraduate teaching consists of elementary work, and that most of this is done by men who have not yet reached assistant professorships.

Another thing to be remembered is that the ratio of teachers holding the junior positions to that of teachers holding the higher positions is greater here than in the Arts colleges elsewhere that are not connected with technical schools, and is larger than good educational practice warrants. The size of the student body for which the College has to provide instruction accounts for the undue ratio which obtains in many departments between the size of the classes and the number of the teachers: the classes in which the fundamental subjects are taught are often overcrowded.

In consequence of the conditions described, some students do not derive such benefit from their instruction as they would gain if they could meet more experienced teachers in smaller classes. Another unfortunate consequence of this situation is that teachers are prevented from offering advanced courses and from engaging in investigation and research, a circumstance which tends to weaken their effectiveness even as teachers of undergraduates, for no university instructor can meet with a full measure of success whose mind is not constantly stimulated, refreshed, and enriched by the work of independent study.

Both students and teachers suffer from the system of mass-teaching which has developed in the overgrown American universities. The close personal contact between master and pupil, which is so often desired and which would be fruitful for each, is not easily brought about in crowded lecture-halls, laboratories, and quiz-sections. It is true that, even as things are, any one can learn who has the will and the ability; and perhaps we ought to be satisfied if "the remnant of the righteous" are moderately provided for, and perhaps this is all the universities should aim to do. We cannot, however, obtain the best results unless we teach our students in smaller groups.

SIGNIFICANCE OF THE SALARY PROBLEM

No reference has been made in the foregoing to the possible and desirable expansion of the work of the College, or even to what might ordinarily be regarded as urgent needs. Indeed, it is a question in many minds whether such expansion should be attempted or such needs satisfied until we have succeeded in improving the conditions described above. This, however, cannot be done without increasing the number of trained and experienced teachers who may come into closer personal contact with the underclassmen crowded into the large courses. There is no reason why the younger students should not receive the kind of instruction that is given in the advanced and therefore smaller classes; indeed, unaccustomed as these are to the ways of a university, they stand in greater need than their older fellows, of the help which only a mature and seasoned teacher can offer. But accepting the situation as it is, and as it exists in other large universities, we find it increasingly difficult to obtain and retain the services even of instructors who have not yet completed the period of their apprenticeship; while it is almost impossible to attract to our assistant professorships young men of promise serving in other institutions. The increase in salary recently voted by the Board of Trustees will, it is to be hoped, bring some relief here; but it must not be forgotten that unless Cornell University adopts the salary-schedule of the best universities of the country, it will in time inevitably sink below their level of achievement.

It should be added that the salary problem has wider than local significance: the question is how we may induce men of brains to follow the academic calling at all. Persons of spirit and capacity who contemplate entering the profession are not tempted to it by the lure of gold, but they may be deterred from it by the certain prospect of a penurious existence. Those who have the welfare of higher education at heart and to whom the government of universities has been entrusted, must see to it that the profession may at least maintain the high standard of scholarship and character which it has reached in this country: it is part of their duty to provide the coming generation with distinguished scholars and teachers. In order to do this they must, I will not say hold out the hope of adequate rewards for successful performance to those whose tastes and talents incline them to the scholar's life, but make the calling such that self-respecting men of ability may labor in it without feeling that they are sinning against themselves and their families.

Respectfully submitted,

FRANK THILLY,
Dean of the College of Arts and Sciences.

APPENDIX IV

REPORT OF THE DEAN OF THE COLLEGE OF LAW

To the President of the University:

SIR: I beg to submit the annual report of the Dean of the College of Law for the year 1918-1919.

REGISTRATION

The total registration in the College of Law for the years 1917-1918 and 1918-1919 was as follows:

	1917-1918	1918-1919
Seniors	18	27
Juniors	35	37
Second year of Four-Year Course.....	35	52
First year of Four-Year Course.....	81	99
First year of Three-Year Course.....	20	18
Special Students.....	2	3
 Total Law students	 191	 236
 Students from other Colleges of the University electing law work	 17	 18
 Total receiving instruction in the College of Law.....	 208	 254

Of the 236 law students, 39 per cent were from outside of New York State; in 1917-1918, 44 per cent; in 1916-1917, 40 per cent. A table of this percentage for previous years is given in my Report for 1915-1916. The number of students from outside of New York necessarily finds some reflection in the instruction. Twenty of the freshmen who, in October, 1918, registered in the College of Law for the first time and were within the draft age and subject to military service elected a military or naval program of the Students' Army Training Corps, and have not returned to the College since the demobilization of the Corps. Therefore the connection of these twenty students with the College of Law has, thus far, been nominal, as their registration in the College of Law served merely as an entrance to the S. A. T. C.

STUDENTS' ARMY TRAINING CORPS AND THE COLLEGE OF LAW

Owing to the situation created by the establishment of the S. A. T. C. at the University, the year 1918-1919 was divided into four terms. During the first term, October-December, 1918, while the S. A. T. C. was in operation the aim of the College of Law was to maintain itself as a "going concern" in the midst of the unusual conditions then existing. While the programs of study permitted to S. A. T. C. students by the War Department's Committee on Education and Special Training were calculated to be military in their purpose and character, the Committee did allow a special law program for law students in the S. A. T. C. who chose to elect it. This law program, however, permitted but six hours a week of professional law study, the other eight hours being given to studies having

a more strictly military end. Of the 43 law students, other than freshmen, who were in the S. A. T. C. and eligible to elect the law program, only 12 chose to do so, the majority preferring to elect some one of the more completely military programs. During this abnormal first term the registration was as follows:

First year of the Four-Year Course.....	65
Sophomores	36
Juniors	15
Seniors	10
	—
	126

All of those freshmen who did not enter the S. A. T. C. were provided with a program of studies to be taken in the College of Arts and Sciences. They were given no professional law courses this year, but will thus acquire a year of credit in subjects in Arts and Sciences, before entering upon professional law study in September, 1919. The course in Torts, ordinarily given to freshmen in the four-year course was deferred as to them until next year. Credits acquired on the programs of the S. A. T. C. by Freshmen who entered the Corps can be substituted pro rata for credits normally required of freshmen for work in Arts and Sciences.

In the sophomore class thirty-six students were registered. Of this number twenty-two took no professional law work for the reason that the special programs of work which they followed in the S. A. T. C. did not permit any law study. Of the remaining fourteen, seven were in the S. A. T. C., and carried but six hours of law work, as provided in the program of that organization for law students. The other seven of this group were women, or students ineligible for military service, and as only six hours of law instruction were given in sophomore subjects, the balance of the schedules of these students was made up of courses in the College of Arts and Sciences. Fifteen juniors returned. Of these fifteen, ten took no law courses, due to the demands of their special S. A. T. C. programs; two others were in the S. A. T. C. pursuing the prescribed law program of six hours of law work; three members of the class were women, and carried twelve hours a week including a combination of junior and senior courses. The senior class numbered 10 students. Four of this number took no regular law courses because of their enrollment in special branches of the S. A. T. C.; three others were enrolled in the S. A. T. C. but carried six hours of professional law work; the remaining three, not in the S. A. T. C., were given ten hours of law instruction in senior courses.

The actual registration in *law* courses in the first term was 24 students, as follows:

S. A. T. C. STUDENTS		NOT S. A. T. C. STUDENTS	
Sophomores	7	Sophomores:	
Juniors	2	Men.....	2
Seniors	3	Women	4
	—		—
	12	Juniors:	6
		Women	3
		Seniors:	
		Men.....	2
		Women	1 3
			—
			12

At the beginning of the first term three members of the Faculty who were not on leave of absence, namely, the Dean and Professors Stagg and McCaskill were sufficient to provide the limited number of law courses allowed by the War Department Law Program. Assistant Professor Henry W. Edgerton was granted a leave of absence until the expiration of his tenure in June, 1919, and returned to practice. Many of the programs provided for S. A. T. C. students included courses on Military Law and International Law. The supervision of these two courses was entrusted to the College of Law and instruction was given in the two courses to nearly six hundred students. The course on International Law was given by Professor Saby of the College of Arts and Sciences, and the work on Military Law was given in eight sections by Professor McCaskill of the College of Law, Professor Winans of the College of Arts and Sciences and Riley H. Heath and William Hazlitt Smith of the Ithaca Bar.

NEW COLLEGE YEAR FOR 1918-1919

When it became evident that the S. A. T. C. would be demobilized in December and that other students would also soon be released from other branches of the service and desire to resume their regular law study, the Law Faculty decided to offer an entirely new law school year to begin December 30, 1918, and continue until July 26, 1919. Although this year is of twenty-eight weeks' instead of thirty-two weeks' duration it is to be counted as a year towards the law degree. At the beginning of this new year Professor Burdick who had been absent on leave returned and Assistant Professor Charles Sager Collier, Harvard, A.B., 1911, LL.B., 1915, absent on leave from the Law School of George Washington University, was engaged for the remainder of the current year. The usual curriculum, except for some condensation, has been given as in 1917-1918 when readjustments were made on account of the leave of absence of Professor Bogert, which still continues.

CONCESSIONS FOR NATIONAL SERVICE

During the war the question was naturally raised as to concessions of residence or scholastic credit that might be made to those students who entered national service. In March, 1917, the Law Faculty, acting with other colleges of the University, upon the advice of the University Faculty, provided that seniors in good standing, leaving for military or naval service or work contributing to the success of our arms should be recommended for their degrees. The Law Faculty further provided that freshmen in the four-year course who left for the same reason before the end of that term should, if in good standing, be given credit for the term in the Arts courses in which they were then registered; but for the course in Torts, the only law study then being taken by them, no credit should be given except upon passing an examination upon the work of the whole term. In June, 1917, the Law Faculty enacted that no credit would be given for professional law study except upon examination. In March, 1918, provision was made that seniors in good standing who left for military or naval service within six weeks of the end of their last term of instruction would be recommended for their degrees. The provisions mentioned above marked the limits of the concessions granted.

The Court of Appeals of New York State has also conservatively modified its rules in regard to admission to the Bar so far as law students who engaged in

military or naval service are concerned. The effects of the successive orders of the court substantially are : (1) that a student whose period of law study has been interrupted by his military or naval service is granted for the period of such service a corresponding remission, though not to exceed one year, of the time prescribed ordinarily for law study by the rules of the Court; (2) that students who are graduates of three-year law schools and were prevented by military or naval service from entering the two bar examinations next following their graduation shall be exempted from the bar examination; (3) that when by reason of the disturbed conditions at the beginning of the year 1918-1919 "the period of instruction required by the law schools has been curtailed, but a fair equivalent is offered, the Court will recognize the law school year without insisting upon the full period of thirty-two weeks of ten hours of class room work." This last provision fortunately provides for accepting our current and somewhat abbreviated year of twenty-eight weeks.

FACULTY

We shall begin the year 1919-1920 with our curriculum fully restored and the membership of our Faculty increased to its pre-war number. Professor Bogert will return. He was granted leave of absence in May, 1917, entered military service and after successive promotions is now Lieutenant-Colonel and Judge Advocate of the 78th Division with the American Expeditionary Forces. Professor Burdick was absent on leave from July, 1918, until December 30, 1918. During that time he was associate director of the Bureau of Information Service at the National Red Cross Headquarters in Washington. It may be noted with our hearty satisfaction that since his return he has declined an advantageous offer elsewhere. Professor McCaskill worked through the summer of 1918 with the War Trade Board at Washington. Professor Stagg was, during the existence of the Tompkins County Draft Board a member, and the secretary, of that body.

Professor McCaskill's Practice Court, conducted by a novel method largely original with him, has aroused great interest among the seniors, all of whom have participated in the work, and has evoked commendation from the practising lawyers who have seen the court in operation. In the *Cornell Law Quarterly* for May 1917 Professor McCaskill has described somewhat in detail the purpose and method of this course. His method, as it becomes more widely known, is likely to cause a revision of the opinions of those law teachers and practitioners who have heretofore regarded as futile, or at least relatively unprofitable, any serious attempt in a law school to instruct in the art of trial work.

NEW ENTRANCE REQUIREMENTS

In September of this year our increased entrance requirements go into effect. Students are no longer admitted to the Four-Year Law Course, the entrance requirements of which were merely fifteen units of High School work.

On April 26, 1917, the Law Faculty passed a resolution, which with subsequent modifications is as follows:

"An applicant for admission to the College of Law, as a candidate for a degree, must present a diploma of graduation from a university or a college, or a certificate that the applicant has met the entrance requirements and satisfactorily

completed two years of study, other than professional law study, in a university or college of approved standing. (In September, 1919, applicants who prior to entering military or naval service, could have offered one such year of college work will be admitted if by reason of such service they have been prevented from offering two years of college work.)"

Intimations of such a possible advance of requirements for admission to the law school are found in the previous reports of the Dean to the President—in 1906 by Dean Huffcut, in 1908 by Dean Irvine, and in 1915 by the present Dean. The first active step, however, toward the adoption of the foregoing resolution was taken on November 6, 1916, when the Law Faculty unanimously resolved that as a matter of educational policy two years of college work should be required for admission to the College of Law. A committee of the Law Faculty, consisting of the Dean and Professors Burdick and McCaskill, was thereupon appointed to investigate the practicability of putting into effect such a plan for advanced entrance requirements. This committee prepared a full report upon every phase of the subject, and the report was submitted for consideration at a conference on April 20, 1917, specially called by the President and attended by all the lawyer trustees of the University (except Judge Hiscock who was unavoidably absent) and by all the members of the Law Faculty. Without a dissenting voice the conference was favorable to the proposed change, and embodied its approval in a recommendation to the Board of Trustees, which recommendation was adopted by the Board on the following day. By the resolution of April 26, 1917, the Law Faculty formulated the new rule increasing the entrance requirements.

In the report of the faculty committee the following reasons are given for advancing the pre-legal requirements to two years of college work:

1. A considerable degree of maturity is a prerequisite to efficient work in law, and to the development of the necessary professional attitude towards the work of the law school.

2. It is highly desirable that a lawyer should have not only a professional training, but also a liberal education, so that he may be able to deal with the varied and intricate problems that are brought to him; so that he may be able to take an intelligent, comprehensive view of the economic, social, legal and political movements of his time; and so that he may be a good citizen as well as a good lawyer.

3. There is a well marked line of division between the first two years and the last two years of academic study. The first two years lay the foundation of a liberal education, and the last two years are essentially years of specialization. To get one year of arts work is to get a disjointed fragment; to get two years of arts work, is to be sure, to get only a part of what the College of Arts and Sciences has to offer, but still it is to get a reasonably separable part.

4. A large number of the reputable law schools of this country have already recognized this need and adopted two years of college work as a reasonable minimum entrance requirement.

5. The schools which have gone from a lower requirement to a requirement of two years of college work as a preliminary to the study of law are strong in their assertions that they have been able to do better work since they made

the change; and the schools which started with a two-year requirement are equally strong in their conviction that they were wise in doing so.

6. The present critical attitude towards the bar is largely due to the fact that many of its members view their calling as merely a business, and not in any sense as a profession. Greater maturity of our graduates, together with a longer period of study resulting in a more professional attitude towards the work in the law school, will aid decidedly in producing a deeper professional feeling in members of the bar at large.

It further appears from the report of the committee that of the fifty law schools comprising the membership of the Association of American Law Schools (which includes most of the better law schools of the country), twenty-six have entrance requirements higher than those heretofore in effect at Cornell. That the standards of legal education have generally advanced in a pronounced way in recent years is clearly shown by a classification of the schools in the Association of American Law Schools according to entrance requirements. Two schools require an A.B. degree of those who enter—Harvard and Pennsylvania. Six schools require three years of college work—Chicago of candidates for the J.D. degree (for LL.B. high school graduation and over twenty-one years of age), Columbia, Northwestern, University of California School of Jurisprudence, Western Reserve, and Yale. Eighteen schools (besides Maine which is not in the Association) require two years of college work,—Colorado, Drake, Hastings, Illinois, Indiana, Iowa, Leland Stanford, Jr., Michigan, Minnesota, Missouri, Montana, North Dakota, Ohio, Oregon, Philippine University, Pittsburgh, Trinity, and Wisconsin. Ten schools require one year of college work—Cincinnati, Denver, Idaho, Kansas, Marquette, Nebraska, St. Louis, Syracuse, Tulane, and West Virginia. Five schools require less than a year of college work but something more than high school graduation—Boston University School of Law, Creighton, George Washington, Kentucky, and Texas. Eight schools require only high school graduation—Dickinson, Oklahoma, Southern California, South Dakota, Tennessee, Washburn, Vanderbilt, and Virginia.

It is reasonable to anticipate that after the new requirements go into effect our attendance will, for a time at least, decrease considerably. Special causes affecting the growth of attendance in the College of Law are explained somewhat fully in the Dean's report for 1914-1915 where the question was discussed with particular reference to conditions local to New York State. In connection with one of the causes there stated, namely, the amount of pre-legal education required for admission to the various law schools in the state, it is pertinent to recall that of the nine law schools in the state only three—Columbia, Cornell, and Syracuse—are members of the Association of American Law Schools; that those three require pre-legal college work for a law degree; and that the other six require for admission no more pre-legal education than is represented by graduation from high school.

We have not prescribed a curriculum for the two years of pre-legal study, but have advised "that the student intending to enter the College of Law should so far as practicable include in his preparation for law, the fundamental college courses in government, economics, English and American history, English composition, one foreign language or more, physics, chemistry and physiology (including a laboratory course in at least one of these natural sciences)."

FOUR-YEAR LAW COURSE

On November 6, 1916, the Faculty of the College of Law appointed a committee consisting of the Dean and Professors Burdick and McCaskill to inquire into the practicability of extending from three years to four years the course of professional law study leading to the law degree. A printed report, dated April 16, 1917, was prepared by the committee and was informally considered, but no action was taken until March 20, 1919, when the printed report considerably modified was presented to the Law Faculty with the recommendation that as soon as practicable the professional law course be extended to four years. The question is now undergoing thorough consideration, but final action has not yet been taken.

COLLEGE OF LAW CONFERENCE

The Conference of former students of the College of Law with the Law Faculty, which meeting has happily been provided for by the committee on the Semi-Centennial Celebration, will be held June 20, 1919. The Conference is to discuss freely the aims, methods, and needs of the College of Law. The Dean has named as a committee to take charge of the Conference and lead the discussions the following Alumni of the College who are or have been Justices of the Supreme Court and has added to their number an Alumnus of high reputation in the field of legal education. This committee is constituted as follows: Judge Irving G. Hubbs, LL.B., '91, Chairman, Judge George McCann, LL.B., '88, former Judge Randall J. LeBoeuf, LL.B., '92, Judge Louis Marcus, LL.B., '89, Judge Harry L. Taylor, LL.B., '93, Judge Rowland L. Davis, LL.B., '97, and Professor Frederick C. Woodward, LL.B., '94, of the Faculty of the University of Chicago Law School. The topics suggested for consideration are: the amount of pre-legal education that should be required of law students; the extension of the law course to four years; the teaching of practice in the law school; and such defects as may exist in the curriculum from the practitioner's point of view.

LAW LIBRARY

This collection which aggregates 52,120 volumes is both in numbers and value one of the greater law libraries of the country. During the past year 1,005 volumes were received, of which 120 were accessions to the Earl J. Bennett Collection of Session Laws. The most notable donation among the 172 volumes of gifts is a folio manuscript volume of the decisions of the *Rota Romana*, 1376-1381, presented by an alumnus, Mr. Edwin J. Marshall, LL.B., '94, LL.M., '95, of Toledo, Ohio. The cost of books continues to increase. Many of the continuations have advanced in price, the increase ranging from 25 per cent to 100 per cent. It is to be hoped that it will not be necessary much longer to continue the retrenchment in the purchase of books made necessary by the curtailment of our appropriation.

CORNELL LAW QUARTERLY

At the beginning of the year in October, 1918, it was decided to suspend temporarily the publication of the *Cornell Law Quarterly*. This action was

made necessary by the fact that two members of the Faculty and nearly all of the student editors were in the national service. At the beginning of the new college year Professor Burdick, the Faculty Editor, returned and then or soon thereafter most of the student editors returned. Publication is resumed. The *Quarterly* continues to be the most effective connection between the College and its former students and it is hoped that the periodical may soon be endowed by some friend of the College so that those who give so much of time and effort to its success may not be burdened by concern over the financial obligation connected with its permanency.

Respectfully submitted,

EDWIN H. WOODRUFF,

Dean of the College of Law.

APPENDIX V

REPORT OF THE ACTING DEAN OF THE MEDICAL COLLEGE

To the President of the University:

SIR: As Acting Dean of the Medical College I have the honor to submit to you the following report for the year 1918-1919.

The year just passed has undoubtedly been the most trying in the history of the College. In the early part we were seriously handicapped by the absence of almost one-third of the staff of instruction, including several heads of departments. Every department was engaged in teaching military officers and technicians, pursuing investigations of problems relating to the war, or remedying physical defects in men subject to the selective service act; in addition we maintained a Medical Advisory Board. The students were restless, because of the uncertainty regarding their status in the Students' Army Training Corps, and a great deal of time was lost from instruction in the organization of a unit of the corps. This was, however, minimized by the sympathetic co-operation of the Commandant, Major Bloom, whose efforts in this direction I desire to bring to your attention. At this time, when the burdens of the war were heaviest, came the epidemic of influenza, and the distress of humanity made it imperative that every person with any medical training whatsoever be engaged in caring for the sick. The students responded nobly and for more than a month all of the seniors and juniors were devoting most of their time to the hospitals.

These conditions seriously interfered with instruction, but in the latter half of the year, when many of our staff had been returned to civil life, every effort was made to make up deficiencies, with the result that, in my opinion, the quality of instruction has fallen very little below our standard. This has been accomplished only by the most loyal effort on the part of the staff of instruction, who have, without exception, cheerfully responded to every call made on them.

As during the previous year, the field of activity which has been most contracted is that of research, yet every one of our laboratories has made important contributions and numerous investigations have been reported, making altogether a creditable showing under the circumstances.

Now that we may return to more normal conditions not one of our departments is content to stand still; all are making plans for greater strength in the future and are limited only by the funds at our disposal. It is not possible with our present endowment to create new departments though one in particular, Public Health and Hygiene, is demanded by every consideration.

Arrangements have now been completed whereby we may consummate our plans for the Medical Clinic in Bellevue Hospital (Second Division) which were interrupted by the war. Through the efforts of Professor Lusk the Russell Sage Institute of Pathology has appropriated \$15,000 per annum, and a friend of the College has given \$12,000 per annum for its support in addition to the appropriation of \$11,050 by the College. These funds insure the establishment of a clinic along comprehensive lines, where several workers can devote their entire time to clinical investigation and teaching. This will be a great stimulus to those who give a part of their time and is welcomed by all concerned. It is, I believe, the first research clinic to be established in a public hospital and the results will be awaited with great interest by all who are in touch with the problems of medical education. The development of the clinic has been entrusted to Dr. Eugene F. DuBois, who has been appointed Director of the Second Medical Division of Bellevue Hospital and promoted to be Associate Professor of Medicine.

Professor Winters, who has been head of the Department of Pediatrics since the establishment of the College, having reached the age of retirement, has relinquished his position and has been appointed Professor of Clinical Medicine, Department of Pediatrics, Emeritus. The College is fortunate in securing Dr. Oscar M. Schloss as Professor Winters' successor. He has received excellent training in clinical pediatrics and teaching and is one of the foremost investigators of the problems relating to the diseases of infancy and childhood. We have heretofore lacked clinical facilities for properly teaching pediatrics, but that defect will now be remedied by an arrangement whereby Professor Schloss and his assistants will become an integral part of the staff of the children's service at Bellevue Hospital, where they will have adequate facilities for teaching this important subject.

Two years ago the neurological service at Bellevue Hospital was assigned to the Second (Cornell) Division and its development was entrusted to Professor Kennedy. He has been absent in military service and the work has, therefore, lapsed, but upon his return during the winter the operation of this special service was begun and he will soon have his organization completed. This will add considerably to our opportunities for teaching and research in neurology.

The surgical and neurological services in Bellevue Hospital are being restored to the high state of efficiency which they possessed before the war. An effort is being made whereby the Departments of Pathology and Bacteriology will have closer relations with the clinical departments in Bellevue Hospital. Such a co-operation has been attained at New York Hospital, where for ten years Professor Elser has served as pathologist with great benefit both to the hospital and College. The difficulties are greater at Bellevue because the College does not control the

laboratories in that institution, but they can be overcome through the co-operation of the Director of Laboratories, Dr. Symmers, who is always ready to make any adjustment which will benefit the medical sciences.

Our relations with the New York Hospital continue to be most happy and satisfactory. Yet, as you clearly emphasized in your report of last year to the Board of Trustees, conditions can never be ideal from the standpoint of the College until it controls a hospital of its own. In a similar manner I believe it safe to say that the conviction has arisen that conditions cannot be wholly satisfactory from the standpoint of the hospitals until they are controlled by medical colleges.

Our scientific departments naturally suffered less from the war than the clinical branches and their condition is generally satisfactory. It has been recognized for several years that the Department of Chemistry has been less generously supported than the others and it is gratifying to all concerned that the Council has provided for a substantial increase in the budget for that department next year, so that Professor Benedict may have an Assistant Professor and additional instructors. The Council has also provided for an Assistant Professor of Pathology which will strengthen that department and relieve Professor Ewing from some of his too numerous burdens.

In this connection I desire to recall the relation of the College to the Memorial Hospital. The Memorial Hospital is a large institution possessing an adequate endowment, excellent laboratories, and a quantity of radium and is devoted exclusively to the study and treatment of cancer and allied diseases. Its largest benefactor was the late Dr. James Douglass who created a trust, one of the trustees of which is the Dean of the College, which provides that all of the medical and surgical activities in the hospital, including the care, treatment and research work of cancer and allied diseases, be under the direction of this College; that the medical and surgical staff shall be named by the Council of this College, subject to the approval of the Board of Managers of the Hospital; and that the five medical members of the Board of Managers shall be nominated by the Council of the College. Thus is a heavy responsibility placed upon this College. In recent years it has been chiefly borne by Professor Ewing in his capacity as Director of Research. He now feels that the College should give him greater support and in this he is right. In order to accomplish this I recommend that a committee be appointed from the Council whose duty shall be to acquaint themselves with the problems of the Memorial Hospital, which differ from those of other hospitals, and thereby bring the Council into close touch with it.

In concluding this report I wish to emphasize again the great need of the Cornell University Medical College, its one great defect—a hospital of its own or one which it can control absolutely. Without it we cannot progress; without it we shall retrogress. Large gifts will be necessary for either consummation, but the state of medical education in this country, and indeed throughout the world, is exceedingly critical. To elevate the science of medicine will confer such great benefits upon humanity that some generous donor will surely realize the opportunity.

Respectfully submitted,

WALTER L. NILES,
Acting Dean of the Medical College.

APPENDIX VI

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

To the President of the University:

SIR: I have the honor to present this report of the Ithaca Division of the Medical College covering the college year 1918-1919.

This has been a most difficult year for both Faculty and students but in spite of many distractions and disorganizing influences, a hearty spirit of cooperation has finally resulted in a very satisfactory outcome.

THE STUDENTS' ARMY TRAINING CORPS

When work began in the fall the course of study for medical students in the Students' Army Training Corps had not been worked out by the government. It had been determined, however, that the work should be divided into three equal terms and that the men eligible for the Corps were to be housed in barracks and were to have somewhat less drill than the other S. A. T. C. students. The Faculty, therefore, found it necessary to rearrange its curriculum on a three-term basis and to adapt the hours of work to the drill requirements of the S. A. T. C. and also to provide another curriculum for the students who did not take drill. The army officers in charge did everything they could to make it possible for the medical students to do their work with the least amount of interference compatible with the regulations. Medical students were housed together in one barracks and special arrangements were made in regard to hours and places for study. In spite of all concessions the drill and other restrictions interfered materially with the work of the students.

THE INFLUENZA EPIDEMIC

Almost coincidentally with the opening of college, the pandemic of influenza appeared among the student body. So many of the women of the Medical College volunteered as nurses and so many of the men in the S. A. T. C. were assigned to orderly duty in the hospitals that the work in the college was practically suspended for the first month. A number of the students were victims of the disease. In some this was the result of exposure in the line of duty; in others it was contracted independently.

I am glad of this opportunity to express my deep appreciation of the uncomplaining and self-sacrificing spirit displayed by all those who helped in the epidemic. Medical and other students, Red Cross workers, and others did everything possible to help care for the sick. Their efforts aided materially in saving life, in restoring more quickly to health, and in giving comfort to those in need.

THE FACULTY

Fortunately for the Medical College, the heads of none of the departments have been called away for war work and all have been able to remain at their posts throughout the year. They have served at home in the Red Cross and in the Medical Council of National Defense. Many of the instructors and assistants have been in the army and although some of them have been able to return to their posts during the year a much greater burden in every way has been placed upon those who remained. By increased efforts and prolonged hours of work they have been able to meet the emergency and have made the work of the year run smoothly and most efficiently.

STUDENTS

There were 31 students registered in the Medical College at Ithaca this year; of these 15 were men and 16 women; of the men 11 were seniors in Cornell and 4 were college graduates; of the women 9 were seniors in Cornell and 7 were college graduates. The Faculty are unanimous in the opinion that taken as a whole this is one of the best classes we have had in some time.

ANATOMY

The staff in the Department of Anatomy was reduced at the beginning of the year to the head of the department and one instructor, Mr. Davis. It was not possible to find any one to fill the vacancies caused by the leaving of the three assistants to continue their medical work in the college in New York.

During the influenza epidemic, Mr. Davis contracted the disease and died on October 26. He was an excellent teacher and a diligent investigator. He had published an extensive study of the thoracic duct in man and at the time of his death he had nearly ready for publication two pieces of work and another well under way. He was graduated from Cornell University, A.B. 1912 and A.M. 1914. He had completed the first part of the second year of the medical course and had nearly completed the requirements for the Ph.D. Since 1912 he had been connected with the department of Anatomy as assistant and instructor. The University has lost a faithful and enthusiastic instructor, and Anatomy an investigator of great promise.

Fortunately Mr. Leo P. Larkin, instructor in Roentgenology in the Physics Department, was able for over a month to give to the Department of Anatomy a large amount of time. He had completed the first year of medicine and had done additional work in Anatomy. To the Department of Physics for arranging so that this could be done and to Mr. Larkin for the service rendered our thanks are due.

After the signing of the armistice it was possible to secure the discharge from the army of Mr. F. W. Stewart, formerly of the Department of Histology and Embryology, who was appointed instructor in Anatomy; Mr. W. P. Van Wagenen also formerly of that department, gave up his medical studies in New York to return as assistant in Anatomy. This was a great help for more students, both medical and arts, have received instruction in the laboratories than for several years. Although the teaching has suffered to some extent, the results of the year's work have been quite satisfactory except that very little time could be given to research.

HISTOLOGY AND EMBRYOLOGY

Professor Kingsbury reports that "The instruction this year despite its irregularity due to war conditions at the outset has proceeded normally, with excellent results. This was due mainly to the special efforts put forth by the staff." Owing to the fact that it was impossible to secure properly trained instructors in place of those who entered the service, Emeritus Professor S. H. Gage volunteered to continue the teaching that he began in last year's emergency. This was done with his accustomed energy, enthusiasm, and effectiveness. Dr. Kingsbury says: "I cannot refrain from again expressing my appreciation of the spirit of devotion to the University and to Education that led him to devote his time and energy to the service of the department and its students with a sacrifice of his freedom and an interruption of his research work. The students keenly appreciated his presence on the staff, and took full advantage of it." Dr. Kingsbury speaks in high terms of the quality of the teaching of Assistant Christianna Smith and of her devotion to her work and also of the energy and efficiency of Assistant John S. Latta, who returned from the army to resume his duties in the third term.

Thirteen courses were given by the department with 264 registrations. These were taken by 130 students besides 8 graduates with major or minor. This is a greater number of individuals than last year and within three of the number taking courses in the department in 1916-1917.

Although there are several investigations incomplete and under way, but little work of an advanced nature has been done due to the stress of teaching conditions. Three publications have appeared or are in press.

PHYSIOLOGY AND BIOCHEMISTRY

Professor Simpson reports that the work of the Department of Physiology has this year on the whole been entirely satisfactory, in spite of the many handicaps.

At the beginning of the year he had to assist him in Physiology but one instructor and two part-time assistants. One of these, Mr. J. D. Detweiler, Assistant in the Department of Entomology, had received his training in Practical Physiology in McGill University. With the approval of his chief, Professor Herrick, he volunteered his services for Physiology during the first term. The department is indebted to both. In the second term Instructor S. R. Burlage was released from the army and took up again his duties in the department. About the middle of the second term Instructor J. A. Dye was taken sick and after his discharge from the hospital convalesced so slowly that he was unable to resume his teaching and he resigned near the middle of the third term. These various circumstances threw a heavy burden upon the head of the department.

In spite of the influenza epidemic, the war, and post-war conditions, some progress was made in research by Professor Simpson and the instructors.

An important addition to the apparatus in the department was made this year, a large Brodie Kymograph. This is the second of these constructed by the laboratory mechanician. During the ten years that he has been with the department he has made over \$3000 worth of new apparatus besides extensive repairs. He also rendered valuable assistance in the laboratory.

A large number of students from other colleges of the University were registered for courses in Physiology. There were 114 of these in the first term, 184 in the second term, 230 in the third term, a total of 528. Since the work of the third term was different from that of the first and second, undoubtedly many of the students taking the first part of the course completed it in the third term. Besides this there were medical and graduate students.

The teaching staff in Biochemistry was reduced by the resignation of one of the instructors, and the position was not filled. To maintain the standard of the instruction with the reduced staff necessitated certain changes in the organization of the instruction.

To help increase the efficiency of the work in Biochemistry a large constant level water bath, a new hood with forced draft, and more room for volumetric work must be provided.

Besides the instruction to medical students, courses were given to 70 students from the Graduate School and the Department of Domestic Economy.

In Biochemistry, in spite of the many handicaps, some research was accomplished by Assistant Professor Sumner and Instructor Bodansky.

CONFERENCE DURING THE SEMI-CENTENNIAL CELEBRATION

At the time of the Semi-Centennial Celebration in June, the Ithaca Division of the Medical College, like the other colleges of the University at Ithaca, arranged a conference between the former students and the faculty to consider all questions pertaining to the welfare and improvement of the Medical College at Ithaca. Special invitations were sent to all former students of the Ithaca Division and also to all graduates of the New York Division of the college to attend this conference.

The program included a series of papers by the Faculty, which were printed and distributed at the time of the conference. They included:

1. *The history of the Ithaca Division of the Medical College since its foundation.*
By Professor Benjamin F. Kingsbury.
2. *The relation of the Medical College to the other colleges of the University.*
By Professor Sutherland Simpson.
3. *The educational and material needs of the Medical College as seen by the Faculty.* By Professor Simon H. Gage.
4. *The equipment and facilities of the College and a financial statement of funds available and expenditures.* By Professor Abram T. Kerr.

The time of the conference was given to a consideration of reports from committees of graduates of the college dealing with the following subjects:

1. *The pre-medical course and entrance requirements.*
2. *Suggestions concerning the instruction in Physiology, Biochemistry, and Organic Chemistry.*
3. *Suggestions concerning the instruction in Anatomy, Histology, and Embryology.*
4. *Advantages of having part of the medical work at Ithaca.*

The results of the conference were taken down by a stenographer and will be considered in detail by the Faculty.

Of necessity much of value must result from the frank and friendly criticism of our former students who are engaged in active medical work and teaching and who were able to give us the benefit of their experience both while in college and since graduation. Moreover for the Faculty it is well that periodically we should take stock of what we are trying to do and what we are accomplishing and it creates in us a healthy interest in the work of our colleagues and helps to keep us out of ruts.

On the part of the Alumni such conferences help to keep alive their interest in the work of the college and to cement more firmly old friendships.

The medical conference was so successful that the Faculty think it desirable that the custom should be established and that such conferences should be held every few years.

In the papers prepared by the Faculty for the Semi-Centennial conference many of the problems and needs of the college as seen by the Faculty are discussed. I would ask a careful consideration of the aims and needs of the college as presented in these papers, a copy of which I am herewith transmitting.* Copies will also be sent to all former students of the Ithaca Division of the Medical College and to Trustees and Faculty.

That the ideals of the Faculty as expressed in these papers may be more fully realized, I appeal again to all friends of the college for continued and increased support, both moral and financial.

Respectfully submitted,

ABRAM T. KERR,

Secretary of the Ithaca Division of the Medical College.

*These papers are not reprinted with this report. Copies may be secured by applying to Dr. Kerr.

APPENDIX VII

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith a report of the New York State Veterinary College at Cornell University for the academic year 1918-1919.

The work of the college for the year now closing has been on the whole satisfactory. It has not been as productive as in past years because of several conditions brought about by the war. The absence in army service of the heads of the departments of medicine and physiology and the assistant professor of *materia medica* reduced materially the working force. The special curriculum required by the War Department for veterinary students in the Students' Army Training Corps modified the teaching of the first term and interrupted research.

The Students' Army Training Corps was not satisfactory for the time it was in existence but no doubt it would have become effective soon had it continued. We are glad to record our approval of the plan as a war measure.

The temporary adoption by the University of a three-term year was, in the circumstances, fortunate for the students in this college. As they were unable, under the Students' Army Training Corps schedule, to do the work required in our curriculum, the faculty decided to give in the winter term the regular work of the first term and in the spring term the work normally required in the second term. This was very satisfactory for the winter term, because much of the subject matter had been gone over in the fall, but it was not possible to complete in the twelve weeks of the third term the required subjects of the second term of our curriculum. It was decided, after taking into account all of the concessions that were made in the spring of 1917 and later, together with the needs of the students to have time for work, that it would be better to add to next year's duties the unfinished increment, thereby extending the time of readjustment over next year rather than to hold the students here for a portion of the summer.

The irregularities and interruptions occasioned by the war conditions have made it impossible to state, with as much certainty as otherwise might be done, the advantage to the students of the additional, or fourth year, in the course. We believe, however, there is every reason to rejoice that this advance was made when it was. Both the War Department and the Bureau of Animal Industry adopted four years as the required course of approved veterinary colleges. It is still difficult, if not impossible, to include in the curriculum all the technical subjects that the faculty believe it should contain. One of the alumni committees, that reported at the Conference of this college in connection with the Semi-Centennial of the University, advocated that a year of university work should be required as a prerequisite to the veterinary course.

There were registered in the college a total of 85 students. They were distributed among the classes as follows: freshmen, 27; sophomores, 19; juniors, 39.

Among the juniors, there were 15 who entered under the three-year schedule and who were graduated this year on the three-year basis. Because of army service, they were unable to be graduated with their class in 1918. The indications are promising for a considerable increase in the number of students next fall.

There is a steadily growing demand for veterinarians. Many localities which heretofore have not had the services of a veterinarian are anxious to obtain a practitioner. The high prices of food-producing animals are emphasizing the necessity of veterinary service in their conservation. There is also a need for veterinarians in government work and in Agricultural Experiment Stations.

In order that the practitioners may succeed in reducing to a minimum the losses from disease they should be well prepared in the basic sciences as well as in the subjects of medicine, surgery, and sanitation. The recent publication of an Atlas on the Anatomy of the Cow by Dr. Hopkins and the development of courses in physical examination and clinical diagnosis are features worthy of special mention. The systematic post mortems that are now being made by Dr. Goldberg on all fatal cases in the clinic are of much educational significance and the data that are being acquired will be of great value in the development of comparative pathology, both general and special.

The work in diagnosis for the veterinarians in the employ of the Commissioner of Agriculture, for practitioners and, to a limited extent, for animal owners themselves, has continued as heretofore. This has come to be a very important asset to the state. The prompt diagnosis of infectious diseases enables precautionary measures to be taken immediately. As a result, outbreaks of disease among animals are checked and the losses reduced to a minimum. There has been a great increase in the quantity of anti-hog-cholera serum called for. We have made and distributed in the state, during the year, 72,549 doses of tuberculin; 2,282 doses of mallein; 12,836 doses of anthrax vaccine; and 538,420 mils of hog-cholera serum, which is an increase of 230,000 mils over 1917-1918. There were sent to the college for examination and diagnosis 84 specimens for anthrax; 38 for glanders; 60 for mastitis; 285 for rabies; 147 for tuberculosis; 263 for poultry diseases; and 467 of a miscellaneous nature.

The records are quite complete concerning the number of students from this college and alumni who were in army service. Of the students, there were 25 who enlisted or were taken by the draft and 48 in the Students' Army Training Corps. Of the alumni, 166, or over 33 per cent of those living, were in the service. At the time the armistice was signed more than 100 were commissioned and the others were in training for veterinary officers at Camp Greenleaf. Several were overseas. The reports thus far received show that the graduates of this college were recognized for their efficient service.

Dr. E. M. Pickens, who was in charge of the diagnosis work, resigned to accept a position in the Maryland Agricultural Experiment Station at a much larger salary than we could pay. Dr. Whitmore resigned from the department of medicine in the middle of the year to go into practice. Captain Muldoon, who was assistant professor of *materia medica* and small animal clinic, has recently resigned to become head of the department of medicine in the veterinary department of the Kansas State Agricultural College. Three other men in the faculty have been offered attractive places in other colleges with pronounced increases in salary.

If this college is to maintain the standing it has acquired in veterinary education and research, as well as in rendering technical assistance in the detection and control of animal diseases in the state, the salaries of the men in the faculty must be increased. The demands are so numerous and the opportunities in the profession so attractive that it is difficult, and soon it will be impossible, to secure the right kind of men for teachers and research workers unless the compensation is better. In these respects, the situation is becoming serious. The trustees have authorized a request to the legislature for the necessary relief.

An obligation, which rests in part on the profession, but to some degree on the faculty, is the selection of young men properly fitted by education and temperament to take up veterinary medicine. In the past, this has not been done to the extent which seems to be desirable. There has been a tendency to recommend and urge boys to go into this profession regardless of their fitness for it.

There has been less research work than in recent years because of the shortage of men and the high prices of animals and feed. However, there were completed for publication, investigations in connection with the immunization of hogs against cholera; in the nature and treatment of white scours in calves; in the practical handling of infectious abortion and sterility in cattle; and the various studies in animal diseases. In addition, a very practical method of scoring the breeding efficiency of a herd has been formulated. Some very interesting experiments in connection with the vaccination of swine against hog cholera were made by Dr. Boynton of the University of Manila in cooperation with Dr. Birch. Dr. Boynton, an alumnus of this college, had perfected a method for immunizing cattle against rinderpest that is both cheaper and more efficient than the serum or simultaneous method heretofore used. As hog cholera is due to a filterable virus, the same as rinderpest, Dr. Boynton wished to apply this method of vaccination to cholera. His preliminary experiments were most encouraging. We are expecting Dr. Boynton to return after some months when it is hoped this work will be continued. If the method can be adapted to hog cholera, it will be a long step in advance of the present methods of immunization.

In January the annual two-day conference for the veterinarians of the state was held. It was attended by a large number of practitioners. A helpful program was provided and the discussions were very beneficial to those present. These conferences have come to be appreciated by the veterinarians of the state. At the Semi-Centennial Celebration there was also held a Conference at which about ten per cent of our alumni were present, together with other veterinarians in the state. The program consisted of a series of papers on the history and statistics of the college that will be published and of reports of committees of the alumni on the work of the college including the methods of teaching the various subjects, the cooperation of the college with the live stock interests of the state, and additional subjects or departments to be added. These reports and discussions emphasized the fact that the veterinarians of this state believe that certain subjects should be added to the curriculum.

The library now contains 5,992 volumes. Of these, 5,601 belong to the Flower Library and 391 are the property of the state. The library of Dr. Daniel Elmer Salmon, the first Chief of the Bureau of Animal Industry and a graduate of Cornell University, was presented to the college by Dr. D. E. Buckingham, Dean of the Veterinary Department of the George Washington University.

The Legislature of 1919 authorized the construction of the south wing of James Law Hall at a cost of \$100,000, of which \$30,000 was appropriated. Plans are being made and it is hoped the wing will be completed next year.

We cannot at this time recommend the budget for 1919-1920. Authorization has been given by the trustees to ask for an increase of salaries and for appropriations for three additional men. One is to investigate the diseases of sheep; one, the diseases of poultry and rabbits and to include these species among those treated in our small animal clinic; and the third, the study of forage poisoning and poisonous and forage plants.

The successful termination of the work of the present year is due to the united effort of all members of the faculty. It is their ambition that this college shall meet the needs of the veterinarians and the live stock owners of the state and also that efficient courses of instruction shall be given to veterinary students.

Respectfully submitted,

V. A. MOORE,
Dean of the New York State Veterinary College.

APPENDIX VIII

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

To the President of the University:

SIR: I have the honor to submit herewith a report of the work of the New York State College of Agriculture for the academic year 1918-1919.

THE COLLEGE OF AGRICULTURE AND THE SO-CALLED "BUDGET" SYSTEM OF STATE APPROPRIATIONS

The question of most far-reaching importance before the State College of Agriculture at the present time is the effect of the form in which state appropriations are made on the maintenance and the vitality of the College.

In a democracy, education for all the people is fundamental. Progress comes through increased intelligence, through the acquirement and utilization of new facts and processes. The United States, during the Civil War more than a half-century ago, launched out on a nation-wide system of agricultural colleges, and later a similar system of experiment stations. With all their shortcomings, freely acknowledged, the land-grant institutions have been important factors in the promotion of agriculture and country life. They have become the state agricultural colleges and now receive most of their support from the state legislatures. They have but comparatively recently reached a stage of large usefulness as educational and research agencies and attained an intimate and helpful relation with farmers. They had to find themselves and their work, and the discovery, though somewhat slow, has proceeded a considerable way.

At the time when these institutions have now acquired large equipment and carefully trained faculties, when they have begun to render the aid to agriculture for which they were created, they are confronted with a system of state fiscal domination which is ruinous, and which if not stopped and turned about will reduce their efficiency immeasurably and remove from their faculties the kind of men and women upon whom their life and vitality depend. This system is showing itself in various forms and in greater or less degree in several states. It has settled itself upon New York State in almost perfect completion. I refer to the system of state appropriations for education and research in an itemized or segregated appropriation act whereby every salary of every employee is rigidly fixed by legislative enactment and cannot be changed. The heads of these institutions are required to indicate, eight to ten months before the beginning of the succeeding fiscal year, the exact minimum salaries required to maintain their faculties during that year and extending to a period approximately twenty-one months after the requests are filed. If it were the practice of legislatures to provide liberal salaries for teachers this system would be less harmful, even though none the less unwise. But salaries are low, increases come slowly, and very seldom, if ever, is the legislature able to grant all of the needs expressed by the heads of the institutions. Adjustments in salary are imperative from time to time to save necessary men.

With segregated appropriations the head of an institution loses the first essential to successful administration—the control of salaries. As an example: Some time ago this College had in a particular department a capable man to whom it was paying \$1800. He received an attractive offer to go elsewhere, and as we could not increase his legislatively fixed salary, he left us. We put in his place a \$1200 man, and allowed \$600 on this salary to revert to the State. We could as well have paid this new man \$1800, for the salary was available; but his training and experience did not warrant it. Shortly afterwards two other competent teachers, each of whom was receiving \$1200, received offers of \$1800 and \$1700, respectively, from other institutions. Both of them told the Dean that they would remain here at \$1500. Their salaries were fixed by law at \$1200 and the supposedly responsible head of the institution could do nothing, even though he was allowing the necessary amount of money to go back to the State from another salary. So both of these men left, also, and the institution lost three teachers experienced in the particular work of the College.

Within the week that this report is being written, one of our outstanding teachers who is receiving \$3000 has been offered \$4500 in another position, but will remain here if he can be increased to \$3500. A second highly trained man in the same department who is receiving \$2000 has been offered \$3000 elsewhere but will remain if he can be given \$2500. An assistant at \$1150 has been offered \$1600 by the Federal Government but will remain if \$150 can be added to her salary. An extension professor at \$3000, who has been under incessant demand by farmers in all parts of the State and who has waited many years for adequate recognition of his services by the State of New York, is just leaving to accept \$5000 elsewhere. How long can this process continue and New York State have a College of Agriculture worthy of the State or able to render useful service to the agricultural industry?

This is typical of the situation constantly confronting us. The Legislature has just adjourned. None of these increases are provided in the Appropriation Act just passed, which fixes the salaries of these teachers for the twelve months following next July 1. Can these teachers be asked to wait fourteen months and in addition accept the hazard that promotions recommended to the next Legislature may not be granted? At the time this is being written, because of losses from the staff and the appointment of less competent persons to the positions, there are forty-three statutory positions on which less than the full amount available is being paid to the incumbent and the balance is reverting to the state treasury. We have a right under the law to give these persons the full amount available. Money could be found in the appropriations now available to retain the teachers mentioned above, no one of whom the College or the State can afford to lose. But the Appropriation Act says, "The salary or compensation of any officer or employee * * may be fixed by the * * officials appointing such officer or employing such employees at a less but not at a greater sum than the amount herein appropriated for the salary or compensation of such officer or employee." It provides further that "Any appropriations made by this act for salary, compensation, or expenses shall be the salary, compensation, or expenses for one year of the officer, employee, * * * for whom the same is appropriated." What recourse is there to the authorities of an institution to hold men who they know cannot be allowed to go without imperiling the teaching or disrupting investigations long under way and into the prosecution of which much state money has already gone?

Is this economy? Is it efficiency? Is it good administration of the State's business? Will it build or maintain the kind of institution that will do credit to New York or any other state? Will it serve the people? Can any institution live under it and long retain vitality? One who has had experience with the segregated appropriation act applied to educational work can scarcely conceive of a system that would more certainly and effectively destroy these institutions.

The segregated appropriation makes the head of the College an automaton. He is charged with carrying out a specific detailed direction as to what personal service or equipment or printing shall be used for the work of his institution. He has lost administrative discretion. His chief work becomes at times—one has the feeling that it is most of the time—explaining to his staff why he is powerless to do what they want or to grant what both he and they know the work requires, and in endeavoring to persuade them to be content and to remain with vague assurances that things may be better a year or two hence. The institutions are largely administered by a printed appropriation act.

Henry Bruere, who was himself originally an advocate of the "segregated budget" in this State, says, "Segregation results in a degree of regimentation which restricts and in a measure paralyzes the freedom with which the organization provided in the appropriations may be employed, or the funds for purchases may be utilized." The segregated appropriation takes from the administrative officer the sense that he is a factor in the conduct of the State's business.

The persons placed at the head of our public institutions, who are presumably the best-informed representatives of the people in the administration of those particular institutions and who alone can know their changing needs, are not trusted in the use of appropriations for salaries. Is democracy to lose faith in

the integrity of its members? Is it better for the State that these salaries should be itemized, fixed, and published broadcast so that all may know, than that the State's business should be responsive to the constant and inevitable adjustments and readjustments which go on incessantly in every efficient business? Do the people want the money well spent, or is it better that it be spent according to a printed price list? Is the great consideration human efficiency or mechanical efficiency? The segregated, minutely itemized budget is an expression of mechanical efficiency which lacks the breath of life. It reflects the accountant, not the administrator. It expresses the desire for accounting procedure and ignores the fundamentals of successful administration. There is grave danger, if not, indeed, actual certainty, that exactitude in accounting procedure and standardization of the State's business will menace the public welfare.

Economy is the claim. It is not economical. It will in time make the State the most inefficient employer of labor. The competent persons will be drawn off and the less competent left behind. This is now taking place. Such an institution as this seeks the kind of men whom other institutions and enterprises want, and who by virtue of their ability are sought after. In this institution we have gathered our present staff from men who have been trained in from forty to fifty institutions throughout the country—wherever we could get the best for the money and opportunity available. Such men are not easily engaged nor easily replaced. Woe betide these institutions if they are gradually to become manned by the kind of persons that other institutions do not want—the kind who are not picked out and therefore will stand without hitching beside a segregated appropriation act.

I have no criticism of the men in charge of financial matters in our own State Legislature. They are competent men, discharging their very heavy responsibility with careful discernment. Their attitude toward the College and the Experiment Station has been considerate and sympathetic. And the development of this sort of state administration is not confined to New York. It is a tendency threatening the public educational institutions and experiment stations in many states. It is in the air.

I am in the fullest sympathy with the desire to institute methods which will assure honest expenditure of public funds and which will protect the State against either waste or misuse. I fully approve the most exacting accounting of expenditures of public funds. The public should know, so far as it can know, that it is getting what it provides appropriations for. It is desirable that requests for appropriations should be filed with the Governor and the Legislature by the heads of the State's institutions in such detail as will enable these officers to act intelligently on the requests. Itemization in budget proposals is imperative if appropriations are to be intelligently made. But segregation in appropriation acts is absolutely deadening, especially in such an institution as this.

I am fully convinced that there is no other question of larger importance confronting this College for the consideration of the President and Trustees of the University and the people of the State. Unless relief is forthcoming soon, I am persuaded that nothing can prevent the loss from the College of large numbers of the most valued teachers and investigators, who are now being retained only with the greatest difficulty, with the resultant serious deterioration of the institution. As able teachers cannot be held under the existing conditions, neither will

strong teachers be attracted to take their places in an institution thus handicapped. The present situation is perilous. Responsibility falls heavily on those charged with the administration of the State College of Agriculture and the State's affairs to see that no stone is left unturned to accomplish a speedy release from the existing impossible system.

THE YEAR IN THE COLLEGE OF AGRICULTURE

The close of the academic year 1918-1919 finds healthy progress being made in the State College of Agriculture toward recovery from the disturbances occasioned by the war. The outstanding condition which reveals the marks of the war is the absence of the great numbers of students which prior to the war taxed every facility of the College. During the fall term of the present year, when the war was at its height, there were registered in this College 654 students, of whom 259 were women and 301 were in the Students' Army Training Corps. With the abrupt termination of the S. A. T. C. just before the end of the fall term, there were some losses among those enrolled, but these were more than made good by former students who returned to the University. During the second term the registration of undergraduates reached 697. There were 100 graduate students taking work in the College of Agriculture, and 83 students in the winter courses, making a total of 880 students receiving instruction in agriculture. The registration for the spring term is identical with that of the preceding term, excluding the winter courses.

Agriculture, with the exception of biology and meteorology, not being a preferred subject for S. A. T. C. students, the members of the staff of the College were variously employed during the fall term in what appeared to be the most useful ways: a number took leaves of absence without salary to engage in forms of war work; several taught sections required of S. A. T. C. students in other departments; a larger number aided in meeting the increased demands in the extension work; still others utilized their time in overhauling laboratory equipment, revising lecture and laboratory outlines, assembling class material, developing herbaria, and preparing for publication valuable data that had been accumulated; many welcomed the opportunity to devote extra time to research in their chosen fields. The respite from continuous teaching was not unwelcome, therefore, and the time was advantageously employed in productive work.

Recognizing the desire of returning students to complete their requirements for graduation as quickly as possible, the Faculty of Agriculture waived the specific residence requirement of eight terms so as to permit students to graduate as soon as the scholastic requirements had been met. Every consideration consistent with the requirements of the work has been accorded to students who have been absent on war service.

THE TEACHING STAFF

The year has witnessed important changes in the staff. On October 1, 1918, James E. Boyle, Extension Professor in Rural Economy, a specialist in problems of marketing and cooperation, entered upon his duties. On the same date Dwight Sanderson came to the College as Professor and head of the Department of Rural Organization. His appointment marked the beginning of formal recognition of the important social problems of country life. On October 1, also,

Homer C. Thompson, formerly of the United States Department of Agriculture, became Professor of Vegetable Gardening in the Department of Farm Crops, assuming the task of reorganizing the teaching and extension in vegetable gardening which had been seriously disturbed by loss of several teachers from the staff.

On July 1, 1918, J. H. Voorhees came to the College as Assistant Extension Professor in Farm Crops, in which field the requests from farmers for aid has gone far beyond the capacity of our staff to meet them. On October 1, Miss Lula Graves was appointed Acting Assistant Professor in Home Economics to give instruction in dietetics in special courses arranged for the training of dietitians for war service.

On April 1, 1919, Warren S. Thompson, formerly of the University of Michigan, was appointed Acting Professor of Rural Organization.

On October 1, 1918, Assistant Extension Professor E. M. Tuttle, who for many years had conducted the Cornell Rural School Leaflet, resigned to enter the army. On November 1, Professor E. L. Griffin, State Leader of Junior Extension, resigned to accept a position at the University of California, and was succeeded by Professor William J. Wright, for many years Director of the New York State School of Agriculture at Alfred University. On November 20 Assistant Professor C. T. Gregory left to accept a position in plant pathology with the United States Department of Agriculture in its cooperative work with Purdue University. On January 1, 1919, Assistant Extension Professor Warsaw resigned to enter commercial work. Throughout the year Assistant Professor E. R. King has been absent in the army aviation service.

On January 1, 1919, Professor S. N. Spring was granted leave of absence for the remainder of the year in order to engage in Y. M. C. A. work overseas, where he has been active in both hut and educational work. He will resume his post in the Department of Forestry on July 1. On January 1, Professor A. B. Recknagel was granted leave of absence for the remainder of the year to continue his special work with the Empire State Forest Products Association. During the summer of 1918 he has been engaged on a timber census of New York State, undertaken at the request of the United States Government, with the purpose of gathering statistics of available lumber for use especially for the navy. Professor A. C. Beal, of Floriculture, and Professor John Bentley, of Forestry, were on sabbatic leave of absence during the winter and spring terms.

On December 20, 1918, death claimed J. H. Bromley, Soil Surveyor in the Department of Soil Technology. He was a young man of excellent training and large promise, and his death caused a serious loss to the Department with which he had been associated.

RETIREMENT OF JOHN LEMUEL STONE

On February 15, 1919, John Lemuel Stone, Professor of Farm Practice, retired from the active work of his professorship under the statutes of the University. He entered the University in 1870 as a student in agriculture, and was graduated in 1874 with the degree of Bachelor of Agriculture, his class being the second in the University to contain agricultural students. He then returned to his home farm where he became a leader in agricultural and civic affairs. Notable among his accomplishments during this period were his demonstration of the value of animal feeding studies, the use of the ration, and the introduction of the silo.

In 1897 he accepted a position at his Alma Mater on the invitation of Director Roberts. In 1903 he was given the title of Assistant Professor, and in 1907 was promoted to the professorship in farm practice. As teacher, extension worker, and manager of the college farms, he has served his University and the State with conspicuous success. Through his thorough knowledge of farm practice, coupled with a keen appreciation of scientific values, he was able to render large service to agricultural interests at a time when the colleges of agriculture were struggling for place and recognition. The farmers of the State will always be his debtors. As his colleagues in the University Faculty said of him, "His inquiring mind, his practical sense, his ability in administration, his excellence as a teacher, and above all his lofty ideals, breadth of view, and capacity for friendship, have endeared him to his associates. He has richly earned the relief which retirement from active service brings."

As a mark of recognition, the Board of Trustees, at its meeting on May 31, 1919, named the agronomy building, in which Professor Stone had long worked, Stone Hall.

CHANGES IN ORGANIZATION

At the meeting of the Agricultural College Council on April 12, 1919, on the recommendation of the Dean, two departments of instruction were discontinued as separate units. The Department of Drawing was dissolved, the free-hand drawing and the teachers concerned therewith being transferred to and merged with the Department of Landscape Art, and the mechanical drawing and the assistant professor in charge being transferred to the Department of Rural Engineering. This change was a natural result of the growth and specialization of the latter two departments, to whose needs the Department of Drawing largely ministered. The Department of Farm Practice was discontinued as a separate department of instruction, it no longer having major teaching functions, and its staff and work were transferred to the central office of administration as an Office of Farm Practice and Farm Superintendence under the Dean.

At the same meeting of the Trustees, the Office of State Leaders of Home Demonstration Agents, heretofore attached to the Office of Administration of Extension Service, was transferred to the Department of Home Economics and made an integral part of the extension work of that Department.

ADDITIONS TO EQUIPMENT AND FACILITIES

Changes in the dairy industry in the State and the rapid expansion of the condensed milk industry have laid on the College the necessity of offering regular instruction in milk condensing. The Department of Dairy Industry is now engaged in installing a small milk-condensing outfit for instructional purposes.

Through the Department of Rural Economy there was acquired for the University Library in the past year a set of the Howard, Bartels & Company reports on the Chicago markets from 1857 to date. A set of *Chicago Inter-Ocean* and its successor, the *Chicago Daily Tribune*, from 1880 to date was acquired by gift from the Chicago Board of Trade. The Department of Rural Economy also came into possession of the *Cincinnati Price Current* from 1846 to 1914. This paper was for many years owned and edited by the late C. B. Murray, and his daughter, Mrs. Corinne Murray Weddell (Mrs. Justin R. Weddell), of Cleveland, presented

the valuable set as a memorial to her father. These gifts and purchases, supplementing valuable collections previously acquired, make Cornell University unique in such source material.

The College has recently purchased, on funds provided by the State Legislature, a tract of ten acres of excellent land in Monroe County for the development of field tests and demonstrations of selected farm crops, rotation schemes, and other agronomical work under soil and climatic conditions differing from those at Ithaca. Through the generosity of the President and Trustees of the State School of Agriculture at Alfred University, there has been made available to the College for an indeterminate period, presumably not less than twenty years, an area of ten acres on the school farm in the southern part of the State for similar purposes. For many years the College has rented an area at Virgil for soil experiments. These arrangements mark the beginning of the acquirement of a number of field plots in the main soil and climatic areas of the State for crop demonstration work. Other colleges of agriculture, both in the United States and in certain European countries, have made large use of such outlying fields in supplementing and confirming their experimental work at the central institution. These provisions constitute an important extension of our own work.

The College is greatly in need of a forest tract of 2000 acres for research in silvics, or forest ecology, and for teaching and demonstration purposes. There is opportunity here for an alumnus or an interested friend of the institution to make a valuable gift to the College which would be productive of large benefits to the forest interests of the State and the Nation.

THE LIBRARY

An effort has been made during the year to catalog and classify all the books in the libraries in departments of the College, and the work has been nearly completed. A beginning has also been made in adopting for the college library the method of cataloging used by the Library of Congress.

The College Librarian has given special attention to what we hope will prove a great reservoir to the library in the system of foreign exchanges. As soon after the armistice was signed as shipping conditions permitted, the College was enabled, through the Smithsonian Institution at Washington and without expense to itself, to send its bulletins and memoirs to more than five hundred foreign institutions with which it is hoped to establish regular exchanges. It is anticipated that this will bring to our library much material of great value to the College.

THE EXPERIMENTAL WORK

The work of the Agricultural Experiment Station has continued throughout the year without abatement. Research is the function of the University that best differentiates it from other educational institutions. It is part of the work that is most forward-looking. It is fundamental. Every encouragement that can be given it, every provision to enable teachers so inclined to devote some time to original investigations, should be made. During the period covered by this report special effort has been put forth to stimulate research in the College. There has been organized an informal monthly conference of the entire staff, to which graduate students also are invited, for the consideration of broad problems of

research. These conferences have been addressed by Dr. W. H. Jordan, Director of the New York State Experiment Station at Geneva, Dean Eugene Davenport, Director of the Agricultural Experiment Station of the University of Illinois, Professor William Crocker, of the University of Chicago, Dr. L. H. Bailey, former Director of this College, Dr. H. P. Armsby, Director of the Institute of Animal Nutrition at Pennsylvania State College, and Dr. H. J. Webber, Director of Experiment Stations in California. This series of addresses by men eminent in agricultural research has been of great interest and profit to the staff and the graduate students.

There have also been organized during the year four group conferences on research, the groups being composed of members of closely related subject-matter departments, for the informal discussion of problems of immediate interest to the members of the group. It is hoped by this means both to accomplish better coordination in the research work of the College and to promote fellowship in the work.

The Faculty of Agriculture has considered at length the advisability of organizing a separate research staff, and has voted not to do so on the ground that the segregation of research workers would be opposed to the best interests of the College. There was the further consideration that in a university devoted to the stimulation of research and the advancement of knowledge such a separation of workers was neither feasible nor desirable.

There is a growing tendency in the experimental work to establish friendly cooperative relationships with the experiment stations in other states and with the United States Department of Agriculture. As indicating the form which such cooperation may take, the following example will be of interest. The Department of Plant Breeding has long cooperated with the Office of Cereal Investigations of the United States Department of Agriculture. The study of corn genetics by our Department has now reached a stage at which it has been possible during the current year to arrange a more or less close coordination of effort on the part of this Department and men interested in the same line of work in the Experiment Stations of Wisconsin and Connecticut and in the Office of Crop Acclimatization of the Federal Department of Agriculture. Arrangements have also been made whereby some of the corn-color material, the genetics of which has been worked out here, will be studied chemically at the University of Michigan and physiologically at the University of Chicago. Certain of our corn materials have also been furnished for morphological studies at the University of Indiana. This is an example of the kind of cooperation that is likely to succeed. No attempt has been made to limit or direct any man's work, but by mutual agreement between men of our Department of Plant Breeding and men working in related fields elsewhere there has been effected a plan covering the field more adequately than would have been possible otherwise.

The investigation of bean production, for which a special appropriation has been made by the State, has been prosecuted with vigor, and the results thus far achieved give promise of bringing to the bean-growing industry substantial relief from the losses caused by insect and fungous enemies which have threatened to destroy the industry in the State.

A detailed statement of progress in the work of the Experiment Station will be found in the annual report of the College published by the State. Some

lines of work have been brought to conclusion; others have made progress; and new investigations have been undertaken.

THE GAME FARM

The close of the first full year of operating the farm provided by the State for the experimental breeding and rearing of game finds the work well under way. Much time has been given to necessary improvements and repairs to buildings, and to equipping and stocking the farm. Five hundred and twenty-five pheasants were reared, of which two hundred and forty were turned over to the State Conservation Commission for distribution to the state game farms.

THE EXTENSION SERVICE

The work of reorganizing and strengthening the extension work of the College, begun in 1917, has been continued throughout the fiscal year 1918-1919. Marked progress has been made in coordinating the work of extension specialists with that of the county agents and in making the farm and home bureaus the agencies through which the major part of the extension work of the College clears.

Upon the resignation of the President of the University from the New York State Food Commission, the Director of Extension was appointed to fill the vacancy and he has since served as a member of that Commission. There has been close cooperation between the extension service of the College and some of the work of the Commission, particularly in conducting tractor schools and in making exhibits at fairs. The fairs in which the College took part by sending exhibits included the State Fair, the Rochester Industrial Exposition, the New York State Horticultural Society meeting at Rochester, the National Milk and Dairy Farm Exposition in New York City, and forty-six county fairs.

The twelfth annual Farmers' Week had a registered attendance of 4300, which is the largest attendance ever recorded at this College. The registered attendance is always considerably below the actual number of persons in attendance.

The extension work has been more widely developed and intensified in every department of the College during the year. The Offices of County Agricultural Agents and County Home Demonstration Agents, and the subject-matter extension specialists, have been under excessive pressure throughout the year to meet the multiplying demands from the county organizations. A detailed report of the extension activities will be found in the annual report of the College published by the State. It may suffice here to set forth in brief statement the following outstanding features of the extension service during the current year:

1. The bending of the time, energies, and thought of the entire force toward the largest possible contribution to necessary and efficient food production and conservation, and, following the signing of the armistice, to assisting in the necessary readjustments of farming to a permanent basis.
2. The development and general acceptance of local organization on a community basis; and the making of community programs, especially by the county farm bureaus, but also, to a less extent, by the county home bureaus, in cooperation with the extension specialists of the College.
3. The organization of the work of the extension specialists of the College, in cooperation with the county agricultural and home demonstration agents, in

the form of definite projects, and the consequent improvement in the correlation of the work of the extension specialists and the county agents.

4. The crystallization of the home demonstration work into permanent form, its extension to the cities, and its organization, with public recognition and acceptance and through permanent membership and local county appropriations in twenty-five counties, as a coordinate department with the agricultural extension work in the county farm and home bureaus.

5. A marked increase in the efficiency of the distribution and mailing of college publications, due to more detailed organization and supervision of the work.

6. The closer correlation of the farmers' institutes with other lines of extension work and programs, and a successful institute season under the first year of college management.

7. The largest use ever made of the extension service, in meetings and demonstrations, publications, and otherwise.

PUBLICATIONS

The following publications of the College and Experiment Station have been issued during the year and distributed to the people of the State and to teachers and investigators in other states:

MEMOIRS OF THE AGRICULTURAL EXPERIMENT STATION

		Number of pages in printed bulletin	Number of copies printed
13	Chlorophyll inheritance in maize (Department of Plant Breeding)	68	3,000
14	The stimulation of root growth in cuttings by treatment with chemical compounds (Department of Botany)	72	3,000
15	Insects injurious to the hop in New York, with special reference to the hop grub and the hop redbug (Department of Entomology)	84	3,000
16	A fifth pair of factors, <i>Aa</i> , for aleurone color in maize, and its relation to the <i>Cc</i> and <i>Rr</i> pairs (Department of Plant Breeding)	68	3,000
17	The translocation of calcium in a soil (Department of Soil Technology)	32	3,000
18	A study of bacteria in ice cream during storage (Department of Dairy Industry)	40	3,000
19	The effect of manganese compounds on soils and plants (Department of Soil Technology)	40	2,000
20	The physiological action of nitrobenzene vapor on animals (Cornell University Medical College)	68	2,000
21	Studies in the reversibility of the colloidal condition of soils (Department of Soil Technology)	52	2,000
22	An analysis of the costs of growing potatoes (Department of Farm Management)	104	5,000
23	The inheritance of the weak awn in certain <i>Avena</i> crosses and its relation to other characters of the oat grain (Department of Plant Breeding)	48	3,000
24	A study of the plant lice injuring the foliage and fruit of the apple (Department of Entomology)	88	2,000
25	The crane-flies of New York. Part I. Distribution and taxonomy of the adult flies (Department of Entomology)	232	2,000

26 The dry root-rot of the bean (Department of Plant Pathology)	40	3,000
27 The influence of low temperature on soil bacteria (Department of Soil Technology)	36 (est.)	3,000
Total.....	1,072	42,000

BULLETINS OF THE AGRICULTURAL EXPERIMENT STATION

398 Food consumed in milk production (Department of Animal Husbandry)	16	10,000
399 Experiments in fertilizing a crop rotation (Department of Soil Technology)	16	5,000
Total.....	32	15,000

READING-COURSE LESSONS FOR THE FARM

135 The farm ice supply (Department of Rural Engineering)	24	40,000
136 The beef breeding herd in New York State (Department of Animal Husbandry)	24	40,000
137 The dairy herd (Department of Animal Husbandry)	24	10,000
138 Beginnings in beekeeping (Department of Entomology)	24	40,000
139 Swine production in New York (Department of Animal Husbandry)	36	10,000
140 The Babcock test, and testing problems (Department of Dairy Industry)	32	10,000
141 Farm manure: its production, conservation, and use (Department of Soil Technology)	32	10,000
142 Calculating the cost of milk production (Department of Farm Management)	32	40,000
143 Potato growing in New York (Department of Farm Crops)	28	15,000
144 How the plant produces seed (Department of Botany)	20	36,000
Total.....	276	251,000

READING-COURSE LESSONS FOR THE FARM HOME

120 Civic duties of women (Department of Home Economics)	40	75,000
121 Sugar-saving desserts and confections (Department of Home Economics)	8	200,000
122 How to use the apple crop (Department of Home Economics)	12	200,000
123 A program of thrift for New York State (Department of Home Economics)	8	50,000
124 Making a budget (Department of Home Economics)	12	50,000
125 Self-study outlines for promoting thrift (Department of Home Economics)	8	50,000
126 How to keep a cash account (Department of Home Economics)	8	50,000
127 What to spend for food (Department of Home Economics)	4	50,000
128 Points in selecting the daily food (Department of Home Economics)	8	50,000
129 Questions for group discussions on thrift (Department of Home Economics)	4	50,000
130 Club programs on thrift (Department of Home Economics)	16	50,000
Total.....	128	875,000

EXTENSION BULLETINS

30 Country milk stations: their function, organization, operation, construction, and equipment (Department of Dairy Industry)	32	5,000
31 The European corn borer (Department of Entomology) ...	12	40,000
32 Soil survey of Yates County, New York (Department of Soil Technology)	36	3,000
33 Making and storing butter for home use (Department of Dairy Industry).....	12	50,000
Total.....	92	98,000

RURAL SCHOOL LEAFLETS

September, 1918 (Department of Rural Education)	264	40,000
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JUNIOR EXTENSION BULLETINS

1 First lessons in sewing (Department of Home Economics) ...	44	10,000
2 Elementary garment making (Department of Home Economics)	28	10,000
3 Rearing the dairy calf (Department of Rural Education)	32	5,000
4 The vegetable garden (Department of Farm Crops).....	32	125,000
Total.....	136	150,000

FARM BUREAU CIRCULARS

10 Report of the county agent leader for the year ending November 30, 1917	52	10,000
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MISCELLANEOUS

Undergraduate course book	40	500
Plum spray schedule (Department of Entomology).....	2	5,000
Total.....	42	5,500

ANNUAL REPORT

Annual Report for 1918 (in two volumes)	1,472	2,000
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ANNOUNCEMENTS

Announcement of courses 1919-20	84	15,000
Supplementary announcement of second, third, and summer terms, 1918-19	24	3,000
Total.....	108	18,000

SUMMARY

	Total number	Total pages	Copies
Memoirs	15	1,072	42,000
Experiment station bulletins	2	32	15,000
Reading-course lessons for the farm	10	276	251,000
Reading-course lessons for the farm home	11	128	875,000
Extension bulletins	4	92	98,000
Rural school leaflets	1	264	40,000
Junior extension bulletins	4	136	150,000
Farm bureau circulars	1	52	10,000
Miscellaneous	2	42	5,500
Annual reports	1	1,472	2,000
Announcements	2	108	18,000
Total.....	53	3,674	1,506,500

Respectfully submitted,

A. R. MANN,

Dean of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit herewith my report on the College of Architecture for the academic year 1918–1919.

With the country at war and the establishment of the Students' Army Training Corps, this college found itself at the beginning of the year in a position impossible for rendering effective national service. The War Department, through its committee on Education and Special Training, had given no place, either directly or indirectly, for architecture in any of the S. A. T. C. programs, and on September 15 there was every prospect that no student in the S. A. T. C. would be permitted to carry on any study in architecture. On September 17 Professor Laird of the University of Pennsylvania and I obtained a hearing before the committee in charge of S. A. T. C. programs, with the result that within a week a special order was issued giving architectural curricula exactly the same standing as the engineering programs in the S. A. T. C. This, in my opinion, was one of the most significant moves in recognition of architecture made during the war, but it came too late for effective inclusion in the University program, as a good many students registered in architecture had already chosen other programs and in the uncertainty attending the whole matter were unwilling to risk a change to a new program not fully worked out. In the end, however, the course of events more than justified those who had the faith to enter the regular architectural program, and I am convinced that this justification would only have been amplified had the war continued.

In the fall term the total registration in architecture was but 47 students as against 91 in the preceding year and 168 in the year before that. Of these 47, eight were women, 10 were men not eligible for the army, 26 were men taking S. A. T. C. programs varying from the full architectural curriculum as approved by the War Department through a sliding scale into programs of all sorts quite outside of architecture, while three registered after the armistice of November 11.

As an experience in the teaching of architecture the term's work was not satisfactory, but as an experience in the business of preparing material for the carrying on of the war I felt, and still feel, that it was one of the best things we could have done in the circumstances. There were many and serious mistakes in details, but the fundamentals of the plan were sound.

After the armistice and the demobilization of the S. A. T. C., we formulated our program in common with other colleges in the University to provide for the continued instruction of those students who had already completed the first term of work, and to provide also for the instruction of such others as might be able to enter in January for the beginning of a regular year's work. In architecture this involved an intricate schedule virtually doubling the number of courses that would have been offered normally in the second and third terms, and requiring the giving

of a fourth term of eight weeks in July and August. This voluntary program has proved a most arduous one for the Faculty, but it has been successful even beyond our hopes and there is every prospect that we can return in September to what will be almost a normal program.

Old students have been admitted at irregular intervals since November 11 as they were released from service, and a few new students have been admitted at the beginning of the second and third terms, so that the registration in the second term was 71 and in the third term an even 80 students. The total number registered during the year was 89, including 10 women, which is the largest number of women ever registered in the college in any one year.

I regret that complete data for Cornell architects in war service are not yet available, but we know that they have acquitted themselves in a way to make us proud of their record, and all too many of them have made the "supreme sacrifice." Of the Faculty, Professor Mauxion, as an officer in the French Army, was killed in battle on March 15, 1917, while leading an attack. Soon after America entered the war Professor George Young and Mr. H. E. Baxter enlisted in the American Army as commissioned officers, and Professor Shepherd Stevens was a captain in the Red Cross service in France during the latter part of the war. Captain Young and Captain Stevens were released in January to resume their teaching, but Lieutenant Baxter is still in the service.

Under conditions where war was necessarily the country's first business, our educational standards have had to be sacrificed to some extent, but the surprising thing is that there has really been so little lowering of these standards. It is a great satisfaction that those who carry Cornell degrees granted under war conditions will have no occasion in later years to reflect upon or to apologize for degrees not of face value. The Cornell degree still means what it always has meant, an honest certification of a definite curriculum completed on a satisfactory basis of scholarship.

As this is presumably my final report as dean of the college, I wish to outline briefly some of the needs of the college as I see them at this time.

The chief trouble is that the need of increased salaries for instruction is so paramount that, as you have so concisely phrased it for the entire University, "relatively there are no other needs." The proposed increased scale which has been announced for next year will help to some extent, but even the most hopeful view of the present prospect only slightly lessens and does not remove the tension.

Reviewing the case irrespective of immediate financial considerations, I should think that our forward thought should contemplate ultimately nothing short of a College of Fine Arts to include Architecture, Painting, and Sculpture; and allied with the courses in Architecture should be the courses in Landscape Design and Town Planning, both of which have their essential foundation in Architecture. This co-ordination of Landscape Design and Town Planning with Architecture awaits only financial opportunity, for the need and desirability of it are fully recognized by those who would be most directly affected by such a change in our organization.

As to Painting and Sculpture, there is no apparent good reason why, with two such men as Professor Brauner and Professor Midjo on our staff, we should not offer instruction in these subjects to such students as can meet university entrance requirements and wish to pursue this work in a university atmosphere. The

slightly increased expense for the introduction of the work would be more than offset by tuition fees received from students taking the work.

As an important supplement to the regular instruction by the Faculty, there should be provided frequent lectures on current topics and practice by distinguished practitioners, both in the field of architecture and in the arts and businesses closely related to or affecting the practice of architecture. If men are asked to render such service gratuitously the lectures are likely to be perfunctory, uninspiring, and generally out of control. If a proper honorarium were offered we could demand and receive service that would be valuable alike to student and faculty.

Perhaps the most serious academic need of the college is a deeper appreciation of scholarship, a conception of true education as opposed to mere technical training. I speak with special reference to the student point of view, which may find explanation in lack of experience, but I also feel that if the Faculty point of view were as uniformly broad as it should be the correction would largely care for itself. Throughout the University there seems to be too strong a tendency on the part of the specialist to impress his specialty upon the student before the student has the fundamental background to justify specialization. Such a program does not turn out educated men and women, but tends rather to make efficient assistants for others who have the broader grasp of the business of life. In our enthusiasm over professional training we have allowed the pendulum to swing too far and have forgotten some of the essentials. I believe that every professional course leading to a college degree should provide the essentials of a liberal education as well as the fundamentals of professional training. If four years is too short a time for this, then the time should be lengthened to whatever is necessary to make our diploma mean that the bearer thereof is something more than a trained technician.

Our material needs in housing and equipment are very great. We have excellent drafting rooms for the departments of Design and Freehand Drawing, and we also have good exhibition rooms for judging and reviewing the work in Design, but aside from this our quarters are wholly inadequate, with rooms so ill adapted to their use and so widely separated as to make effective co-ordination almost impossible.

Our Library, which is probably one of the most valuable and one of the most used collections in the University, is very unsafely housed. The shelf room accommodates only about one-half of the collection, and, whereas there should be provided reading tables for at least 60 readers, there is such provision now, even with the utmost crowding, for less than a dozen.

With a normal registration of 160 students we have for lectures and recitations in the college just one lecture room seating a total of 59 persons, and one much smaller recitation room temporarily lent to us by Sibley College.

The members of the instructing staff have offices in which they can see students but no place or equipment for study and research in connection with their teaching.

There are a few corners and alcoves for the storage of a part of necessary materials, such as drafting boards, but this storage room is entirely insufficient and there is no place at all for a much needed and easily acquired collection of models, building materials, etc. Consequently we must do our work without this material.

There is no question about it. We need a new and a large building, though I doubt if we have yet visualized our future definitely enough to plan safely for such a building at this time. As I see it now, however, such a building should have as its central theme the Library and a hall of architectural models; there should be drafting rooms for Design and for drawing fully as good as those we now have and considerably larger even for the same number of students; there should be exhibition rooms both for current work and for outside exhibitions of painting and sculpture as well as architectural drawings; there should be one lecture room seating at least 225 persons, two smaller lecture rooms and one recitation room with blackboards; there should be several rooms to be used as drafting and computing rooms for work in graphics and construction; there should be museum and storage space for ample collections of building materials and construction models; there should be laboratories for practice, demonstration, and research in materials and construction; there should be offices for the administration and instructing staff, and these offices should have connected with them private offices or laboratories in which the instructors could carry on research or productive work in line with their teaching. All these are merely the larger essentials for Architecture alone. If we include Landscape Design and Town Planning the program would have to be enlarged accordingly, and if we look forward definitely to the College of Fine Arts our problem becomes still larger, though not necessarily any more complex. All this we need, but, much as we need it, such a building will avail us nothing until the University is in a better position than now to support it.

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

APPENDIX X

REPORT OF THE DEAN OF THE COLLEGE OF CIVIL ENGINEERING

To the President of the University:

SIR: I have the honor to submit the following report for the College of Civil Engineering for the year 1918-1919.

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

	First term	Second term	Third term
Graduates	15	12	11
Seniors	31	37	38
Juniors	43	43	69
Sophomores	43	48	65
Freshmen	83	84	80
Freshmen, five-year course.....	33	52	17
Special	0	1	0
	248	277	280

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

	First term	Second term	Third term
Arts.....	53	5	5
Agriculture	53	4	31
Architecture	9	13	10
Law	26		
Veterinary	1		
Graduate School	15	12	11
Sibley College	33	11	40
	190	45	97

The number of new students was 106 the first, 11 the second, and three the third term. Of these 109 entered the Freshman four or five-year courses, seven the Sophomore, and four the Junior classes.

The total registration was 248 for the first, 277 for the second, and 280 for the third term. As compared with the first term of the previous school year, this was a gain of 14 the first, 43 the second, and 46 the third term. As compared with the second term of the previous year it was a gain of 22 the first, 51 the second, and 54 the third term. These figures indicate the return of our old students as they were released from service with the Army or Navy and shows the wisdom of the policy adopted by the University of starting the school year anew on December 30, 1918, and of taking any student at any time that he could return.

For the work of the Students' Army Training Corps during the first term, it can be said that a valuable experience grew out of the experiment. A rigid adherence to schedule by the Military Department would have accomplished results in every way worthy of the undertaking.

In giving the S. A. T. C. courses required of the College the registration in the subjects of Map Reading and Surveying was so large that assistance was necessary. The Department of Geology and that of Rural Engineering of the College of Agriculture came to our assistance and we wish to express our appreciation of valuable service rendered. The regular instruction given by the College in all departments was carried forward in conjunction with the S. A. T. C. work. In addition, the war-time courses, listed in my report of a year ago, were repeated and well attended.

Beginning with the work of the second term, which started December 30, the college returned as nearly as possible to its regular schedule, which will continue up to August 30, when a regular year's work will be completed and our students will have saved their year in full.

Our honor roll, while still incomplete, shows seven of our faculty, 93 of our undergraduates, and 565 of our alumni in actual war work. The majority of these saw service in France or on the sea. A number have made the supreme sacrifice, and I feel that their names should be recorded here.

Assistant Professor Adelbert Philo Mills, of our Department of Materials, died of cerebro-spinal meningitis on October 20, 1918, at a hospital in Brest, France. From the very beginning of the war Professor Mills longed to be in the service of his country. Early in the summer of 1917 he took and passed an examination for a commission as captain in the Engineer Corps. He was not called, however, until May, 1918. After a period of training at Camps Lee and Oglethorpe, he was assigned to overseas duty and reached Brest, October 10, 1918. Almost immediately he was taken ill and sent to the hospital where his life work ended.

Professor Mills was born November 10, 1883, received his technical education at the University of Michigan, graduating in 1906 with the degree of B.S. in Civil Engineering, and receiving the advanced degree of M.S. in 1909. He came to this College as Assistant Professor of Materials in September, 1909, and entered upon his duties with the energy that soon made him master of his department. He was a thorough teacher, and his personal interest in investigation, fortified by his manual skill in devising and constructing apparatus, as well as by his connection with actual problems of engineering practice, gave graduate students in his department a field of view and a practical interest that both proved of great value educationally and reacted on the greater reputation of the College.

Others who made the supreme sacrifice are:

CHARLES B. HAGADORN, Class of 1886, Colonel U. S. Infantry. Died in service at Camp Grant, Ill., Oct. 8, 1918.

CHARLES FERGUSON COOK, C.E., '06, Major U. S. O. R. C. Died in service at New York City, January 1, 1919.

ELMER STANLEY TERHUNE, C.E., '09, 2d Lieutenant Field Artillery, U. S. A. Killed in action, November 8, 1918.

HUNTER McCLURE, C.E., '10, 1st Lieutenant, U. S. Engineers. Died in service in France, September 26, 1918.

EDGAR MONTGOMERY WHITLOCK, C.E., '10, 1st Lieutenant U. S. Engineers. Killed in action, Sept. 26, 1918.

HOWARD RAYMOND MOORE, C.E., '13, U. S. Engineers. Died in service at Camp Humphreys, Va., October 6, 1918.

HAROLD ALEXANDER MOSSMAN, C.E., '14, Captain 3d Royal Berkshire Regiment. Awarded Military Cross for bravery and devotion to duty at Poelcappelle in October, 1917. Awarded Parchment certificate for gallantry and devotion to duty during the great German offensive in the Spring of 1918. Killed in action at Villers Bretonnex, France, April 25, 1918.

DAVID OETTINGER, C.E., '14, Lieutenant Q. M. C. Died in service at Camp Meade, Md., October 7, 1918.

RALPH RICHARDSON MARIAN, C.E., '15, 1st Lieutenant U. S. Engineers. Died of wounds at Bohain, France, October 17, 1918.

CHARLES CURTIS BEAKES, C.E., '16, Meteorological Detachment, Signal Corps, U. S. A. Died in service in France, October 9, 1918.

JAMES HENDERSON SPAFFORD, C.E., '17, 1st Lieutenant U. S. Engineers. Awarded Distinguished Service Cross for extraordinary heroism in action. Wounds received in the attack caused his death October 9, 1918.

JOHN EDWARD LUDFORD, Class of 1918, Cadet Royal Flying Corps. Killed in aeroplane accident at Camp Borden, Canada, September 18, 1917.

HOWARD JACKSON BUSH, Class of 1920, U. S. Naval Reserve Corps. Died in service at Newport, R. I., September 5, 1918.

JOHN FRANCIS TIERNEY, JR., Class of 1921, Cornell Unit, S. A. T. C. Died in service at Ithaca, New York, October 26, 1918.

By the death of Assistant Professor Kenneth B. Turner on October 21, 1918, the College lost a most valuable teacher. Professor Turner was a graduate of the College of the Class of 1903, received his Master's degree in 1905, and entered the College as an instructor in September, 1906. In 1908 he was appointed Assistant Professor of Theoretical and Experimental Hydraulics. He was an earnest, energetic worker and no task was too great for him to undertake. He inspired good work in his students by his own example, for he was never idle. It was his intense desire, after the war started, to give his services to the Army but was barred by defective eyesight; a defect I feel more imaginary than real, for I am sure it would never have been the slightest handicap to him. His splendid physique coupled with his great energy would have been equal to any emergency. He was deeply in love with his work in hydraulics and would surely have left his impress upon this subject could he have been spared to round out his rich experience.

The outlook for the coming year is good. Our old students are returning in goodly numbers and the inquiries from prospective students are many. The College is fully prepared to return to its revised curriculum adopted in 1916-17, with the belief that it offers sound training for the foundation of the civil engineer.

Respectfully submitted,

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

APPENDIX XI

REPORT OF THE DEAN OF SIBLEY COLLEGE OF MECHANICAL ENGINEERING

To the President of the University:

SIR: I have the honor to submit herewith a report of Sibley College for the year 1918-1919.

DERANGEMENT OF WORK BY THE WAR

The year began with great disturbance because of the war, but is ending with a very marked return toward normal conditions.

At the end of 1917-1918 it seemed that all members of the coming senior class would be required soon for war service, and it was therefore very desirable that they should finish their work here in minimum time. Because of this a summer term for seniors was conducted so that they might receive their degrees at Christmas time. Nearly the whole class attended this summer term and the M.E. degree was conferred on fifty-four candidates in December. Meantime, the armistice having been signed, these graduates were relieved from the call to war service and were free to go out into the practice of engineering. For the remainder of the year there was only a very small senior class, consisting of those who had returned from the service, together with several who for other reasons had been prevented from finishing their senior work.

In the term that began in October, 1918, the Students' Army Training Corps was established here at Cornell, and a large proportion of the students in Sibley College were enrolled in either the Army or the Navy unit of this Corps. In addition to this there were the students who were under age for the draft, together with those who failed to pass the required physical examination for the S. A. T. C. The former were enrolled in the Reserve Officers' Training Corps.

The exacting service requirements of members of the S. A. T. C. interfered very seriously with the scholastic work; and, although some good work was done, the term was very unsatisfactory as far as the accomplishment of university work was concerned; and, although conditions were approximately normal when the new term began on January 1, yet there were many students who would have been unable to finish the year's work by June, and who therefore would have been unable to regain normal relation to their courses and to graduate with their respective classes. This led to a decision by the Trustees to authorize a summer term, July 5 to August 30, to permit adjustment of deranged relations, and thus to produce normal conditions for the year 1919-1920. This work is under way and the registration for this summer term in Sibley College is 357 students.

The United States School of Military Aeronautics at Ithaca, which was in operation from May, 1917, until just after the signing of the armistice, drew heavily on the faculty of Sibley College for its executive officers and teachers.

On June 15, 1918, the shops of Sibley College were turned over to the War Department for one of the divisions of its vocational schools. This work continued till December 15 following. Thus, during the first term of the last year, it was impossible to give shop instruction to the regular students of the College. The work thus missed, however, can be made up without difficulty, since the shop courses are not in necessary sequence with other subjects of the curriculum.

COMPARATIVE NUMBERS OF STUDENTS ENROLLED

A study of attendance has been made which is of interest as suggesting probable future attendance.

It may be assumed that the number of first-year entering students who are registered in the second term is an approximate measure of the tendency for fit students to enter the College. Comparison of these numbers for several years would probably show approximately the tendency toward change in attendance.

The number of first-year men is taken because it indicates the drift toward Sibley College at the time, and the second term is chosen because the first term's work followed by the action of the Doubtful Case Committee tends to eliminate those who have made a wrong choice of course.

RECORD OF 1910-1919 INCLUSIVE

Year	Students in Second Term first year	total number
1910-11	234	1017
1911-12	260	984
1912-13	256	918
1913-14	226	843
1914-15	272	865
1915-16	264	870
1916-17	234	890
1917-18	233	593
1918-19	360	741

This record shows fair uniformity in the number taken as a measure of tendency, even when there was considerable fluctuation in the total number in the College; this would seem to indicate probable steadiness in movement of students toward Sibley College. The sudden increase in the year just ending probably indicates abnormal stimulus due to war conditions, and not a real upward tendency, and it is probable that there will be a return in future toward the former normal, though possibly the return may not be complete, since engineering will probably have received an enduring impetus from the changes due to the war.

It is gratifying to note the indication of these figures that the reputation of Sibley College has been maintained despite the steadily increasing competition of other technical schools that have received endowment for salary increase, for new, modern buildings, and for adequate material equipment.

THREEFOLD DUTY OF THE COLLEGE

The question has frequently been asked: What can Sibley College do to increase its efficiency in training men for engineering in this changed, after-the-war world?

The duty of a technical school is to impart knowledge and to train reasoning powers; that is, to teach facts and derived laws that concern engineering, and to show how these can be applied for the attaining of engineering results and increase in their efficiency. In other words the technical school should teach facts and train minds.

This work can be made more effective by

- (1) Increasing available knowledge;
- (2) Improving the quality of the teachers;
- (3) Increasing the quality and quantity of material equipment.

1. Research with interpretation of results is of course the method for increasing knowledge, and it is important in a technical school, not only for its direct results, but also because it acts as a healthful stimulus on the teaching. Research not only requires endowment but also requires great wisdom in the choice of problems to be investigated and in the decision as to methods; and therefore great care is needed in selection of the workers. The research department in Sibley has been growing gradually in size and effectiveness during several years; but it lacks endowment to pay workers, to provide material, and to print the bulletins that would insure permanence and wide usefulness of derived results.

2. Improving the quality of teachers is a direct function of the judgment of those who make the selection, and of available money to pay requisite salaries. Recent decision to make substantial increase in salaries here has certainly increased the power of Sibley College to maintain its standing among its competitors.

3. Engineering practice is changing so swiftly that the chief cost for apparatus is for replacing obsolete machines rather than for providing additional machines. The capacity for purchase and maintenance of equipment has been reduced in the past two years by the great increase in cost of coal, which is the largest operating cost of the College.

For this reason the next appropriation for expenses other than salaries will need to be increased if the equipment standard is to be maintained.

The mechanical laboratory buildings are inadequate and far below the standard of our competitors. They must be replaced by modern buildings. A campaign is under way to provide a new Mechanical Laboratory, but as yet no official announcement can be made.

THE NEW COLLEGE OF ENGINEERING

The very important question of combining the two engineering colleges has been fully discussed among Trustees, Faculty, and alumni during the past year, and the combination was definitely decided on by the Trustees at a recent meeting.

Already the work of providing curricula for the several schools of the engineering college that is to be formed is well under way, having in view the desirable provision of a first year's schedule common to all schools.

The plan contemplates the continuance of the colleges separately until June, 1921, when the Deans of both Colleges will retire. Meanwhile there will be an ample opportunity for making gradual adjustments and changes necessary for the final combination.

Respectfully submitted,

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

APPENDIX XII

REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR: I beg to submit my thirteenth and final report as Director of the Summer Session, July 8 to August 16, 1918. The College of Agriculture has carried on its work during the same period, arranging its courses to coordinate as far as possible with those in Arts and Sciences, under the direction of Professor George A. Works. As hitherto students have been allowed freedom of choice irrespective of college lines of division, and we have tried to make the varied advantages of Cornell a unit to students not otherwise attached to one or another college of the university. The only obstacle to complete administrative and educational union during the summer is the matter of fees. I hope that even this may eventually be overcome.

The attendance was gratifying in view of the difficult conditions of the year, and surpassed our expectations. There was a falling off in the attendance on most of the courses offered, the exceptions being in French and in Music. The continued growth in fullness of program, inclusiveness of instruction, and intense earnestness in both teachers and students in Public School Music is the outstanding feature of the Summer Session. The course attracts the strongest and most ambitious teachers, and the possession of the certificate given for its completion is everywhere recognized as sufficient proof of preparation for a supervisor's position. The statistics of attendance are given under the report of the Registrar. There were 435 teachers registered in the general summer session, and also 256 in the College of Agriculture. With few exceptions (the exceptions, however, representing a type which creates a serious administrative problem) all students were thoroughly in earnest. They are a satisfactory body to teach, and members of the faculty often say that restraint rather than urging on their part is called for. In addition to their regular duties the women found time to do Red Cross work under the auspices of the Ithaca Chapter, which gave expression to the value of the assistance given in the following manner.

"The Ithaca Chapter of the American Red Cross desires through its administrative committee to express its very deep gratitude to the members of the Cornell University Summer Term for their generous and effective help to the work of Red Cross. Despite the busy intellectual work which was here their main aim and their chief occupation, despite the limited means of students and teachers, despite the much that many of them were at the same time doing for other public causes and for other chapters of Red Cross, they have enriched us by such generosity of purse and of devoted and skillful labor as to make us their lasting debtors. They must not leave without taking with them our thanks and our warm good wishes." (Signed) R. B. Williams, jr., Chairman; Eugenia Van Cleef, Secretary.

The usual evening lectures, musical recitals, and concerts have been given. All have been arranged with the object of educating as well as entertaining the

audiences. The wardens at the several residence halls have cared very successfully for the right kind and amount of social entertainment. Out-of-door recreation is still sought by most of our students in summer, and this form of amusement can not be too strongly commended.

The problems left to the public school by the war are many and serious. There has begun already a far reaching reconstruction of the high school curriculum. Thousands of teachers will be compelled to adapt themselves to conditions for which they were not fitted, and they must have immediate and direct help. Few of them can attend a university during the winter. The Summer Session has the opportunity, and is reasonably charged with the duty, of preparing them to face their new tasks with some confidence. To this end it should offer in the various departments of instruction represented in the high school program courses arranged not only to present subject matter, but further to correlate this content with the problems of secondary instruction. Many excellent courses of the winter need revision to fit the needs of our summer attendance. Teaching in the Summer Session to be successful must be carefully planned in view of the peculiar demands of the students. It is pleasant work, but it has to be hard and serious work to be efficient and satisfactory.

Reviewing the years during which I have been charged with the guidance of the Summer Session, I see improvement in several ways. There is still much to be done to meet the full measure of our duty. I believe the session has been, and will continue to be, a valuable part of the University's service to education and to society.

Respectfully submitted,

GEORGE P. BRISTOL,
Director of the Summer Session.

APPENDIX XIII

REPORT OF THE ADVISER OF WOMEN

To the President of the University:

Sir: I have the honor to submit the following report for the year 1918-1919.

REGISTRATION

The registration of women for the year 1918-1919 as shown by Colleges was as follows:

Arts.....	493
Agriculture	291
Graduate School.....	65
Law.....	II
Mechanical Engineering.....	6
Civil Engineering.....	I
Architecture	10
Medicine (Ithaca).....	16
Medicine (N. Y.).....	34
 Total.....	927
Duplicates	14
 Total for year.....	913

The total attendance of women for the year, excluding duplicates, was 913, an increase of 67 over the preceding year. The registration in Ithaca was 879.

The subjoined table shows the attendance of women students during the past five years and also the distribution among the colleges.

Year	Arts	Ag.	Grad.	Law	C.E.	M.E.	Arch.	Med.	Total	Dupl.	Net
1914-15	293	255	62	4	-	-	2	29	645	15	630
1915-16	345	290	73	7	-	1	3	27	746	13	733
1916-17	386	299	66	10	-	2	7	32	802	15	787
1917-18	434	310	53	14	1	4	8	42	866	20	846
1918-19	493	291	65	11	1	6	10	50	927	14	913

REGISTRATION OF WOMEN FOR THE YEAR 1918-1919 AS SHOWN BY COLLEGES AND
CLASSES

HOUSING

The continued increase in the number of women registered in the University has made the problem of suitably housing those who cannot be accommodated in the Residential Halls, more difficult to solve each year.

REGISTRATION OF WOMEN FOR THE YEAR 1918-1919 AS SHOWN BY RESIDENCE

	First Term	Per cent	Second Term	Per cent	Third Term	Per cent
Sage College and Sill House.....	190	20.81	192	21.03	183	20.05
Prudence Risley and Cottage.....	165	18.07	165	18.07	162	17.74
Total in Halls.....	355	38.88	357	39.10	345	37.79
At home.....	76	8.33	86	9.42	84	9.20
Working for room and board.....	19	2.08	19	2.08	19	2.08
Approved houses	105	11.50	109	11.94	101	11.06
Special arrangement.....	80	8.76	98	10.73	89	9.75
Sorority houses	168	18.40	168	18.40	165	18.07
New York (Medical).....	34	3.72	34	3.72	34	3.72
Total outside Halls.....	482	52.79	514	56.29	492	53.88
Total for term.....	837	91.67	871	95.39	837	91.67
Withdrew, 2d Term.....	-	-	24	2.63	24	2.63
" 3d Term.....	-	-	-	-	54	5.92
Entered, 2d Term.....	58	6.35	-	-	-	-
" 3d Term.....	20	2.20	20	2.20	-	-
Duplicates	915	100.22	915	100.22	915	100.22
	2	.22	2	.22	2	.22
Total registration.....	913	100.00	913	100.00	913	100.00

As the table shows, less than 40 per cent of our women are at present living in our Residential Halls. Excluding those who are living in their own homes in Ithaca (8.33 per cent); those who are working for room and board in private families (2.08 per cent); and those enrolled in the University, but resident in New York City (3.72 per cent), there are still 353 students (38.66 per cent) who must reside in approved houses or private homes.

SORORITY HOUSES

The eleven sororities have provided room and supervision for 168 of their members during the past year, in their sorority houses. A few of the sororities have also served meals in their own dining-rooms, for those resident in the houses. Others have been living in houses sufficiently near Prudence Risley Hall to enable their members to take their meals in the dining-hall there.

As those living in the sorority houses are largely students from the three upper classes who are familiar, in part at least, with the academic standards of the University, its social life, and the various student activities, the problems arising in connection with them are not so much those that concern the introduction of groups of new students to the opportunities offered at Cornell or of their assimilation into our life here, as they are the problems of keeping the standards of the organized self-contained sorority groups in harmony with the University stand-

ards and of maintaining and developing the democratic spirit upon which the life of the young women has been based.

It has been a difficult matter this year for the sororities to find houses suitable to their use. To help meet this difficulty the Delta Gamma Sorority has purchased a house at 603 East Seneca street, which it will occupy next year. This is significant as being the first experiment made by a sorority at Cornell in owning its own house.

OTHER APPROVED HOUSES

In addition to the sorority houses, there have been eleven other rooming houses approved by the Adviser of Women; four for graduate students and seven for undergraduates. These houses have presented problems quite different from those of the residential halls or the sorority houses. The difficulties which, under our conditions at Cornell, seem inherent in the system of outside houses make me feel that the approved private house must be regarded as a temporary expedient only.

Some of the difficulties are these:

1. The difficulty of finding houses adapted for the life of the young women from the standpoint of

(a) location; tested by

- (1) nearness to the University,
- (2) nearness to halls of residence or other suitable boarding places.

(b) physical conditions of the house; tested by

- (1) the comfort of the rooms (size, ventilation, heat, and light),
- (2) sanitary conditions,
- (3) provisions for escape in case of fire.

(c) social conditions; tested by

- (1) environment,
- (2) social standard of the house.

2. The difficulty of obtaining a satisfactory class distribution in these houses.

With the present provisions for class distribution within the halls,—which have been the result of much careful consideration and seem, from many points of view, the most desirable for the larger number of women—(See Report of the Adviser of Women for 1917-1918) and with the natural distribution in the sorority houses, there find places in the approved houses:

(a) the few juniors and seniors who prefer to live in the private houses for financial or other reasons;

(b) the sophomores who have not been able to secure rooms in Prudence Risley Hall and do not belong to sororities; and

(c) the freshmen, and the new students who enter on advanced standing, who apply late for rooms.

This grouping of under-class and new upper-class students in the houses most remote from the University influence, makes difficult the rapid assimilation of those who enter the University and the establishment of helpful points of contact, outside of the class room, between the new student and the Faculty and the upper-class students of the University.

The fact that the living conditions are considered less desirable in these houses, by many of the students, makes it almost impossible to attract to them the upper-class women in numbers sufficiently large to overcome this drawback.

3. The difficulty of providing University supervision and guidance for the students in these houses, because of the relatively small number in each group; the number varying from five to sixteen.

Because of these difficulties, the need seems very great for new residential halls or, until these can be obtained, for more houses which are under University management and which are situated near the residential halls so that those living in them can share in every way possible the general life of the larger groups.

The need seems great also for more places where young women who must meet part of their University expenses by remunerative work may secure comfortable rooms for as small an expenditure of money as is practicable, and still not be deprived of more of the University advantages than is necessary. Although cooperative houses have been tried and, in some institutions, have met with success, they are still in the experimental stage and it is an open question whether some arrangement can not be made which will secure the same results without this partial segregation of those who are working.

SELF-SUPPORTING STUDENTS

During the past year nearly one quarter of the young women in the University have done remunerative work of some kind.

CLASSIFICATION OF WOMEN STUDENTS WHO HAVE DONE REMUNERATIVE WORK DURING THE YEAR 1918-1919

	First Term	Second Term	Third Term
Instructors	14	14	14
Chaperons	3	3	3
House-work and care of children, by hour.....	75	75	75
Stenography and clerical work.....	14	14	14
Stewardesses	6	6	6
Waiting on table in dormitories.....	52	55	48
Waiting on table in sororities.....	6	6	5
Working in cafeterias.....	12	12	12
Working for room and board in private families.....	19	19	19
Total for term.....	201	204	196

Miss Lois Osborne, General Secretary of the Y. W. C. A., has been of great service to those who have wished to find employment and a large number of the students have found work through her.

The Association of self-supporting young women known as the L. O. V., (Labor Omnia Vincet), which developed under the inspiration and advice of Dr. Matzke, during her first year as Adviser of Women, has proved that it is meeting a real need among the students. It is an organization that gives promise of increasing usefulness to its members and to the University. It has brought into relationship with interested upper-class women, new students who have been working for room and board in private families and who would have had few opportunities for making college friends or for sharing in the life of the University and it has also tended to establish and maintain standards of good workmanship which have been helpful to the individual student and, later, should open up new opportunities for work. The Association has raised a small Loan Fund for the

use of self-supporting women to which it hopes to add each year. Last year, for the first time, it was able to give financial assistance to one of its own members from this fund.

STUDENT GOVERNMENT ASSOCIATION

This year has been in many ways an irregular one for the Student Government Association.

When the S. A. T. C. was organized at Cornell and, later, discontinued, all the social life of the young women and almost all their student activities were indirectly affected. The epidemic of influenza, coming almost at the opening of the University, made it impossible to organize the outside houses or to bring the women of the University together early in the year for purposes of student government, both because many of the officers were themselves ill or were needed to nurse others who were ill and because it seemed unwise to bring groups of students together until the danger of contagion was over.

The necessity of meeting the new and constantly changing conditions of the first and second terms and the forced delay in putting into motion the regular machinery that would have been helpful in doing this, made the work of the year unusually taxing upon the officers of the Association; but developed initiative and resourcefulness and a spirit of constructive criticism which have already been influential in giving renewed vitality to the Association and in causing it to make a study of its organization and methods of work in the light of present conditions and present needs.

As a result of these influences, in part at least, efforts have been made by those most active in the Association:

(1) to place the emphasis on the promotion of high standards, academic and social, among its members and on cooperation along constructive lines for maintaining them, rather than upon the regulatory work of the Association which, because it has been more definitely outlined and because its importance has been more quickly recognized by incoming officers, has come to be regarded by many as the only work of the organization; and

(2) to secure among all its members the feeling of individual responsibility for the attainment of the purposes of the Association and individual interest in making it a still more influential factor in promoting the general welfare of the University.

VOCATIONAL GUIDANCE

The publicity given to the work done by college women during the war and to the new fields opened to them, has drawn the attention of undergraduates, who do not wish to enter the teaching profession or do not feel fitted for it, to the present vocational opportunities, more strongly than the vocational lectures and vocational conferences of the preceding years were able to do.

As a result of this, a new interest has been aroused among the students and many questions have been asked during the past year concerning the fields now open to college women; the kinds of positions filled by inexperienced and experienced women in these fields; the training necessary for success in these positions; and the methods of learning of particular openings. It has been impossible to answer these questions satisfactorily because the change in the factors determining the number and kinds of positions available for college women and the demand

for their work, has been so rapid during the months following the close of the war, that printed material on the subject has been almost valueless and few generalizations or prophecies have been possible.

It has been thought wise, therefore, to have only a limited number of general vocational lectures, but to undertake to establish a personal connection between students wishing information concerning special lines of work in which they were interested and the alumnae of the University who were in a position to keep in touch with the changing conditions in those lines in their own cities or states and who were interested in helping other Cornell women find the work they were best fitted to do.

Some of our alumnae were, during the spring term, of great help to the women who were wishing positions for next year, and the Cornell Women's Club in one of our large cities has, already, appointed a Committee of its members to coöperate with a committee of undergraduates and the Adviser of Women to establish a close connection between the alumnae and the University for this purpose. Other clubs have expressed their readiness to appoint similar committees.

A plan is being drawn up for next year, by which it is hoped that this generously promised assistance can be utilized to the fullest extent, especially during this transition period in the employment of women, when the cooperation will be of unusual importance.

DR. BERTINE'S LECTURES

In the early spring, Dr. Eleanor Bertine, a graduate of the Cornell Medical College in the Class of 1913 gave a series of four lectures on Social Relationships, in Barnes Hall. Dr. Bertine is the Director of the Student Program, Bureau of Social Education of the National Board of the Y. W. C. A. and it was through the courtesy of the Board that she came to Cornell. The talks were most timely and were attended by nearly all the women of the University. There have come to my office from individual students many expressions of appreciation for the help they had from Dr. Bertine, both through her talks and the conferences she held with individual women or small groups of women.

FELLOWSHIPS FOR FOREIGN STUDENTS

It has been a matter of interest and pleasure to have at the University this year Mlle. Marie Maurer, one of the French students who came to this country in the fall of 1918 under the auspices of the American Council of Education, to study in our colleges and universities. Mlle. Maurer had studied in France and England before coming to the United States and came to Cornell to take the course in Mechanical Engineering.

The alumnae of the University have expressed their interest in establishing a closer connection between the universities of France and the United States through having the French women come to study in this country,—and in Mlle. Maurer,—by raising this past year \$500 for a fellowship for a French student and by asking that, if it met with your approval, this fellowship be assigned to Mlle. Maurer for the year 1918-1919. It is their hope that they may continue the fellowship for three years longer, or until other more organized and permanent arrangements can be made by college women for the exchange of students between the universities of the two countries.

Already, through conference between representatives of American universities and women's colleges and the English women who came to this country as members of the British Educational Mission to America, plans are being made to further the exchange of women graduate students between the universities of Great Britain and the United States and to open up "greater opportunities for women for instruction and research" in these universities.

The presence of women representing the university life of other countries will, I believe, be of great service in broadening the interests and vision of our own students and in inspiring them to undertake graduate work in their own country or other countries.

RESIGNATION OF MRS. BARBOUR

The loss which has come to Sage College through the resignation of Mrs. Elizabeth Barbour who has been the Warden for ten years, is felt, not alone by those who have been resident in the Hall, but by a large circle of other friends, both among the Faculty and the students. Her deep personal interest in the students with whom she came in contact and her great desire to be of service to them have made her influence in the University a most helpful one.

The cordial cooperation of the wardens of both of the residential halls during the past year has been of the greatest assistance and has simplified many of the problems that inevitably arise during the first year in a position.

Permit me to take this opportunity to express to you my great appreciation of the help that has been afforded me in my work by the arrangements which were made, at your suggestion, for me to have an office, as well as a home, in an Adviser's House, separate from the residential halls, and yet so situated as to be easy of access to all the women of the University. The central location and the charm and traditions of the house itself, have enabled me to come into more personal contact with the students and into closer relationship with them during the past year than would have been possible under other conditions.

Respectfully submitted,

GEORGIA L. WHITE,

Adviser of Women.

APPENDIX XIV

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my twenty-third annual report as Registrar of the University. The report covers the academic year 1918-1919, including the Summer Session of 1918.

THE YEAR

	Days in Session	Sun- days	Holi- days	Vaca- tion	Total
First term, Oct. 7-Dec. 21.....	65	10	1	..	76
Christmas vacation, Dec. 22-Dec. 29.....	..	..	..	8	8
Second term, Dec. 30-Mar. 21.....	71	11	..	..	82
Spring vacation, Mar. 22-Mar. 30.....	..	..	..	9	9
Third term, Mar. 31-June 21.....	71	11	1	..	83
Summer vacation, June 22-July 4.....	..	..	..	13	13
Summer Session, July 5-Aug. 15.....	36	6	..	..	42
Summer vacation, Aug. 16-Sept. 28.....	..	..	..	44	44

On account of war conditions the University year was divided into three terms. Work was re-arranged so that students who entered December 30 were able by summer work to cover a year's work.

STUDENTS

The table given on page LXV, which shows the attendance for 1918-1919, gives the number of students who have received instruction this year, including those in the 1918 Summer Session, in the 1918 Summer School in Agriculture, those registered up to July 1, 1919, in the Fourth Term Graduate work, in the 1918-1919 Winter Courses in Agriculture, and in the Fourth Term in Agriculture, but excluding duplicates, as 5644.

From October 1868 to June 1919, 42081 men and 10799 women have attended the University. Of these 9832 men and 6560 women have attended only in the short courses in winter agriculture or in summer.

The accompanying table shows the attendance in each course since the opening of the University in 1868.

MATRICULATES

The following table shows that 2369 students have registered during the present year for the first time. The table also shows the method of admission. Students entering for the first time in the Summer Session and in the Summer School in Agriculture are not considered as matriculates, but for convenience are listed in this table.

Graduates	90	Medical (N. Y. City)	48
Advanced standing	244	Summer Session (1918).....	435
Regents' credentials	649	Summer School in Agr. (1918) ..	164
School certificates	648	Summer Grad. after July 1, 1918	3
By examination	4	4th Term Agr. to July 1, 1918 ..	4
As special students	46	4th Term Graduate to July 1, 1919	7
Coll. Ent. Board Exams.....	22	3d Term Agr. after July 1, 1918..	5
 Total.....			2369

The small number entering by some of the methods mentioned above 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.

REPORT OF THE REGISTRAR

ATTENDANCE FOR THE YEAR 1918-1919

DEPT. & COLL. DEGREES CLASSIFICATION	GRADUATE			ARTS AND SCIENCES			LAW			MEDICINE			AGRICULTURE			VETERINARY							
	A.M., Ph.D., M.M.E., Etc.	Men	Women	Men	Women	Total	LL.B.	Men	Women	Total	M.D.	Men	Women	Total	B.S.	Men	Women	Total	D.V.M.	Men	Women	Total	
Graduate		217	69	286																			
Class of 1923		...	...	...	7	1	8									4	1	5	1	...	1	
Class of 1922		...	...	...	339	166	505		82	3	85	56	20	76	166	74	240	25	...	...	25	
Class of 1921		...	...	...	260	100	360		65	5	70	45	8	53	171	71	242	18	...	...	18	
Class of 1920		...	...	...	216	90	306		40	3	43	36	14	50	136	57	193	23	...	...	23	
Class of 1919		...	...	...	153	125	278		25	2	27	24	5	29	120	59	179	17	...	...	17	
Specials		...	...	...	5	8	13		3	...	3	15	4	19	19	23	42	1	...	1	...	
Totals		217	69	286	980	490	1470		215	13	228	176	51	227	616	285	901	85	...	...	85	
Duplicates		...	...	...																
Net Totals		217	69	286	980	490	1470		215	13	228	176	51	227	616	285	901	85	...	...	85	
Fourth Term Grad.	48	9	57		...	...	...		...	...	...		...	...	...	...	...	...	...	...	...
Fourth Term Agr.	...	...	...		...	...	...		...	...	...		...	...	90	7	97	...	...	...	...
Winter Agr.	...	...	...		...	...	...		...	...	...		...	...	60	23	83	...	...	...	...
Summer (1918)	7	28	35		...	...	...		...	...	...		...	...	60	23	83	...	...	...	...
Total	272	106	378		980	490	1470		215	13	228	176	51	227	766	315	1081	85	...	...	85	
Duplicates	38	34	72		...	...	...		...	...	...		...	...	74	8	82	...	...	...	...
Net Totals	234	72	306		980	490	1470		215	13	228	176	51	227	692	307	999	85	...	...	85	
DEPT. & COLL. DEGREES CLASSIFICATION	ARCHITECTURE			CIVIL ENG.			MECH. ENG.			SUMMER SESSION			SUMMER SCHOOL			TOTAL							
	B.Arch.			C.E.			M.E.			1918			IN AGR. 1918										
Graduates		Men	Women	Total		Men	Women	Total		Men	Women	Total		Men	Women	Total	Men	Women	Total	Men	Women	Total	
Class of 1923	7	2	9		55	...	55		228	1	229		217	69	286	
Class of 1922	17	3	20		110	...	110		396	2	398		302	5	307	
Class of 1921	17	1	18		72	1	73		209	2	211		1191	268	1459	
Class of 1920	23	2	25		66	...	66		144	1	145		857	188	1045	
Class of 1919	16	1	17		53	...	53		92	...	92		684	167	851	
Specials	3	1	4			2	...	2		48	36	84	
Totals	83	10	93		356	1	357		1071	6	1077		3799	925	4724	
Duplicates	110	17	127	
Net Totals	83	10	93		356	1	357		1071	6	1077		3689	908	4597	
Fourth Term Grad.	48	9	57	
Fourth Term Agr.	90	7	97	
Winter Agr.	60	23	83	
Summer (1918)		295	618	913*	64	269	333*	366	915	1281		
Total	83	10	93		356	1	357		1071	6	1077		295	618	913*	64	269	333*	4253	1862	6115†		
Duplicates		178	61	239	9	9	18	299	112	411		
Net Totals	83	10	93		356	1	357		1071	6	1077		117	557	674	55	260	315	3944	1700	5644††		

*Includes 60 (10 men, 50 women) registered in both Summer Session and Summer School in Agriculture.

†Excludes 127 duplicates of regular session.

††Excludes 127 duplicates of regular session and 60 registered in Summer Session and Summer Agriculture.

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

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

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

The number of students admitted to advanced standing as candidates for the first degree during the past thirty-three 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 Mech. For-			Vet.	Med.	No. of Cases
							Eng.	Eng.	stry Law*			
1886-87	2	8	I	4	I	4	6	18	..	..	..	50
1887-88	6	4	I	I	..	..	II	10	..	..	..	37
1888-89	5	..	6	6	I	2	12	21	..	..	..	58
1889-90	4	5	6	3	2	I	2	25	..	..	..	50
1890-91	8	8	2	4	I	..	14	28	..	..	..	65
1891-92	7	9	2	5	2	2	10	52	..	..	..	89
1892-93	6	6	I	8	..	6	II	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	II	4	7	3	3	9	33	..	..	..	85
1896-97	10	4	2	4	3	3	II	42	..	I2	5	100
1897-98	II	6	..	7	9	2	15	41	..	I5	I	108
1898-99	27	6	I	7	5	3	16	56	2	6	3	134
1899-00	28	..	..	I	5	3	25	64	I	7	4	138
1900-01	37	..	..	..	4	6	6	64	3	10	2	134
1901-02	38	..	..	..	6	2	29	92	5	7	..	184
1902-03	33	..	..	..	8	2	24	105	9	I2	I	194
1903-04	3I	..	..	..	9	5	39	II2	..	9	I	207
1904-05	29	..	..	..	9	5	44	101	..	3	..	191
1905-06	39	..	..	..	I4	8	36	89	..	I	..	187
1906-07	40	..	..	..	I9	5	55	86	..	I5	..	220
1907-08	43	..	..	..	22	I0	60	79	..	II	..	225
1908-09	37	..	..	..	2I	I0	53	7I	..	5	I	203
1909-10	47	..	..	..	4I	7	30	88	..	9	..	222
1910-11	4I	..	..	..	44	8	44	47	..	II	..	195
1911-12	36	..	..	..	52	6	38	57	..	7	4	200
1912-13	57	..	..	..	76	8	39	44	..	7	I	232
1913-14	58	..	..	..	76	5	3I	47	..	7	..	224
1914-15	70	..	..	..	87	5	42	5I	..	7	I	269
1915-16	85	..	..	..	94	7	22	53	..	9	4	282
1916-17	76	..	..	..	84	9	19	54	..	9	2	10
1917-18	64	..	..	..	45	3	I9	3I	..	I2	2	4
1918-19	87	..	..	..	52	3	24	55	..	II	6	6
												244

Of the 244 admitted in 1918-1919, 133 registered as freshmen, 64 as sophomores, 32 as juniors, and 15 as seniors.

During the last thirty-three years there have been admitted from 500 other institutions of collegiate rank, 5,222 students. The distribution of these students can be seen by reference to the table on page xciii of the Report for the year 1907-1908.

*No data prior to 1896-1897.

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:

	'03-4	'04-5	'05-6	'06-7	'07-8	'08-9	'09-10	'10-11	'11-12	'12-13	'13-14	'14-15	'15-16	'16-17	'17-18	'18-19
Certificate	315	317	380	324	465	578	574	524	517	601	587	647	683	605	524	648
Regents	220	238	233	185	244	287	329	311	420	404	476	494	520	544	476	649
Examination ...	18	27	18	18	41	12	14	8	12	11	6	9	28	9	7	4
Coll. Ent. Exam. Bd	20	27	29	37	33	23	27	14	18	13	14	27	7	13	20	22
N. Y. C. Ex. ....	..	..	..	29	9	5	..	..	..	..	..	..	..	..	..	..
Total	573	609	658	584	792	905	944	857	967	1029	1083	1177	1238	1171	1027	1323

DEGREES

The inserted table gives the number admitted to graduation. Since June 1911 degrees have been conferred in September, in February, and in June. These have been listed in a single column for each academic year but for any particular year see report for that year. 20,172 degrees have been conferred upon 16,278 men and 2,447 women. 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. On account of war conditions 17 degrees were conferred on May 1, 1917, and one as of June, 1916. In September, 1917, one A.B. degree and eleven B.S. degrees were conferred as of June 27, 1917. In January, 1918, three M.E. degrees were conferred as of June 27, 1917, and one M.E. as of September 26, 1917. In October 1918 one degree in Arts, one degree in Chemistry, and three degrees in Mechanical Engineering were conferred as of May 22, 1918, one in Mechanical Engineering was conferred as of September 26, 1917, and one in Civil Engineering was conferred as of October 11, 1916. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

Respectfully submitted,

DAVID F. HOY,
Registrar.

APPENDIX XV

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

To the President of the University:

SIR: The outstanding feature of these departments during the year 1918-1919 was the epidemic of so-called Spanish influenza during the first term. The out-

break commenced prior to the opening of the University. The infirmary was at once crowded to its utmost capacity. Cascadilla building was converted into a temporary hospital, and the annex, or easterly portion of Sage College, was used for the sick women students. Doctor A. T. Kerr immediately took charge of the situation and was untiring in administering the difficult problem. The direct responsibility for the treatment of the men fell largely upon Colonel J. R. Harris, the senior medical officer of the army stationed at the university, and Doctor R. Taintor of the Navy. The army staff was assisted by local doctors, Doctor Luzerne Coville devoting himself almost exclusively to the men in Cascadilla building, and Doctor Floyd R. Wright of the Clifton Springs Sanitarium to the men in the infirmary. Doctor Edith Gordon, the medical adviser for the women students, was in charge of the infirmary at Sage College.

During October and November there were approximately nine hundred cases cared for, all being students in the university or in one of the government schools. There were 37 deaths. There was a scarcity of doctors, nurses, and help of all kinds, and of equipment and supplies. The entire university community, assisted by volunteers from the city, rendered every service possible. The Board of Trustees at its meeting on November 30, 1919, adopted the following resolution:

"During the recent influenza epidemic Cornell University was responsible for the care of hundreds of patients, many of whom were soldiers or sailors. There was a scarcity of physicians and nurses, and of all kinds of helpers that are needed in such an emergency. The University and its wards would have been in a serious plight but for the unselfish labors of scores of volunteer workers. Men and women of Ithaca and of other towns devoted themselves for weeks, day or night, to any service that might contribute to the comfort and recovery of the sick, however laborious or distasteful the service might be. The stress was so great that it was impossible for the University officers even to record the names of all the many persons who served in that way. Those persons would not expect, and they might even resent, the University's thanks for what they did, because their labors were purely patriotic and humanitarian. But the community is deeply in their debt, and the Board makes this record of the University's appreciation of their noble work in alleviating the suffering of the sick during those distressing weeks."

With the discontinuance of the army schools and the reopening of the university on December 30, Doctors S. A. Munford, F. C. Balderrey, and Edith Matzke were still absent on leave in army or public service. Doctor Edith Gordon continued as the adviser for women and Doctor J. R. Harris was appointed acting medical adviser for men, and was assisted by Doctors R. Kimpton, H. W. Haight, and A. H. Sharp.

The total number of patients received at the infirmary and the temporary hospitals during the year was 1866 and the days service 17,554 as follows:

	Admissions	Days Service
Infirmary	1255	11,700
Cascadilla	418	4,368
Sage	128	1,161
Outside Houses	65	325

Deaths 39

Respectfully submitted,
C. D. BOSTWICK,
Treasurer.

APPENDIX XVI

REPORT OF THE COMMITTEE ON THE ACADEMIC PROGRAMS OF
THE STUDENTS' ARMY TRAINING CORPS

To the President of the University:

SIR: In accordance with the instructions of the University Faculty, I beg leave to submit to you herewith a report of the Committee in charge of academic programs of study of the members of the Students' Army Training Corps during the first term of the year 1918-1919.

The attached table shows the academic registration of the Corps by programs as authorized by the War Department, by units (army, navy, marines), and by colleges in which the students had satisfied the entrance requirements and had registered.

At a conference of the members of the teaching staff held on September 16, 1918, the Acting President was requested to appoint a committee with power to consider the academic and administrative problems, including entrance requirements, arising out of the relations of Cornell University to the Students' Army Training Corps. The following were named as members of the committee, of which the Acting President was chosen as chairman and the University Secretary as secretary: Professors Barton, Betten, Creighton, Diederichs, Dennis, Durham, Hammond, Haskell, Martin, Moore, Nichols, and Woodruff.

This committee had several meetings, and on September 22, 1918, it authorized the chairman to appoint a committee with power to select and group allied subjects in the various programs, except in Program IV in which the programs were referred to the appropriate technical schools.

The chair appointed as such committee Professors Durham, Hull, and Bretz, and subsequently added Professors English and Usher. This committee was in practically continuous session for a fortnight. It was faced with many serious problems in the organization of new courses, in the adjustment of schedules, and in the administration of the academic registration of the members of the Corps; and the committee wishes to express its unqualified appreciation of the hearty cooperation which it received from the members of the staff of instruction, for it realizes that without this generous aid and assistance it would have been impossible for the committee satisfactorily to meet the serious and from time to time new and unexpected demands made of it.

When the committee had completed its labors in respect of the formulation of the academic programs, it sent one of its members to Albany for a conference with the Regional Director, and the latter on behalf of the Committee on Education and Special Training of the War Department formally approved all the academic programs offered by the University, and the committee immediately proceeded to publish a pamphlet setting forth with full instructions to students the various academic programs open to the Collegiate Section of the S. A. T. C. at Cornell University. This pamphlet is a matter of record, and copies have been duly deposited in the University Library.

Respectfully submitted,

CHARLES L. DURHAM, Chairman.

**A = ARMY
N = NAVY
M = MARINES**

COLLEGE TOTALS	ARTS & SCIENCES	AGRICULTURE	ARCHITECTURE	CIVIL ENGINEERING	LAW	MECHANICAL ENGINEERING	VETERINARY	GRADUATE	NOT REGISTERED IN ANY COLLEGE, NO PROGRAM	UNIT TOTALS
Army	436	225	20	153	63	439	30	3	20	1389
Navy	71	55	3	34	27	177	1	1		369
Marines	9	5	1	2	5	10				32
	516	285	24	189	95	626	31	3	21	1790

APPENDIX XVII

REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I herewith respectfully submit the annual report of the library for the year ending June 30, 1919.

The year has witnessed the return to more normal conditions in the library both as to additions of materials and the use made of these materials. The absence of some regular assistants and the necessity of using untrained helpers has prevented the work going as smoothly at all times as could be wished.

War restrictions continued throughout the year to prevent importations from Germany and Austria. The German periodicals have been secured, as in 1917-1918, through the American Library Association Committee. Late in the year word came that the books and periodicals stored in Leipzig since shipping was stopped had been destroyed by fire in the warehouse. Just how much of a loss this will prove to be remains to be seen. Probably most of the German periodicals for 1917, and some for 1916, are included.

Two unusual gifts have come to the library during the year. The Wason Collection on China and the Chinese, given by Charles W. Wason of the class of '76, is now on the shelves, although not yet completely accessioned and catalogued, so that the exact number of volumes in the collection cannot be given. The estimate of 5,000 volumes already made is not far from correct.

Mr. James Verner Scaife, Cornell '89, of Pittsburgh, Pa., gave the library his valuable collection of books dealing with the Civil War of the United States, numbering 844 volumes and many valuable pamphlets that are difficult to obtain. The collection is rich in regimental histories, to which has been added subsequent information in the form of notes and newspaper clippings. The collection is a most welcome addition to the Civil War Collection made by President White during the war and presented to the University Library many years ago.

The library has received from various sources a collection of some 700 war posters, for which special thanks are due to Mr. J. I. Clarke, '12; Mr. S. N. Shaw, '17; Mr. C. B. Tailby, Mr. Georgio di Grassi, and Mr. Weyland Pfeiffer, '16.

As an outgrowth of the Semi-Centennial historical exhibition of Cornelliana in the library, the materials there used have been systematically arranged so as to make accessible the miscellaneous printed matter not adapted to binding, portraits, and miscellaneous pictures illustrating University life from year to year.

During the year two courses in Bibliography have been given to about forty students. One course was given three hours a week during the first quarter of the year, and the other course was given during the third quarter.

ACCESSIONS DIVISION

War conditions continued throughout the year to hinder the importation of books and periodicals from the countries of Central Europe. By the arrangement made by the special Committee on Importations of the American Library Associa-

tion mentioned in my last report, the library has been able to get, through Holland and Switzerland, German periodicals for 1918 and 1919. Those for 1916 and 1917, having been subscribed and paid for through the regular agent, were held in storage at Leipzig and Rotterdam.

Aside from the special collections, the library has received from yourself and Mrs. A. D. White, many valuable additions to the library resources, and from Mrs. James Morgan Hart two valuable works dealing with oriental rugs. From the Department of Romance Languages and Literatures, the seminary collection has been received and incorporated into the general library, such books as are needed in the seminary room to be deposited there under the supervision of the general library.

The more important additions to the library by purchase, both of books and periodicals, are the following:

- Renault and Cardot. *Mousses*.
- Mace. *Musick's Monument*. 1676.
- Purcell. *Orpheus Britannicus*. 1706.
- Anderson. *Zoology of Egyptian Mammalia*.
- Dugdale. *Antiquities of Warwickshire*. 1765.
- Guerinet. *L'architecture française*. 12 vols.
- Heywood. *Troia Britanica*. 1609.
- Zouche. *The Sophister*. 1639.
- Milton. *Poems*. 1673.
- Moreau-Nélaton. *Églises de chez nous: Soissons et Chateau-Thierry*.
- Joanne. *Dictionnaire de la France*.
- Vacant and Mangenot. *Dictionnaire de théologie catholique*.
- British Museum. *National Antarctic Expedition*. 1901-04.
- Oliver. *History of the Island of Antigua*.
- Gmelin. *Flora Siberica*.
- McCoy. *Natural history of Victoria*.
- James, Henry. *Novels and tales*. (New York ed.)
- Spenser. *Faerie Queen*. 1611.
- Fowler. *Coleoptera of the British Islands*.
- Hemings. *Fatal Contract*. 1653.
- Karsten. *Florae Columbiae*.
- Beebe. *Monograph of the Pheasants*.
- Sander, F. *Reichenbachia*. Imperial edition.

Periodicals added by purchase:

- Plainsong and Mediaeval Music Society. *Publications*. 12 vols.
- Musical Association. *Proceedings*. 41 vols.
- Annals of Scottish Natural History. 1892-1910.
- Journal of Philosophy, Chemistry, and the Arts. 36 vols.
- Parish Register Society. *Publications*. 65 vols.
- Cambridge Antiquarian Society. *Publications*. 30 vols.
- Royal Numismatic Society. *Journal*. 1836-1916.
- Cymrodorion Society. *Publications*. 1877-1918.
- Real Sociedad Geografica de Madrid. *Boletin*. 57 vols.
- [Chicago] Daily Trade Bulletin. 1867-1917.
- Spolia Zeylanica. 9 vols.
- Naval Chronicle. 40 vols.
- European Magazine. 87 vols.
- Optical Society. (London). *Transactions*. 19 vols.

Important sets completed during the year are as follows:

- Edinburgh Bibliographical Society. *Publications*.
- Manx Society. *Publications*.
- Revue des bibliothèques: *Supplements*.

Journal of Science and the Arts.

Catalogue générale des manuscrits des bibliothèques publiques de France:
Departments. 51 vols.

The present extent of the University Library is summarized as follows:

BOOKS, BOUND PAMPHLETS, MAPS, MSS., ETC.

	Vols.
General library, exclusive of the following.....	421,474
Anthon Collection, purchased 1868.....	6,770
Bopp Collection, purchased 1868.....	2,014
Sparks Collection, purchased 1872	5,717
White Historical Library gift, 1891.....	23,177
Zarncke Collection, gift, 1893.....	13,000
British Patents, gift, 1868-90.....	3,108
	475,260
 Fiske Dante Collection, gift, 1893.....	8,237
Fiske Petrarch Collection, gift, 1905.....	4,069
Fiske Icelandic Collection, gift, 1905.....	15,171
Wason Collection, gift, 1918.....	
Volumes of Cornell University Theses (deposited).....	6,498
Philological Seminary Collection.....	1,072
Philosophical Seminary Collection.....	787
German Seminary Collection.....	761
*French Seminary Collection.....	28
Latin Seminary Collection.....	329
American History Seminary Collection.....	597
	37,549
 Maps in the Library.....	969
Cornell University plans deposited in the Library.....	196
U. S. Coast Survey Charts.....	960
U. S. Geological Survey Topographical Sheets.....	2,189
U. S. Geological Survey Atlases.....	208
British Geological Survey Maps.....	600
	5,122
 Manuscripts	627
 General Law Library, gifts and purchases to 1917.....	38,763
Moak Law Library, gift, 1893.....	12,500
Flower Veterinary Library, gifts.....	5,671
Barnes Reference Library, gift.....	2,316
Goldwin Smith Hall Library.....	2,460
Stimson Hall Library.....	1,427
Evans Mathematical Library.....	417
Comstock Memorial Collection.....	268
Architectural College Library.....	1,089
Economic Laboratory Collection.....	196
Miscellaneous Department Collections.....	4,522
Entomological Collection.....	2,331
	71,960
 New York State Agricultural College Library.....	13,444
New York State Forestry Library.....	1,181
New York State Plant Pathology Collection.....	383
	15,008
 Total books, maps, mss., etc.....	605,526

A list of donors to the library during the year is appended to the librarian's printed report.

*The books in French Seminary have been incorporated in the General Library.

CATALOGUE DIVISION

The work of this division covers the classification and cataloguing of all materials received by the library.

During the year the books dealing with the European War have been reclassified according to the Library of Congress system, thus providing for a more comprehensive collection than could have been included under the old system. The Scaife Collection of Civil War literature has also been classified by the Library of Congress system and the works dealing with the same subject that were already in the library will be re-classified and shelved with them. The Wason Collection on China and the Chinese has been only partially classified as yet but will be dealt with as fast as the regular work will permit.

The cataloguing has kept pace with the classification and the following table shows the work done;

Volumes and pamphlets catalogued.....	11,546
Maps catalogued.....	132
Manuscripts catalogued.....	5
Number of titles added to the catalogue	7,199
Number of written cards added to the catalogue.....	13,834
Number of printed cards added to the catalogue.....	7,418

The Library of Congress card catalogue sent us as one of the depository libraries of the United States has added 32,052 new cards this year. This catalogue, having been transferred from another library to us, was found defective in places and the Library of Congress is systematically supplying the missing cards from Washington as fast as the lacking cards can be determined.

The usual list of publications by University officers has been prepared as an appendix to the President's Report, by the Catalogue division.

STACKS DIVISION

During the year additional book shelves have been provided in the newspaper and periodical stacks, which have made it possible to bring together on one floor all the general periodicals and newspapers, and release book shelves in other parts of the stacks. In this way room was made for shelving the Wason and Scaife Collections. As the book shelves in many parts of the stacks are already crowded, it will be necessary in the near future to add two more floors, one each at the top of the west and south stacks, which will provide room for some five years additions.

During the past year, as in the previous year, the work of this division has been interfered with by the absence of two assistants giving war service. Temporary assistance has been used and the work done as best it could, but a complete inventory of the books belonging to the library has not been possible. As this inventory is continuously going on, all items are checked in serial order, if not all within one year.

READERS DIVISION

The library has been open for use during the year 309 days.

During the period of the S. A. T. C. the record of books used in the library was unusually small, although the reading room was always well filled with stu-

dents, who found it a more desirable study room than the barracks. With the beginning of the calendar year the recovery was rapid and the number of books issued for use from January to June was larger than that for the year 1915-16, or the latest normal year.

The number of registered borrowers during the year was 1505, of which 135 were libraries of other places.

The number of books held in reserve for special use during the year was 17,599. The number of current periodicals kept on file in the periodical room is 740, and of bound volumes of periodicals on the open shelves is 2824.

The recorded use for the year is as follows:

Reading room.....	78,801
Seminary rooms.....	2,303
Laboratories and Departments.....	4,830
Home use.....	28,962
Foreign loans.....	166

	115,062
Borrowed from other libraries.....	64

SPECIAL COLLECTIONS

The White Historical Collection has been added to more slowly during the past year because of the difficulty of getting books from abroad, as well as the risks run in having them forwarded. For this reason some things were held in England at our request until the danger of shipping, incident to war conditions, was past.

Besides the gifts from President and Mrs. White the additions to this collection have been purchased as hitherto from the special fund set aside by the Trustees and from the royalties from the *History of the warfare of science with theology*, which President White generously gave for this purpose.

The Fiske Dante and Petrarch Collections show but slight increase during the year, only six volumes having been added to the Petrarch and forty-three to the Dante Collection. Illness has compelled the curator, Miss Fowler, to be absent from the collection for a few months, but she has now resumed her work.

The Fiske Icelandic and Runic Collection has added some 151 volumes and now has a total of 11,441. The annual publication *Islandica*, Vol. 11, by Haldor Hermannsson, the curator, was issued during the year and dealt with *The periodical literature of Iceland down to the year 1874*.

DEPARTMENT LIBRARIES

The department libraries, made up largely of general library books and periodicals deposited in the several colleges for more ready use there, have been added to during the year. The return of a large number of books and periodicals from the botanical laboratory, the Sibley library, and the Architectural library has kept down the total now deposited outside the general library. There are no doubt many others that are not used enough to warrant their remaining on deposit but as yet we have no means of accurately determining these.

VOLUMES DEPOSITED IN DEPARTMENT LIBRARIES

Architecture	3,311
Chemistry	4,880
Sibley College.....	2,421
Civil Engineering.....	4,672
Medical College.....	751
Veterinary College.....	5,671
Entomology	4,596
Agriculture	1,818
Morrill Hall (Hart Library).....	2,250

In addition to these collections, more or less permanently deposited outside the library, there are several laboratory collections that are changing in character with the changes in the work. These books are issued to the heads of the laboratories, who become responsible to the library for their custody and safe return to the library.

Yours respectfully,

WILLARD AUSTEN,
Librarian.

APPENDIX XVIII

PUBLICATIONS, 1918-1919

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

Cornell University. Official publications. v. 10. 1918-1919.

Cornell University. Agricultural Experiment Station. Bulletin. No. 398-399.

October, 1918—February, 1919. Ithaca, N. Y.

— Memoir. No. 13-23. August, 1918-June, 1919. Ithaca, N. Y.

— Thirty-first annual report of the New York State College of Agriculture at Cornell University and the Agricultural Experiment Station established under the direction of Cornell University, Ithaca, N. Y., 1918. Albany, N. Y., J. B. Lyon Co., 1919.

Cornell University. Library. Librarian's report, 1917-1918. Ithaca, N. Y., 1918. 12p.

— Recent publications by Cornell University and its officers, 1882-March 31, 1895. *Cornell University. Library. Bulletin*, v. 1:245, 281, 1884-1885; v. 2:1, 78, 119, 191, 267, 315, 1886-1891; v. 3:1, 97, 207, 289, 1892-1895.

— Publications [by Cornell University and its officers.] April 1, 1895-June 30, 1918. *Cornell University. President. Annual reports*, 1895-1918.

Cornell University. Medical College. Cornell University medical bulletin. v. 6-7. New York, 1916-1918. 2v.

— Studies from the Department of Anatomy. v. 6. New York, 1916-1917. 1918.

Cornell University. Organist. Organ recitals. No. 1-617. Ithaca, N. Y., 1899-1918. 617 nos.

New York State College of Agriculture. Thirty-first annual report of the New York State College of Agriculture at Cornell University and the Agricultural Experiment Station established under the direction of Cornell University, Ithaca, N. Y., 1918. Albany, N. Y., J. B. Lyon Co., 1919.

- New York State Veterinary College.** Report for the year 1916-1917. Albany, J. B. Lyon Co., 1918.
- Report for the year 1917-1918. Albany, J. B. Lyon Co., 1919.
- Cornell architect,** 1919; published by the Architects Association, College of Architecture, Cornell University, Ithaca, N. Y.
- Cornell chemist;** published by the Board, under the supervision of the Department of Chemistry at Cornell University, Ithaca, N. Y. M. L. Nichols, editor. v. 7, No. 1; v. 8, No. 1. April, 1918-June, 1919.
- Cornell civil engineer;** monthly publication of the Association of Civil Engineers of Cornell University. v. 27. February, 1919-June, 1919. Ithaca, N. Y.
- Cornell countryman.** v. 16. February, 1919-June, 1919. Ithaca, N. Y.
- Cornell extension bulletin.** No. 29-33. June, 1918-May, 1919. Ithaca, N. Y.
- Cornell junior extension bulletin.** No. 1-2. December, 1918. Ithaca, N. Y.
- Cornell law quarterly;** published by the Faculty and Students of the Cornell University College of Law. v. 4. April, 1919-June, 1919. Ithaca, N. Y.
- Cornell reading course for the farm;** Royal Gilkey, supervisor. No. 133-141. February, 1918-January, 1919. Ithaca, N. Y.
- Cornell reading course for the farm home;** Martha Van Rensselaer, Flora Rose, and Helen Canon, supervisors. No. 120-122. August, 1918-November, 1918, Ithaca, N. Y.
- Cornell rural school leaflet;** edited by E. M. Tuttle. v. 12, No. 1. September, 1918.
- Cornell veterinarian.** D. H. Udall, editor; E. M. Pickens, C. E. Hayden, acting editors. v. 8. January, 1918-October, 1918. Ithaca, N. Y.
- Islandica;** an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library. v. 11. By Halldór Hermannsson. Issued by Cornell University Library, Ithaca, N. Y. 1918.
- Journal of physical chemistry;** editor, W. D. Bancroft. v. 22. January, 1918-December, 1918. Ithaca, N. Y.
- Philosophical review,** edited by J. E. Creighton, with the co-operation of James Seth. v. 27. January, 1918-November, 1918. New York, Longmans, Green and Co.
- Sibley journal of engineering;** edited by J. C. Friedrich. v. 32. October, 1917-September, 1918. Ithaca, N. Y.

Publications by Officers

In the present list are included the titles of books, pamphlets, and contributions to periodicals, transactions, etc., published by officers and fellows of the University during the period extending from July 1, 1918, to June 30, 1919, with some titles omitted in previous lists.

- Adams, Bristow.** Attaching wires to trees. *American agriculturist*, v. 103, No. 17:16, 1919.
- Overhead and underfoot. *Cornell era*, v. 51, No. 2:32, 1919.
- Planting by the weather. *Garden magazine*, v. 29, No. 1:20, 1919.
- *editor.* Cornell University. Agricultural Experiment Station. [Publications], 1918-1919; Extension service news, 1918-1919; New York State College of Agriculture at Cornell University. [Publications], 1918-1919.
- *Editorial advisory board.* New York forestry, 1918-1919.
- Adams, J. Q.** An hitherto unknown actor of Shakespeare's troupe. *Modern language notes*, v. 34:46, 1919.
- The housekeepers of the globe. *Modern philology*, v. 17:1, 1919.
- Michael Drayton's *To the Virginia voyage*. *Modern language notes*, v. 33:405, 1918.
- Shakespeare, Heywood, and the classics. *Same*, v. 34:336, 1919.
- *Review:* Heywood, Thomas. A woman killed with kindness, and The fair maid of the West; edited by K. L. Bates. *Modern philology*, v. 16:273, 1918.

- associate editor. Materialien zur Kunde des älteren englischen Dramas, 1918-1919.
- joint editor. Cornell studies in English, 1918-1919.
- Albee, Ernest.** Philosophy and literature. *Philosophical review*, v. 27:343, 1918.
- Alexander, W. P.** Before dawn on Mount Buell. *Nature study review*, v. 14:292, 1918.
- Beginnings in beekeeping. *Cornell reading course for the farm. Lesson 138: 73, 1918.*
- Deo volente. *Nature study review*, v. 14:252, 1918.
- The honeybee. *Cornell countryman*, v. 16, Frontispiece, May, 1919.
- The larch. *Nature study review*, v. 15:14, 1919.
- The meadow lark. *Montefiore echo*, N. Y., v. 5, June, 1919.
- A new Spring song. *Nature study review*, v. 14:210, 1918.
- Orion, the mighty hunter. *Same*, v. 14:379, 1918.
- To commemorate the fiftieth anniversary of Cornell University. *Cornell countryman*, v. 16, Frontispiece, June, 1919.
- To the deer mouse. *Nature study review*, v. 14:9, 1918.
- To the redbird. *Cornell countryman*, v. 15:462, 1918.
- To the river St. John's. *Nature study review*, v. 14:292, 1918.
- Allen, A. A.** Birds to be recognized in 1918-1919. *Cornell rural school leaflet*, v. 12:25, 1918.
- Christmas with the birds. *American forestry*, v. 24:743, 1918.
- Nighthawks and whip-poor-wills. *Same*, v. 24:615, 1918.
- The pigeons and doves. *Same*, v. 24:428, 1918.
- The plovers. *Same*, v. 25:877, 1919.
- Rails, gallinules, and coots. *Same*, v. 25:1001, 1919.
- Robin. *Cornell rural school leaflet*, v. 12:22, 1918.
- The sandpipers. *American forestry*, v. 25:793, 1919.
- Upland game birds: the grouse. *Same*, v. 24:497, 1918.
- Upland game birds; turkeys, quail, and pheasants. *Same*, v. 24:543, 1918.
- The warblers of central New York. *Bird lore*, v. 21:81, 149, 1919.
- The waterfowl. *American forestry*, v. 25:931, 1919.
- When the North wind blows. *Bird lore*, v. 20:399, 1918; v. 21:1, 1919.
- Andrews, A. L.** Bryological notes. V. *Scapania nimbosa* from Norway. *Torreya*, v. 19:49, 1919.
- A collection of mosses from North Carolina. *Bryologist*, v. 21:61, 1918.
- Further influences upon Ibsen's Peer Gynt, III. Heiberg's En Sjøel efter Døden. *Journal of English and Germanic philology*, v. 18:67, 1919.
- Review: Hesselbo, A. The Bryophyta of Iceland. *Bryologist*, v. 22:4, 1919.
- Atkinson, H. V.** Animal calorimetry. XIV. Influence of mechanical work upon protein metabolism during the height of meat digestion in the dog. *Journal of biological chemistry*, v. 33:379, 1918.
- Animal calorimetry. XV. Further experiments relative to the cause of the specific dynamic action of protein, by H. V. Atkinson and Graham Lusk. *Same*, v. 36:415, 1918.
- Austen, Willard.** Librarian's report, 1917-18. *Cornell University. Official publications*, v. 9, No. 17-A, 1918.
- Ayres, W. E.** Country milk stations, function, organization, operation, construction, and equipment, by W. A. Stocking, W. E. Ayres, R. C. Potts, and H. F. Meyer. *Cornell extension bulletin*, No. 30, 1918.
- Barker, E. E.** Celebrating Memorial Day. *Journal of heredity*, v. 9:134, 1918.
- Variability in the radish, by E. E. Barker and R. H. Cohen. *Same*, v. 9:357, 1918.
- Barringer, B. S.** Surgery vs. radium in the treatment of carcinoma of the bladder. *New York State journal of medicine*, v. 18:436, 1918.

- Bechtel, A. R.** My garden vegetables by name. *Pennsylvania farmer*, v. 44, 7 Dec., 1918.
- Becker, C. L.** The eve of the revolution; a chronicle of the breach with England. New Haven, Yale University Press, 1918. 267p.
- America's war aims and peace program. Washington, D. C., 1918. 52p. (U. S. Committee on Public Information. War information series. No. 21.)
- Bismarck. *Nation*, v. 108:942, 1919.
- Education of Henry Adams. *American historical review*, v. 24:422, 1919.
- German attempts to divide Belgium. *League of nations*, v. 1, No. 6:307, 1918.
- On being a professor. *Unpopular review*, v. 7:342, 1917.
- Bedell, Frederick.** Airplane characteristics; a systematic introduction for flyer and student and for all who are interested in aviation. Ithaca, N. Y., Taylor and Company, 1918. 123p.
- Directional stability of an airplane. *Sibley journal of engineering*, v. 32:166, 1918.
- Lateral stability of an airplane. *Same*, v. 32:154, 1918.
- managing editor. *Physical review*, 1918-1919.
- Benedict, S. R.** Colorimetric determination of phenols in blood, by S. R. Benedict and R. C. Theis. *Journal of biological chemistry*, v. 36:95, 1918.
- A new form of colorimeter, by J. C. Bock and S. R. Benedict. *Same*, v. 35:227, 1918.
- Note on the determination of blood sugar by the modified picric acid method. *Same*, v. 37:503, 1919.
- The nutritive value of the banana, by Kanematsu Sugiura and S. R. Benedict. *Same*, v. 36:171, 1918.
- Phenols and phenol derivatives in human blood in some pathological conditions, by R. C. Theis and S. R. Benedict. *Same*, v. 36:99, 1918.
- Preparation of Dakin's solution from liquid chlorine by the gravimetric method. *Journal of surgery, gynecology, and obstetrics*, v. 27:386, 1918.
- Bennett, C. E.** New Latin composition with supplementary exercises. Boston, Allyn and Bacon, 1919. 291p.
- Betten, Cornelius.** The alumni conference. *Cornell countryman*, v. 16:174, 1919.
- Birch, R. R.** Observations in regard to immunizing young pigs. *Cornell veterinarian*, v. 9:75, 1919.
- Bodansky, Aaron.** A rapid method for the estimation of urea in urine, by J. B. Sumner, assisted by Aaron Bodansky. *Journal of biological chemistry*, v. 38:57, 1919.
- Boyle, J. E.** The agrarian movement in the northwest. *American economic review*, v. 8:506, 1918.
- Effect of government control on marketing methods and costs. *Same*, v. 9, No. 1, Supplement, p. 56, 1919.
- Bradley, J. C.** Contributions toward a monograph of the Mutillidae and their allies of America north of Mexico. Pt. 3. The Mutillidae of the Eastern United States. *American Entomological Society. Transactions*, v. 42:309, 1916. Pt. 4. A review of the Myrmosidae. *Same*, v. 43:247, 1917.
- Descriptions and records of some parasitic Hymenoptera mostly collected by Mr. Hachiro Yuasa in Tompkins County, New York. *Brooklyn Entomological Society. Bulletin*, v. 13:97, 1918.
- An entomological cross-section of the United States. *Scientific monthly*, v. 8:356, 403, 514, 1919.
- The status of Parabates Foerster, and Parabatus Thomson [Hymenoptera, Ichneumonidae]. *Annals and magazine of natural history, series 9*, v. 3:319, 1919.
- The synonymy and types of certain genera of Hymenoptera, especially of those discussed by the Rev. F. D. Morrice and Mr. Jno. Hartley Durrant in connection with the long forgotten "Erlangen list" of Panzer and Jurine. *Entomological Society of London. Transactions*, 1919.

- Taxonomic notes on Agathinae (Hymenoptera, Braconidae). *Psyche*, v. 23:139, 1914.
- *Reviews*: Bequaert, J. A revision of the Vespidae of the Belgian Congo, based on the collection of the American Museum Congo Expedition, with a list of Ethiopian Dipteroptous wasps. *New York Entomological Society. Journal*, v. 27:103, 1919; Blatchley, W. S., and C. W. Leng. Rhynchophora or weevils of North Eastern America. *Same*, v. 25:81, 1917.
- Briggs, T. R.** Electrical endosmose. I. *British Association for the Advancement of Science. Report of the 88th meeting*, 1918, Section B, p. 26.
- Electrical endosmose. II. Industrial applications. *Same*, 1918, Section B, p. 39.
- Broughton, L. N.** Review: Powell, C. L. English domestic relations 1487-1653. *Journal of English and Germanic philology*, v. 17:455, 1918.
- Butler, E. F.** Recommendations regarding Balkan frame, by E. F. Butler and T. F. X. Sullivan. *Military surgeon*, February, 1919.
- Canon, Helen, compiler.** A manual of home-making, compiled by Martha Van Rensselaer, Flora Rose, Helen Canon. New York, Macmillan Company, 1919. 661p.
- editor. Cornell reading course for the farm home. Lesson 120-122. 1918; New York State Food Commission. Circular No. 10-12. 1918.
- Carpenter, C. M.** Researches in the diseases of breeding cattle, by W. L. Williams and C. M. Carpenter. *New York State Veterinary College. Report*, 1917-18, p. 51.
- Handling an outbreak of calf scours and pneumonia. *Same*, 1917-18, p. 109.
- Carver, W. B.** Trigonometric functions—of what? *American mathematical monthly*, v. 26:243, 1919.
- Cecil, R. L.** Classification and serum treatment of pneumonia at Camp Upton. *New York State journal of medicine*, v. 18:1, 1918.
- Pneumonia and empyema at Camp Upton, N. Y. *Medical clinics of North America*, v. 2:567, 1918.
- Results of prophylactic vaccination against pneumonia at Camp Wheeler, by R. C. Cecil and H. F. Vaughan. *Journal of experimental medicine*, v. 29: 457, 1919.
- A study of eighty cases of empyema at Camp Upton, by Harlow Brooks and R. L. Cecil. *Archives of internal medicine*, v. 22:269, 1918.
- Chambers, Robert.** The cytoplasmic factor in cell division. *Journal of general physiology*, June, 1919.
- Preliminary report of experiments on the action of dichlorothiolsulfide (mustard gas) on the cells of marine organisms, by R. S. Little, G. H. A. Clowes, R. Chambers. *Science*, n. s., v. 49:382, 1919.
- A report on cross fertilization experiments (asterias x solaster), by Robert Chambers and Bessie Mossop. *Royal Society of Canada. Transactions, Ser. III, Vol. 12, Sections IV and V*, p. 145, 1918.
- A report on results obtained from the microdissection of certain cells. *Same, Ser. III, Vol. 12, Sections IV and V*, p. 41, 1918.
- Chandler, W. H.** The effect of the severe winter of 1917-18 on the fruit industry and its lessons for the fruit grower. *New York State Horticultural Society. Report*, 1919, p. 35.
- Pollination problems with fruit trees. *Same*, 1919, p. 190.
- Winter injury of fruit trees. *Same*, 1919, p. 181.
- Child, C. D.** Electric force in the mercury arc. *Physical review*, n. s., v. 12:277, 1918.
- The light from mercury vapor. *London, Edinburgh and Dublin philosophical magazine*, ser. 6, v. 37:61, 1919.
- Church, I. P.** Discussion: New principle in theory of structures. *American Society of Civil Engineers. Proceedings*, v. 45:315, 1919.

- Coca, A. F.** The examination of the blood preliminary to the operation of blood transfusion. *Journal of immunology*, v. 3:93, 1918.
- Hypersensitiveness. *Prior's Loose leaf practice of medicine*, v. 1:107, 1919.
- The mechanism of corpuscle and serum anaphylaxis in the rabbit. *Society for Experimental Biology and Medicine. Proceedings*, v. 16:47, 1919.
- Coilingwood, G. H.** Burning pulled stumps. *Rural New Yorker*, v. 78:216, 8 Feb., 1919.
- Catalpa for timber. *Same*, v. 78:162, 1 Feb., 1919.
- Christmas tree farming. *Same*, v. 78:370, 1 March, 1919; v. 78:416, 8 March, 1919.
- Destroying locust stumps. *Same*, v. 78:783, 3 May, 1919.
- Prices and markets for pulp wood. *Same*, v. 78:560, 29 March, 1919.
- Wood borers in house timbers. *Same*, v. 78:514, 22 March, 1919.
- Comstock, J. H.** The wings of insects. Ithaca, N. Y., Comstock Publishing Co., 1918. 430p.
- Cooper, Lane.** English translations of Greek and Latin classics; a description of a course given at Cornell University. *Teachers' review*, v. 9:21, 1918. Reprinted from *Classical weekly*, v. 11:49, 1917.
- The making and the use of a verbal concordance. *Sewanee review*, v. 27:188, 1919.
- Patterns. *School and society*, v. 9:643, 1919.
- Scholarship and humanism. *Nation*, v. 108:911, 1919.
- Teacher and student. *School and society*, v. 8:91, 1918.
- Two views of education. *Sewanee review*, v. 26:333, 1918.
- Wordsworth's knowledge of Plato. *Modern language notes*, v. 33:497, 1918.
- editor. Meredith, George. An essay on comedy and the uses of the comic spirit; edited with an introduction and notes, by Lane Cooper. New York, C. Scribner's Sons, 1918. 326p.
- Craig, W. T.** The relation between color and other characters in certain avena crosses, by H. H. Love and W. T. Craig. *American naturalist*, v. 52:369, 1918.
- The synthetic production of wild wheat forms, by H. H. Love and W. T. Craig. *Journal of heredity*, v. 10:51, 1919.
- Crane, T. F.** Andrew Dickson White. *Cornell alumni news*, v. 21:88, 1918.
- The epigram in Italy. *Times [London], Literary supplement (Correspondence)*, 30 May, 1919, p. 296.
- Response at Alumnae banquet, fiftieth anniversary of Wells College, June 11, 1918. *Wells College bulletin*, v. 4, No. 4:65, 1918.
- The Wason Chinese library. *Cornell alumni news*, v. 20:464, 1918.
- Reviews: Harris, J. R. The origin of the cult of Aphrodite. Frazer, J. G. Jacob and the Mandrakes. Starck, A. T. Der Alraun. *Modern language notes*, v. 33:417, 1918; Levi, Ezio, editor. Il libro dei cinquanta miracoli della Vergine; edito ed illustrato da Ezio Levi. Levi, Ezio. I miracoli della Vergine nell' arte del Medio Evo. *Same*, v. 33:481, 1918.
- Crosby, C. R.** Manual of vegetable-garden insects, by C. R. Crosby and M. D. Leonard. New York, Macmillan Co., 1918. 391p.
- The control of the apple red-bug. *New York State Horticultural Society. Proceedings of the 1st annual meeting*, 1919, p. 220.
- Curtis, O. F.** Supplementary text on general physiology for the course in general biology, Students' Army Training Corps. [Ithaca, N. Y., 1918.] 20p.
- Stimulation of root growth in cuttings by treatment with chemical compounds. *Cornell University Agricultural Experiment Station. Memoir No. 14*, 1918.
- Davenport, H. J.** Farm products and cost accounting. *Journal of political economy*, v. 27:354, 1919.
- Peace in its economic aspects. *Dial*, v. 66:388, 1919.
- The stock dividend again. *National Tax Association. Bulletin*, v. 4:53, 1918.
- Wage theory and theories. *Quarterly journal of economics*, v. 33:256, 1919.

- The war-tax paradox. *American economic review*, v. 9:34, 1919.
- World's heavier taxes. *Annalist*, v. 12:413, 1918.
- [Articles appearing in the *New York tribune*, 1918-1919]: Allied powers' war endurance, 18 August, 1918; Back to business as usual, 1 January, 1919; Coal labor and the war, 21 April, 1918; Could America sell \$400,000,000 bonds? 28 October, 1918; Investment in public utilities, 14 April, 1919; Investment in public utilities, 11 May, 1919; Our bill against Germany, 10 November, 1918; Output or dollars in war, 26 May, 1918; Reconstruction and beyond: I. Ultimate tendencies, 22 December, 1918. II. Reorganization, 29 December, 1918. III. Transition wages and profits, 5 January, 1919. IV. The credit outlook, 12 January, 1919. V. Interest and secondary values, 19 January, 1919. VI. Prospect for real estate, 26 January, 1919. VII. Shipping problems, 2 February, 1919. VIII. International trade currents, 9 February, 1919. IX. The woman problem and immigration, 16 February, 1919; Speculation and price fixing, 14 October, 1918; Stabilize prices, 24 November, 1918; Unpegging the pound, 31 March, 1919; Wages of returning soldiers, 29 December, 1918.
- Dennis, L. M.** Problems in inorganic chemistry. Geneva, N. Y., W. F. Humphrey, 1918. 42p.
- Gallium, by L. M. Dennis and J. A. Bridgman. *American Chemical Society. Journal*, v. 40:1531, 1918.
- Detwiler, J. D.** Notes on some little known pests of red clover, by G. W. Herrick and J. D. Detwiler. *Journal of economic entomology*, v. 12:206, 1919.
- Notes on the repugnatorial glands of certain Notodontid caterpillars, by G. W. Herrick and J. D. Detwiler. *Entomological Society of America. Annals*, v. 12:44, 1919.
- DuBois, P. L.** The diagnosis of poliomyelitis, by J. B. Neal and P. L. DuBois. *American journal of the medical sciences*, v. 152:313, 1916.
- Differential diagnosis and treatment of epidemic cerebro-spinal meningitis. *American Medical Association. Journal*, v. 60:820, 1913.
- The normal spinal fluid, its physiology and chemistry. *Long Island medical journal*, v. 8:92, 1913.
- Summary of four years of clinical and bacteriologic experience with meningitis in New York City, by P. L. DuBois and J. B. Neal. *American journal of diseases of children*, v. 9:1, 1915. Also in *New York City. Health Department. Collected studies*, v. 8:13, 1914-15.
- Summary of seven years clinical and laboratory experience with meningitis in New York City, by P. L. DuBois and J. B. Neal. *Archives of pediatrics*, v. 34:561, 1917. Also in *New York City. Health Department. Reprint series No. 62, Sept., 1917*.
- Streptococcus and meningitis with report of a cured case, by P. L. DuBois and J. B. Neal. *Archives of pediatrics*, v. 32:28, 1915. Also in *New York City. Health Department. Collected studies*, v. 8:26, 1914-15.
- Dynes, O. W.** The farm seed catalog. *Cornell countryman*, v. 16:17, 1919.
- Edgar, J. C.** Some causes of still birth. *New York State journal of medicine*, v. 18:406, 1918.
- Why the midwife? *American journal of obstetrics*, v. 78:242, 1918.
- Edwards, D. J.** Compensatory phenomena in the distribution of the blood during stimulation of the splanchnic nerve. *American journal of physiology*, v. 35:15, 1914.
- Nature of the splanchnic rise in blood pressure, by R. Burton-Opitz and D. J. Edwards. *Same*, v. 41:91, 1916.
- The vascularity of the adrenal bodies, by R. Burton-Opitz and D. J. Edwards. *Same*, v. 43:408, 1917.
- Eggleston, Cary.** Studies in the elimination of certain of the digitalis bodies from the animal organism, by R. A. Hatcher and Cary Eggleston. *Journal of pharmacology and experimental therapeutics*, v. 12:405, 1919.

- Einhorn, Max.** The care of digestion for the soldier. *Medical record*, v. 93:241, 1918.
- A case of perforation of the duodenum treated successfully by duodenal (jejunal) alimentation. *Same*, v. 94:927, 1918.
 - The fractional examination of the duodenal contents. *American journal of the medical sciences*, v. 156:817, 1918.
 - Further experiences with the direct examination of the duodenal contents in affections of the gall-bladder and allied organs. *Medical record*, v. 93:885, 1918.
 - X-Ray visualization of the gut by means of a new intestinal delineator. *Same*, v. 95:509, 1919.
- Ellenwood, F. O.** Davies Kirkland Banks, a tribute. *Sibley journal of engineering*, v. 33:33, 1919.
- *Abstracts*: Bradley, W. F. 90-95 per cent lubricating oil reclaimed by army emergency process. *Same*, v. 33:38, 1919; Geist, H. F. Generation and storage of energy in magnetos. *Same*, v. 33:15, 1919; Ricardo engine made good in tanks. *Same*, v. 33:37, 1919; Williams, S. T. F-5-L navy flying boat. *Same*, v. 33:51, 1919.
- Embody, G. C.** Artificial hybrids between pike and pickerel. *Journal of heredity*, v. 9:253, 1918.
- Fresh water farming. *Farm knowledge*, v. 1, 1918.
 - Results of some trout feeding experiments carried on in the experimental hatching station of Cornell University. *American Fisheries Society. Transactions*, v. 48:26, 1918.
- Emerson, R. A.** A fifth pair of factors, Aa, for aleurone color in maize, and its relation to the C c and R r pairs. *Cornell University Agricultural Experiment Station. Memoir No. 16*:225, 1918.
- Engeln, O. D. von.** A campaign for geography. *Journal of geography*, v. 18:28, 1919.
- New geography and old texts. *School science and mathematics*, v. 19:158, 1919.
 - Utilizing current news in geography teaching. *Journal of geography*, v. 18:109, 1919.
- Ewing, James.** Neoplastic diseases, a text-book on tumors. Philadelphia, W. B. Saunders Co., 1919. 1027p.
- Military aspects of status lymphaticus. *American Medical Association Journal*, v. 71:1525, 1919.
 - The place of pathological anatomy in military medicine. *Military surgeon*, v. 44, February, 1919.
 - Tuberculoma of the iris; report of case with microscopic examination of the eyeball, by T. A. Mulcahy and James Ewing. *American journal of ophthalmology*, v. 1:757, 1918.
- Farrar, L. K. P.** An analysis of 309 cases of ectopic gestation in the Woman's Hospital in the State of New York. *American journal of obstetrics*, v. 79, No. 2, 1919.
- The visitations of influenza and its influence upon gynecologic and obstetric conditions. *Same*, v. 79, No. 2, 1919.
- Faust, A. Br.** Literature written in German in the United States. *Cambridge history of American literature*, v. 3, 1919.
- Mathilde Franziska Giesler-Anneke: Memoiren einer Frau aus dem badisch-pfälzischen Feldzug, and a sketch of her career. *German American annals*, n. s., v. 16:73, 1918.
- Fippin, E. O.** American potash in crop production. *Cornell countryman*, v. 10:121, 1919.
- County Farm Bureau Association, the basis of a national federation of agriculture. *Ohio farmer*, v. 43:320, 1919.
 - Lime and the growth of clover. *Michigan Limestone & Chemical Co., Buffalo, N. Y. [Publication.]* 4p.

- Fisk, W. W.** The book of cheese, by Charles Thom and W. W. Fisk. New York, Macmillan Co., 1918. 392p.
- Fitzpatrick, H. M.** The cytology of *Eocronertium muscicola*. *American journal of botany*, v. 5:397, 1918.
- George Francis Atkinson. *Science, n. s.*, v. 49:371, 1919.
- Forbes, W. T. M.** *Anacampsis innocuella*. *New York Entomological Society. Journal*, v. 26:228, 1918.
- The aquatic caterpillars of Lake Quinsigamond. *Psyche*, v. 17:219, 1910.
- An artificial table of the species of *Hadena*, etc., of eastern North America north of the Carolinas. *New York Entomological Society. Journal*, v. 21:179, 1913.
- The genera of *Hydriomeninae* of the U. S. *Same*, v. 25:44, 1917.
- A geological route through Central Asia Minor. *Journal of geology*, v. 19:61, 1911.
- Guenée's *Herminidae* revived. *New York Entomological Society. Journal*, v. 26:224, 1918.
- New England caterpillars. No. 2: *Eubaphe nigricans*. *Same*, v. 18:163, 1910.
- The North American families of Lepidoptera. *Psyche*, v. 21:53, 1914.
- Notes on a few of the rarer New England Lepidoptera. *Same*, v. 16:134, 1909.
- On certain caterpillar nomologies. *New York Entomological Society. Journal*, v. 24:137, 1916.
- On certain *Pieris* caterpillars. *Psyche*, v. 16:69, 1909.
- On the tympanum of certain Lepidoptera. *Same*, v. 23:183, 1916.
- Slides of wings of Macrolepidoptera. *New York Entomological Society. Journal*, v. 23:69, 1915.
- A structural study of some caterpillars. *Entomological Society of America. Annals*, v. 3:94, 1910.
- A structural study of the caterpillars. 2. The Sphingidae. *Same*, v. 4:261, 1911
- A structural study of the caterpillars. 3. The somatic muscles. *Same*, v. 7:109, 1914.
- A table of the genera of Noctuidae of northeastern North America. *New York Entomological Society. Journal*, v. 22:1, 1914.
- *Trichoclea ruisa*, new species; a structurally aberrant Noctuid. *Insecutor inscitiae menstruus*, v. 1:73, 1914.
- Fowler, Mary.** Willard Fiske as a bibliographer. *Bibliographical Society of America. Papers*, v. 12:89, 1918.
- Gage, V. R.** Misadjustment of exhaust valve. *Power*, v. 49:179, 1919.
- Gibson, C. L.** The advantages of picric acid over tincture of iodine for disinfection of the skin. *Annals of surgery*, v. 43:127, 1919.
- Surgical treatment of war wounds. *American journal of the medical sciences*, v. 156:253, 1918.
- Gilbert, A. H.** A geographical dictionary of Milton. New Haven, Conn., Yale University Press, 1919. 322p.
- The Cambridge manuscript and Milton's plans for an epic. *University of North Carolina. Studies in philology*, v. 16:172, 1919.
- Is teaching "woman's sphere?" *Evening post, N. Y.*, 11 December, 1918.
- [Letters to the Ithaca journal.] *Ithaca journal*, 26 July, 1917; 19 February, 1919.
- My journey from Ithaca to Rushford. *Spectator [Rushford, N. Y.]*, 7 June, 1918.
- A parallel between Milton and Seneca. *Modern language notes*, v. 34:120, 1919.
- Pierre Davity; his geography and its use by Milton. *Geographical review*, v. 7:322, 1919.
- The school district law. *Evening post, N. Y.*, 9 January, 1918.

- Spenser's imitations from Ariosto; supplementary. *Modern Language Association of America. Publications*, v. 34:225, 1919.
- What does Bolshevism menace in America? *Call magazine*, 9 March, 1919, p. 6.
- Words omitted from the New English dictionary. *Modern language notes*, v. 34:121, 1919.
- *Reviews*: Koller, A. H. The theory of environment: Part I. An outline of the history of Milieu, and its present status. *Philosophical review*, v. 27:670, 1918; Schwarz, O. L. General types of superior men. *Same*, v. 28:99, 1919; Seneca, L. A. Seneca: Ad Lucilium epistulae morales, with an English translation by R. M. Gummere. *Same*, v. 27:669, 1918.
- Gilbert, K. E.** The mind and its discipline. *Philosophical review*, v. 27:413, 1918.
- Philosophical idealism and current practice. *Same*, v. 28:301, 1919.
- translator. Lalande, André. Philosophy in France, 1917. *Same*, v. 27:443, 1918; Wulf, Maurice de. The teaching of philosophy and the classification of the sciences in the thirteenth century. *Same*, v. 27:356, 1918.
- *Reviews*: Balz, A. G. A. Idea and essence in the philosophies of Hobbes and Spinoza. *Same*, v. 27:667, 1918; Boutroux, Émile. The relation between thought and action from the German and from the classical point of view. *Same*, v. 28:98, 1919; Creative intelligence; essays in the pragmatic attitude by John Dewey [and others]. *Same*, v. 28:200, 1919.
- Gilkey, Royal, supervisor.** Cornell reading course for the farm, 1918-19.
- Gillespie, D. C.** Advanced calculus or differential equations. *American mathematical monthly*, v. 26:189, 1919.
- Repeated integrals. *Annals of mathematics*, v. 20:224, 1919.
- Goldberg, S. A.** Certain aspects of the pathology of spavin. *New York State Veterinary College. Report*, 1917-18:145, 1919.
- Complete prolapse of uterus of a cow. *American Veterinary Medical Association. Journal*, v. 55:204, 1919.
- Foreign bodies in the tissues, with a report of six cases. *Cornell veterinarian*, v. 8:257, 1918. Also in *New York State Veterinary College. Report for 1917-18:128*, 1919, and *New York State Veterinary Medical Society. Proceedings of the 28th annual meeting*, 1918, p. 154.
- Historical facts concerning the pathology of spavin. *American Veterinary Medical Association. Journal*, v. 53:745, 1918.
- Nephrolithiasis in a dog. *Cornell veterinarian*, v. 9:121, 1919.
- Tubercular encephalitis and cerebro-spinal meningitis of a cow, by S. A. Goldberg and W. D. Way. *American Veterinary Medical Association. Journal*, v. 55:313, 1919.
- *Abstracts*: M'Fadyean, Sir John. Histology of the lesions of Johne's disease. *Cornell veterinarian*, v. 9:61, 1919; Spooner, L. N. The bacteriology of tuberculous kidneys. *Same*, v. 9:62, 1919; Wadsworth, A. B. Endocardial lesions developing during pneumococcus injection in horses. *Same*, v. 9:127, 1919.
- *Review*: Krehl, Ludolph. The basis of symptoms; authorized translation from the 7th German ed. by A. F. Beifeld. *Same*, v. 8:252, 1918.
- Graves, Lulu.** Courses of training for dietitian. *Modern hospital, August*, 1918.
- Dehydrated vegetables. *Same, July*, 1918.
- Dietitian in social welfare. *Same*, v. 11:189, 1918.
- The dietitian in the hospital. *Hospital management*, v. 6:19, 1918.
- Dietitian service at home. *Journal of home economics*, v. 10:485, 1918.
- Effect of prohibition on manufacture of flavoring extracts. *Modern hospital, June*, 1919.
- Importance of the food question. *Same*, v. 11:288, 1919.
- Management of dietary department of hospital. *Same*, v. 11:394, 1918.
Also in *Hospital management*, v. 6:19, 1918.

- Also book reviews in *Modern hospital*, v. 11:206, 1918, and editorial comments on current issues, labor situation in hospitals, labor saving devices, food conservation, news items, etc., each month in *Modern hospital*.
- Gray, Alexander.** Critical review of the bibliography on unbalanced magnetic pull in dynamo-electric machines, by Alexander Gray and J. G. Pertsch, jr. *American Institute of Electrical Engineers. Proceedings*, v. 37:1417, 1918.
- Guthrie, E. S.** The book of butter. New York, Macmillan Co., 1918. 270p.
- Making and storing butter for home use. *Cornell extension bulletin No. 33:81, 1919.*
- Hagan, W. A.** The Strongylidae infesting the horse. *New York State Veterinary College. Report, 1917-18*, p. 169.
- Researches in the diseases of breeding cattle, by W. L. Williams and W. A. Hagan. *Same, 1916-17*, p. 62.
- Hamilton, G. L.** The descendants of Ganelon—and of others. *Romanic review*, v. 10:149, 1919.
- *Reviews:* Langfors, Arthur. Les incipit des poèmes français antérieurs au XVIe siècle. *Modern language notes*, v. 34:357, 1919; Scudder, Vida. La morte Darthur of Sir Thomas Malory and its sources. *Romanic review*, v. 9:345, 1918.
- Hammond, W. A.** *Review:* More, P. E. Platonism. *Philosophical review*, v. 27:535, 1918.
- Hardenburg, E. V.** Cutting seed potatoes. *Potato magazine*, v. 2, No. 1, June, 1919.
- Potato growing in New York. *Cornell reading course for the farm*, No. 143, 1919.
- Potato planting machinery for New York. *Cornell countryman*, v. 16:75, 1919.
- Potato varieties for New York. *Potato magazine*, v. 1, No. 1:11, 1918.
- Report of potato inspection work in 1918. *New York State Potato Association. Proceedings*, No. 5, 1918.
- *editor.* New York State Potato Association. *Proceedings*, 1918.
- Harris, G. D.** The Pelecypoda of the St. Maurice and Claiborne stages. *Bulletins of American paleontology*, No. 31, 1919.
- New or otherwise interesting tertiary molluscan species from the east coast of America, by Katherine Van Winkle and G. D. Harris. *Same, No. 33, 1919.*
- Hartwell, J. A.** The application of the teachings of war surgery to civil hospital conditions. *Surgery, gynecology and obstetrics*, v. 27:377, 1918.
- Hatcher, R. A.** Studies in the elimination of certain of the digitalis bodies from the animal organism, by R. A. Hatcher and Cary Eggleston. *Journal of pharmacology and experimental therapeutics*, v. 12:405, 1919.
- Hausman, L. A.** An example of the possible intricacy of glacial modification of drainage within a narrow area. *American journal of science*, v. 45:153, 1918.
- A simple and rapid method for making relief models from contour maps. *Journal of geography*, v. 16:97, 1917.
- Hayden, C. E.** Digestion in the sheep. *Cornell veterinarian*, v. 8:172, 1918.
- The fifty-fifth annual meeting of the A. V. M. A. *American Veterinary Medical Association. Journal*, v. 8:694, 1918.
- A preliminary report on the urine analysis of the dairy cow. *New York State Veterinary College. Report, 1917-18*, p. 149.
- Report of the secretary. *New York State Veterinary Medical Society. Proceedings, 1918*, p. 35.
- *acting editor.* *Cornell veterinarian, 1918-1919.*
- *editor.* New York State Veterinary Medical Society. *Proceedings, 1918.*
- Hendrickson, A. H.** Five years results in plum pollination. *American Society for Horticultural Science. Proceedings of the 15th annual meeting, 1918*, p. 65.

- Hermannsson, Halldór.** The periodical literature of Iceland down to the year 1874; an historical sketch. Ithaca, N. Y., Cornell University Library, 1918. 100p. (Islandica, v. II.)
- Jólatrú og jólasiðir. *Lögberg*, v. 31, No. 51:12, 1918.
- Willard Fiske and Icelandic bibliography. *Bibliographical Society of America. Papers*, v. 12:97, 1918.
- Herrick, G. W.** Notes on some little known pests of red clover, by G. W. Herrick and J. D. Detwiler. *Journal of economic entomology*, v. 12:206, 1919.
- Notes on the repugnatorial glands of certain Notodontid caterpillars, by G. W. Herrick and J. D. Detwiler. *Entomological Society of America. Annals*, v. 12:44, 1919.
- Some insect pests of the apple. *Cornell countryman*, v. 16:129, 1919.
- [Articles in the *Rural New Yorker*, v. 78, March—May, 1919]: The European hornet, 1 March, p. 393; The evergreen bagworm, 12 April, p. 641; Fighting the squash "stinkbug," 10 May, p. 806; The seventeen-year locust in 1919, 15 March, p. 466, 22 March, p. 529.
- Hesler, L. R.** Apple root rots and their control. *American agriculturist*, v. 102: 307, 1918.
- Degeneration diseases in potatoes. *Same*, v. 103, 22 March, 1919, p. 4.
- Raise potatoes right. *Same*, v. 103, 1 March, 1919, p. 7.
- Spray the plum orchard effectively. *Same*, v. 103, 19 April, 1919, p. 3.
- Spraying the apple orchard. *Same*, v. 103, 3 May, 1919, p. 4.
- Hewett, W. T.** The Frisian language and literature: a historical study. Ithaca, N. Y., Finch & Apgar, 1879. 60p.
- Bogus university degrees in America. *Nation*, v. 96:596, 12 June, 1913. Also in *Evening post*, 14 June, 1913.
- The European war; an interview. *Cornell daily sun*, v. 38, 15–19 Oct., 1917.
- Militant Catholicism in Germany. *Nation*, v. 45:249, 1887.
- The price of English books in America. *Same*, v. 96:466, 1913. Also in *Evening post*, 19 May, 1913.
- Recent impressions of European universities. *Cornell era*, v. 29:26, 1896.
- The University of Leiden. *Harper's monthly*, v. 62:491, 1881.
- Hitzrot, J. M.** The effect of splenectomy on the normal individual and in certain pathological conditions. *Annals of surgery*, v. 67:540, 1918.
- Mycloma of the clavicle. *Same*, v. 68:992, 1918.
- Hoguet, J. P.** Ileocecal insufficiency, by M. A. Ramirez and J. P. Hoguet. *New York medical journal*, v. 108:146, 1918.
- Hopkins, E. F.** The disease of tulips caused by Botrytis parasitica. [Abstract.] *Phytopathology*, v. 8:75, 1918.
- Hopkins, G. S.** Atlas of the viscera, in situ, of the dairy cow. New York, Macmillan Company, 1918. 23p.
- The paranasal or facial sinuses of sheep. *Cornell veterinarian*, v. 8:162, 1918.
- Review: Kaup, B. F. The anatomy of the domestic fowl. *Same*, v. 9:63, 1919.
- Hopper, H. A.** Barn itch. *Otsego Co. Farm Bureau news*, Oct., 1918.
- Feed consumed in milk production, by H. A. Hopper, H. M. Bowen, and F. S. Barlow. *Cornell University Agricultural Experiment Station. Bulletin* 398:1, 1918.
- Safer sources of silage. *Holstein-Friesian world*, 26 April, 1919.
- Starvation on pasture. *Otsego Co. Farm Bureau news*, Dec., 1918.
- Sunflower silage in New York. *Hoards dairyman*, 16 May, 1919.
- Three fundamental questions. *Holstein-Friesian world*, 17 May, 1919. Also numerous press articles.
- Hosmer, R. S.** Some remarks on state forest policy. *Journal of forestry*, v. 17:168, 1919.

- Hotchkiss, H. J.** Principles of experimental physics for students of science and technology, by H. J. Hotchkiss and F. C. Fairbanks, assisted by J. E. Hoyt and Frederick Leighton. [Philadelphia], The authors, 1913-1914. 2v.
- Hunt, E. L.** Academic public speaking. *Quarterly journal of public speaking*, v. 3:27, 1917.
- An adventure in philosophy. *Same*, v. 3:297, 1917.
- Creative teaching in war time. *Quarterly journal of speech education*, v. 4:386, 1918.
- Hurwitz, W. A., associate editor.** American Mathematical Society. *Transactions*, 1918-1919.
- *editor.* *American mathematical monthly*, 1918-1919.
- Hutchinson, J. I.** Integral equations. *Encyclopedia Americana*, v. 15:203, 1919.
- Jackson, H. C.** The effect of corrosive sublimate when used as a preservative in composite samples. *Journal of dairy science*, v. 11:170, 1919.
- Jacoby, H. S.** Discussion: The economics of steel arch bridges. *American Society of Civil Engineers. Proceedings*, v. 44:935, 1918.
- Jeck, H. S.** Case report: Traumatic rupture of the bladder with unusual features. *International journal of surgery*, v. 32:56, 1919.
- Karapetoff, Vladimir.** The electrical engineer in consulting work. *Bridge of Eta Kappa Nu*, 1918, p. 40.
- Group morality. *Casino bulletin*, v. 12, No. 10, June, 1918.
- Group morality. *Sibley journal of engineering*, v. 32:147, 1918.
- Higher harmonics in polyphase electric systems. *Electrician*, v. 81:250, 1918.
- Insuring protection of current transformers. *Electrical world*, v. 73:473, 1919.
- The nature of induced electromotive force. *Same*, v. 72:1234, 1918.
- On love and marriage. *Ithaca journal*, 16 Dec., 1918.
- Some present-day problems in engineering education. *Society for the Promotion of Engineering Education. Proceedings*, v. 26:41, 1918.
- Some present-day problems of the Socialist party. *Ithaca journal*, 22 Jan., 1919.
- The use of oblique axes in the solution of transmission line problems. *Sibley journal of engineering*, v. 33:32, 1919.
- *editor.* *Electrical world*, research section, 1918-19.
- Keniston, R. H.** L'America nella guerra. *Nuovo giornale*, 25 June, 1918.
- L'opera di Fratellanza americana. *Same*, 16 May, 1918.
- *editor.* Isaacs, Jorge. *Maria (novela americana)*; ed., with exercises, notes, and vocabulary by R. H. Keniston. Boston, Ginn and Company, [c. 1918]. 209 p.
- *translator.* Silo Art Galleries. Exhibition of Venetian decorative arts; promoted by the Associazione per il Lavoro under the auspices of the ex-Premier Luigi Luzzatti and the Italian embassy at Washington. Venice.
- Kennedy, Foster.** Epidemic encephalitis with stupor. *Medical record*, v. 95:631, 1919.
- The nature of nervousness in soldiers. *American Medical Association Journal*, v. 71:17, 1918.
- Keyes, E. L., jr.** Manual of military urology, by Col. H. H. Young [and others]. Paris, Masson & Cie, 1918.
- Kirby, G. H.** A clinical study of psychoses characterized by distressed perplexity, by August Hoch and G. H. Kirby. *Archives of neurology and psychiatry*, v. 1:415, 1919.
- The future work of the Psychiatric Institute. *State Hospital quarterly*, v. 3:308, 1918.
- Knudson, Lewis.** Plant life and gas. *Gas industry*, v. 19:143, 1919.

- Lee, B. J., chairman.** A report upon transfusion of blood for the recently injured in the United States Army. Paris, Medical Division of the American Red Cross Society in France, 1918. 20p.
- Experiences in surgery with the Second Division of the American Expeditionary Force. *Society of the New York Hospital. General bulletin*, v. 1, No. 12, 1919.
- Surgery of soft parts, bones, and joints, at a front hospital, by Major E. H. Pool, Capt. B. J. Lee, and Lieut. P. A. Dineen. *Surgery, gynecology and obstetrics*, v. 27:280, 1918.
- Lilienthal, Howard.** Thoracic injuries. *American Medical Association. Journal*, v. 72:839, 1919.
- With a base hospital in France. *Medical times*, v. 46:81, 1919.
- Love, H. H.** The inheritance of hull-lessness in oat hybrids, by H. H. Love and G. P. McRostie. *American naturalist*, v. 53:5, 1919.
- The relation between color and other characters in certain avena crosses, by H. H. Love and W. T. Craig. *Same*, v. 52:369, 1918.
- The synthetic production of wild wheat forms, by H. H. Love and W. T. Craig. *Journal of heredity*, v. 10:51, 1919.
- Lumsden, David.** Palms for porch and house decoration. *Garden magazine*, v. 29:202, 1919.
- Lusk, Graham.** Animal calorimetry. XV. Further experiments relative to the cause of the specific dynamic action of protein, by H. V. Atkinson and Graham Lusk. *Journal of biological chemistry*, v. 36:415, 1918.
- Calorimétrie comparée de l'ingestion de viande, d'acide lactique et d'alanine chez l'animal. *Académie des Sciences. Comptes rendus*, v. 168:1012, 1919.
- Food for our allies. *American Museum of Natural History. Journal*, v. 18:629, 1918.
- Notions de physiologie de la nutrition: La ration d'entretien. *Vie chère et la santé: comment nous alimenter; avec la collaboration de E. Janselme, Graham Lusk, Jules Renault, Marcel Labbé, Maurice Mignon*, 1919, p. 25.
- Science and medical teaching. *Science*, v. 48:629, 1918.
- Science and the world food. *Scribner's magazine*, v. 64:710, 1918.
- Lyon, T. L.** Experiments in fertilizing a crop rotation. *Cornell University Agricultural Experiment Station. Bulletin*, 399:17, 1919.
- Influence of higher plants on bacterial activities in soils. *American Society of Agronomy. Journal*, v. 10:313, 1918.
- McMahon, James.** The founder's hymn. *Cornell alumni news*, v. 21:258, 1919.
- Review: West, C. J. Introduction to mathematical statistics. *American economic review*, v. 9:377, 1919.
- McNeal, N. H.** Elementary garment making; a manual for junior extension workers in clothing. *Cornell junior extension bulletin*, No. 2:45, 1918.
- First lessons in sewing; a manual for junior extension workers in clothing. *Same*, No. 1:1, 1918.
- Mann, A. R.** Thirty-first annual report of the New York State College of Agriculture at Cornell University and the Agricultural Experiment Station established under the direction of Cornell University, Ithaca, N. Y., 1918. Albany, N. Y., J. B. Lyon Co., 1919. 2v.
- Matheson, Robert.** A study of the plant lice injuring the fruit and foliage of the apple. *Cornell University Agricultural Experiment Station. Memoir No. 24*, 1919.
- Milks, H. J.** Double inguinal hernia in dog. *New York State Veterinary College. Annual report*, 1917-18, p. 48.
- Hydrocephalus in kittens. *Same*, 1917-18, p. 47.
- Multiple carcinoma in a dog. *Same*, 1917-18, p. 48.
- Paralysis of the vestibular nerve in dog. *Same*, 1917-18, p. 46.
- Moore, V. A.** Accredited herd plan. *Delaware farm bureau news*, v. 4:1, 1919.
- Infectious diseases of sheep. *Cornell veterinarian*, v. 8:202, 1918.

- Portraits of distinguished veterinarians presented to the Saddle and Sirloin Club. *American Veterinary Medical Association. Journal*, v. 54:372, 1919.
- Report of the New York State Veterinary College at Cornell University for the year 1916-17, 1917-1918. Albany, J. B. Lyon Co., 1918-1919.
- Response to the address of welcome; meeting of the American Veterinary Medical Association in Philadelphia, August 19, 1918. *American Veterinary Medical Association. Journal*, v. 54:69, 1918.
- The transmission of diseases of cattle to man through milk. *New York state journal of medicine*, v. 19:138, 1919.
- The veterinary practitioner in the control of infectious diseases. *American Veterinary Medical Association. Journal*, v. 54:211, 1918.
- Editorial: Revival of the sheep business. *Cornell veterinarian*, v. 8:150, 1918.
- Reviews: Jordan, E. O. A text-book on general bacteriology. 6th ed. *American Veterinary Medical Association. Journal*, v. 55:116, 1919; Klein, L. A. Principles and practice of milk hygiene. *Cornell veterinarian*, v. 8:145, 1918; Wall, Sven. Mastitis of the cow; translated by W. J. Crocker. *American Veterinary Medical Association. Journal*, v. 53:558, 1918.

Morrill, C. V. Symmetry reversal and mirror imaging in monstrous trout, and a comparison with similar conditions in human double monsters. *Anatomical record*, v. 16:265, 1919.

- Moses, Winifred.** Desserts. *Van Rensselaer, Martha, and others, compilers. A manual of home-making*, 1919, p. 570.
- Eggs. *Same*, p. 534.
- Fish and oysters. *Same*, p. 527.
- Make every crumb count. *Cornell reading course for the farm home. Lesson 116:21*, 1918.
- Pastry, by Winifred Moses and Lucile Brewer. *Van Rensselaer, Martha, and others, compilers. A manual of home-making*, 1919, p. 490.
- Sauces. *Same*, p. 552.

Muesebeck, C. F. W. Three new species of braconidae. *Canadian entomologist*, v. 51:113, 1919.

- Two important introduced parasites of the brown-tail moth. *Journal of agricultural research*, v. 14:191, 1918.

Mulcahy, T. A. Tuberculoma of the iris; report of case with microscopic examination of the eyeball, by T. A. Mulcahy and James Ewing. *American journal of ophthalmology*, v. 1:757, 1918.

Nammack, C. E. Clinical features of the recent influenza epidemic. *Medical record*, v. 94:1103, 1918.

Nanz, R. S. The southern limit of Encalypta laciniata. *Bryologist*, v. 22:3, 1919.

Nichols, E. L. Annual report on luminescence. *Carnegie Institution of Washington. Yearbook*, 1918, p. 316.

- Photo-luminescence and kathodo-luminescence of calcite, by E. L. Nichols, H. L. Howes, and D. T. Wilber. *Physical review, n. s.*, v. 12:351, 1918.
- Progress in physics during 1918. *American yearbook*, 1918, p. 665.
- Types of phosphorescence, by E. L. Nichols and H. L. Howes. *National Academy of Sciences. Proceedings*, v. 4:305, 1918.

Northup, C. S. Andrew Dickson White. *Phi Beta Kappa key*, v. 3:463, 1919.

- A bibliography of Phi Beta Kappa. Pts. xvi-xvii. *Same*, v. 3:385, 482, 1918-1919.
- A brief historical sketch. *Unitarian bulletin*, v. 1:1, 1919.
- Ode to Cornell, 1868-1918. *Cornell alumni news*, v. 21:454, 1919.
- Theodore Roosevelt. *Phi Beta Kappa key*, v. 3:538, 1919.

- Reviews: Alden, R. M. Alfred Tennyson: how to know him. *Journal of English and Germanic philology*, v. 18:289, 1919; Bronté Society. Charlotte Bronté 1816-1916, a centenary memorial, edited by Butler Wood. *Nation*, v. 108:580, 1919; Grosvenor, E. A. The races of Europe. *Phi Beta Kappa key*, v. 3:565, 1919; Sherman, S. P. Matthew Arnold: how to know him. *Journal of English and Germanic philology*, v. 18:289, 1919; Watts, H. M. Jehovah, God of battles, up to date. *Phi Beta Kappa key*, v. 3:631, 1919.
- co-operating editor. *Journal of English and Germanic philology*, 1918-1919; *Phi Beta Kappa key*, 1918-1919.
- joint editor Cornell studies in English, 1918-1919; Cornell alumni news, 1918-1919.
- Also many unsigned notes and reviews in the *Cornell alumni news*, 1918-1919.
- Oberndorf, C. P. Neurotic symptoms referred to the eye. *New York medical journal*, v. 108:668, 1918.
- Resistance and transference in psycho-analysis. *Medical record*, v. 94:542, 1918.
- Ogden, H. N. The purpose of research. *Science*, n. s. v. 48:525, 1918.
- Ogden, R. M. Annual summary on hearing. *Psychological bulletin*, v. 15:75, 1918.
- Fraternities: a suggestion as to their future. *Purple and gold*, v. 36:119, 1919.
- The obligations of intelligence in the present crisis. *School and society*, v. 8:211, 1918.
- Prospective changes in educational standards and ideals. *Same*, v. 8:661, 1918.
- Review: Watt, H. J. The psychology of sound. *Psychological bulletin*, v. 14:254, 1918.
- Orndorff, W. R. Tetraiodophenolphthalein and tetraiodophenoltetrachlorophthalein and some of their derivatives, by W. R. Orndorff and S. A. Mahood. *American Chemical Society. Journal*, v. 40:937, 1918
- 2, 4-dihydroxybenzoyltetrachloro-o-benzoic acid and 2, 3, 4-trichloro-6-hydroxyxanthone-1-carboxylic acid and some of their derivatives, by W. R. Orndorff and W. A. Adamson. *Same*, v. 40:1235, 1918.
- Orth, S. P. The boss and the machine; a chronicle of the politicians and party organization. New Haven, Yale University Press, 1919. 203p. (Chronicles of America series, v. 43.)
- Pardee, H. E. B. Concerning the electrodes used in electrocardiography. *American journal of physiology*, v. 44:80, 1917.
- The electrocardiograph as an aid in the diagnosis of cardiac valvular disease. *American Medical Association. Journal*, v. 68:1250, 1917.
- An error in the electrocardiogram arising in the application of the electrodes. *Archives of internal medicine*, v. 20:161, 1917.
- The field of the various methods of cardiac diagnosis. *New York medical journal*, v. 106:1065, 1917.
- The form of the electrocardiogram: diagnostic significance of its variations. *American Medical Association. Journal*, v. 62:1311, 1914.
- The prognosis of auricular fibrillation. *Same*, v. 64:2057, 1915.
- The relation of heart block to lesions of the auriculo-ventricular bundle. *Archives of internal medicine*, v. 11:641, 1913.
- editor. Budgett, S. P. Essentials of physiology prepared especially for students of medicine. 4th ed., thoroughly rev. by H. E. B. Pardee. Philadelphia, W. B. Saunders Company, 1915. 206p.
- Pertsch, J. G., jr. Critical review of the bibliography on unbalanced magnetic pull in dynamo-electric machines, by Alexander Gray and J. G. Pertsch, jr. *American Institute of Electrical Engineers. Proceedings*, v. 37:1417, 1918.
- Peters, J. P., jr. Response of the respiratory mechanism to rapid changes in the reaction of the blood. *Society for Experimental Biology and Medicine. Proceedings*, v. 14:118, 1917.

- A study in war nephritis: a new condition associated with hemorrhages in the bladder wall and urinary symptoms; preliminary report, by J. P. Peters, jr. and A. R. Stevens. *American Medical Association. Journal*, v. 70:1760, 1918.
- Phelps, A. C., co-operating editor.** Cornell architect, 1918-1919.
- Pope, P. R.** Need of linguists in after-war trade. *Evening post, N. Y.*, 10 September, 1918.
- Quarles, J. T.** Andrew D. White and his love of music. *Diapason*, 1 January, 1919.
- Organ recitals. No. 417-617. [Ithaca, N. Y.], 1913-1918. 201 nos.
- Rahe, A. H.** The classification of the aciduric bacteria. *Journal of bacteriology*, v. 3:407, 1918.
- Rankin, W. H.** Manual of tree diseases. New York, Macmillan Co., 1918. 398p.
- Ranum, Arthur, co-operating editor.** American Mathematical Society. Transactions, 1918-1919.
- Recknagel, A. B.** Forest management, by A. B. Recknagel and J. Bentley, jr. New York, John Wiley and Sons, 1919. 271p.
- A permanent timberland policy for the United States. *Lumber world review*, v. 36:26, 1919.
- Pulpwood stands and consumption. *Paper* v. 24:38, 1919.
- The timber census in the north-eastern states. *American forestry*, v. 25:792, 1919.
- The timber census in the north-eastern states. *Journal of forestry*, v. 17:178, 1919.
- *Editorial:* A turning point in New York. *Same*, v. 17:199, 1919.
- Review: New York State. Conservation Commission. 8th annual report. *Same*, v. 17:182, 1919.
- *Editorial board.* *Journal of forestry*, 1918-1919.
- Reddick, Donald.** Varieties of beans susceptible to mosaic, by Donald Reddick and B. V. Stewart. *Phytopathology*, v. 8:530, 1918.
- Additional varieties of beans susceptible to mosaic, by Donald Reddick and V. B. Stewart. *Same*, v. 9:149, 1919.
- Report of the chief editor [of Phytopathology]. *Same*, v. 8:182, 1918.
- Vern Bonham Stewart. *Same*, v. 9:111, 1918.
- Reed, H. L.** Credit expansion under the federal reserve. *American economic review*, v. 8:270, 1918.
- The industrial outlook. *Journal of political economy*, v. 27:225, 1919.
- Senator Owen's proposal to stabilize foreign exchange rates. *American economic review*, v. 8:661, 1918.
- Rice, F. E.** Condensed and evaporated milk. *Cornell countryman*, v. 16:133, 1919.
- The inversion of cane sugar by soils and allied substances and the nature of soil acidity, by F. E. Rice and S. Osugi. *Soil science*, v. 5:333, 1918.
- A simple and entirely adjustable rack for Kjeldahl digestion flasks. *Journal of industrial and engineering chemistry*, v. 10:631, 1918.
- Rice, J. E.** Artificial light, an aid to egg production. *Cornell countryman*, v. 16:10, 1919.
- Turning night into day. *Country gentleman*, v. 84, No. 23:8, 1919.
- Ries, Heinrich.** The occurrence of high-grade American clays, and the possibilities of their further development. *American Ceramic Society. Journal*, v. 1:446, 1918.
- Robb, B. B.** The farm ice supply, by B. B. Robb and J. L. Strahan. *Cornell reading course for the farm*. Lesson 135:1, 1918.
- Robinson, Montgomery.** The college and the war. *Cornell Countryman*, v. 16:222, 1919.

- Rogers, John.** The involuntary nervous system and organ therapy. *Medical Society of New Jersey. Journal, Aug., 1918, p. 191.*
- The stimulation and inhibition of the gastric secretion which follows the subcutaneous administration of certain organ extracts, by John Rogers, Jessie M. Rahe, and Eleeza Ablahadian. *American journal of physiology, v. 48:79, 1919.*
- Rose, Flora, compiler.** A manual of home-making, compiled by Martha Van Rensselaer, Flora Rose, Helen Canon. New York, Macmillan Company, 1919. 661p.
- supervisor. Cornell reading course for the farm home, 1918-1919.
- Ross, H. E.** Babcock test for the farmer. Washington, D. C., War Department, 1919.
- Rowlee, W. W.** The balsa tree. *Fruit despatch, v. 4:379, 1919.*
- Relation of marl ponds and peat bogs. *Brooklyn Botanic Garden. Memoirs, v. 1:410, 1918.*
- Synopsis of the genus Ochroma, with descriptions of new species. *Washington Academy of Sciences. Journal, v. 9:157, 1919.*
- Sanderson, Dwight.** Community organization for extension service. *National Country Life Conference. Proceedings of the 1st conference, 1919, p. 208.* Also in *American Association of Agricultural Colleges and Experiment Stations. Proceedings, 1919.*
- Schmidt, Nathaniel.** Idealism and the world situation. *Ithaca daily news, 21 October, 1918.*
- A leader and his message. *Evening post, 28 September, 1918.* Also in *Standard, v. 5:71, 1918.*
- [Articles in the *Encyclopedia Americana, 1918-1919*]: Canticles, v. 5:533, 1918; Daniel, v. 8:451, 1918; Daniel, Book of, v. 8:452, 1918; Ecclesiastes, v. 9:523, 1918; Ecclesiasticus, v. 9:537, 1918; Enoch, Books of, v. 10:392, 1918; Eschatology, v. 10:490, 1918; Jeremiah, v. 16:18, 1919; Jeremiah, Book of, v. 16:20, 1919; Jeremiah, Lamentations of, v. 16:23 1919.
- Review: Judaeans. Judaean addresses, selected. Vol. 2. *American historical review, v. 24:98, 1918.*
- Schneck, H. W.** The fruit growers vegetable garden. *Western New York Horticultural Society. Proceedings of the 63d annual meeting, 1918, p. 85.*
- Greenhouse fumigation. *New York State Vegetable Growers Association. Bulletin, v. 4, No. 3, April, 1918.*
- Growing vegetables in greenhouses. *Cornell countryman, v. 13:99, 1915.*
- New crops for the greenhouse. *New York State Vegetable Growers Association. Bulletin, v. 3, No. 8-9, 1917.*
- That kitchen garden. *Cornell countryman, v. 15:263, 1918.*
- Vegetable forcing in New York State. *New York State. Agriculture Department. Bulletin No. 70:1274, 1915.*
- The vegetable garden. *Cornell rural school leaflet, v. 11:385, 1918.*
- Schurman, J. G.** Twenty-sixth annual report by President Schurman, 1917-1918. Ithaca, N. Y., Cornell University, 1918. 63, cxiip. (Cornell University. Official Publications, v. 9, No. 17.)
- [Address at the 50th Commencement, 22 May, 1918.] *Cornell alumni news, v. 20:424, 1918.*
- Address [at the meeting of the Association of American Universities held at Harvard University, December, 1918, upon the effect of war on education.] *Association of American Universities. Journal of proceedings and addresses of the 20th annual conference, 1918, p. 60.*
- [Interview with President Schurman on the probable time of ending the war and on conditions in England and France.] *Ithaca journal, 24 Sept., 1918.*
- A league of nations; address before the Cornell Cosmopolitan Club, 21 Feb., 1919. *Ithaca daily news, 22 February, 1919.*
- Seulke, K. J.** The beef breeding herd in New York State. *Cornell reading course for the farm. Lesson 136:25, 1918.*

- Hothouse lambs. *Cornell countryman*, v. 16:175, 1919.
- Sharpe, F. R.** Space involutions defined by a web of quadrics, by Virgil Snyder and F. R. Sharpe. *American Mathematical Society. Transactions*, v. 19:275, 1918.
- associate editor. American Mathematical Society. *Transactions*, 1918-1919.
- Smith, F. M.** My Spanish magazine. *Nation*, v. 107:94, 1918.
- The pleasant ways of sauntering. *Unpopular review*, v. 10:273, 1918.
- The professor-errant. *Same*, v. 11:40, 1919.
- Snyder, Virgil.** Space involutions defined by a web of quadrics, by Virgil Snyder and F. R. Sharpe. *American Mathematical Society. Transactions*, v. 19:275, 1918.
- editor. American Mathematical Society. *Bulletin*, 1918-1919.
- Stewart, F. W.** On the thymus (so-called) and the ultimo-brachial body of the cat (*felis domestica*). *American journal of anatomy*, v. 24:191, 1918.
- Stewart, R. M.** The pursuit of happiness in the teacher's philosophy. *New York Teachers' Association. Journal*, v. 6:28, 1919.
- Rural school problems in New York State. *Same*, v. 6:153, 1919.
- Stockard, C. R.** Developmental rate and the formation of embryonic structures. *Society of Experimental Biology and Medicine. Proceedings*, v. 16, No. 6, 1919.
- Developmental rate and the perfection of structure. *Anatomical record*, v. 16:163, 1919.
- Hereditary deficiencies in the sense of smell. *Science*, n. s., v. 49:237, 1919.
- Proceedings of the American Association of Anatomists, 35th session. *Anatomical record*, v. 16:129, 1919.
- Stocking, W. A.** Country milk stations, function, organization, operation, construction, and equipment, by W. A. Stocking, W. E. Ayres, R. C. Potts, and H. F. Meyer. *Cornell extension bulletin*, No. 30, 1918.
- Strahan, J. L.** The farm ice supply, by B. B. Robb and J. L. Strahan. *Cornell reading course for the farm. Lesson 135:1*, 1918.
- Milk houses for Vermont dairy farms. *Vermont. Department of Agriculture. Bulletin* No. 27, 1918.
- Suggestions for the improvement of Vermont dairy stables. *Same*, No. 28, 1918.
- Strong, L. W.** Report of a case of paragenital teratoma. *American journal of obstetrics and diseases of women and children*, v. 78:5, 1918.
- Strunk, William, jr.** The elements of style. Ithaca, N. Y., Privately printed, 1918. 43p.
- translator. French High Commission. Information Bureau. What France has done in the war. Washington, D. C., 1919. 16p.
- Sullivan, T. F. X.** Recommendations regarding Balkan frame, by E. F. Butler and T. F. X. Sullivan. *Military surgeon*, February, 1919.
- Treatment of infected wounds at the Rockefeller Institute for Medical Research, by G. A. Stewart, G. E. Cullen, T. F. X. Sullivan, [etc.]. *Review of war surgery and medicine*, v. 2, No. 5:1, 1919.
- Sumner, J. B.** The globulins of the jack bean, *Canavalia ensiformis*. *Journal of biological chemistry*, v. 37:137, 1919.
- A rapid method for the estimation of urea in urine, by J. B. Sumner, with the assistance of Aaron Bodansky. *Same*, v. 38:57, 1919.
- Sunderville, E.** The anatomy of the digestive organs of sheep. *Cornell veterinarian*, v. 8:167, 1918.
- Swift, H. F.** Trench fever; report of commission, medical research committee, American Red Cross; [by R. P. Strong, H. F. Swift, etc.] New York, Oxford University Press, 1919. 446p.
- Thayer, C. L.** Hardy phlox for present planting. *Garden magazine*, v. 29:125, 1919.

- Thilly, Frank.** An ethical philosophy of life, by Frank Thilly and Felix Adler. *Philosophical review*, v. 27:651, 1918.
- The Kantian ethics and its critics. *Same*, v. 27:646, 1918.
 - Moral values; a study of the principles of conduct, by Frank Thilly and W. G. Everett. *International journal of ethics*, v. 29:104, 1918.
 - Report of the Dean of the College of Arts and Sciences. *Cornell University. Official publications*, v. 9, No. 17:ix, 1918.
- Thompson, W. G.** Efficiency in nursing. *American Medical Association. Journal*, v. 61:2146, 1913.
- The functional re-education of the French and American soldier. *Medical record*, v. 95:829, 1919.
 - Functional re-education. *Prior's Loose leaf practice of medicine*, 1919.
 - Industrial diseases. *Same*, 1919.
 - Industrial hygiene in war time. *American journal of public health*, v. 8:27, 1918.
 - The menace of the dusty trades. *Same*, v. 7:737, 1917.
 - Women in heavy war work. *Scribner's magazine*, v. 65:113, Jan., 1919.
- Thro, W. C.** Etiology and treatment of bronchial asthma. *New York medical journal*, v. 109:500, 1919.
- Some unusual blood cells in diseases of bone marrow origin. *Journal of medical research*, v. 38:385, 1918.
 - Report of a case of Von Jaksch's anemia. *New York Pathological Society. Proceedings*, v. 19, March, 1919.
- Titchener, E. B.** An anomalous case of simple reaction. *American journal of psychology*, v. 30:62, 1919.
- Applied psychology. *Science*, v. 49:169, 1919.
 - John Wallace Baird. *Same*, v. 49:393, 1919.
 - John Wallace Baird. *Clark University. Library. Publications*, v. 6:42, 1919.
 - Psychology; Psychical research, by E. B. Titchener and H. P. Weld. *New international year book*, 1916, 1917, 1918.
 - *American editor.* Mind, a quarterly review of psychology and philosophy, 1918-19.
 - *associate editor.* *American journal of psychology*, 1918-19.
 - and Weld, H. P., *editors.* Studies from Cornell University psychological laboratory:
 - Young, P. T. An experimental study of mixed feelings. *American journal of psychology*, v. 29:237, 1918. (No. 120.)
 - DeLaski, E. The psychological attitude of Charles Dickens toward surnames. *Same*, v. 29:337, 1918. (No. 121.)
 - Friedline, C. L. The discrimination of cutaneous patterns below the two-point limen. *Same*, v. 29:400, 1918. (No. 122.)
 - Young, P. T. The localisation of feeling. *Same*, v. 29:420, 1918. (No. 123.)
 - Cutolo, F. A preliminary study of the psychology of heat. *Same*, v. 29:442, 1918. (No. 124.)
 - Gleason, J. M. An experimental study of feelings of relation. *Same*, v. 30:1, 1919. (No. 125.)
 - Rich, G. J. A study of tonal attributes. *Same*, v. 30:121, 1919. (No. 126.)
 - Young, P. T. Tunable bars, and some demonstrations with a simple bar and a stethoscope. *Psychological bulletin*, v. 15:293, 1918. (No. 127.)
- Torrey, J. C.** The regulation of the intestinal flora of dogs through diet. *Journal of medical research*, v. 39:415, 1919.
- Upton, G. B.** Airplane performance determined by engine performance. *Sibley journal of engineering*, v. 32:137, 1918. Also in *Society of Automotive Engineers. Journal*, v. 3:275, 1918.
- Usher, A. P.** Interpretations of recent economic progress in Germany. *American historical review*, v. 23:797, 1918.

- Van Rensselaer, Martha, compiler.** A manual of home-making, compiled by Martha Van Rensselaer, Flora Rose, Helen Canon. New York, Macmillan Company, 1919. 661p.
- supervisor. Cornell reading course for the farm home, 1918-1919.
- Voorhees, J. H., reviser.** Voorhees, E. B. Fertilizers. New York, Macmillan Co., 1918. 365p.
Also articles in the *Pennsylvania farmer*, *Hoard's dairyman*, *Rock products*.
- Ward, G. G., jr.** Hospital standardization and its application to the organization of a special hospital. *American journal of obstetrics and diseases of women and children*, v. 78:65, 1918.
- The problem of the cystocele. *Same*, v. 79:593, 1919.
- Warner, A. J.** Fall nature drawing. *Bailey, Henry T., compiler. Nature drawing from various points of view*, 1910, p. 27.
- Home furnishing. *Van Rensselaer, Martha, and others, compilers. Manual of home making*, 1919, p. 29.
- Rhythm. *Applied arts book*, v. 3:1, 1902.
- The study of beauty. *Eastern Art Teachers Association. Annual report*, v. 5:69, 1903.
- Study of pictures in high and normal schools. *Council of Supervisors of the Manual Arts. Year book*, v. 2:117, 1902.
- Weld, H. P.** Intensity of sensation; Contrast; Discrimination, sensible; Instinct; Fatigue; Image, psychological; Imagination; Wundt, Wilhelm (Max). *Encyclopedia Americana*, 1918-1919.
- Psychology; Psychical research, by E. B. Titchener and H. P. Weld. *New international year book for 1916, 1917, 1918*.
- associate editor. Studies from Cornell University psychological laboratory. Nos. 120-127. *American journal of psychology*, v. 29-30, 1918-1919; *Psychological bulletin*, v. 15:293, 1918.
- Whetzel, H. H.** The control of apple scab. *Pennsylvania farmer*, v. 45:186, 1919.
- Co-operation among plant pathologists. *Cornell countryman*, v. 16:13, 1919.
- Dusting vs. spraying. *New York State Horticultural Society. Proceedings*, v. 1:182, 1919.
- George Francis Atkinson. *Botanical gazette*, v. 47:366, 1919.
- Wiggers, C. J.** The clinical registration of cardiac murmurs by the direct method. *Archives of internal medicine*, v. 22:28, 1918.
- Wilder, B. G.** The Fifty-fifth regiment of the Massachusetts volunteer infantry, colored, June, 1863-September, 1865. 3d ed. Brookline, Mass., Riverdale Press, 1919. 8p.
- Cats and birds. Letter to the editor. *Boston herald*, 20 May, 1919.
- Willcox, W. F.** Frank, an innocent man. [Letter.] *Cornell alumni news*, v. 25:294, 1919.
- Health of the army. U. S. Surgeon-General. *Annual report to the Secretary of War for 1918*, p. 21.
- [Letter.] *Cornell daily sun*, 13 March, 1919.
- Report on refusal of a retiring allowance. *American Association of University Professors. Bulletin*, v. 5:43, 1919.
- Review: Koren, John, editor. The history of statistics, their development and progress in many countries. *American economic review*, v. 9:148, 1919.
- Williams, W. L.** Abortion and sterility. *New York State Veterinary Medical Society. Proceedings*, 1918, p. 79.
- The Bland reports on epizootic abortion experiments. *American Veterinary Medical Association. Journal*, v. 7:628, 1919.
- The fundamental principles in the control of the infection causing sterility, abortion, and related losses. *Cornell veterinarian*, v. 9:9, 1919.
- Genital tuberculosis of cattle. *New York State Veterinary College. Report*, 1916-17, p. 120.

- Obstetrics of sheep. *Cornell veterinarian*, v. 8:228, 1918.
- Researches in the diseases of breeding cattle, by W. L. Williams and W. A. Hagan. *New York State Veterinary College. Report*, 1916-17, p. 62.
- Researches in the diseases of breeding cattle, by W. L. Williams and C. M. Carpenter. *Same*, 1917-18, p. 51.
- Williamson, Hervey.** Funnel pelvis, with a report of one hundred and six cases. *American journal of obstetrics and diseases of women and children*, v. 78:528, 1918.
- Wilson, B. D.** The translocation of calcium in a soil. *Cornell University Agricultural Experiment Station. Memoir* 17:293, 1918.
- Wilson, M. G.** Infantile paralysis; paper read February 21, 1917 at the New York Academy of Medicine. New York, 1917. 8p.
- The prodromal symptoms of infantile paralysis; based on a study of 400 histories of patients admitted to the Willard Parker Hospital from July 1 to September 1, 1916, inclusive. *American journal of diseases of children*, v. 13: 506, 1917.
- Report of the Cornell nutrition class. *Archives of pediatrics*, January, 1919.
- Woodruff, E. H.** Reviews: Chase, Frederic H. Life of Lemuel Shaw, Chief Justice of Massachusetts. *Cornell law quarterly*, v. 4:87, 1919; Thurston, Edward S. Cases in quasi-contract. *Same*, v. 3:162, 1918.
- Works, G. A.** Essential elements in agricultural teacher training. *Vocational summary*, v. 1, No. 9:17, 1919.
- Organization of the teacher-training work under the Smith-Hughes law in the New York State College of Agriculture. *School and society*, v. 7:666, 1918.
- Re-education of the crippled soldier. *New York State Teachers' Association. Journal*, v. 5:135, 1918.
- Wright, A. H.** Fish succession in some Lake Ontario tributaries. *Scientific monthly*, v. 7:535, 1918.
- Fish succession in the water courses of Lake Ontario. *Ecological Society of America. Proceedings*, Dec., 1916. Also in *Copeia*, No. 53:10, 25 Jan., 1918.
- Note on the passenger pigeon, by A. H. Wright and S. C. Bishop. *Auk*, v. 34:208, 1917.
- Notes on Clemmy's. *Biological Society of Washington. Proceedings*, v. 31: 51, 1918.
- Notes on the Muhlenberg's turtle. *Copeia*, No. 52:5, 17 Jan., 1918.
- Sap drinking by sap-suckers and humming birds, by A. H. Wright and A. A. Wright. *Auk*, v. 35:79, 1918.
- The snakes of Monroe and Wayne Counties, N. Y. *Copeia*, No. 67:10, 19 March, 1919.
- Some distributional problems of Okefinokee swamp. *Anatomical record*, v. 11:537, 1917.
- The turtles and the lizard of Monroe and Wayne Counties. *Copeia*, No. 66:6, 25 Feb., 1919.
- Wright, Ivan.** Farm mortgages thru the Federal Land Bank. *Cornell countryman*, v. 16:179, 1919.
- Land appraisers. *Survey*, v. 41:844, 1919.
- Zandt, F. B. van.** The Salmon collection in the New York State Veterinary College. *Library journal*, v. 44:308, 1919.



