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President's Report

by

Livingston Farrand

1927-28

With appendices containing a summary of
financial operations, and reports of
the Deans and other officers

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PRESIDENT'S REPORT

FOR 1927-28

To the Board of Trustees of Cornell University:

I have the honor to present the following report on the progress of the University during the academic year 1927–28.

The University has suffered serious loss by the death of the following distinguished figures:

Ira A. Place, a Trustee of the University, elected by the Board, died in New York City on January 24, 1928. He was a graduate of the University in the Class of 1881. He was elected Trustee by the Alumni in 1910 to fill an unexpired term and in 1914 was re-elected by the Alumni for a five-year term. In November 1919 he was elected by the Board to fill the vacancy caused by the death of Andrew Carnegie, and he served as a Trustee from that time until his death.

Thomas Frederick Crane, Professor of the Romance Languages and Literatures, emeritus, died in Deland, Florida, on December 9, 1927. He was a member of the first faculty of the University and taught continuously until his retirement in 1909. He was Dean of the Faculty of Arts and Sciences from 1896 to 1902 and Dean of the University Faculty from 1902 to 1909. During the second half of the academic year 1898–99 he was Acting President of the University and also served in that capacity for the year 1912–13.

Isaac P. Roberts, Professor of Agriculture, emeritus, died at Palo Alto, California, on March 17, 1928. He came to Cornell during the academic year 1873–74 as assistant professor of Agriculture and became full professor in the autumn of 1874. In 1888 he was appointed Director of the Experiment Station at Cornell and he was the first head of the College of Agriculture. In 1903 he retired from active service with the title of professor emeritus.

Newton M. Shaffer, Professor of Orthopedic Surgery, emeritus, died on January 2, 1928. He was a member of the Faculty of the Medical College in New York City from 1898 to 1911, when he retired from active service with the title of professor emeritus.

W. Gilman Thompson, Professor of Medicine, emeritus, died on October 27, 1927. He was Professor of Medicine from 1898 to 1916, when he retired as professor emeritus.

Frank S. Meara, Professor of Clinical Medicine, died on October 9, 1927. He was Professor of Therapeutics 1909–11 and of Thera-

peutics and Clinical Medicine 1911–20. From 1920 until the time of his death he was Professor of Clinical Medicine.

Edward B. Titchener, Sage Professor of Psychology, died August 3, 1927. He came to the University as Assistant Professor of Psychology in 1892 and in 1895 was promoted to a professorship. In 1925 he was made Sage Professor of Psychology.

William R. Orndorff, Professor of Organic Chemistry, died November 1, 1927. He was Instructor in Chemistry 1887–90; Assistant Professor of General and Organic Chemistry 1890–93; Assistant Professor of Organic Chemistry 1893–1903; Professor of Organic and Physiological Chemistry 1903–23; Professor of Organic Chemistry from 1923 until his death.

John G. Pertsch, Professor of Electrical Engineering, died August 23, 1928. He was connected with the Department of Electrical Engineering from the time of his graduation in 1909 until his death; Assistant 1909–10; Instructor 1910–16; Assistant Professor 1916–23; Professor 1923–28.

Louis A. Fuertes, Lecturer in Ornithology, died August 22, 1927. He was a graduate of the University of the Class of 1897, and had been Lecturer since 1922.

Hiram S. Gutsell, a member of the teaching staff from 1888 until he retired in 1922, died September 29, 1927. He was Instructor in Drawing 1888–1916, and 1916–22 Assistant Professor of Freehand Drawing in the College of Architecture.

The Trustees

C. Sidney Shepard, whom the Board elected a trustee in 1896, presented his resignation at the meeting held on October 29, 1927, and declined to reconsider his action.

Professor G. F. Warren was elected by the Faculty to succeed Professor R. A. Emerson as Faculty Representative on the Board, effective January 1, 1928.

Myron C. Taylor was appointed by the Governor a trustee to succeed J. DuPratt White, whose term expired in June 1928.

C. W. Pound and J. DuPratt White were elected by the Board trustees to fill respectively the unexpired terms of C. Sidney Shepard, resigned, and Ira A. Place, deceased.

On June 18, 1928, C. E. Treman, H. H. Westinghouse, and R. B. Williams were elected to succeed themselves upon the expirations of their terms at that time.

On June 16, 1928 the Alumni elected Bancroft Gherardi and J. F. Schoellkopf, Jr., to succeed C. W. Pound and J. L. Senior, whose terms expired on Commencement Day, June 18, 1928.

J. DuPratt White was elected (June 18, 1928) to succeed himself as Vice-Chairman of the Board.

F. H. Hiscock and M. M. Upson were added to the Finance Committee.

M. M. Upson was relieved of membership on the State College Council and F. E. Gannett was appointed a member of that Council to succeed Mr. Upson.

By modification of the Statutes the Vice-Chairman of the Board becomes a member of the State College Council as well as of the standing committees of the Board.

Professor Paul J. Kruse was elected by the Faculty of Agriculture to succeed Professor James M. Sherman as its representative on the State College Council.

The Faculty

The following appointments and promotions in the Faculty have been made during the past year:

H. C. Elmer, Professor of Latin, emeritus; Frederick Whiting, Professor of Clinical Surgery, Department of Otology, emeritus; H. H. Wing, Professor of Animal Husbandry, emeritus; E. H. Woodruff, Professor of Law, emeritus; Madison Bentley, Sage Professor of Psychology; G. E. G. Catlin, Professor of Political Science; N. W. DeWitt, Acting Professor of the Classics; F. H. Hodder, Acting Professor of American History; W. V. Price, Professor of Dairy Industry; H. F. Randolph, Professor of Institutional Engineering; Lars-Gunnar Romell, Charles Lathrop Pack Research Professor in Forest Soils; A. D. Seymour, Jr., Professor of Architecture; Carl Stephenson, Acting Professor of Medieval History; Bruce Williams, Professor of Political Science. The title of Robert E. Cushman was changed to Goldwin Smith Professor of Government and that of Hermann Diederichs to John E. Sweet Professor of Engineering. E. F. Bradford, Director of Admissions; Miss Muriel Brasie, Acting Assistant Professor of Home Economics; D. L. Finlayson, Assistant Professor of Fine Arts; F. S. Freeman, Assistant Professor of Education; R. V. Gibbons, Acting Assistant Professor of Veterinary Medicine; G. E. Grantham, Assistant Professor of Physics; Miss K. M. Harris, Assistant Professor of Home Economics; A. W. Laubengayer, Assistant Professor of Chemistry; F. G. Marcham, Assist-

ant Professor of English History; A. E. Murphy, Assistant Professor of Philosophy; Miss Marion Pfund, Acting Assistant Professor of Home Economics; C. F. Roos, Assistant Professor of Mathematics; E. C. Showacre, Assistant Professor of Hygiene and Medical Adviser; W. H. Stainton, Assistant Professor of Public Speaking; C. N. Stark, Assistant Professor of Dairy Industry; R. S. Uhrbrock, Assistant Professor of Psychology in the Department of Rural Education; R. H. Wagner, Acting Assistant Professor of Public Speaking.

In the Medical College in New York City the following have been appointed or promoted:

G. Canby Robinson, Director of the New York Hospital-Cornell Medical College Association; C. E. Farr, Professor of Clinical Surgery; H. E. Santee, Professor of Clinical Surgery, Bellevue Hospital Clinic; Byron Stookey, Professor of Clinical Surgery; McKeen Cattell, Assistant Professor of Physiology; W. H. Chambers, Assistant Professor of Physiology; H. J. Deuel, Assistant Professor of Physiology; J. F. Fraser, Assistant Professor of Clinical Medicine, Department of Dermatology; M. C. Kahn, Assistant Professor of Health and Preventive Medicine; W. C. Klotz, Assistant Professor of Health and Preventive Medicine; J. F. Nonidez, Assistant Professor of Anatomy; Arthur Palmer, Assistant Professor of Clinical Surgery, Department of Laryngology; L. W. Smith, Assistant Professor of Physiology; H. C. Williamson, Assistant Professor of Obstetrics and Gynecology.

The following appointments and promotions have been made in the Extension Staff of the State Colleges:

Miss Marguerite Wilker, Extension Professor of Home Economics; M. C. Bond, Extension Assistant Professor of Marketing; Miss E. M. Duthie, Extension Assistant Professor of Rural Social Organization; Miss H. J. Hubbell, Extension Assistant Professor of Home Economics; Miss H. B. Kay, Extension Assistant Professor of Home Economics; Miss Lillian Shaben, Acting Assistant Professor in Junior Extension (Home Economics).

In the Agricultural Experiment Station in Geneva the following have been appointed:

H. Glasgow, Chief in Research (with the title of professor); C. B. Sayre, Chief in Research (with the title of professor); R. Wellington, Chief in Research (with the title of professor); L. R. Streeter, Associate in Research (with the title of assistant professor); G. L. Slate, Associate in Research (with the title of assistant professor).

The following officers have presented their resignations:

Dr. Walter L. Niles, Dean of the Medical College; R. A. Chambers, Professor of Microscopic Anatomy; H. C. Elmer, Professor of Latin; W. W. Fisk, Professor of Dairy Industry; Miss F. B. Hunter, Professor of Home Economics; J. F. Mountford, Professor of the Classics; Allan Nevins, Professor of American History; Wallace Notestein, Professor of English History; Frederick Whiting, Professor of Clinical Surgery, Department of Otology; H. H. Wing, Professor of Animal Husbandry; Samuel Bradbury, Assistant Professor of Clinical Medicine; F. C. Evans, Assistant Professor of Heat Power Engineering; F. E. Fiske, Assistant Professor of English; L. B. Hoisington, Assistant Professor of Psychology; Miss E. H. Nason, Assistant Professor of Home Economics; H. W. Schneck, Assistant Professor of Vegetable Gardening; Miss C. E. Weiss, Assistant Professor of Home Economics; R. J. Anderson, Chief in Research, in the Experiment Station in Geneva (with the title of professor); R. H. Shriner, Associate in Research, in the Experiment Station in Geneva (with the title of assistant professor); F. G. Behrends, Extension Professor of Rural Engineering; I. F. Hall, Extension Assistant Professor of Farm Management; G. F. Rea, Extension Assistant Professor of Apiculture.

The Messenger Lecturer on the Evolution of Civilization for 1927–28 was Dr. T. F. Tout of London, formerly (now Honorary) Professor of History at Manchester University.

The George Fisher Baker Non-Resident Lecturers in Chemistry for 1927–28 were: first term, Dr. Paul Walden of the University of Rostock, Germany; second term, Dr. George Barger of the University of Edinburgh. Appointed for 1928–29: first term, Dr. Hans Pringsheim of the University of Berlin; second term, Dr. F. M. Jaeger of the University of Groningen, Holland.

The Students

The official enrollment of students for the year ending June 30, 1928, was 5,671, as compared with 5,776 for the previous year. In previous reports the problem of the selection of entering students has been presented in its various aspects. It is a satisfaction to report that an office of Director of Admissions for the University has been created and Dr. E. F. Bradford has been appointed to that post. It is confidently expected that with the increased facilities thus provided the process of selection will be facilitated and improved.

There are no particular comments to be made upon the general good order of the undergraduates which has continued during the year practically without interruption.

As reported a year ago, certain changes have taken place in the organization and administration of the Honor System whereby responsibility has been thrown back upon the constituent colleges of the University. It is too soon to estimate the degree of success of these modifications but they are regarded as marking an improvement over the conditions previously existing.

In response to a widespread demand the Trustees authorized, upon recommendation of the Faculty, the institution of daylight-saving time for the period May 1 to Thanksgiving. The purpose of the action was to provide additional opportunity for outdoor exercise by daylight for the student body. There is no doubt that this opportunity is being utilized by large numbers of the undergraduates but it is also evident that the complications caused largely by the fact that the city of Ithaca is operated on standard time and the University on a daylight-saving system present a problem, the solution of which is not clear. A committee of the Faculty has the entire matter under consideration.

I earnestly commend to the careful attention of the Board the reports of the Deans of the constituent Colleges of the University attached hereto. They present in aggregate a complete picture of the widespread activities of Cornell and are expressive of the vigor and united spirit which characterize the University to a notable degree.

Material Development

On the material side of the University picture there are important additions to record. The generous gift from donors whose names are not yet announced, which will provide the first four units of the new women's dormitory group north of Beebe Lake, has already been described and ground has now been broken for the construction of these buildings. They will not only afford much needed relief in our housing problem but will offer the opportunity of dealing with the living and social conditions of the women students according to the best standards which experience here and elsewhere dictates.

The provision by the Legislature of funds for the construction of the desperately needed building to house the Plant Sciences will do much to relieve the accumulated pressure for accommodation in the College of Agriculture.

The plans for the War Memorial building in the men's dormitory group are now completed and construction has begun.

Through the generosity of Mrs. Clover Boldt Johaneson, daughter of the late George C. Boldt, a tower to be known as Boldt Tower will be built adjacent to the west end of Boldt Hall.

It is obvious that these major building operations will, when completed, offer striking enlargement of Cornell's educational equipment.

The welcome additions just described serve nevertheless to emphasize lacks which greatly hamper the work of certain of the colleges and departments. The congested condition of the Library becomes more serious with each passing year. The obsolete buildings and equipment which serve the College of Engineering have been repeatedly discussed in earlier reports and constitute one of the University's chief problems. The Law School has outgrown its quarters and new construction on an adequate scale is imperative if that important professional school is to meet the problem which confronts it. The lamentable lack of gymnasium facilities is known to all Cornellians. Recent years have served to bring into sharp relief the need of new and generous provision for the Fine Arts. This has been recognized by the Trustees in authorizing the preparation of architects' plans for a building or buildings which shall house not only the professional College of Architecture but which shall serve also as a center for all aspects of the Fine Arts which it is hoped to develop in the immediate future. Of these the Department of Music is in particularly pressing need of strengthening both in equipment and in personnel.

On the academic side of our situation, while there is no striking development to report, there are plans in hand of far-reaching significance and which offer promise of realization. The Dean of the College of Agriculture in his report mentions the formulation of a plan, first suggested by the outstanding service of that College to biological science, for the coordinated development of research and graduate instruction in the physical and biological sciences which would present a new conception in organization and might make possible notable contributions to the advancement of fundamental knowledge. This plan involves the strengthening of our provision for the basic sciences of physics, of chemistry, and of biology in its various phases and with the particular purpose of coordinating and converging the attack on the border fields between the sciences,

the importance of which is becoming constantly more evident. If adequate resources are forthcoming it is proposed to crown this coordinated development by a center for research in General Physiology which would embrace and emphasize the fields of biophysics, of biochemistry and the varied aspects of the problem of organic function.

It was estimated that the sum of $9,000,000 in new endowment would be needed to enable the University to realize this aim. For practical reasons it was decided to undertake the development, both academically and financially, in stages and to seek the required funds in three capital amounts of $3,000,000 each. It is a great satisfaction to report that upon presentation to the General Education Board the Board expressed approval of the plan and very generously appropriated $1,500,000 toward the first $3,000,000, contingent upon the balance of that sum being obtained by the University from other sources. This constitutes one of the most important opportunities in the history of Cornell and should engage the enthusiastic support of its friends in bringing the plan to successful operation.

The Dean of the College of Agriculture has also outlined the suggested establishment of a Graduate School of Tropical Agriculture in Porto Rico under the auspices and chief direction of Cornell but in cooperation with the University of Porto Rico and for which Graduate School generous provision has been assured by the Legislature of Porto Rico.

There is no question as to the great opportunity for service offered by this plan, which is the considered result of several years' study and investigation by an expert committee of the National Research Council. It is estimated that an endowment of approximately $1,000,000 would be needed to provide for Cornell's participation in the enterprise. It is our earnest hope that this sum may speedily be found.

I wish to call to the especial attention of the Trustees the increasingly serious situation which we face because of the lack of provision for adequate retiring allowances for the University staff. With the failure of the University to meet the modified provisions of the Carnegie Foundation and with the limitations of our own Sage Pension Fund we are annually increasing the number of members of the staff for whom no retirement provision whatever is made and the dangers of the condition thus resulting are obvious. This situation constitutes at this time a major problem to be solved.

I have at different times called informally to the Board's attention the high desirability of establishing at the first possible moment a University Press. It is a pleasure to report that new interest in this important project has been aroused and it is probable that a definite recommendation for the establishment of such a Press will be made during the coming year.

The Robert Boyd Ward Fund very generously repeated its contribution of $10,000 as an emergency fund placed at the disposal of the President to meet unforeseen demands which might arise during the year. The availability of this Fund has, as might be imagined, greatly eased a large number of embarrassing situations.

I would also mention with especial appreciation the improvements in Cascadilla Glen and Fall Creek Gorge made possible through the generous gifts of Colonel Henry W. Sackett, with which the Board is familiar. The activity of the Landscape Committee in the matter of campus development and beautification is noteworthy and of far-reaching significance.

I wish to record once more the obligation of the University to the Cornellian Council, which represents the organized loyalty and material support of the alumni. As shown by the Comptroller, the contributions to the Alumni Fund and the amount of unrestricted income placed thereby at the disposal of the Trustees increase annually and now constitute an indispensable part of Cornell's foundation.

It would be impossible for me to close any report of progress to the Board without expressing the deepest appreciation of the support and confidence which have been given to this office in fullest measure by trustees, faculty, students, and alumni. Under such conditions, to serve Cornell is the highest possible privilege.

Respectfully submitted,

LIVINGSTON FARRAND,

President.

SUMMARY OF FINANCIAL OPERATIONS

To the Board of Trustees of Cornell University:

I have the honor to submit herewith the financial statement of Cornell University covering the fiscal year July 1, 1927 to June 30, 1928, inclusive.

Income and Expense

The cost of conducting the endowed colleges at Ithaca during the year exceeded the available income by $12,896.70, thereby increasing the accumulated deficit, which stood at $411,545.63 at the beginning of the year, to $424,442.33. The Trustees appropriated to apply upon this deficit $98,241.60 from profits received on securities sold during the year, thus reducing this debit balance of the income account to $326,200.73. Of this deficit, accumulated during the past few years, approximately $136,000 resulted from the purchase of land bordering upon the campus and desired by the University to protect or supplement its existing holdings; $78,000 was for the equipment of new buildings; and the balance of about $112,000 from the ordinary running expenses of the University. In addition, the University is carrying, in an undistributed purchase and construction account, the following items for the liquidation of which there is no definite present plan and which really increase the above deficit. These are the Franklin C. Cornell property, $200,000; the Bool Mill property at Forest Home, $9,000; additions to the Women's Residential Halls site, $64,974.18; and land in Fall Creek for future water power development, $75,170.20. These, added to the above deficit in current income, make a total of $675,345.11, which sum approximately represents the indebtedness of the University for which there is no present plan of liquidation.

In the Medical College in New York City the cash deficit for the year, after allowing for adjustments in reappropriations necessary to meet outstanding obligations, was $51,951.52, increasing its accumulated deficit in current income to $263,444.90. This deficit was reduced by the unanticipated receipt during the year of $85,000 from the estate of the late Mr. Payne Whitney, and $67,531 transferred from the Medical Increment Fund and the Premium and Discount Account, thus reducing the accumulated deficit at the end of the year to $110,913.90.

The expenses of the State Colleges at the University in excess of certain income available from University and Federal Funds are met from appropriations made by the State of New York. The total disbursements of the State Veterinary College for the year were $190,350.68; of the State College of Agriculture $1,929,058.63; of the State College of Home Economics $465,330.28; and of the State Experiment Station at Geneva $320,805.66.

The University Endowment

The permanent endowment or income producing funds of the University increased during the year approximately $500,000 to an aggregate of $19,909,108.38. Of this amount over $15,500,000 is for the benefit of the University at Ithaca, and $4,436,176.79 for the Medical College in New York City.

The average rate of return received upon investments during the year and credited to the several funds was 5.459 per cent. The market valuation of the securities, excluding gifts, exceeded the book value, which is usually the cost value or the market value, on April 1, 1923, when our present system was installed, by over $1,100,000.

During the year the University realized slightly over $335,000 of profits received from securities paid or sold, and after charge-offs amounting to $22,600, $147,712.84 was applied upon meeting deficits of income, and $165,811.41 carried to the insurance reserve account.

The investment of these funds so as to produce the highest rate of interest compatible with safety is one of the most important duties of the Trustees and is carefully performed under the supervision of the Finance Committee. During the year, by reason of his resignation as a Trustee, the Committee lost the services of Mr. C. Sidney Shepard, who had served the University faithfully in this capacity for nearly fifteen years. His sound judgment, based upon unusually wide experience, will be greatly missed. Trustees Hiscock and Upson were added to the Committee, which now consists, in addition to the two above named of Trustees Roger B. Williams, Chairman; Livingston Farrand, J. DuPratt White, Robert H. Treman, Henry R. Ickelheimer, and Walter P. Cooke.

Semi-Centennial Endowment Fund

The subscriptions (exclusive of gifts for special purposes, such as buildings, which, under the resolution of the Board of Trustees, form part of the Semi-Centennial Endowment Fund) secured by the Semi-Centennial Endowment Committee aggregate $6,652,044.43.

From this amount there has been charged off as uncollectible		
By the Treasurer	$84,656.46	
By the Cornellian Council (Classes 1920–23)	103,119.80	$187,776.26
Leaving the net subscriptions July 1, 1928		6,464,268.17
Of these there have been collected		4,036,878.17
Leaving the balance uncollected July 1, 1928		$2,427,390.00

Of these uncollected subscriptions $817,018.43 are from the Classes of 1920–23 inclusive, payable through the Cornellian Council and not yet due; $1,251,877.76 are payable at the convenience of the donor; and $96,396.98 are payable at definite dates which have not yet been reached. This leaves a balance of only $262,096.83 of subscriptions which, by their terms, have matured but have not yet been paid. During the year, in addition to $14,276.98 paid through the Cornellian Council, there was paid into the University on account of the principal of subscriptions $100,225.11. Of this amount, $28,705.18 was paid on account of principal maturing prior to the beginning of the year; $15,971.84 on principal maturing during the year; and $55,548.09 on account of subscriptions not yet matured or payable at convenience. Interest amounting to $46,426.87 was collected. Fourteen extensions of time of payment were granted and seventy-four subscriptions were paid in full.

Gifts

The gifts received by the University during the year that were recorded in this office aggregated $4,043,559.05. Many gifts were undoubtedly made directly to departments and did not pass through the books of the University.

In the year 1913, $20,000 was received through the Cornellian Council, representing mainly the gifts of alumni. The record shows how, through the activities and loyal service of the members of the Cornellian Council and of the many alumni cooperating with it, this sum has steadily increased until this year the University received $532,008.25, making a total of such collections during the existence of the Council of over $2,000,000. The amount received for unrestricted use for current expenses increased during the past year from $116,137.82 to $127,314.16. Included in this year's gifts was an anonymous donation of $150,000.

The donations, other than those through the Cornellian Council and the Semi-Centennial Endowment Campaign, aggregated $3,387,621.08.

The two outstanding gifts in size were an anonymous gift of $1,650,000 for the construction of the first units of the women's new residential halls group, and $1,416,666 from the General Education Board for the University's contribution toward the site for the new medical center of the New York Hospital and the Cornell Medical College.

The Physical Plant

In February, 1928, the University entered into an agreement with Dall-Hayden-Treat, Inc., for the construction of the first group of the new residential halls for women, to be erected on land lying north of Beebe Lake and east of Triphammer Road. This group is designed to house 330 students in four units, each with separate parlors and dining rooms.

The buildings, which will cost approximately $1,700,000, are the gift of two generous friends of the University who desire to remain anonymous. It is expected that these buildings will be ready for occupancy with the opening of the University in the Fall of 1929.

During the year the work upon the University's new water supply and filtration plant has progressed steadily and it is nearing completion. Foundations were constructed by the State for the new Plant Industry Building, and it is expected that contracts for the completion of the building will be made soon.

Bids were received for the construction of the War Memorial group of men's dormitory buildings and Boldt Tower, and shortly after the close of the year contracts were executed for their construction.

The routine work of the service departments of the University continues to be efficiently done, and is covered in detail in the reports of the Treasurer, the Superintendent of Buildings and Grounds, the Manager of Purchases, and the Manager of Residential Halls.

Respectfully submitted,

Charles D. Bostwick, *Comptroller.*

Note: The complete report of the Comptroller and the Treasurer, bearing the certificate of audit of Messrs. Haskins & Sells, certified public accountants, 37 West Thirty-ninth Street, New York City, together with the reports of the Superintendent of Buildings and Grounds, the Manager of Purchases, and the Manager of Residential Halls, will be forwarded to the members of the Faculty and Alumni upon receipt of specific request addressed to the Secretary of Cornell University, Ithaca, New York.

APPENDIX I

REPORT OF THE DEAN 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 1927–28:

During the past year changes in the personnel of the Faculty due to death and retirement were more numerous than usual. Emeritus Professor Thomas Frederick Crane (*b.* July 12, 1844, *d.* December 9, 1927) was Dean of the Faculty from 1901–09. He was appointed Assistant Professor of South European Languages in 1868, the year of the opening of the University for instruction. From that date until his retirement in 1909 he was continuously active as teacher, writer, and administrator. During the later years of his professorial life he had a very keen interest in alumni affairs and became one of the most widely known and popularly esteemed officials. He was particularly happy in the graceful addresses which he was frequently called upon to make before class meetings and alumni assemblies. During the absence of President Schurman as Commissioner to the Philippine Islands and as Minister to Greece, Professor Crane served as acting president. His chief joy as well as his most permanent success lay in his delightful contributions to the study of folklore and to the literature of the civilization of the Renaissance. Assistant Professor Hiram S. Gutsell (*b.* April 20, 1856, *d.* September 29, 1927) for a third of a century rendered faithful and valuable service in free-hand drawing and in the history of the fine arts. Professor William R. Orndorff (*b.* September 9, 1862, *d.* November 1, 1927) became instructor in Chemistry in 1887 and at the time of his death was Professor of Organic Chemistry. By his industrious habits, his sympathetic and generous assistance of students, his precision in investigation, and statement, and his continuous activity in publication, he earned the deep esteem of the University and of the learned world. Professor Isaac P. Roberts (*b.* July 24, 1833, *d.* March 17, 1928) was the first Director of the College of Agriculture and the first Dean of its Faculty. He retired as Emeritus Professor in 1903, after thirty years of teaching and administrative work. He will be gratefully remembered by the University for his pioneer labors in agricultural education, which he carried on under great difficulties with wisdom and courage. In addition to the above named professors who were members of the Faculty resident in Ithaca, the Medical Faculty in New York City (whose members have seats in the University Faculty) lost two of its outstanding teachers and scholars during the past year: Professor Frank S. Meara (*b.* May 6, 1866, *d.* October 9, 1927) and Professor William G. Thompson (*b.* December 25, 1856, *d.* November 27, 1927). In writing of these changes, I cannot refrain from mentioning the tragic death (August 22, 1927) of Louis Agassiz Fuertes (Lecturer in Ornithology) who, although he was not a member of the University Faculty, somehow belonged to the University at large and was teacher of professors and students alike, in the life and lore of birds. His drawings of birds, characterized by astonishing exactitude in form, color, expression, and environmental description, made him enduringly famous. He was one of the most interesting and influential personalities that has ever adorned the University, one of the unique men of whom, in any approximately exact sense, there will be no successor.

By retirement from active service, the Faculty lost during the last year, the counsel and leadership of the following senior members: Professor Herbert C. Elmer, Professor Hiram H. Wing, and Professor Edwin H. Woodruff.

The fluctuation in the total membership of the Faculty is indicated in the following comparative statistics:

	1925–26	1926–27	1927–28
Resident in Ithaca	350	362	364
Resident in New York City	73	71	64
Resident in Geneva	9	10	10
Resident on Long Island (Research professors)	1	1	2
	433	444	440

There are twenty-four emeritus professors now living.

Forty-one professors secured leaves of absence for all or part of the academic year 1927–28. Of these leaves, twenty-eight were granted by the Trustees under the rules applying to sabbatic absences.

Nine regular sessions were held and the year was an exception in the fact that no special session was called for.

FACULTY REPRESENTATIVES ON THE BOARD OF TRUSTEES

The Faculty was represented on the Board by Professor R. A. Emerson, Professor V. A. Moore, and Professor Frank Thilly. On December 14, Professor George F. Warren was elected for the usual term of three years to succeed Professor R. A. Emerson whose term of office expired on January 1.

THE LIBRARY AND HECKSCHER COUNCILS

On the Library Council the Faculty is represented by four elected members, each serving for a term of two years. This year the Faculty elected Professor A. H. Wright (group of science) and Professor G. L. Hamilton (group of letters), the former to succeed Professor O. A. Johannsen, whose term expired. Professor Hamilton was elected to succeed himself. On the Heckscher Council, the Faculty is represented by four elected members, each of whom serves for a period of four years. Professor W. M. Sawdon was elected to succeed Professor W. N. Barnard, whose term expired on November 1.

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS

For the undergraduate scholarships awarded by the University on the basis of a competitive examination at the beginning of the freshman year (September) there were 114 candidates, a decrease of 7 from the September examination of 1926–27. At the beginning of each year the winning scholars are carefully instructed regarding the scholastic standards each scholar must maintain in order to hold his stipend. It was not found necessary during the past year to vacate any scholarship, which is a somewhat anomalous fact in the experience of the Faculty's committee. Mathematics and English are required of all candidates. The percentages of freshmen who elected the other examination subjects are indicated as follows (September, 1927):

English	Mathematics	Latin	French	Spanish	German
100%	100%	33%	58%	5%	4%

The interesting features of the foregoing table are the decline in the number offering Latin (49% in 1926), the increase in French (25% in 1926), the total disappearance of Greek, and the continued neglect of German.

The average mark earned by the twenty freshmen who took the competitive examination was 66.8% which might appear very low. As a matter of fact it illustrates merely the traditional rigor of this examination or the severity of the professors in grading the papers. The same twenty freshmen made an average in their university work for the first term of 1927–28 of 85.9% and for the second term 87.8%.

WAR ALUMNI

Each year a small number of former students, who served in the World War and were unable to return to the University for the completion of their education, apply to the Faculty for the award of a War Alumnus Certificate. At the present time this distinction is bestowed on the basis of a minimum residence of one year

in the University and a similar period of honorable service in the armed forces of the United States or of our allies. In 1926–27, four former students received the honor and during the year just passed, the Trustees on the Faculty's recommendation conferred the distinction on the following: Clement Steele Clarke, ex. –19, M.E., William Francis Courtney, ex. –18, M.E., John Wright de Forest, ex. –19, Law, John William Hammond, ex. – 20, Arts, Warren Israel Huckins, ex. –18, Agr., and Harold Ray Owen, ex. –18, Arts.

THE HONOR CODE IN EXAMINATIONS

On March 9, 1921, the University Faculty adopted a plan for conducting preliminary and final examinations on the basis of an honor code. The action was taken in response to a petition signed by 3,486 students who pledged themselves to the support of the code. At that time 354 were opposed to it and 12 favored an honor system but not the plan as then submitted. In the minds of many of the professors, the adopted plan was a matter of experiment and in the minds of some members of the Faculty, the plan is still so regarded. During the seven years of experimentation, the method has been slowly but surely undergoing disintegration owing to the dissatisfaction and criticisms of professors and students alike. It has, however, been found desirable to continue the method with minor modifications in order that complete test may be made of its feasibility. During the past winter, the subject has been actively discussed in the University Faculty, in the several special Faculties and in Faculty and student conferences. The upshot of the discussions has been the establishment of some form of faculty-student jurisdiction. This jurisdiction applies to the general conduct of the examination and more particularly to discipline for breaches of honor on the part of the students. One of the colleges, the College of Veterinary Medicine, has frankly reverted to the method of sole Faculty control. In my own opinion this is likely to prove not only the most just but the most practicable method of conducting these University tests. However, the entire University will continue to observe with sympathetic interest the development of the present modifications of the system. The general University committee called the "Central Honor Committee" which was the court of last resort under the honor system, has now been abolished. The several College committees, whether composed exclusively of students or of professors and students, have now become the final and only organs of administration.

COMMITTEE ON PENALTIES AND LATE REGISTRATION

At its December meeting, the Faculty abolished the standing Committee on Penalties and Late Registration on the ground that the functions of this committee are now performed in the offices of the Deans of the several colleges.

DIRECTOR OF ADMISSIONS

The question of establishing a central office of Director of Admissions which has been under discussion for a considerable time, was referred to the several special Faculties for an expression of their opinion. On March 14, 1928, communications expressing the approval of the Colleges of the establishment of such an office were read, and the following resolution was adopted:

> "*Resolved*, That the University Faculty recommend to the Board of Trustees the establishment of an office of Director of Admissions, to which office there shall be delegated the responsibility for collecting personal data with regard to applicants for admission to the various colleges and the selection of candidates for admission under such conditions and restrictions as the faculties of these colleges shall, from time to time, determine."

INSTRUCTION IN HYGIENE AND PREVENTIVE MEDICINE

In the academic year 1919–20, the subject of personal and public Hygiene became a required course of instruction, one hour a week, extending through the freshman and sophomore years and administered by the University Faculty.

The careful and systematic development of the course during the past seven years has been especially due to the work of Dr. D. F. Smiley. Owing to objections of students and of some members of the Faculty to what in their opinion was an excessive amount of time devoted to this subject in the underclass schedule and owing in part to difficulties arising from conflicts with College schedules, the Faculty on March 14 adopted the following recommendations of a special committee, to which had been referred the study of this problem:

"1. That in place of the present requirement of one hour a week for four terms, the Hygiene requirement be made one hour a week for the two terms of the freshman year."

"2. That the Department of Hygiene be invited to provide supplementary elective courses of instruction."

By vote of the Faculty, the new plan of required instruction in Hygiene will go into effect at the beginning of the year 1928–29, and the members of the freshman class of 1927–28 were regarded as having satisfied the requirement on the completion of the work in Hygiene during the first year of their residence.

W. A. HAMMOND,
Dean 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 1927–28.

ENROLLMENT AND DEGREES GRANTED

The enrollment during the past academic year was 767, an increase of 13.3 per cent over that of the preceding year and of 25.3 per cent over the average for the past four years. This increase is doubtless due in part to the enforcement of the statutes of the Trustees requiring registration of graduate students who remain here to finish their theses after the minimum period of residence has been completed.

The enrollment during the summer of 1927 was 475, an increase of 14.7 per cent over that of the preceding summer and of 25.7 per cent over the average for the past four summers. In short, the enrollment during the summer has increased at approximately the same rate as enrollment during the academic year.

Of the students enrolled during the academic year, 382 were candidates for the doctor's degree and 329 candidates for master's degrees. Of students registered during the summer, 170 were candidates for the doctor's degree and 281 candidates for master's degrees. Among students who were not candidates for a degree, there were 11 who hold the doctor's degree.

During the regular terms there were represented in our enrollment all the states of this country and the District of Columbia, four of our outlying possessions, and 24 foreign countries. Of the 767 students, 350 were residents of New York State, 323 from other states of this country, and 94 from foreign countries and our outlying possessions, the respective percentages being 45.6, 42.1, 12.3. Among the states of this country Pennsylvania was second to New York with 43 students enrolled here, Ohio third with 25 students, California fourth with 23, and Michigan, Indiana, New Jersey, Illinois, Massachusetts, Iowa, North Carolina, in the order given with from 16 to 10 students each. Among foreign countries China was first with 22 students and Canada second with 19, the next in rank being South Africa with 8.

The number of universities and colleges from which students entered the Graduate School was 219, 49 of which are foreign institutions. The number of students who entered from the undergraduate colleges of Cornell was 273, from other institutions of the United States 413, and from foreign institutions 81.

A total of 280 advanced degrees was conferred during the year. Of these 95 were doctor's and 185 master's degrees.

NEW DEGREES

In accordance with the recommendation of the Faculty of the Graduate School, the Trustees have established the degree of Master of Fine Arts. On recommendation of both the Graduate Faculty and the Faculty of Law, the Trustees have established two advanced degrees in Law, Master of Law and Doctor of the Science of Law. The members of the Law Faculty and the chairmen of the departments of History, Philosophy, Economics, and Government constitute the Law group (group H) of the Graduate Faculty. To this group has been delegated by the Graduate Faculty the determination of requirements for admission and for graduation of candidates for the advanced degrees in Law. This is a degree of autonomy not before granted to any special group of the Graduate Faculty, but quite in accord with the special nature of the degrees concerned.

R. A. EMERSON,
Dean of the Graduate School.

Statistics of Attendance of Graduate Students

	1927–28	1926–27	1925–26	1924–25	1923–24
Number of students registered during the academic year	767	677	659	583	529
Number of students registered during the summer, as below	475	414	429	365	304
Summer Sessions	315	284	279	261	211
Personal Direction	160	130	150	104	93

Classification of Graduate Students

Graduate students receiving degrees, classified according to the degree received:

	1927–28	1926–27	1925–26	1924–25	1923–24
Doctors of Philosophy	95	91	71	60	81
Masters degrees, as below	185	134	141	141	112
Masters of Arts	83	57	55	50	44
Masters of Science	69	53	60	54	38
Masters of Science in Agriculture	8	5	6	13	13
Masters in Landscape Architecture	0	1	0	1	3
Masters in Forestry	2	6	3	2	2
Masters in Architecture	2	4	1	1	1
Masters of Chemistry	0	0	1	0	0
Masters of Civil Engineering	12	4	5	9	5
Masters of Mechanical Engineering	7	4	7	7	5
Masters of Electrical Engineering	2	0	3	4	1
Total	280	225	212	201	193

Graduate students classified according to the degree for which they are candidates:

	Academic Year	*Summer*
Doctors of Philosophy	382	170
Master's degrees, as below	329	281
Masters of Arts	144	178
Masters of Science	126	90
Masters of Science in Agriculture	10	3
Masters of Forestry	4	2
Masters of Architecture	4	
Masters of Chemistry	8	2
Masters of Civil Engineering	15	4
Masters of Mechanical Engineering	10	1
Masters of Electrical Engineering	8	1
Non-candidates:		
Resident Doctors	11	
Others	45	24
Total	767	475

Graduate Students classified according to the group in which the major subject falls:

	1927–28	1926–27	1925–26	1924–25	1923–24
Group A, Languages and Literatures	108	98	69	75	64
Group B, History, Philosophy, Education, and Political Science	212	155	179	138	131
Group C, Physical Science	161	140	151	129	132
Group E, Engineering, Architecture	54	54	61	52	49
Group F, Science Departments, New York City	1	3	2	3	6
Group D, Biological Sciences	157	166	145	118	145
Group G, Agricultural Sciences	63	61	52	63	

INSTITUTIONS FROM WHICH STUDENTS ENTERED THE GRADUATE SCHOOL

Aberdeen	1	Davidson	1
Acadia	5	Dayton	2
Adelphi	2	Dennison	2
Adrian	1	DePauw	8
Agricultural College of Norway	1	Dickinson	1
Alabama Polytechnic	2	Drake	1
Alabama Woman's College	1	Duke University	1
Albright	1	Durham, England	1
Allegheny	1	D'Youville College	1
Alma	1	Earlham	1
Amherst	4	East Anglican Inst. of Agriculture, England	1
Arizona	2	Edinburgh	2
Arkansas	2	Ellsworth	1
Bangabosi, India	1	Elmira	4
Bessie Tift College	1	Emory and Henry College	1
Bonn	1	Fagreb, Jugo-Slavia	1
Boston	2	Florida	1
Bowdoin	1	Furman	2
British Columbia	1	Geneva	1
Brown	1	George Peabody College for Teachers	3
Bucknell	2	George Washington	1
Butler	2	Georgetown	1
California	4	Georgia State	2
Cambridge	1	Goucher	3
Capital University, Columbus	2	Greensboro	1
Carleton	2	Greenville	1
Chicago	1	Grinnell	1
Cincinnati	3	Halle	1
Clark	1	Hamilton	3
Clemson	3	Hampton Teachers College	1
Coe College	1	Harvard	3
Colgate	4	Hawaii	1
College of Industrial Arts, Texas	1	Helsingfors, Finland	1
Colorado	6	Hendrix	1
Colorado Agricultural	2	Hiram	2
Columbia	6	Hobart	3
Columbia Teachers College	1	Hood	1
Connecticut Agricultural	1	Hope	1
Constantinople Woman's College	1	Hunter	2
Copenhagen, Denmark	1	Idaho	1
Cornell College, Iowa	1	Illinois	8
Cornell University	273		
Dartmouth	2		

Inst. Agricole d'Olso	1
Inst. Agronomo, Chile	1
Iowa State	9
National University of Ireland	1
Kagoshima, Japan	1
Kansas	10
Kansas State Agricultural	4
Kansas State Teachers College	1
Kentucky	3
Kogyokuska, Japan	1
Kyoto Imperial	1
Lafayette	1
Lake Erie	1
Laval	1
Leeds	1
Leland Stanford	3
Lewis Institute	1
Liège	1
Lincoln Memorial	1
Louisville	1
Macdonald	2
McGill	1
Madrid	1
Maine	4
Massachusetts Agricultural	4
Massachusetts Institute of Technology	1
Meiji	1
Melbourne	1
Meredith	1
Mexico	1
Michigan	7
Michigan State	5
Middlebury	2
Midland	1
Mills	4
Minnesota	5
Mississippi	3
Mississippi A. and M	3
Missouri	4
Monmouth	1
Montana	1
Montreal	1
Mount Holyoke	4
Muhlenberg	1
Nanking	1
Nanyang	7
Nebraska	6
Nevada	2
Newcombe	1
New Hampshire	4
New Mexico College of Agriculture	1
College of the City of New York	3
N. Y. State Teachers	4
N. Y. University	1
North Carolina Ag. and Eng. Coll.	1
North Carolina State	2
North Dakota Agricultural	1
Northeastern	1
Northwestern	3
Oberlin	4
Occidental	2
Ohio State	7
Ohio Wesleyan	6
Oklahoma A. and M	1
Ontario Agricultural	3
Oregon	1
Oregon State Agricultural	3
Otterbein	1
Peiyang	1
Peking	2
Pennsylvania State	17
Philippines	3
Pomona	8
Poona Agricultural	1
Purdue	6
Queen's	3
Radcliffe	1
Reed	1
Rensselaer Polytechnic Institute	1
Rochester	8
Rose Polytechnic Institute	1
Rutgers	1
Saskatchewan	1
Shaw	1
Simmons	1
Smith	1
South Africa	1
South Dakota	2
Stellenbosch	2
Syracuse	8
Tangshan	4
Tennessee	5
Texas A. and M	4
Texas Christian	1
Tokio Technical	1
Toronto	8
Transvaal	4
Tsing Hua	1
Ultuna, Sweden	1
Union	1
Utah	1
Utah Agricultural	4
Valparaiso	1
Vassar	2
Vermont	2
Virginia	1
Virginia Polytechnic	3
Wabash	1
Wake Forest	1
Washburn	2
Washington	2
Washington and Lee	1
Waynesburg	1
Wellesley	3
Wells	3
Wesleyan	1
Western Maryland	1
Western Reserve	3
Westhampton	2

West Point	2
West Virginia	5
West Virginia Wesleyan	3
Wheaton	2
Whitman	1
William Smith	1
Williams	1
Wilson	2
Winchester	1
Winthrop	1
Wisconsin	7
Witwatersrand	1
Wofford	1
Wooster	1
Wyoming	2
Yale	3

Geographical Distribution of Graduate Students

Alabama	4
Arizona	1
Arkansas	4
California	23
Colorado	5
Connecticut	7
Delaware	3
District of Columbia	3
Florida	3
Georgia	5
Idaho	3
Illinois	11
Indiana	15
Iowa	10
Kansas	5
Kentucky	7
Louisiana	3
Maine	7
Maryland	4
Massachusetts	11
Michigan	16
Minnesota	6
Mississippi	2
Missouri	4
Montana	1
Nebraska	6
Nevada	1
New Hampshire	4
New Jersey	14
New York	350
North Carolina	10
North Dakota	1
Ohio	25
Oklahoma	3
Oregon	3
Pennsylvania	43
Rhode Island	1
South Carolina	9
South Dakota	1
Tennessee	4
Texas	7
Utah	3
Vermont	3
Virginia	7
Washington	5
West Virginia	7
Wisconsin	1
Wyoming	2
Alaska	1
Australia	1
Belgium	1
Bermuda	1
Canada	19
Chile	1
China	22
Denmark	1
Egypt	1
England	3
Finland	1
France	1
Germany	1
Hawaian Islands	3
India	6
Ireland	1
Japan	4
Jugo-Slavia	1
Mexico	1
Philippine Islands	6
Poland	1
Porto Rico	1
Scotland	3
South Africa	8
Spain	1
Sweden	2
Switzerland	1
Turkey	1

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: I have the honor to submit the following report of the College of Arts and Sciences for the academic year 1927–28.

ADMISSION AND REGISTRATION

The registration in the College, compiled by the Registrar, was 1973 students, of whom 1329 were men and 644 women. These numbers include 117 (112 men and 5 women) registered in the special course leading to the B. Chem. degree. As compared with the previous year, there have been 86 fewer students, equally divided between men and women, including a falling off of 22 in the course leading to the B.Chem. degree. In the main this decrease in registration is accounted for by a decision of the Committee on Admission to hold to the number 500 as the limit of new students to be received in September, whether they were freshmen or students transferring from other colleges with advanced standing. During the course of the year 1926–27 there were admitted some 640 new students, including chemists, whereas during the present year the number of new students has only reached the figure of 539. It should be noted, however, that despite this falling off the total registration of the year has been exceeded in no year previous to 1924–25 when the figure was almost the same, namely 1977.

For several reasons, the work of the Committee on Admission has been more effective this year than ever before. In the first place there was a much larger number of candidates for admission from which the selection was made. Beginning with *bona fide* applications numbering about 1500, there were at the end some 700 applicants who promised to fulfill all the necessary prerequisites for admission. The justification of the choice that was made appears in a notable improvement in the quality of work achieved by the present freshman class over any previous class of recent date. The numbers of freshmen dropped for academic difficulties by the end of their first term of residence during the past five years have been as follows: 1924, 39; 1925, 34; 1926, 47; 1927, 37; 1928, 18. There has also been a gratifying increase in the number of new students whose work has been of an average grade of B or better.

Apart from the intrinsic value of individual selection on the basis of information supplied by a wider range of knowledge than can be gained from entrance credits, the psychological effect of competitive admission is stimulating to those who are admitted. When students are made to realize that admission to college is a privilege, they are inclined to put their best efforts into their work.

The action of the Trustees in establishing the office of a Director of Admissions, in conjunction with the office of University Registrar, will now relieve the College of certain exacting duties which have been a severe tax upon its facilities. With the loyal assistance of Professors W. B. Carver, R. C. Gibbs, B. S. Monroe, and G. B. Muchmore it has been possible to inaugurate a program of selective admission and to bring it to a high state of efficiency. But it would have been impossible to continue this work in the College without the provision of additional office space and an enlarged staff. The new central office, having direct access to the Registrar's records, will be able to cooperate with the Faculty's Committee on Admission in such a way as to relieve this Committee of a large part of its more arduous labors; it will at the same time greatly simplify the process of admission.

One of the problems of selective admission with which the Committee has been deeply concerned is a steady increase in applications from the north-eastern section of our country, and a corresponding decrease in applications from the West and South. A natural cause for this condition is the improvement of colleges and uni-

versities in all sections of the country, making it no longer necessary to seek higher education of good quality in a limited number of institutions. But along with a general tendency to seek admission to a college near home, has come a change in college entrance requirements, especially with regard to the study of foreign languages. Whereas at Cornell we still maintain a minimum requirement of three units in one foreign language and two in a second foreign language, the requirements of standard colleges in other sections of the country are often confined to three or even fewer units in a single foreign language. As a consequence, many of the best public high schools of the West and South are graduating students, otherwise fit for college, who cannot meet our entrance requirement in this respect. If we wish to receive students of this class who, through no fault of their own, have not studied, and may have had no opportunity to study, a second foreign language in high school, we must make an exception to our rules which we are unwilling to make for students in the East where preparation for college normally includes two foreign languages. It is difficult to meet this issue without seeming to favor the admission of applicants from distant regions. Since, however, the Committee on Admission bases its decisions upon personal communications from the applicants and from the principals of their schools, the Committee on Educational Policy has seen fit to advise that consideration be given to the admission of students from schools outside New England, New York, New Jersey and Pennsylvania who can offer three units in Latin, Greek, French, or German, or two units in each of two of these languages; it being understood that such a shortage will be made up after entrance to college, with credit towards graduation.

THE DEPARTMENTS OF THE COLLEGE

The reports made by the Departments of the College include certain recommendations which call for special comment.

1. Animal Biology.

The efforts of the divisional committee, which has organized the work of this broad field with special reference to the needs of the College, have been continuously helpful. In the opinion of the Chairman of this Committee, Professor H. D. Reed, "many difficulties in the way of arranging courses, staff, and so forth would be obviated if an administrative committee with the authority and duties of a head of a department were appointed to administer the affairs of this group. Under such administrative responsibility a great deal in the way of reorganization could be done, though the various laboratories are now separated. At present there is lacking that unity which is necessary for the harmonious working of the Animal Biology as a compact group." In addition to this recommendation, the Professor of Zoology calls attention to two of the pressing needs of his own department: 1) The addition of a staff-member whose duty it shall be to train graduate students, and undergraduates engaged in informal study, in the technique of laboratory procedures. I am informed that two-thirds of the time devoted to students of this class is not constructive teaching, but is more or less mechanical aid in collecting and preparing materials. Since the department reports this year sixteen graduates and seven students registered for informal study, it is apparent that some such aid would be a great relief to the teaching members of the staff. It is further estimated that a fully qualified person might be secured for this task at the salary of an instructor. 2) The demand for a course in protozoology is felt, not only by this department, but also by other departments of biology. In order to meet this demand the services of a full-time instructor are required.

2. Astronomy.

This department is likely to assume a larger and more important function in the College, since the elementary course is henceforth to be open to freshmen, and will be acceptable as an option to Physics and Chemistry in the fulfillment of a group-requirement. The Professor of Astronomy notes the need of increased laboratory facilities and of an assistant in order that opportunity for work in this field may be commensurate with the reasonable demands of our students. Since the expenses of this department are budgeted by another college, the ques-

tion arises as to the interest that college may take in providing for the needs of students in Arts and Sciences. I suggest this as a matter for your consideration in order that I may know through what channels these legitimate requests should be made.

3. Chemistry.

This department has organized a new four-hour course in Chemical Engineering which will replace the Engineering course hitherto offered by Sibley College as part of the curriculum for the B. Chem. degree.

4. Classics.

This department has suffered a loss in the departure of Professor J. F. Mountford who resigned at mid-year to accept the Chair of Latin in University College, Aberystwyth, Wales. Although Professor Mountford's successor has not yet been chosen, we have been fortunate in securing for next year the services of Dr. Norman W. DeWitt, Professor of Latin and Dean of Victoria College, University of Toronto. It is with deep regret that I note the retirement of Professor Herbert Charles Elmer at the end of the present academic year. Professor Elmer brings to a close a period of active service covering 40 years in this College. Assistant Professor Harry Caplan has been granted leave of absence for the year 1928–29 in order that he may accept a fellowship on the Guggenheim Foundation which will enable him to devote the time to research in European libraries.

5. The Comparative Study of Literature.

In the first year of its separate existence this department continued the courses previously offered under the auspices of the English Department. A new course on Modern Writers on Art will be added to its offering next year.

6. Economics.

Steps are being taken to effect a closer union of the work of this department with that of the Department of Agricultural Economics in the College of Agriculture. In the near future, I hope we shall be able to suggest for your consideration a plan of organization along the lines of the now existing Divisions of Animal Biology and Education.

7. Education.

The steady increase in the enrollment of students in the courses on Education makes obvious the need of additional instructors. This need will doubtless become imperative in the near future by reason of the fact that after 1930 the so-called "college graduate provisional certificate" for teachers in the high schools of this state will no longer be granted. Thereafter all prospective teachers must qualify for their certificates by completing a minimum requirement of 18 hours in pedagogical subjects. The number of persons now fulfilling this requirement is about 80 in each graduating class. Already it is difficult to meet their demands adequately with our small staff of instructors.

A welcome innovation of the past year has been the conduct of the History of Education by members of the History Department. Professor M. L. W. Laistner offered the course in the History of Ancient and Early Medieval Education during the first term with a registration of 95 students, and Professor Preserved Smith offered the History of late Medieval and Modern Education in the second term with a registration of 70 students. The department was thus able to add a new course in the History of American Education which enrolled 60 students during the first term, and was repeated for 44 students in the second term. It should be noted that study in the History of Education is required of prospective teachers, and that the College offers such courses in the interests not only of its own students but also of those from the Colleges of Agriculture and Home Economics.

Unfortunately, the members of the History Department are able to render service only in alternate years. It is hoped that what appears to be so successful an experiment will soon warrant the addition to our staff of a professor for the History of Education.

The University Division of Education, in which the Department of Education cooperates, has had an active year during which many of the problems of interrelationship between this department and that of Rural Education have been brought measurably nearer to solution.

8. English.

The department of English calls attention to the need of closer personal supervision of the work of its advanced students. English is a subject deservedly popular as a field for advanced study. In consequence the members of its staff often find themselves embarrassed by the number of applicants for graduate work, for informal study, and for courses of advanced undergraduate grade. It would seem wise to recognize these varied needs, and to distribute the responsibilities of members of the staff in such a way that additions to the staff can be made in accordance with some organized plan of development.

9. Geology.

This department raises the important question of summer field-work which is much needed by students of Geology. Tentative arrangements were made to start a field camp under the auspices of the Summer Session. It was then decided to postpone the inauguration of this work until more adequate provision for it might be guaranteed. Plans are now being laid which, it is hoped, may be successfully carried out in the near future.

10. German.

The attendance upon courses in this department continues to show an increase, indicating that the ill-effects of wartime feeling upon the study of German are rapidly subsiding. During the past four years the enrollment in German has increased steadily from 531 to 716. The Chairman of the Department, Professor A. L. Andrews, notes that whereas there were in the first term of 1913–14 391 registrations with seven full-time instructors, there were in the first term of this year 355 registrations with only five instructors. It is hoped that a second full-time instructorship can be provided for this department, beginning with the academic year 1929–30.

11. Government.

This department has also had a notable increase in its enrollment from a total of 544 in 1924–25 to 795 in 1927–28. Happily, the staff of the department has been strengthened by the appointment of Dr. Bruce Williams, who comes next year from the University of Virginia as Professor of Political Science, and by the advancement of Dr. George Edward Gordon Catlin to a Professorship on part-time which will bring him back to Cornell from England during the second semester of each year.

I may also note for record the assignment of Professor Robert E. Cushman to the Goldwin Smith Professorship of Government, and the recent action of the Trustees changing the name of the department from Political Science to Government.

12. History.

The Department of History suffered a serious loss in the resignation of the Goldwin Smith Professor of English History, Professor Wallace Notestein, to accept the Sterling Professorship of English History in the Graduate School of Yale University. While the vacancy thus created in our staff has not yet been filled, Dr. F. G. Marcham has been advanced to the rank of Assistant Professor, and in cooperation with Mr. R. G. F.-M. Ramsey, who has been named instructor, will conduct the courses on English History next year. In Medieval History Professor Preserved Smith has leave of absence for the coming year in order that he may devote his time to research. During the first term Professor Carl Stephenson of the University of Wisconsin will offer courses in this field, supplemented by elementary work to be conducted throughout the year by Mr. H. H. Schaff who has been named instructor. Quite recently the Department has suffered a second loss through the resignation of the Professor of American History, Mr. Allan Nevins. Although Mr. Nevins has been a member of our staff for but one year, he has made so favorable an impression that his departure will be deeply regretted.

13. Mathematics.

This department is in serious need of additions to its staff of instructors. During the past four years the enrollments in courses have arisen from 1710 to 1946 while the staff has decreased from 19 to 18 full-time instructors. Provision has already been made for two new appointments of assistant professorial rank, although it has been possible to fill but one of these posts in the coming year.

14. Music.

With regret I report the failure of all efforts made during the past year to secure an appropriate candidate for the now vacant Professorship of Music. With the return of Professor H. D. Smith, now on leave of absence for study in Germany, we propose to carry on the department for another year with a reduced schedule, hoping that in the following year we shall be able to retrieve our temporary loss by an increased staff competent to develop and guide the musical interests not only of the College but of the University.

15. Philosophy.

This department, which last spring sustained a serious loss in the death of one of its oldest and most valued members, Professor Ernest Albee, has greatly benefited by the addition to its staff of Professor G. W. Cunningham. Next year the department will be further strengthened by the appointments of two younger men, Dr. Arthur E. Murphy, who comes from the University of Chicago as Assistant Professor of Modern Philosophy, and Mr. Richard G. Robinson, who comes from Oxford and Marburg as Instructor in Ancient Philosophy.

The present outstanding need of the College in this field is to fill the long vacant chair in the History and Philosophy of Religion. It is hoped that a suitable candidate for this post may be found in the near future.

16. Physical Education.

This department, which exists in the College primarily as a means of training teachers of this subject, is greatly handicapped for lack of appropriate facilities. When at length we shall have a new gymnasium and a larger staff of instruction, an important question of policy will arise.

At present only a small number of courses in Physical Education are allowed for credit towards the degree A.B., whereas other courses of a more practical and technical nature are required, without credit, of students qualifying for a teacher's certificate in the subject. The Professor of Physical Education raises the question whether the faculty in Arts and Sciences would allow credit towards its degree for such courses. A further question might well be raised: If the necessary support could be had, would the sponsorship of these courses be appropriate to this College? Since these technical courses do not appear to fall precisely within the scope of a liberal college, and are intended as part of the professional equipment of certain teachers, I would suggest that the question of their development might appropriately be referred to the Division of Education for its consideration.

A somewhat related issue has recently been raised with respect to courses in Hygiene which are conducted by a University Department having no definite status in any college faculty. The required course in Hygiene for freshmen will henceforth be credited towards the degrees of this College, but, together with certain advanced courses hitherto listed among the offerings in Physical Education, this course will be counted among the 30 hours which a student is privileged to elect outside the College. If it should seem wise to transfer the sponsorship of Physical Education to the Division of Education, its courses might then be elected by college students under similar restrictions.

17. Physics.

Two of the problems which have confronted this department are the adequate conduct of the elementary courses for Arts students and the required courses for Engineers. Under the leadership of the Head of the Department, Professor Merritt, the reorganized freshman course for Arts students has been favored by a steadily increasing number of elections. The required work for engineers, which because of the retirement of Professor C. C. Bidwell has been temporarily, though most effectively, directed by Professor R. E. Loving, on leave from Richmond College, will next year be in the hands of Assistant Professor G. E. Grantham, who comes to us from the Graduate Engineering School of the U. S. Naval Academy.

The department stands otherwise in pressing need of increased facilities for experimental research. Improvement in its shops, and the full-time appointment at professorial rank of a competent supervisor of apparatus and construction, would greatly relieve other members of the staff of many serious hindrances in the performance of their duties as teachers and investigators.

18. Psychology.

The untimely death of the Sage Professor of Psychology, Dr. Edward Bradford Titchener, made a serious breach in the activity of this department. Fortunately, we have been able to call back from the University of Illinois as Sage Professor of Psychology Dr. Madison Bentley who served in this department as Assistant, Instructor, and Assistant Professor from 1897–1912. The most pressing need of the department is a remodeling of the laboratory in order that the present floor-space, which is not inadequate, can be made effectively useful. At present the laboratory has no corridors, and one must therefore pass from room to room, involving serious disturbance of those who are engaged therein. If means can be found to overcome this defect, it will be possible to provide, not only for the department's needs, but also for the laboratory needs of the Department of Education, which would then move from its present inadequate quarters in Goldwin Smith Hall, and in turn release a good sized classroom and a large seminary room for other purposes. It is hoped that these means can be provided in the near future; otherwise the experimental work of both departments must continue to suffer serious curtailment.

19. Public Speaking.

This department has shown rapid and gratifying development, notably in the field of graduate study and in its work associated with the University theatre. The inadequacy and inappropriateness of its present offices and classrooms in Goldwin Smith Hall have been referred to again and again in these reports. Some step must soon be taken to relieve this situation. Other needs of the department are the development of its facilities to do clinical work in speech correction, and the provision of a full-time clerk.

20. Romance Languages.

With a return of the demand for instruction in German there has come a corresponding falling off in the election of Romance languages. This has been especially notable in the case of Spanish which, in consequence, has been able to dispense with one of its instructors.

21. Scandinavian.

Although the election of courses in this department is not large, a steady increase is indicated over the past four-year period.

22. Semitics.

The future of the work now being carried on in this department is a subject which merits consideration. It is unlikely that we shall be able to find a successor to Professor Nathaniel Schmidt who, like himself, will prove competent in the fields of Oriental Languages, Biblical Literature, and Oriental History. Professor Schmidt has remarked that "a division of the department will probably be unavoidable in the future. I should be glad" he says, "if the work in Oriental History could be carried on along the lines I have laid down, but enlarged and intensified. A well-trained Semitic scholar would almost of necessity be sufficiently familiar with Biblical Literature to lecture on that subject and, in addition, give such supplementary and advanced courses in this field as have been recently urged."

I would suggest that these important questions be considered by members of the History group, with reference to the development of Oriental History, and by those interested in courses on religion, with reference to the continuance of Biblical Literature. In this connection I may add that we stand at the present time in special need of a well-organized course in the Comparative Study of Religion, a course which might conceivably be attached to several departments according as the instructor's other interests were sociological, anthropological, philosophical, historical, or linguistic.

The main point, I think, is that some leadership should be found in the faculty which might enable us to correlate and develop courses on religion. While this subject is now being dealt with in various quarters in various ways there is no joint consideration of a program, or of the aims of the College in providing instruction in this important field. The first step in the solution of this problem would seem to be that of filling the now vacant Chair in the History and Philosophy of Religion.

GENERAL COMMENTS

Though it may lie beyond my province to recommend provision for graduate study and research, it is a matter of general interest that the University should supply more adequate support for graduate fellowships and scholarships, larger book funds for the University library, and increased subsidies for scholarly publications. Since the Departments of this College are not asked to make reports to the Dean of the Graduate School, I venture to note the numerous requests of this kind which have come to me.

THE CONDUCT OF EXAMINATIONS

The University faculty took action a year ago requesting each College faculty to assume responsibility for the conduct of its examinations. As reported to you last year by the Acting Dean of the College, our standing committees authorized a subcommittee of students and faculty to consider this issue. The matter was reopened at the beginning of the fall term, leading to approval by the College and University faculties of a plan to continue the Honor System under the supervision of a committee of thirteen members, with the Dean as Chairman and the Secretary of the College as Secretary of the Committee. The remaining membership, appointed by the Dean, consists of five other faculty members, with terms of three years each, and six student members, four men and two women, three of whom are seniors, two juniors, and one sophomore. Suggestions regarding the personnel of the committee were originally made by the student members of the subcommittee which proposed this legislation. Similar suggestions from student members will be made to fill vacancies as they occur.

The work of the Committee throughout the past year has consisted in devising a code of procedure, which has been printed, and in hearing cases referred to it. The results thus far have not been such as to warrant a belief that the honor code is an impressive factor in undergraduate life. At present writing the Committee has heard 25 charges involving 38 students, 27 of whom have been found guilty of fraudulent actions in various degrees. Nine students have been dismissed (sentence being suspended in the case of one), nine have been penalized with loss of credit and parole, seven by parole alone, and four by reprimand. Of the 38 students involved, 29 were underclassmen. The most serious feature of the present situation rests upon rumors of widespread cheating in the larger courses for underclassmen. In order that this condition may be corrected the Secretary was authorized to communicate the above mentioned results to each organized group of students, and at the same time to invite suggestions which might be helpful in improving the situation.

The conditions in the large courses of one department have already led the Committee to invite this department to designate certain courses in which it may wish to have its examinations supervised by staff members. While this is an entering wedge which may lead to a complete abandonment of the Honor System, it was intended only as a temporary, though drastic, means of bringing the seriousness of the situation to the attention of both students and faculty.

It has been frequently noted that an "Honor System" is a contradiction in terms. Where there is honor there is no need for system, and where there is a system one need not speak of honor. In a recent editorial of *The Cornell Daily Sun* the statement is made that "at the bottom of things the Honor System is a system of student proctoring, not a system of no proctoring." If this be so, the system of the present plan must be woefully lacking in efficiency. But three of the 25 cases which the College committee has heard were based on charges emanating from students. Students who prefer such charges are apt to consider their own discomfiture excessive. A counter-charge of conspiracy on the part of the informant is usually made by the defendant. Report indicates that many students will go so far as to warn fellow students whose conduct appears suspicious by a signal of tapping; but there are few students who are so outraged by observed violation of the honor code that they will voluntarily present their charges in person to the Committee.

In a college so large and so heterogeneous as our own, some system for the conduct of examinations appears to be indispensable. In a more homogeneous student-body it might be possible to inculcate an honor code which would become an integral part of student conduct, but in a college which is made up of persons coming from a wide variety of social groups it is hardly to be expected that an institutional code of student conduct in examinations or elsewhere will be readily or immediately acquired. Our information leads us to infer that cheating is practically restricted to underclassmen in large courses, an inference which encourages one to believe that moral progress can be made, even under conditions which impose a minimum of control over student conduct.

If a system of some sort is indispensable, the question arises what system would be most consonant with our situation and traditions. In this connection it should be noted that systematic proctoring is neither traditional nor does it accord with our habits in the control and treatment of other student delinquencies. In order to provide a strict surveillance of examinations it would be necessary to assume an attitude which would indicate at least a modification of our practice in many of our faculty-student relations. For instance, strict supervision of examinations suggests equal strictness in the supervision of class work, and class attendance. It also suggests supervision of student conduct in dormitories, fraternity and other rooming houses. Rather than to propose a program of this order, with its far-reaching consequences, it would be more consistent with our ways to make responsible for the conduct of examinations either the member of the faculty in charge of the course, or the members of the class through some designated leader or committee. We might then be able to intrust to responsible persons whatever surveillance appeared to be necessary. The difficulty with the present lack of system is that, in the absence of the instructor in charge of the course, students in examination feel no corporate responsibility; in consequence cheating and disorder may occur or not, according to the fortuitous circumstances of the group of students involved. I can see no reason why a sense of honor should not have a group expression as well as an individual expression. At present our assumption of "general honor and good behavior" approaches the limits of absurdity when it permits a member of the faculty to be present at examinations though he must "refrain from surveillance"; and when it counsels students not to leave their seats unnecessarily, without imposing any check upon disorderly movements in and out of the examination room.

Despite the difficulties of the problem, for which I can suggest no immediate solution, I wish heartily to endorse the plan of constituting a joint committee of students and faculty for the study of this subject, and for the hearing and disposing of cases of dishonesty and disorder. The committee has taken its work seriously and constructively, and the mutual reaction of faculty and student members has proved beneficial in defining the issues in a way which could hardly have been accomplished by deliberations of either the faculty or students alone.

FACULTY LEGISLATION

The Faculty this year has taken two important steps in its experimental program of informal study.

Our first plan of informal study was inaugurated in the year 1924–25. This plan provides for the publication each autumn of a list of junior and senior students whose previous records indicate grades of B or better in at least half of their work. These selected students are entitled to apply for credit to the extent of three hours per term in their junior year and six hours in their senior year for work done informally in a major field of study under the supervision of their adviser. At first students were slow to take advantage of this opportunity, and there was some complaint from members of the faculty who found such supervision both time-consuming and irksome. The scheme has prospered nevertheless. During the four years in which the plan has been in operation the proportion of eligible students has remained fairly constant, varying from one-quarter to one-third of the membership of the two upper classes. The number of these students who have registered for informal study has, however, steadily increased.

Two years ago the total number was 32, approximately 14 per cent of those eligible; whereas during the past term the number has been 74, which is nearly 30 per cent of those eligible.

It will be of interest to note the fields in which informal study is being pursued. For purposes of comparison one may group the subjects into six classes. Among 698 upperclassmen 248 were this year concentrating in Social Science (History, Government, and Economics), 175 in Natural Science and Mathematics, 163 in English (English, Comparative Study of Literature, and Public Speaking), 90 in foreign languages, and 22 in Philosophy, Psychology, and Education. The corresponding numbers of students taking informal study in these classes were 28 in the Social Sciences, 28 in English, 6 in Science, 11 in Foreign Languages and 1 in Philosophy. These figures indicate a gratifying distribution of upperclassmen over the various fields of advanced study. They likewise indicate an increasing readiness on the part of members of the Faculty to supervise informal study in all fields where such supervision is called for.

Last year a second plan of informal study was introduced which invited the 50 sophomores who ranked highest as a result of their first year's work to receive credit for three hours in lieu of a fifth course of study. This second plan of informal study was intended to afford a certain amount of leisure to a selected group of our best students; the idea being that release from the formal requirement of one course would enable good students to work more effectively in their other courses, and at the same time would provide them with leisure for private reading and study, with or without supervision as they might choose. The grade which these students receive for their informal course is determined by the average grade achieved in their remaining four courses. Those who at the end of the first term of their sophomore year failed to secure an average of B were denied the privilege of continuing the plan in their second term. Of the fifty who were selected for this experiment 38 were eligible to continue it in the second term.

On the basis of this showing the faculty has voted to continue this alternate plan of informal study in the junior year; provided, however, that unsupervised informal study may not, like supervised study, be counted in part-fulfillment of an upperclass group.

The second step in providing leisure and a greater opportunity for informal study has been taken in legislating "that for the academic year 1928–29 formal instruction (including class exercises and laboratories) may be discontinued one week before term-examinations begin; it being understood that members of the faculty will be available for consultation at the regular hours designated for class instruction, and that an examination or equivalent exercise shall be required of all students during the examination period."

This legislation, which was suggested by the Harvard scheme of reducing class instruction to a period of 12 weeks per term, is an experiment which it is hoped will afford students an opportunity to consolidate their knowledge of a course before they are examined in it. At present, examinations in large courses are usually scheduled for the first days of the examination period, in order that time may be had for marking papers and submitting reports before the term closes. It not infrequently happens that a student who finishes his regular courses on Friday or Saturday must submit to examination on the following Monday and Tuesday. Under these circumstances the formal review of the course must be a hasty affair. Many instructors accommodate themselves to this situation by so conducting their work that their students are tested by frequent preliminary examinations, and those whose records permit are exempted from final examination in the course. This method may have much to commend it, but it is questionable if any body of knowledge is ever quite assimilated unless a student has a favorable opportunity to review it as a whole. Obviously this review is not required of the student who secures exemption from final examination; and for those who must submit to examination the time at their disposal is often quite inadequate for such a review. Since the faculty's action is permissive, those who wish to continue their present practices may do so, but it is hoped that many will see the desirability of making the experiment of requiring all their students to stand a comprehensive examination of the subject under conditions which will make it possible to review the subject as a whole before the examination is held.

Of minor importance I would note the gratifying result of our effort to check the nuisance of smoking in the corridors and classrooms of Goldwin Smith Hall. The approval of this effort by both students and faculty has been shown by the faithful observance of the notices which have been posted prohibiting smoking in these places.

STANDING COMMITTEES

The Standing Committees of the Faculty have performed their several functions with customary diligence. The Committee on Educational Policy has devoted much time and thought both to the matters here reported, upon which the Faculty has taken favorable action, and also to certain other matters which are still under consideration.

The Committee on Academic Records is pleased to note that it was called upon to drop but three upperclassmen from the College's rolls for academic deficiencies at the close of the first term and but nine at the close of the present term.

The Advisory Board for Underclassmen regrets the retirement of its Chairman, Professor R. C. Gibbs, at the close of the present academic year. During his three-year period of service Professor Gibbs has measurably improved the methods of advising underclassmen. The work of the Chairman of this Committee will henceforth be taken over in larger measure by the Secretary of the College in order that the duties of the Chairman may become less exacting than they have been in the past.

The Committee on Goldwin Smith Lectures, under the Chairmanship of the Professor of Romance Languages, Professor Guerlac—for whom Professor Bishop has been an able substitute during the present term of Professor Guerlac's leave of absence—reports a series of 26 lectures by a like number of visiting scholars and experts. These lectures covered a wide range of subjects, and were enjoyed by large audiences.

R. M. OGDEN,
Dean of the College of Arts and Sciences.

APPENDIX IV

REPORT OF THE DEAN OF THE LAW SCHOOL

To the President of the University:

SIR: I have the honor to submit the following report regarding the Cornell Law School for the year 1927–28:

During the past year there have been no resignations from the Faculty of Law and no additions to its personnel. Assistant Professor Horace E. Whiteside, who spent the year 1926–27 in graduate work at the Harvard Law School, taking the S.J.D. degree, returned to Cornell in the fall of 1927, and was appointed Professor of Law. Assistant Professors Herbert D. Laube and William H. Farnham, were reappointed for terms of two and three years respectively. Two members of the Law Faculty declined professorships offered them at other Universities, during the year, at substantially higher salaries than those which they are receiving here.

For the steady and sound development of the Law School it is most important that the present faculty group be held together, and that it be substantially enlarged in the very near future. Our faculty is abnormally small for a school of the first class, resulting in an unduly restricted curriculum, in a limitation of productive scholarship, and in overloading members of the staff. With the increase in personnel must go also continued increase in salaries.

Professor Stevens of the Law Faculty is a Commissioner for New York to the Conference on Uniform State Laws, and is the drafter of the Uniform Incorporation Act, which is being proposed to the legislatures of the various States by that body. Professor Thompson is one of the Advisers on Contracts, in connection with the work of the American Law Institute in restating the law of that subject.

Professor Burdick is a member of the Advisory Committee, set up this year for Research in International Law, is an Adviser in connection with the specific study being made of the Responsibility of States for Injury to Aliens, and has been called upon as a Special Adviser on Constitutional questions.

Under the direction of a committee of the Law Faculty, a comparative study is being made of the Restatement by the American Law Institute and of the law of New York State in the field of Contracts. Professor Whiteside is directly in charge of the work. The results of this study are to be published as special supplements to the Cornell *Law Quarterly*. The New York State Bar Association is arranging to distribute copies of these supplements to all of its members. This has been brought about by the Committee of the New York State Bar Association on Co-operation with the American Law Institute, of which Hon. Frank H. Hiscock is Chairman, and of which Professor Burdick is a member.

Three members of the Law Faculty attended the annual meeting of the Association of American Law Schools in Chicago during the Christmas vacation; three also took part in the meeting of the American Law Institute in Washington in April; in August, 1927, the Faculty was represented by four of its members at the meeting of the American Bar Association at Buffalo, and it was represented by two of its members at the meeting of the State Bar Association in New York City in January of this year. One of its members also attended the meeting of the American Society of International Law, and a special meeting of teachers of International Law in Washington in April.

The following persons composed the faculty of the 1927 Summer Session in Law:

Thomas C. Billig (Cornell), Contracts.
Elliott E. Cheatham (Cornell), Quasi-Contracts.
William H. Farnham (Cornell), Insurance.
Marion R. Kirkwood (Stanford), Real Property.
Ernest G. Lorenzen (Yale), Conflict of Laws; Comparative Law.
Underhill Moore (Columbia), Negotiable Paper.
Thomas R. Powell, (Harvard) Constitutional Law.
Robert S. Stevens (Cornell), Private Corporations.
George J. Thompson (Cornell), Public Service and Carriers.
Horace E. Whiteside (Cornell), Contracts.
Lyman P. Wilson (Cornell), Actions.

During the year, 1622 volumes were added to the Law Library, making a total number of volumes in the library of 63,362. Professor Woodruff presented to the Law Library 459 volumes, being the major part of his collection of law books, and 191 volumes were presented by other donors. One hundred sixty-eight volumes were added to the Earl J. Bennett Collection of Statute Law. Three hundred ninety volumes were rebound or repaired. Due to the crowded condition in the Law Library it will be necessary during the next year to use the tops of our bookshelves to accommodate the normal accessions.

The Wilson Chapter of Phi Alpha Delta Law Fraternity has established the Phi Alpha Delta Law Fraternity Fund, a fund to be administered by the University, and the interest to be expended as directed by the Dean of the Law School, the Law Librarian, and the Justice of Wilson Chapter, for the use of the Law Library.

Hon. Harrington Putnam, of the New York City Bar made his biennial visit to Ithaca during the spring term to lecture for a week before the Cornell Law School on Admiralty and Maritime Law.

On May 5 Walter P. Cooke, '91, delivered the annual address on the Frank Irvine Foundation, established by the Conklin Chapter of Phi Delta Phi, his subject being "Reparations and the Dawes Plan."

Maitre Pierre Lepaulle, of the Paris Bar, who lectured in the Law School for ten weeks, two years ago, delivered three lectures before the Law School during the first term of the present academic year in the field of Comparative Law.

Oliver D. Burden, '97, spoke before the Law School in the second term on the Law of Defamation.

Hon. Frank H. Hiscock, '87, was elected president of the Cornell Law Association at its annual meeting in Boardman Hall, last November. The Association has continued to be active and very useful to the Law School. Its membership

has been increased, and through its efforts more temporary scholarships have been provided in the Law School. It has just published a second edition of the Cornell Law List, and has also greatly aided in the support of the Cornell *Law Quarterly*. The meeting of the Association in November was devoted to a tribute to the unique services of Professor Edwin H. Woodruff to the Law School. Short addresses were made by President Farrand, Dean Burdick, Col. Henry W. Sackett, Hon. George McCann, and Hon. James O'Malley.

The Moot Court work of the First Year Class, directed by Assistant Professor Farnham, which was so well inaugurated last year, and which was discussed in my last report, has been carried on with marked success during the present year. The final case was argued on May 4, before a very distinguished bench. Hon. Cuthbert W. Pound, '87, Associate Judge of the New York Court of Appeals, presided, and with him were associated Hon. Harry L. Taylor, '93, and Hon. Charles B. Sears, Justices of the Supreme Court of New York, Appellate Division, Fourth Department. The excellent argument was followed by a dinner of all of those who had participated in moot court work during the year, at which the judges rendered their decision on the merits of the argument, and discussed the points of law involved. A panel has been placed by the door of the Upper Library on which are recorded the names of those who participate in the final moot case each year.

This year the Cornell *Law Quarterly* has published the "Edward Hamlin Woodruff Volume," in honor of Professor Woodruff. Contributions have been made to this volume by many men of distinction. The *Quarterly* has had a successful year under the direction of Professor Cheatham as faculty editor.

The total registration throughout the past three years in the regular sessions of the Law School has been as follows:

	1925–26	1926–27	1927–28
Third Year	58	49	30
Second Year	60	39	47
First Year	81	75	107
Specials	3	5	1
Total law students	202	168	185
Students in other departments electing some courses in law	16	7	12
Total receiving instruction in the Law School	218	175	197

Of the total of first year students those also registered as seniors in the College of Arts and Sciences numbered 47 in 1925–26, 55 in 1926–27, and 78 in 1927–28.

Of the students registered in the Law School 33% lived out of New York State in 1925–26, 24% in 1926–27 and 29% in 1927–28.

Thirty-three colleges and universities are represented in the law student body, and the students in the Law School come from 25 states.

Enrollment in the last three Summer Sessions in Law has been as follows: 121 in 1925, 94 in 1926, 76 in 1927.

Between June 1, 1927 and June 1, 1928, 44 students were recommended for the degree, LL.B., and have had the degree conferred upon them by the Trustees. Also between June 1, 1927 and June 1, 1928, 14 students were dropped from the Law School, consisting of no third-year students, 2 second-year students, 11 first-year students and 1 special student; and 41 were put on probation in both terms, classified as follows: 4 third-year students, 6 second-year students, and 31 first-year students.

In June, 1927, the Boardman Scholarship, for the best work done during the preceding four terms, was awarded to Harry J. Pasternak, and in the academic year 1927–28, the first and second Fraser Scholarships were awarded by vote of the third year class to Clifford C. Pratt and Alfred Appel, respectively. Harry J. Pasternak won the W. D. P. Carey Exhibition, and Alfred Appel, Harry J. Pasternak, and Clifford C. Pratt were elected to the Order of the Coif, the legal honorary society.

By action of the Board of Trustees, upon recommendation of the Faculty of Law, the tuition in the Law School has been increased from $250 to $300, to take effect in the autumn of 1928, and the Summer Session tuition has been increased from $85 to $100, this increase to become operative in the summer of 1929. At the same time the Trustees established five Law scholarships of the value of $300 each. These are the first permanent scholarships which have been made available to law students since the Law School went on to a graduate basis. They will prove most helpful, but their number should be substantially increased in the near future.

CHARLES K. BURDICK,
Dean of the Law School.

APPENDIX V

REPORT OF THE DEAN OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to submit the following report of the Medical College for the year 1927–28.

The fall session opened September 26, 1927, with an inspiring address by Professor Foster Kennedy whose subject was "Neurology and the Teaching of Medicine." The registration was practically the same as in recent previous years, being limited as heretofore. The first year class numbering 45 was selected from some 354 applicants and has maintained the high standard which has come to be expected by the Faculty, only one being dropped at the end of the year. Two students withdrew because of ill-health or other satisfactory reasons. It is my opinion that the instruction and the response on the part of the students reached a higher level than has been attained in previous years.

In October the Faculty were saddened by the untimely death of Frank Sherman Meara, Professor of Clinical Medicine and from 1909–20 Professor of Therapeutics. Owing to ill health he had not regularly given instruction for several years and was therefore not well known by the present generation of students. However, during the period of his active teaching it is probable that he gave greater inspiration to the students with whom he came in contact than has any other clinical teacher in recent years. Richly endowed with a brilliant mind and a great capacity for work his preparation for medical teaching was unusually broad and thorough. A great fund of information combined with wide experience and a remarkable facility in the use of English made Professor Meara one of the great clinical teachers of the day. He introduced the clinical clerk system of teaching at Bellevue Hospital and contributed enormously to the development of the Department of Medicine.

On October 27, 1927, W. Gilman Thompson, Emeritus Professor of Medicine, died in New York City. Thus passed away the last of the group of great men whose wisdom and devotion created the present Medical College. Dean Polk with Professors Stimson, Witthaus, and Thompson possessed courage to a rare degree in separating from the group with whom they had been long associated and assuming the burden and responsibility of organizing a new institution. Professor Thompson, then a young man, was a close friend and trusted adviser of Dean Polk, and was made the head of the Department of Medicine which chair he retained until he resigned in 1916, when he was appointed Emeritus Professor of Medicine. Possessing energetic loyalty to his associates to an unusual degree and having great capacity for organization Professor Thompson played a very important rôle in the early days of the College.

It is highly desirable that the memory of the founders of the College be perpetuated and I am happy to report that Mr. Frank L. Polk, son of the late Dean Polk, has presented a splendid memorial of his father to the College. It takes

the form of a medallion bust on a large bronze tablet and conveys a remarkably striking portrait of Dean Polk. Placed near the entrance to the College building and opposite the memorial to Professor Stimson it adds greatly to the dignity and spirit of the College.

During the year just passed events of the greatest significance have taken place which will inaugurate a new era in the history of the College. Clearly realizing for the past ten years that if the College is to maintain its place among the leading institutions for the advancement of medicine fundamental changes in the hospital associations were essential, the officers of administration and the Faculty have made every effort for this consummation. At last in June 1927 our hopes were realized when articles of agreement constituting an association between the New York Hospital and Cornell University were approved by the respective trustees. It provides for the closest possible union between the hospital and the College and aims to make them function as one institution. In addition to a large general hospital it is proposed to erect in the near future special hospitals for pediatrics, obstetrics, and psychiatry, and subsequently other special hospitals. These hospitals, together with the buildings of the Medical College will be erected on a common site which has been secured on the East River and includes some two and a half city blocks between 68th and 71st Streets. It is hoped that a dormitory for students and apartments for the professional staff may soon be included in the plans and the Alumni have inaugurated a campaign to secure funds for the former project. It is confidently anticipated that in the course of some years it will be possible to create a medical institution of the highest type with adequate resources. Building plans have progressed rapidly and it is hoped that construction may be completed by the fall of 1931.

Before embarking upon such a large program it was necessary to secure adequate support for both buildings and endowments. This was assured by the generous bequests of the late Payne Whitney and by a very large appropriation from the General Education Board of the Rockefeller Foundation. Other important donors have contributed to the confidence which is essential for such a large undertaking.

In order to accomplish the closest possible fusion of the Hospital and the College it was decided to appoint a Director of the New York Hospital–Cornell Medical College Association, he to have supervision over both institutions as well as the Association, and to include the functions of the Dean of the College. After prolonged consideration the post was offered to Dr. George Canby Robinson, recently Dean of the Vanderbilt University School of Medicine. Most fortunately he was able to accept and during the past year has devoted a considerable part of his time to the study of building plans.

On July 1, 1928, Dr. Robinson assumed complete charge of his office. He comes with rare experience in medical education as well as in building construction, which, with admirable judgment and a prepossessing personality, guarantee a successful and vigorous administration.

Thus, after ten years of uncertainty, the future of the College is now assured.

I shall not at this time review the reports of the various heads of departments which are on file in the office of the College. No revolutionary changes are contemplated but it is anticipated that those departments which are now inadequate will be gradually strengthened and all will, so far as possible, be raised to the highest place of efficiency in teaching and research.

In closing this, my final report of the Medical College, I desire to express my deep appreciation of the constant support and cooperation which has been accorded to me by every member of the Faculty; and particularly do I appreciate the confidence and stimulating association of the President without which the accomplishment of our plans for the College would have been impossible.

WALTER L. NILES,
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 submit this report of the Ithaca Division of the Medical College for the academic year 1927–28.

Ever since the number of students who may be admitted to the Medical College was fixed at 75, the number applying has been so large that it has been possible to select students of very high standing and very few of these fail to do satisfactory work in the Medical College. As a result of this the number admitted to the second, third, and fourth year classes has almost invariably exceeded the 65, which is the number that can be advantageously instructed in these years with our present facilities. For this reason it was voted by the Faculty as desirable in the future to limit the number accepted to 40 in New York and 25 in Ithaca, a total of 65. Of the 30 students accepted in Ithaca this year 18 were college graduates, half of them from Cornell; and 12 were seniors, taking as their last college year the first year in medicine, 11 of these being from Cornell. Two-thirds of the students were from Cornell, one-third from 10 other institutions. Five of the 30 students were women.

In the Faculty there has been the usual number of resignations, mainly among the junior members of the staff. While these annual changes are at times a bit disconcerting and throw upon the senior members of the staff added burdens, they are not without some compensation, since it is not so difficult to replace assistants and instructors where it is known that there will be chances for promotion here and elsewhere. The demand for young investigators and teachers adequately trained in the fundamental branches of the medical sciences is still very great and this demand is being quite fully met by all the departments in the Medical College at Ithaca. It is to be regretted that so few of those who receive this advanced training in teaching and research have had the advantage of a medical course. Some of them subsequently obtain a medical degree and become teachers and investigators in some other fields of the medical sciences. Teachers and investigators with a medical training are in great demand in the fundamental branches. The instruction of Medical students, of Arts and other undergraduate students, and of Graduate students has been carried on with enthusiasm and with most excellent results. In spite of a heavy teaching schedule a very creditable amount of research has been accomplished by the staff. This is attested only in part by the list of publications that appears in the Librarian's report, since much work is uncompleted or is in the press.

In the Department of Anatomy no essential changes have been made in the courses given to Medical students. In addition to these the Department gives instruction to Arts and other students in Anatomical Methods, in Elementary Human Structure, in Anatomy for Artists, in Comparative Neurology, in Cerebral Mechanisms. In these courses there were this year 119 course registrations. In addition the Department has directed the work of 12 graduate students who are taking majors and minors as candidates for advanced degrees. Assistant Professor Papez in addition to his studies on the brains of distinguished people has nearly completed a text-book on comparative neurology which should be published early this fall.

In the Department of Histology and Embryology Professor Kingsbury reports that the course for Medical students has been directed this year by Assistant Professor Adelmann who had returned from his leave of absence for the second term last year and was granted another leave for the second term this year. In this Department to meet the needs of the general students, courses in Biology are also given, as well as in the Histology and Histogenesis of the Tissues, in the Histology and Development of the Organs, in Vertebrate Embryology, in His-

tological Methods, in Histology for Veterinary students, in Embryology for Veterinary students, in advanced Histology and Embryology, in Experimental Embryology, and in the Theory of Development. In these courses there were this year 324 course registrations, exclusive of Medical students. Thirteen graduate students were taking seven majors and six minors in the Department. The exceptional excellence and very high standard of all the courses in this Department has been maintained as in the past.

The temporary organization of the Department of Physiology and Biochemistry has been continued with the Secretary of the Medical College acting as administrative head of the Department and the three assistant professors dividing the work and being responsible for teaching and research. For next year Assistant Professor Sumner has been elected by the group as Chairman of the Department with administrative responsibility for the whole and with immediate charge of the Division of Biochemistry, while Assistant Professor Liddell will be in immediate charge of the Division of Physiology.

In the Division of Physiology the changes in the Medical courses have been in the direction of changing emphasis without radical revision of subject matter; a closer relation between the Physiological and Biochemical laboratory teaching has been made and the nerve muscle physiology has been brought into closer relations with the study of the activities of the central nervous system. There were 347 course registrations in Physiology including the 30 Medical students. In addition to this 19 graduate students were taking work for advanced degrees. An increasing number of advanced students, not majoring in Physiology have been taking work in the Department; these include graduate students and premedical students. The elementary course in Physiology is now being divided into two courses: General Physiology, an approach to scientific study for the beginning college student to arouse his interest not only in Biology, but also in Physics, Chemistry, and Psychology, and Applied Physiology, reinforcing the excellent instruction in Hygiene and presenting in an elementary way the methods and results of experimental physiology with especial reference to the functions of the human body. The research activities of the Department during the past year have covered a wide field and have not as in many Departments of Physiology been devoted to some one particular group of problems. The Physiology Field Station continues to be an important and useful adjunct to the laboratories.

In the Division of Biochemistry the facilities have been taxed to the utmost by the large number of students from outside the College who have sought elementary and advanced instruction in the laboratories. These include students preparing for Medicine and Chemistry from the Arts College, students from the College of Home Economics and from Agriculture. Besides these 131 course registrations there were 18 graduate students taking majors and minors in Biochemistry. Dr. Sumner has continued his important investigations on the enzyme urease and his new discoveries are meeting with a constantly wider acceptance.

In studying the problem of the Department of Physiology and Biochemistry at the University in Ithaca with a view to permanent organization and expansion, more than 20 other departments were found to be more or less vitally interested in the type of instruction and research which could and should be offered for their elementary, advanced, and graduate students. These departments present greatly diversified interests, such as the Department of Anatomy, Neurology, Histology and Embryology in the Medical College, of Education, Psychology, Zoology, Physics, Chemistry, and Physical Education in the College of Arts and Sciences, of Physiology, Anatomy, and Pathology in the Veterinary College, of Botany, Plant Physiology, Plant Pathology, Entomology, Animal Husbandry, Poultry Husbandry, Dairy Industry, and other departments in the College of Agriculture, of food and nutrition, child training, and other interests in the College of Home Economics, and of the Department of Hygiene. It is clearly evident, therefore, that the character of the reorganization in the Department of Physiology and Biochemistry may have a considerable influence upon nearly all the biological sciences, pure and applied, as well as upon other fields. To meet these diversified needs will require reorganization upon broad lines and great care as to the direction of expansion. Whether in this reorganization the Division

of Biochemistry should be organized as a separate department or should remain as in the past a division of a larger department is not of essential importance. It is clear, however, that in the expanding development of Biochemistry and Biophysics in this University these applications of Physical and Chemical methods to the study of life processes should be kept in the closest relation to the Biological Sciences, particularly Physiology.

Stimson Hall is now used almost to capacity. In addition to the courses for Medical students and the courses given for Arts and other students by the departments housed in the building all of the Hygiene courses have been given here. These latter bring to the building all of the undergraduates of the first two years in the University. In some laboratories also the limit of registration has been almost reached.

The Van Cleef Memorial Library has been of the greatest value to all those engaged in teaching and research in Stimson Hall. The great increase in recent years in the cost of books and more especially of certain of the important foreign periodicals has made the appropriations from the University Library entirely inadequate. The usefulness and importance of this library will continue to increase not only to the departments in Stimson Hall but also to allied departments in other parts of the University.

As previously noted, research not only by the instructing staff but by graduate students has been actively prosecuted by all the departments of the Medical College. This research has been greatly aided by grants from the Sarah Manning Sage Research Fund. In some cases the investigations would have been impossible without this assistance. The fund has been of much aid also in the publication and distribution of the results of the investigations. To several of the departments grants from the Heckscher Research Foundation have also been made. These, too, have been of very great service.

This year completes the thirtieth year of the Medical College. When in 1898 the Cornell University Medical College was established in New York City, the work of the first two years was duplicated at the University in Ithaca. From its foundation Cornell University has offered special courses for students preparing for the study of medicine, first in the Natural History course, and later in a special two year "Medical Preparatory Course." Since many of the fundamental scientific subjects of which the first part of the Medical Course mainly consisted were already provided for by the University courses in Physics, Chemistry, Physiology, Histology, Embryology, Anatomy, Bacteriology, and Pathology, only slight modifications of these and the addition of a few additional courses were necessary to provide at Ithaca the equivalent of the first two years at New York. In 1908 the work of the second year was discontinued at Ithaca due partly to increased costs and partly to the inclusion of Physics and a part of the Chemistry of the first Medical year in the entrance requirements and the inclusion in the second year of certain clinical work difficult to offer at Ithaca.

The record of the Ithaca Division of the Medical College during these 30 years may be looked upon with much satisfaction. The character of the instruction has been maintained at a very high level and the quantity and quality of the research turned out by the Faculty has been most commendable. The effect upon the Medical College in New York of having the first year or years duplicated at the University has been very satisfactory, and has done much to make the Medical College, in spite of geographic separation, an integral part of the University. The effect of having upon the University Campus one or two years of the Medical course has been most stimulating to all the departments of Animal Biology. From the very beginning of Cornell University the work in Animal Biology has had a strong medical influence, since the first leader of this work, Professor B. G. Wilder was trained in medicine. It was because of this that he early recognized the need for preliminary training for those preparing for the study of Medicine and provided for it here. The history of the biological sciences shows clearly the influence upon their development of the medical sciences due primarily to the deep human interest in the relation of biological problems to health and disease. In the future as in the past this stimulus will continue and contiguity of the laboratories of a medical school will tend to increase it.

The great development which is about to take place in the Medical College in New York due to the combination with the New York Hospital and to the large sums of money which are available for buildings, equipment and endowment cannot fail to have a decided influence upon the Ithaca Division of the School. Within the next two or three years the future of the Ithaca Division of the Medical College must be decided. It will be necessary to study this problem carefully to determine if the best educational interests of the University from the point of view of both research and teaching will be served by retaining and strengthening the Ithaca Division or by abolishing it entirely. What will be for the best interests of the University as a whole will in the long run serve the best interests of the Medical College.

Until the problem of the future of the Ithaca Division is settled it is unwise to plan the future development of the separate departments in the College. In any case, since they constitute such an essential part of the group in Animal Biology and offer instruction to so many students other than those in the Medical College proper, all of the departments would be maintained and with but slight reduction in staff or budget. The importance of these departments in the scheme of Animal Biology here is shown in part only by the nearly 900 registrations in their undergraduate courses and over 60 major and minor registrations of graduate students candidates for advanced degrees.

ABRAM T. KERR,
Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith a report of the New York State Veterinary College for the academic year 1927–28.

The work of the college has progressed satisfactorily. The diagnosis laboratory has aided practitioners more than heretofore. Adjustments in the subject matter taught, that were called for by the new knowledge of animal diseases, have been made and more attention has been given to the public health relations of veterinary service. The buildings have been kept in good repair and some new equipment has been added. There have been several resignations in the lower grades of the instructing staff, but fortunately there have been no changes in the heads of departments. The special researches provided for by the legislature are being made. They are advancing as rapidly as the nature of the work and available funds will permit.

There are 110 undergraduate students enrolled. They are distributed by classes as follows: 44 freshmen, 26 sophomores, 25 juniors, and 15 seniors. There are six graduate veterinary students who are candidates for advanced degrees. This is a slight reduction from last year, but the pressing demand for veterinarians may explain the situation. This year 17 per cent of the veterinary students in the United States and 24 per cent of those in the first-year class were in this college. The attendance has increased to the point where the veterinary needs of the State are assured. More encouraging than numbers is the better preparation of men. Twenty per cent of the first-year class have had college or university training and several have academic degrees.

As heretofore, the University has given instruction to veterinary students in chemistry, embryology and histology, and the College of Agriculture in animal husbandry, botany, dairy, and zoology. Reciprocally, the courses in bacteriology, pathology, physiology, and farriery in the Veterinary College have been taken by 211 students who are registered in other colleges of the University and who receive a total credit of 449 University hours. The faculty has voted after next year to make a few changes in the curriculum. Instruction in English is to be substituted for the course in zoology. It is anticipated that in the near future a year of arts or

agriculture will be added to the course in which the subjects of English, chemistry, botany, and zoology will be required. The rapid growth of knowledge in practical medicine and surgery and the extension of veterinary service; especially in the field of live stock sanitation and public health, are calling for men with better general preparation. The increasing number of university-trained men who are entering veterinary medicine indicates the trend toward higher education. The demand, which already exceeds the supply, for veterinarians with more comprehensive preparation is a clear indication of the existing need for scholastic and technical improvement.

Three distinct lines of research are provided for in the college budget. The studies on breeding diseases of cattle have been continued, and under special appropriation, extended to apply the method of control that has been worked out in our experimental animals to a number of dairy herds in the State. Under this plan 27 owners are co-operating with Dr. Birch to eradicate this infection from their animals. Thus far the results are most encouraging. Researches are in progress by Dr. Hagan on Johne's disease, a chronic infection of cattle, which is gaining a strong foothold in this country. Extensive studies are being made on poultry diseases by Dr. Brunett at the college and by Dr. Hendrickson at the Institute of Applied Agriculture at Farmingdale, Long Island. The examinations for diagnosis show that deaths among poultry are due largely to unsanitary conditions, improper feeding, and parasites. Researches are in progress with bacillary white diarrhea in chickens and a similar disease affecting ducks. Efforts are being made to interest the veterinary practitioners in poultry diseases and many of them are rendering valuable service to poultrymen. Dr. Fish and his assistant have made valuable contributions to the knowledge of the sugar content of cow's blood with special reference to the disease known as milk fever.

The discovery that *Brucella abortus*, the cause of Bang abortion disease of cattle, is also the etiological factor in undulant fever in man has pointed out another infection of animals communicable to the human family. It has been the occasion for an extended inquiry into the frequency of this organism in market milk. The significance of this infection to public health is of such importance that the Metropolitan Life Insurance Company has provided the college with funds for a survey to ascertain the extent of human infection with this micro-organism and its prevalence in market milk. The work is being conducted by Dr. Carpenter. Further, a study of the pathogenesis of the organism, isolated from cases of undulant fever, is in progress. This work has been made possible by aid from the Heckscher fund. In addition to the clearly defined projects that are being carried out, much work is being done by all members of the staff testing and checking up the supposed facts that they are to teach. The annual report of the college to the legislature will contain detailed results of these and other studies.

The twentieth annual conference for veterinarians of New York State was held January 12 and 13. The attendance was unusually large. Keen interest was taken in the program which consisted of papers on the latest information on perplexing animal diseases, new measures in prevention of disease, and the best methods for safeguarding market milk. The conference tends to increase the efficiency of practitioners. The papers presented were published in the April number of the *Cornell Veterinarian* and a copy was sent to each practitioner in the State.

The diagnosis laboratory is rendering much assistance to veterinarians, and indirectly to animal owners. This has developed into a public service of genuine value. The routine examinations, such as those for infectious diseases and agglutination tests, have increased fully 100 per cent over last year. The preparation of tuberculins, various vaccines and bacterins, requested by practitioners, and milk examinations for *Brucella abortus* and tubercle bacilli have continued without appreciable change. The early and accurate diagnosis makes it possible for practitioners to check many infections before serious damage has been done. It has enabled them to eliminate anthrax from animals in many hitherto highly infected localities.

Members of the faculty have contributed numerous and valuable papers to scientific societies, veterinary journals, and live stock associations. They have

served on important committees in state and national veterinary societies. They have given many consultations, attended numerous conferences and answered a large number of inquiries that have been made in person and by letter. Each year the work of the faculty in aiding practitioners and improving the live stock sanitary situation of the State is increasing.

The heavy losses from animal diseases, the cost of eradicating infectious diseases after they become established, and the greater protection of animals from the many sporadic disorders from which they suffer justify an earnest appeal for a larger appropriation for teaching students and aiding practitioners and for researches in animal diseases. Adequate provisions for these agencies of service is the strongest known protection to animal husbandry which supports a large part of New York State agriculture. It is recommended, therefore, that the trustees request sufficient increase in the budget to make proper adjustments in salaries and provide for much needed researches in connection with several diseases of special economic significance. We are obliged to continue for 1928–29 with the same financial support that we have this year. The situation is not only discouraging to the college but also to thousands of animal owners whose flocks and herds are being depleted annually by diseases that should be carefully studied to the end that they may be eliminated. While much progress has been made the needs for further advancement are most urgent.

The members of the faculty are united in their best efforts to carry out as fully as possible all the purposes of the college.

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 AND OF THE CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit a report of the New York State College of Agriculture and of the Cornell University Agricultural Experiment Station for the academic year 1927–28.

THE CHANGING AGRICULTURAL SITUATION AND ITS EDUCATIONAL IMPLICATIONS

The most constant factor in agriculture is the constancy of change. This is no less true of the agriculture of older States, such as New York, than of the newest farming regions. This fact is little realized by the generality of people, and farmers who experience the pressure of the attendant conditions and slowly effect the readjustments do not always sense the broader significance of the factors of change and whither they are tending. The economic forces which are the primary stimuli for modification are always at work; and when, as during the past decade, the economic disturbances in farming are highly abnormal, the necessity for adjustment is both more severe and more difficult to meet because of the inability in the circumstances to properly evaluate the permanence or relative permanence of the newer conditions or to obtain the facts necessary for a comprehensive view and a valid judgment.

There falls therefore especial responsibility on the higher institutions for agricultural education and research, as the State's designated agencies to guide and foster agricultural development, to keep themselves as fully informed as conditions permit of the factors and the processes involved, and to endeavor to

foresee the steps which should be taken at appropriate times to enable farmers to modify their plans and practices with a minimum of loss and a maximum of advantage for the future. This can be done only by the constant assembling, organizing, and interpretation of the facts, and by placing these findings before farmers with suggestions for economically sound modifications. As national and world conditions are commonly the underlying reasons for changes in New York farming, the studies and the outlooks of the State's authorities must be exceedingly comprehensive and must touch every phase of agriculture to which New York is adapted. Sound proposals require a knowledge of the soil and climatic environments and what types of agriculture they will sustain under the widely varying conditions in the State, what improved technics, cultural practices, improved strains of seeds or breeds of livestock, may be expected to accomplish, what the markets will take to advantage, and the broad social and economic problems which are always inherent in any human situation.

It is clear that if farmers are to receive the aid which research and education can afford them, the State College of Agriculture must be developed and maintained in accordance with the needs of New York in agriculture, with such additional provisions for the national and international requirements in agricultural research and the training of future farmers and scientists as may appropriately fall to New York and as the State may properly aspire to make. As New York State is one of the leading agricultural States of the Union, and the most populous of the States, it should be satisfied with nothing less than a foremost place in its educational and research service to agriculture and country life.

The State's service to agriculture through its State College would be accomplished most understandingly, efficiently, and economically if the State would adopt and consistently carry forward a well-considered and adequate program of maintenance and development with respect to housing, salaries, operating funds, and new undertakings. The systematic upbuilding and maturing of the College over a period of years, directed toward goals worthy of the State's ambition and its agricultural interests, could thus be accomplished with confidence and with satisfaction to all concerned. The State will have rendered a notable service to one of its major fields of interest when it has placed the progress of this institution on a sound, continuing basis which looks toward the gradual unfolding of a college of the highest rank, adequately housed and supported, and with a selected personnel compensated in a measure fairly commensurate with the leading college and university faculties of the land.

THE LEGISLATIVE ENACTMENTS

The state appropriations made by the Legislature of 1928, for the current maintenance for the ensuing fiscal year, and including an item of $4230 for plant nursery work immediately available for 1927–28, totalled $1607 net lower than for the year 1926–27. Yet some progress was made. There were increases in personal service for new positions and salary advances in the amount of $12,975, a grant of $15,270 for new service to the nursery industry of the State, an increase in the item for repairs in the sum of $3000, an emergency repair item to restore the loggias on Roberts Hall amounting to $5750, and an increase of $60 in the appropriation for rent. These increases were offset by a decrease of $42,092 in the deficiency appropriation of 1927–28 for fuel, light, power, and water, not required thereafter, and a further decrease of $800 in the funds of the Long Island Vegetable Research Farm. The increases allowed were helpful and were fully appreciated by the College, even though they were seriously inadequate.

In addition to these funds, however, it is with the keenest interest and appreciation that report is made of an appropriation of $1,100,000 from the state bond issue for public improvements for the purpose of erecting the long-sought plant-science building. This structure represents the most urgent housing necessity of the College. When the departments of botany, plant pathology, genetics and plant breeding, pomology, and floriculture and ornamental horticulture are moved into it from their present most inadequate quarters, several other departments will be correspondingly relieved by the use of the space thus released. It will notably improve the housing of the College.

OTHER ADVANCES FOR THE FINANCIAL STRENGTHENING OF THE COLLEGE

In the spring of 1928 there was brought to a successful conclusion an intensive study under the guidance of the President, extending over a period of two years, concerning the needs of more fundamental character for the strengthening of agricultural research and the higher training of men therein in certain fields embraced within the College of Agriculture, with special reference to the several departments of plant science and the general sciences on which they rest. The study which the President directed at the same time as to the major needs of the underlying science departments in the College of Arts and Sciences formed the background for the agricultural program and the two approaches were so integrated as to yield a closely knit and harmonious plan of development. Specifically, the studies culminated in a program which, in addition to recognizing certain needs of mathematics and zoology, projected the very substantial expansion of facilities for physiology in its general and special phases, in biochemistry and biophysics which are now of the highest importance to the progress of knowledge in plant and animal biology, and in those phases of agricultural science embraced within plant physiology, cytology, anatomy, plant pathology, plant and animal genetics, and some aspects of soil science. The attempt was to define the fields which now appear to be the main leads for the future, and which are most in need of strengthening in the light of the existing organization at Cornell.

The whole program, calling for new endowments in the amount of nine million dollars, approximately one-half of which will be required for the specifically agricultural phases, will, when it becomes an accomplished fact, materially enhance the attractiveness of Cornell University and of the State College of Agriculture as a center for scientific research and for graduate study. The fact that the General Education Board has indicated its readiness to cooperate on a generous scale with the University in making the program possible, and that the President of the University has courageously undertaken to seek such additional funds as may be required, is most heartening. The closer integration of the fields of knowledge in agriculture with the foundation sciences will constitute a marked gain.

During the year, fifteen new special temporary fellowships and investigatorships were established in the College for graduate study and research by individuals, industrial concerns, farmers' organizations, and institutions. These are for one or two years duration, usually the latter, and carry grants in the total amount of $67,050. Prior to the receipt of these grants, the College had received, since 1909, funds for the establishment of sixty-one similar temporary fellowships and investigatorships, carrying total grants of $162,938. Twelve departments of the College have at various times had such grants, but the majority have at all times been for researches in problems of plant pathology. They are of great usefulness, making possible the investigation of carefully determined problems of immediate importance and financial assistance to qualified graduate students.

PROPOSED GRADUATE SCHOOL OF TROPICAL AGRICULTURE

There is a highly developed and constantly growing interest on the part of American men of science and American business and financial concerns in the fuller development of the agricultural resources of the tropics. But an even more significant interest has been expressed by the governments of certain tropical countries themselves for the larger aid of science both in the solution of countless agricultural problems pressing upon them and for the higher training of men to care for their scientific and educational requirements. These two lines of interest have met in proposals for the establishment in Porto Rico of a Graduate School of Tropical Agriculture, under the guidance and auspices of an American mainland university having a strong college of agriculture and at which graduate study has already attained considerable development.

For six years a special committee of the National Research Council of the United States has been dealing with this subject, and has considered a range of possibilities. Finally, after careful examination of the possibilities of Porto Rico, on invitation from the Insular Government, decision was reached to recom-

mend the establishment of such an institution in the island, in cooperation with the Government. Cornell University has been asked to sponsor the institution. In the fall of 1927, the Governor of Porto Rico, the Honorable Horace M. Towner, on a visit to continental United States, personally invited the cooperation of Cornell University, on behalf of his Government. Consideration of the proposal by the University was furthered by the advice of representatives of the National Research Council and others who met in conference with Governor Towner and a representative of the University. In March, 1928, on the invitation of Governor Towner, a committee from Cornell University, consisting of the President, the Professor of Plant Physiology, and the Dean of Agriculture, visited the island for personal examination of the possibilities and for conference with the Governor, members of his cabinet, leaders in the Legislature and in education and agriculture, including the President of the University of Porto Rico. The visit was most gratifying. The whole setting seems auspicious.

Later the two houses of the Legislature passed and the Governor approved a Joint Resolution defining the undertaking, the desired procedure, and the respective obligations and responsibilities of the proposed cooperating parties, and setting up a provisional board which it empowered, in the name of the People of Porto Rico, to enter into Contracts and Agreements with Cornell University for an institution in Porto Rico to be known as "The Graduate School of Tropical Agriculture, under the Auspices of Cornell University," and in association and cooperation with the University of Porto Rico. The administrative conditions and the provisions for financial support on the part of the Insular Government are set forth in form believed to be satisfactory to Cornell University.

The whole matter is now before the University for consideration, but action by the President and trustees of Cornell has not yet been taken. The financial and administrative responsibilities which Cornell will assume if it accepts the invitation call for thorough consideration. The proposal is one of much importance and is naturally very attractive. It would, of course, be entirely distinct from the work maintained on funds from the State of New York for agricultural instruction at Ithaca.

CHANGES IN STAFF

The year has brought some changes in staff and the loss of valued associates.

The last annual report announced the resignation of Doctor R. W. Thatcher as director of research, to accept the presidency of the Massachusetts Agricultural College. Frank Barron Morrison, Professor of Animal Husbandry and Assistant Director of the Experiment Station at the University of Wisconsin, was appointed to succeed Doctor Thatcher, and assumed his duties at the College on October 1, 1927. Director Morrison was graduated from the University of Wisconsin in 1911, and subsequently pursued graduate study there. Immediately on graduation he was appointed an assistant and later an instructor on the staff of the Wisconsin College of Agriculture, and in 1914 he became assistant professor of animal husbandry, in 1917 associate professor, and in 1919 professor of animal husbandry. He served also as assistant director of the Wisconsin Experiment Station from 1915 until coming to Geneva. Director Morrison's writings and lectures have made him known to scientists and to livestock men in every State. He brings to the post excellent scientific training in animal nutrition, a broad practical knowledge of livestock feeding and management, and years of teaching and administrative experience. His long association with the Wisconsin Experiment Station acquainted him with the problems and methods of station research. He is eminently qualified for the post to which he has been appointed.

Two men, W. W. Fisk, Professor of Dairy Industry, and Dr. H. W. Schneck, Assistant Professor of Vegetable Gardening, resigned to accept posts in the agricultural commercial field. F. G. Behrends, Extension Professor of Rural Engineering, left to accept the directorship of Hope Farms, an interesting community and school for children at Verbeck, N. Y. George H. Rea, Extension Assistant Professor of Apiculture, resigned owing to persistent ill-health. Mr. Jay Coryell, for many years the able State Leader of County Agents, gave up his post in order to go into farming.

L. R. Simons, who had served efficiently for several years as Assistant County Agent Leader, was advanced to succeed Mr. Coryell. After an absence of one year, Miss Cora Binzel was reappointed to a professorship in rural education. Dr. Richard S. Uhrbrock was appointed Assistant Professor of Psychology in the Department of Rural Education, for special personnel work. Dr. Uhrbrock hol ls bachelor's and master's degrees from the Carnegie Institute of Technology at Pittsburgh, and the degree of doctor of philosophy from Columbia University. His training and subsequent experience have been in educational psychology, mental testing, personnel work, and educational measurements. He has had both industrial and educational experience. He came to Cornell from the University of Wyoming.

On June 30, 1928, Henry Hiram Wing retired from the professorship in animal husbandry and the headship of that department after forty years of service at Cornell University. Professor Wing, a native of New York, entered Cornell for the study of agriculture in 1877 and was graduated four years later. After holding the positions of Assistant Director at the New York Agricultural Experiment Station at Geneva and Assistant in Agriculture and Farm Superintendent at the University of Nebraska, he returned to Cornell in 1888 as Deputy Director and Secretary of the Cornell University Agricultural Experiment Station. From that date until his retirement his service here was continuous. In 1891 he became Assistant Professor of Animal Industry and Dairy Husbandry, and for the past quarter of a century has been Professor of Animal Husbandry and head of that department. The history and development of animal husbandry at Cornell are therefore practically coincident with Professor Wing's responsibility for this field. Professor Wing's contributions to feeding practices and livestock management, to testing and recording milk and butter-fat production as a basis for livestock improvement, his pioneer service in the introduction, establishment, and long supervision of the system of official testing and advanced registry of purebred animals, and his notable development of the Glista family of Holstein-Friesian cows in the university herd, are achievements of great practical benefit not alone to the dairy farmers of New York but also to those of the Nation. Professor Wing has well earned the relief which retirement from active servce brings. At his retirement, the trustees elected Professor Wing Professor of Animal Husbandry, Emeritus.

THE DEATH OF ISAAC PHILLIPS ROBERTS

On March 17, 1928, at San Francisco, California, death removed that historic figure in American agricultural education who for thirty years guided the teaching of agriculture at Cornell University, our former Director, Isaac Phillips Roberts. Although he retired from his directorship in 1903, his spirit and his ideals continued to permeate the institution, and his teachings, his personality, and his example were portrayed to succeeding generations of students. He was held in marked affection by farmers throughout the State and the Nation, and by all of his former colleagues.

In resolutions adopted after his death by the Faculty of Agriculture, the following tribute to his service appears:

> "For thirty years Isaac Phillips Roberts was the exemplification of agriculture in Cornell University. He taught the subject wisely, managed the farms successfully, directed the students in their many activities with sympathy and good judgment, bore the difficulties of a pioneer period with courage and unfailing hopefulness, and was a trusted counsellor and leader with his colleagues. He was admired and trusted by the farming people of the State, and became an acknowledged master throughout the country on the subjects associated with agricultural education. In the period when the rural subjects were unorganized pedagogically and when the way was not plain, he held the work clearly and definitely for agriculture and had always in mind the welfare of the farming people; and in so doing he made a basic and enduring contribution. He lived to see his faith justified and established. His memory will occupy a large place in the history of the University."

Director Roberts was born at East Varick, New York, July 24, 1833. He became Professor of Agriculture in Cornell University in 1873, and remained with the University until his retirement. He was made first Director of the College of Agriculture in 1896, and retired Professor Emeritus in 1903.

ENROLMENT FOR REGULAR AND SPECIAL INSTRUCTION

During the year there were enrolled 691 regular students, 24 special students, 142 in the winter courses, 286 graduate students majoring in agriculture, and 702 in the summer school in agriculture and home economics, or a total of 1845. Deducting 68, for persons enrolled in two of these categories, the net total enrolment of different persons for the year was 1777. This figure may be compared with a net total enrolment of 1662 in the preceding year. There was a loss of 17 students from the four-years courses and of 7 special students, but there were increases in all of the other groups.

In addition thereto, there have been held at the College, as usual, a large number of short specialized schools and other informal gatherings. Including Farm and Home Week and the Junior Field Days, the number of persons who attended these special educational meetings at Ithaca totalled 8893 during the year. These gatherings have a clearly demonstrated value, and the service is a useful one for the College to render.

THE RESEARCH AND INSTRUCTIONAL ACTIVITIES

The educational policies and procedures which have received the attention of the Faculty of Agriculture during the year, the items of chief interest in connection with the educational programs of the several departments, and comprehensive statements regarding the progress of research in many lines and of the state-wide extension service, are discussed at length in the separate annual report of the College of Agriculture printed by the State. Copies of the latter report are available on request. Because of the great extent of these activities, their discussion is omitted here. Noteworthy steps have been taken by many departments in strengthening their teaching programs. A very large number of research projects have been completed and distinct progress made on others; some hundreds of papers reporting current research have been published during the year in bulletins, scientific journals, and elsewhere. The extension work has continued to cover the State and to grow in value to the people. This growth may be expressed in one sense in the record of the actual number of teaching contacts or persons personally reached by the extension specialists who go out from the College. There are approximately 180,000 farms in New York. In recent years, the records show the following contacts by these specialists, and the record is incomplete:

1922–23	168,046
1923–24	164,159
1924–25	275,660
1925–26	342,478
1926–27	392,118

The total figures are not yet compiled for 1927–28, but they will show a further increase. It is to be expected that the results of years of educational effort will be cumulative and that the services will increase in demand. It is fair to assume that at least two-thirds of the entire rural population is influenced to some extent by the extension service, and that the vast majority of the more progressive farmers are constantly in touch with the State College and are closely following the recommendations sponsored by the extension service. A vital force to this end is found in the state-wide system of county agricultural agents, whose personal teaching contacts annually greatly exceed the figures given above for the extension specialists with headquarters at the College.

In conclusion I desire to express to you, Mr. President, my profound gratitude for the aid and encouragement which you have afforded me on every occasion and for the sympathetic understanding and the forceful manner with which you

have furthered the work and the interests of the State College of Agriculture. Your unfailing support has been a source of great stimulation; your keen insight and your exceptional ability in dealing alike with matters of educational organization and policy and the public relations of the institution have proved invaluable.

A. R. MANN,
Dean of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DEAN OF THE NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit a report of the New York State Agricultural Experiment Station at Geneva, under the administration of Cornell University, for the fiscal year 1927–28.

THE DIRECTORSHIP OF THE STATION

The last annual report announced the retirement of Doctor R. W. Thatcher from the directorship of the Station in order to accept the presidency of the Massachusetts Agricultural College. Frank Barron Morrison, Professor of Animal Husbandry and Assistant Director of the Experiment Station at the University of Wisconsin, was appointed to succeed Doctor Thatcher, and assumed his duties at the Station on October 1, 1927. Director Morrison was graduated from the University of Wisconsin in 1911, and subsequently pursued graduate study there. Immediately on graduation he was appointed an assistant and later an instructor on the staff of the Wisconsin College of Agriculture, and in 1914 became assistant professor of animal husbandry, in 1917 associate professor, and in 1919 professor of animal husbandry. He served also as assistant director of the Wisconsin Experiment Station from 1915 until coming to Geneva. Director Morrison's writings and lectures have made him known to scientists and to livestock men in every State. He brings to the post at Geneva excellent scientific training in animal nutrition, a broad practical knowledge of livestock feeding and management, and years of teaching and administrative experience. His long association with the Wisconsin Experiment Station acquainted him with the problems and methods of station research. He is eminently qualified for the post to which he has been appointed.

Director Morrison was designated at the same time as Director of Research in the State College of Agriculture and of the Cornell University Agricultural Experiment Station.

SPECIAL INVESTIGATORS ACCOMMODATED

The research staff of the Station was augmented during the year by several special investigators employed by other agencies, who were gladly received and accommodated by the Station: three employees of the Chemical Foundation, working on the certification and uses of biological stains and the preparation of a book on such stains; a representative of the United States Bureau of Entomology, studying the spread and control of the Mexican bean beetle; a fellow of the International Education Board from Germany, working on chromosome studies in cultivated fruit varieties. Doctor A. B. Stout, Director of Laboratories of the New York Botanical Garden, is cooperating with the Station in a study of sex in fruits, with special reference to self-fertility and self-sterility in hardy fruits, and he is a frequent visitor to the Station.

THE PROGRESS OF RESEARCH

The Forty-seventh Annual Report of the Station, published by the State, reviews in considerable detail the work in progress, the more significant advances during the year 1927–28, some of the problems which it is desired to take up, and other matters of interest. Persons desiring a somewhat comprehensive picture of the very important service which the Station is rendering to the State and Nation will wish to examine this fuller report, which may be had on application to the Director of the Station at Geneva. It is possible here only to indicate in most abbreviated form some of the inquiries under way during the year, which it is hoped will arouse a desire for more extended information which the general station report will supply.

The research program is embraced within the eight major divisions which constitute the formal organization of the Station, namely, the divisions of Agronomy, Animal Industry (poultry), Bacteriology, Botany, Chemistry, Dairying, Entomology, and Horticulture.

Agronomy. In this division, important fields of investigation include soil-fertility studies by means of lysimeters and field plats, the selection and propagation of high nicotine strains of tobacco for utilization in insect-control trials, greenhouse and field investigations of the nutritional requirements of apple trees, the management of nursery soils with respect to fertilizer applications and the use of green-manure crops, studies of soil and field-crop relations, pasture improvement by the use of commercial fertilizers, and the like.

Animal Industry. The studies in this division have been concerned with certain poultry problems only, such as the importance of sunlight for laying hens, feeding trials relating to limitations in the use of succulent vegetable foods, and breeding experiments having to do with the perpetuation of closely inbred lines for use in studies of inheritance.

Bacteriology. Milk control in America has been based largely on a count of the number of bacteria present. No really rational milk control can be based on a knowledge of the numbers alone, inasmuch as many types of bacteria are not only harmless but some are beneficial. An important phase of the work of this division in recent years has had for its object the obtaining of information regarding the nature of bacteria that play a part in agriculture, including the dairy field. Many groups of organisms have been thus studied. Other important investigations deal with bacteriological nomenclature, which greatly needs recasting, a comparison of the bacterial content of different soil types, the standardization of biological stains, classification of the streptococci, an examination of the sanitary quality of powdered baby foods with particular reference to their bacteria content, investigations of the organisms causing spoilage in tomato products, biochemical studies of bacteria, studies of bacteria that survive pasteurization of milk, and similar projects.

Botany. The virus diseases of black raspberries are being studied as to symptoms, transmission, and the effect on the health of the plant. At the Hudson River Valley Fruit Laboratory, work was continued on the root diseases of fruit trees, especially as to the possible rejuvenation of diseased apple and pear trees by the use of nitrogenous fertilizers and by pruning top growth in order to balance weakened roots. The control of the spot diseases of apples, notably of the fungus causing apple scab, and methods of removing the spray residue from apples, received attention. A number of studies concerned with diseases of canning crops are under way.

In the seed laboratory of this division rests responsibility for officially testing samples of seeds collected from the trade by the Department of Agriculture and Markets, and necessitated in the enforcement of the seed law. In addition to certain special analyses, the number of seed samples received for the standard routine analyses and tests was 4988, which involved 7688 separate tests. From the volume of seed thus received arise opportunities for the study of numerous seed problems, such as the determination of the best methods for germinating various flower, grass, and vegetable seeds, the most favorable temperatures to be used for germination tests, the identification of imported and native grass seeds of

certain varieties, the types of seed-borne diseases on seeds of varied farm crops, and the like. These studies the seed laboratory is engaged upon. Bulletins on mushroom culture and on the Geneva and York red kidney beans were published during the year.

This division maintains a pathologist at the Long Island Vegetable Research Farm. He has investigated the blackleg disease of cabbage, cauliflower, and brussels sprouts, and during this year published two bulletins on this work. He has also dealt with the effects of seed treatment with organic mercury preparations on increasing the stands of vegetable seeds, and with the control of bacterial wilt of cucumbers.

Chemistry. In the laboratory of chemistry the investigations have dealt with the chemistry of casein and gelatin, and the chemistry of insecticides and fungicides, the latter studies at present being related to nicotine extracts from tobacco dust and the nicotine contents of types of tobacco grown, having in mind the usefulness of nicotine in insect control. The possibility of detecting the presence of toxic residues on sprayed fruit spectographically has been investigated and the results are nearly ready for publication.

The division is also charged with certain chemical analyses of samples of feeding-stuffs and fertilizers collected by the Department of Agriculture and Markets in accordance with the law. During the year there were received 2275 samples of feeding-stuffs and 854 samples of commercial fertilizers of various sorts.

The Associate Chemist in the laboratory, Doctor Carpenter, is spending the year in the laboratory of the distinguished Doctor Svedberg at Upsala, Sweden, on a grant from the International Education Board, for the purpose of utilizing certain special apparatus there available for the determination of the molecular weight of casein.

Dairying. The work of this division falls into three major classes: (a) Studies of dairy-herd management, using the station herd and considering especially the influence of selection of good sires on the maintenance or the increase of milk production. The results in the station herd have been notably successful. (b) Studies of dairy products, more especially of ice-cream and market milk. A study of the grading of commercial gelatin and its use in the manufacture of ice cream has been published during the year. Other projects include a study of the variations of viscosity and whipping properties of ice-cream mixes in relation to variations in the mineral content of milk; the prevention of excessive viscosity and occasional curdling of chocolate in ice-cream mixes by the addition of baking soda prior to pasteurization; and the improvement of the chocolate flavor in ice cream by the addition of pure vanilla extract. The investigations of market-milk problems have included a study of the creaming ability of milk from the standpoint of variations in the milk prior to its receipt at the milk plant and the influence of these variations upon the effects of pasteurization, the utility of a small electric refrigeration unit for cooling milk on the farm, and the effectiveness of various types of dairy strainers in removing sediment from milk. (c) The official inspection, testing, and marking of all Babcock-test and bacteriological glassware used in this State for making tests which influence the price paid to producers for milk and cream. The state law prescribes such test by the Experiment Station as one of its control functions. The total number of pieces of glassware tested during the year was 81,702.

Entomology. The research and service functions of the Division of Entomology have long been among the most useful activities of the Station. Because of the importance of certain species of insects which attack apples, this project continues to receive major attention. Among the apple insects to which special attention has been directed during the year are the rosy aphis, the leaf roller, and the codling moth. A new project dealt with the degree of moth infestation of fruit warehouses and the danger to the adjoining orchards of the moths reared under such conditions. The studies of pear insects have been chiefly confined to the effects of various oil sprays on the number of hibernating adults of the pear psylla, the hatching of eggs, and the nymphal activities. At the Hudson River Valley Laboratory attention is being given to the pear midge as well as to the pear

psylla. The peach cottony scale, the red spider, and the oriental peach moth came under investigation. The last named insect has appeared in two widely separated districts, Niagara and Chautauqua Counties. Since there is no satisfactory method of control by the use of insecticides, recourse is had to parasites. Through cooperation of the United States Bureau of Entomology and the State Department of Agriculture and Markets, arrangements have been made for the importation and dissemination of parasites in the infested areas.

Other highly useful investigations have included further work on the control of the cherry maggot, of cucumber beetles and potato insects on Long Island, of insects in cauliflower seed beds, and of the Mexican bean beetle (in cooperation with the United States Bureau of Entomology,) and extensive work on the European corn borer in this State.

Horticulture. The State Experiment Station has attained a leading place among American experiment stations for its horticultural investigations. Particularly notable has been its work in testing and describing fruit varieties. There is constant shifting of the varieties grown in any region. The Station endeavors to grow on its grounds every hardy fruit which can be obtained from any part of the world in order to ascertain whether it is distinct, its growing and fruiting habits, its susceptibility to insects and diseases, its regional adaptability, and other facts of importance in connection with its culture. The number of trees and of small fruits and of nuts now under test totals 2510, representing 162 distinct species. The results of these tests are published in monographs. Extensive work of similar nature is now under way with vegetables.

The breeding of new fruit varieties, with the object of ascertaining how the plant characters under study are inherited, and the attempt to produce superior new varieties, is a second productive field of the Station's horticultural work. During the past twenty-three years, 80,000 fruit seedlings have been grown in this project. From these, ninety varieties have been named as having substantial merit, and of these latter forty-five are now on the market, including new varieties of apples, pears, cherries, nectarines, grapes, raspberries, strawberries, gooseberries, and plums.

At the Vineyard Experiment Station at Fredonia, in the Chautauqua grape belt, five leading experimental projects are under way. These are the testing of new varieties, breeding new grapes, commercial fertilizer trials, pruning and training methods, and the testing of commercial varieties of grapes on vigorous, hardy stocks. At the Hudson River Valley Laboratory the horticultural investigations again deal with fertilization of orchards, variety tests, cover crops, and trials of new varieties which have been developed at Geneva. Under a special appropriation experimental work has been undertaken on various problems in the production of canning crops, with some concentration on the growing of tomatoes, sweet corn, and peas, for the canneries. Another special appropriation has enabled the inauguration of experiments with the production and storage of nursery stock.

The publications of the Station carry the results of the experiments to the people of the State and the Nation. During the year covered by this report, ten technical bulletins, nine bulletins, and thirteen circulars have been printed and distributed, and a highly efficient news service to the papers of the State has been maintained. A large number of articles have been contributed to scientific, technical, and trade papers. The station exhibits at the State Fair and at the Rochester and Poughkeepsie meetings of the State Horticultural Society have been effective means of extending the influence of the Station.

The greatest needs of the Station remain as they have been presented frequently heretofore: the new Horticultural Research Laboratory, which is urgently required in order to relieve excessive crowding and other handicaps under which work in all departments is now conducted; a range of greenhouses suitable in extent, design, and arrangements for special controls for the type of investigations the Station is expected to undertake; and a very substantially improved salary scale. These needs invite the continuous and energetic interest and support of the trustees of the University and the farmers and friends of the Station until they shall have been supplied by the State. They are now of the first order of importance in furthering the work of this productive agency.

It would be a serious oversight, Mr. President, to omit reference to your personal keen interest in, concern for, and desire by every means to advance, the welfare and service of the State Experiment Station. Your unfailing cooperation in promoting the Station's interest is a source of gratification and immeasurable assistance to the officers charged with its immediate administration.

A. R. MANN,
Dean, New York State Agricultural Experiment Station.

APPENDIX X

REPORT OF THE DEAN OF THE NEW YORK STATE COLLEGE OF HOME ECONOMICS

To the President of the University:

SIR: I have the honor to present herewith a report of the New York State College of Home Economics for the academic year 1927–28.

THE SIGNIFICANCE OF EDUCATION IN HOME ECONOMICS

The United States Census for 1920 credits New York State with 2,331,125 families averaging 4.3 members to the family; and the next census will show a marked increase in the number of families. New York includes approximately one-tenth of the total population and one-fortieth of the farm population of the Nation. No other American State has so great an opportunity and obligation to foster family welfare, or so varied a home situation to engage its most sympathetic and intelligent concern.

The flow of population continues toward the city. Single houses have become less frequent and multiple dwellings more so. Homes have become smaller and more crowded. The narrowing of the home to a place merely for rest, with the feeding, clothing, and other functions provided outside, grows with the constant increase in the number of families living in hotels. Ownership of homes has lessened and rental of homes increased. The census of 1920 shows that in New York State the percentage of urban homes rented was 76.3, while of those classed as rural the percentage was 34.3. The place of the growing child under increasing urbanization becomes more difficult. The tendency in urban centers for life to be lived less in the home and more in the public places, involves issues of the first order of importance in its effect on family life. How are the inherent values in family association to be most effectually preserved?

Changes in transportation and communication have done away with the former isolation of many rural homes, and have introduced into these homes social desires which make members of these families, particularly the younger members, restless and less willing to continue on the old basis. The family, whether rural or urban, is a less coherent group than it was even one or two decades ago, and the home plays a less sustained part in the lives of its members than formerly. Part of its former function has passed to other agencies. Yet there remains its essential social function which civilization cannot spare if it is to endure, in the building of the foundations of health and character and right motivation and affection.

The home, like every other institution, must adjust itself to change. There is ample evidence that homes need help in adjusting themselves to a modern world; and it is a function of the State to provide some of this help for its primary social unit. Two conditions, among others, have kept the home from receiving the intelligent consideration and aid which is not only its due but society's protection. The home as a sacred idea and ideal is beclouded with false sentiment; unwillingness to submit the home to searching criticism and scientific analysis because of traditions woven about the presumed infallibility of parental instinct and the inviolability of the privacy of the home have operated to the detriment of both

home and society. Again, the long space of time which elapses between the years when the home is laying the foundations for physical, mental, and social health in childhood and the time when its members begin to function as citizens in the economic and social life of the State, makes less apparent and less easy of demonstration the fact that constitutional weaknesses in adults may frequently be traceable to faults in the diets of the mothers who bore them, and that traits which make for social inefficiency in adults are frequently the product of poor habit-training in infancy and early childhood. Yet science has fully shown the frequency of linkage.

The modes of living, particularly of urban living, have steadily grown more complex, involving changes of far-reaching importance to the primary social unit of our civilization. The pathological results of these changes have long been dealt with by devoted social-service agencies. The more fundamental task of so ordering family life as to accomplish in a high degree a physically sound people with a happily functioning and properly motivating home life, has not yet attained the recognition and wide acceptance and encouragement which its great importance to the State warrants. It is basically a problem in education, founded on facts and principles which come from the most painstaking study and research. In its technical phases this education for efficient, sound, healthy home life finds its expression in the schools and colleges of home economics. There is need that the public shall come to a more intelligent understanding of this rapidly rising field of education and shall more fully appropriate its benefits. It is destined, as it matures, to exercise far-reaching influence in the life of the people.

The field of home-economics education has undergone almost phenomenal development throughout the nation. The basis on which instruction rests is steadily broadening; the amount of scientific work in its several branches is growing and its character is improving; new aspects of the subject are gradually expanding into departments of knowledge with independent claims to recognition and support; students seeking instruction are increasing in number; women in city and country, and more especially on the farms, are utilizing its teachings and urging its fuller availability; and the pressure from within and without is taxing facilities and staffs to their maximum.

It is highly important that the State shall recognize in the educational program for home economics a great opportunity as well as an obligation, and shall commit itself with intelligent vision and substantial purpose to a well-considered and desirable program of growth and development. From the broad view of intelligent statecraft, the State will find in education in home economics a tool of the utmost importance in building up forces which increase the physical well-being of the population and which make for reduction in the number of persons thrown back on the State for support by reason of physical, mental, or moral failure.

THE LEGISLATIVE APPROPRIATIONS

In recent years the State has not fully met its responsibilities to its State College of Home Economics, with the result that the institution has been severely handicapped, its personnel constantly changing, its doors closed to many students who annually seek admission, and its fullest usefulness impaired. The increments in legislative appropriations during recent years, both for salary adjustments for experienced and competent teachers and for the necessities in ordinary maintenance, have been negligible; and requests for urgently needed new posts have not been recognized. Earnest hope is expressed that relief commensurate with the needs and the value of the work will hereafter be forthcoming from the appropriating bodies.

The whole salary scale of the College should be substantially raised. No profession draws into itself consistently the finest type of persons or inspires competition for place on the basis of ability unless it offers rewards, financial and otherwise, equal to other professions with which it must compete for trained personnel. Now that many manufacturing industries, mercantile establishments, hospitals, hotels, clubs, institutions of many kinds, and the press are competing with the schools and colleges for qualified workers in home economics, the first

line of defense for the training centers is adequate financial support to attract and hold a body of able teachers and investigators.

In addition to strengthening the resident work by certain additional appointments, the most serious need is in the extension service. There is required, in order to care for requests now coming to the College, at least one additional qualified worker in each major field, and in some cases more than one. There is no other aspect of the work in which the pressure has been so strongly voiced as in the extension service. The College has received not only countless individual requests, but many group requests and formal petitions from societies of rural women urging that more extension specialists be made available in existing fields and that the work be expanded into new fields in which they feel the need for assistance. The efforts of nearly a third of a century in this State to reach and serve rural women by educational means have now resulted in a very widespread response and a constantly rising and more persistent demand of a kind which it is in the interest of the State to supply. The State is now effectively realizing the cumulative results of its policy of extension education, and it is highly important that this interest be capitalized.

The College desires to meet its opportunities and its obligations and to fulfill with greater effectiveness its place in the educational program of the State. These things can be done when the means are provided. The adoption of a reasonable program of development, based on an accurate understanding of the needs and desires of the people for education in home economics and carried forward on a consistent policy of modest enlargements in state appropriations in accordance therewith, would greatly enhance the service of the College to the State and to the education of its women.

THE FIELD OF PARENTAL EDUCATION

In the last five years there has arisen a widespread interest in the United States in what is variously called education in child guidance or child development, parental education, and education for family life. It coordinates the older fields of educational psychology and certain aspects of biology with the newer fields of infant and child nutrition, clothing of children in relation to health and comfort, and the behavior of children as influenced by food, clothing, and the associations in family life. In some States the facilities for work in this field have reached considerable proportions. The results appear to justify the significance which educators have attached to this new and essential educational approach.

In order to gain experience in this field and to demonstrate its value both as a phase of the program for the training of students in home economics and as a field of extension service, the College sought and obtained special grants for a limited period from the Laura Spelman Rockefeller Memorial. The demonstration has been wholly satisfactory both at the College and in the localities in the State in which it has been possible to organize extension work with the funds available. It is very desirable from the standpoints of both resident and extension teaching that permanent provision be made for this field of knowledge. The period for which the Laura Spelman Rockefeller Memorial made the annual temporary grants of $30,000, for the purpose of demonstration, ends with the year 1928–29. The College feels fully warranted in asking the State to provide for the year 1929–30, and thereafter, at least the amount of $30,000 a year necessary for the present small unit. A larger sum would enable certain expansions which the present demonstration has shown to be highly desirable. This is the only major new development which the College has asked of the State in many years.

HOUSING

An additional laboratory and classroom building is urgently required. In the building program of 1920, the State Architect made provision for additional housing, which should now be realized with a minimum of delay. The housing situation has become almost unbearable. Qualified applicants for admission are being turned away, through enforced limitation of enrolment; every phase

of instruction is cramped; the staff labor under many disabilities because of overcrowding; students have no place whatever for study between classes except in the open hallways, where lack of tables and chairs and the constant passing of persons makes study almost impossible, with great loss of student time; research facilities which are well-nigh indispensable cannot be given space; hundreds of farm women, who come from all parts of the State for the home-economics program during Farm and Home Week, have been unable to get into the lecture halls during the past two years, even though every room was utilized to capacity and some lectures and demonstrations were repeated. These conditions, now of long standing, can be corrected only by the erection of an additional building of suitable character. It is a most pressing need.

CHANGES IN STAFF

At the close of the year the resignations of four highly valued members of the staff were received. Professor Beatrice Hunter, of the Department of Textiles and Clothing; Doctor Helen Bull, Acting Professor in the work in parental education and child guidance; Miss Charlotte C. Weiss, Assistant Professor in the Department of Textiles and Clothing; and Doctor Edith Nason, Assistant Professor in the Department of Foods and Nutrition.

The following appointments were made:

Doctor Marguerite Wilker as Extension Professor for the work in parental education and child guidance, effective October 1, 1927. Doctor Wilker received her Bachelor of Science degree from Iowa State Teachers' College, and subsequently qualified for Bachelor of Philosophy, Master of Arts, and Doctor of Philosophy degrees at the University of Wisconsin. Her studies were in the professional fields of elementary education, educational measurements, and psychology. Seven years of successful experience in teaching preceded her present appointment.

Miss Helen B. Kay to be Extension Assistant Professor in the Division of Clothing and Textiles, effective October 1, 1927. Miss Kay holds both bachelor's and master's degrees from Columbia University. In addition to other teaching experience, Miss Kay was a member of the staff in clothing and design at the Oregon Agricultural College at the time of her present appointment.

Miss Muriel Brasie as Acting Assistant Professor in the Department of Textiles and Clothing, effective October 1, 1928. Miss Brasie received both her undergraduate and her postgraduate training at Columbia University, and has had several years of teaching and executive experience in her field.

Miss Helen J. Hubbell to be Extension Assistant Professor in the Department of Foods and Nutrition, effective July 1, 1928. Miss Hubbell also received both her undergraduate and her postgraduate instruction in Teachers College of Columbia University. Her professional experience includes extension work in nutrition at the University of Washington, war service in Europe, two years in teaching courses in nutrition at Yale, two and one-half years work in nutrition with the Red Cross, and other posts.

Miss Marian Pfund to be Acting Assistant Professor in the Department of Foods and Nutrition, effective October 1, 1928. Miss Pfund was graduated from Simmons College and at the time of appointment was completing her requirements for the Doctor of Philosophy degree at Yale. With these academic qualifications Miss Pfund brings also the experience of six years of teaching chemistry in relation to human nutrition at Vassar College.

Miss Lillian Shaben, by appointment effective February 1, 1928, became Acting Assistant Professor in Junior Extension. Miss Shaben majored in nutrition and dietetics at Iowa State College, and, in addition to commercial experience as a demonstrator, was engaged in extension work in Iowa for four years.

ENROLMENT OF STUDENTS

The enrolment for the past year is as follows:

	1927–28	
Freshmen	144	
Sophomores	125	
Juniors	93	
Seniors	99	461
Special students		9
		470
Graduate students		15
Summer-school students		30
		515
Less number counted twice		41
		474

Of these, 128 are in hotel administration, they being classified as follows:

Freshmen	40
Sophomores	33
Juniors	21
Seniors	32
Special students	2

The number of students is controlled by a policy of limiting the enrolment of freshmen to the number which the present restricted staff and housing can properly care for.

INSTRUCTION IN HOTEL ADMINISTRATION

The instruction in hotel administration has made sustained progress, and has received repeated commendation from successful hotel men. It is especially gratifying that many proprietors have placed their sons in the courses. The policy of limitation of enrolment and rigid selection of students continues. In order to gradually relieve the members of the American Hotel Association from their annual contributions in support of the instruction, and to make it more nearly self-sustaining, the trustees increased the tuition from $300 to $350 a year for those students enrolling in the courses for the first time with the academic year 1928–29, and for all students for the year 1929–30. A further increase to $400 a year is contemplated for the near future.

During the past year, four important organizations and persons tendered to the University funds for the establishment of scholarships for deserving students in hotel administration: the International Stewards' Association provided $400 for a four-years scholarship of $100 a year; Savarins, Inc., provided a scholarship of $200 a year for the academic years 1927–28, 1928–29, and 1929–30; the firm of Horwath & Horwath, of New York City, hotel accountants and auditors, made provision for a permanent fund to yield an annual scholarship of $200; Edward M. Tierney, of the Hotel Arlington, Binghamton, New York, gave $300 for the year 1928–29 for the purpose of establishing a scholarship in memory of his father. The basis of award in all cases will be the need of the student, coupled with considerations of scholarship, aptitude for work in hotel administration, character, and the like. These scholarships were cordially received. Appreciation of the generous cooperation of the donors is again recorded. With the rise in tuition there is pressing need for many more such scholarships in order that young men of merit who may lack financial means may be encouraged and aided to prepare for this important field.

An extended account of the current work of the State College of Home Economics and its several departments, including descriptions of the research in progress and the extension activities as well as the larger aspects of the resident instruction, is included in the separate annual report of the College for the year 1927–28, published by the State. Persons desiring fuller information are referred to that report, which may be had on application to the College.

May I express here, Mr. President, on behalf of the staff in Home Economics as well as myself, my deep sense of obligation to you for your helpful counsel and your unfailing interest in the progress of the State College of Home Economics.

A. R. MANN,
Dean, New York State College of Home Economics.

APPENDIX XI

REPORT OF THE ACTING DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit herewith a report of the work of the College of Architecture for the academic year 1927–28.

During the year distinct headway has been made toward solving some of our more pressing problems and the outlook at present is definitely encouraging.

The work of the Morse Hall Gallery and the co-ordinated lecture program has more than fulfilled its earlier promise. Six exhibitions have been shown. These covered a wide range of subject matter;—painting, sculpture, prints, stage settings and architecture, as well as furniture, tapestries, pottery and various other minor arts have been included. The generous cooperation of some 25 dealers and galleries has been secured. The attendance at these exhibitions has been most gratifying, averaging about 375 persons a week, or a total of about 9,000 for the year. This is practically the same as for last year.

A series of 12 lectures has been given, coordinated with the exhibitions, and delivered by various persons from outside the University. As a part of this work also a series of 15 lectures on The Art of the Netherlands was given by Professor Finlayson of Wells College. These lectures were given for University credit and attracted a very heavy registration.

All of this work, which is being done to develop the appreciation of Art throughout the University rather than primarily as applying to the work of the students of this college, has been made possible through the generosity of an interested alumnus and I am happy to be able to say that his interest is sustained and the continuance of this program is assured for the coming year.

Growing out of the activities outlined above I am glad to record the appointment of Donald Lord Finlayson as Assistant Professor of Fine Arts who will take up his duties next year and will offer courses on the History of Art open to election by students throughout the University. This appointment also was made possible through the generosity of interested alumni and it is hoped that it will prove the beginning of a very significant development.

As an extension of the work so well started it is hoped that we can before long open the courses in Drawing, Painting, and Sculpture to election by students outside this College. This seems the next logical step in the program of promoting the growth of knowledge and appreciation of Art throughout the University community. That there is a definite call for this cannot be doubted. I have personal knowledge of 25 students who were denied admission to classes in drawing this year because of a lack of facilities. There were doubtless many more who would have applied had they not known the courses to be closed. These

classes are now badly over-crowded by our own students from whom this work is required. It seems obvious therefore that we must very soon face the necessity of strengthening the teaching staff in this department.

The work of instruction in the professional courses given in the Fine Arts department is developing very satisfactorily. We are admitting a few carefully selected students and while the number of applicants for admission is not large it is growing gradually and the quality is high. We still view this work as on an experimental basis but we believe that its future is very promising.

The appointment of A. D. Seymour to a professorship in Architecture fills a long felt need and will materially increase the efficiency of the design staff. One of the problems that remains to be solved is that of a proper correlation of the work in design and that in construction within the College of Architecture, and the extension of design teaching for students in Engineering. These problems cannot be taken up with our present staff.

The question of providing proper sabbatic leaves is another one that demands attention at as early a date as possible.

The experience of the past few years seems to indicate that it will continue to be necessary for us to select for admission, a relatively small proportion of the qualified applicants. The work of the Committee on Admissions is still in the experimental state and while it is thought that progress is being made, we have not yet worked out a method that is in all respects satisfactory. For the year 1928–29, the selections are not yet made and no definite figures are available but it would appear that we will have to select about 45 students from about 150 qualified applicants and will have handled well over 200 cases when the results are all in.

The proper maintenance of the Library is a matter that has been given considerable attention during the year. It is felt that for some time past the growth of the library has not kept pace with the production of really valuable technical literature. It is also felt that we must very soon go into certain problems of cataloguing and indexing that have been put aside because of a lack of funds.

The present physical equipment of the college can handle about 180 students; with this total number many of our classes naturally fall into two sections of 25 to 30 students each. In some of these the desirable maximum is 15; in others perhaps 20. At the same time our faculty is so small and is split into such definite groups that it is extremely difficult to arrange any sabbatic leaves or even to take care of classes in case of sickness. Then too the student groups in Landscape Architecture and Fine Arts are too small to set up the proper competitive spirit in each class. All these considerations point toward the desirability of ultimately increasing the total number of students to about 300. This would solve many of our problems at once. The student groups would become more stable as to size and the smaller ones more nearly the proper size. A larger instructing staff would be called for and this would make possible adjustments that would clear up the overcrowding and the whole would become more flexible. Such an adjustment of numbers would, of course, call for much larger quarters and equipment which we hope may be provided in the not too distant future. Meanwhile we can proceed to perfect our present organization along the lines suggested above so that we may have a proper basis on which to build when the time comes.

At the beginning of this academic year the College and the University community were bereaved by the death of Assistant Professor Emeritus, Hiram Samuel Gutsell, whose interest in the college was retained after retirement and remained a profitable one to the end.

I am grieved to have to report that the illness of Assistant Professor George Ray Chamberlain, noted in the report of the Dean for 1926–27, has called for a renewed leave of absence for the year 1928–29.

GEORGE YOUNG, JR.,
Acting Dean of the College of Architecture.

APPENDIX XII

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to submit the following report upon the work of the College of Engineering for the year 1927–28.

College and university education in the past has been directed almost wholly toward *mental* and *social* development, but it is increasingly obvious that the educational methods of the future will lay increasing stress upon the development of *character* and *personality*. Several causes are contributing to this development of which perhaps the most important are the growth of applied psychology and the rapid development of personnel methods in industry which aim to fit men more accurately to their work. The pressure of increased numbers upon the colleges is forcing a consideration of these problems upon educators and not a few American colleges have installed personnel methods, some of which are very comprehensive and some of which are very complicated.

For several years past studies and experiments in this field have been conducted under the supervision of Professor John Bangs of the Department of Industrial Engineering with a view of determining what could be done toward establishing a simple, yet effective personnel system. The experimental work has been confined so far to upperclassmen in Mechanical Engineering, but the success attained appears now to warrant the extension of these methods to the lower classes. And obviously if such methods are to be effective they should be applied to the entering class. Three purposes have been envisaged for this personnel work, namely,

(a) To aid students in recognizing and evaluating their personal characteristics and mental fitness for engineering work, and for happiness in life.

(b) To help make closer contacts between the faculty and the students.

(c) To furnish information that will be of advantage in helping the student to find a place in industry after graduation where he will have the best opportunity for growth.

Personnel work is far from being a simple matter, in fact it is much more elusive in content and application than mental discipline. Yet there can be no doubt that much can be done along these lines to stimulate students to better their personal characteristics. The practical application of such improvement appears in employment work. Other things being equal the man of superior personal attainments has an immense advantage in securing employment. But more important still is the general advantage that accrues to the individual, the college, and society, at large, from improved habits and personality. Lack of space of course forbids any extended discussion of the plan as now organized.

The authorization of another McMullen research scholarship by the Board of Trustees is a welcome addition to the two already established. These research scholarships are proving to be very helpful and eventually, without doubt, will do much to help solve the problem of research work in the college. All three of these scholarships are already assigned for the next year. One will be used to continue the work on reinforced concrete under Professor Scofield in the School of Civil Engineering, one will be assigned to Professor Diederichs to carry on research on chimney draft, using the chimney of the University heating plant, and the third will be awarded to a graduate of the School of Electrical Engineering, who is returning from practical work to investigate a special problem in his field. It will be seen, therefore, that these scholarships are sure to stimulate research in the College as nothing else would do and research if properly conducted always reacts in a favorable manner upon the work of instruction.

The Faculty of the College have always been noted for productive scholarship in the form of text books. Last year three noteworthy productions were issued namely—a new text on Heat Power by Professors Barnard and Ellenwood in conjunction with C. F. Hirshfeld, formerly a member of the staff, a new text on

Hydraulics by Professor Schoder, and a new text on Electrical Engineering by Professor Tarboux. An excellent bulletin was also issued by the Experiment Station entitled "Efficiencies of Otto and Diesel Cycles" by Professor Ellenwood.

For a number of years past the War Department has sent, annually, a group of graduates from West Point to take advanced work in engineering at Cornell. Next year 13 such men will be thus assigned. For the most part these young lieutenants enter the School of Civil Engineering, graduating in one year. Aside from the compliment thus paid to the work of the college the contact is a most valuable one. These men are picked students and are able, studious men, whose influence upon our undergraduates is of a most helpful order. We are making every effort to accommodate our work to the needs of these cadet officers.

The special summer session for teachers of Mechanics of Engineering which was announced in the last report was a success in every way. The number of teachers was limited to 40 and a much larger number applied for admission. The Society for the Promotion of Engineering Education was so well satisfied with this experiment here and also at Wisconsin University that a similar special school will be conducted at Pittsburgh University for teachers of electrical engineering and one at Massachusetts Institute of Technology for teachers of physics. The College will be represented at both of these schools.

During the year the College has received a number of gifts which are hereby thankfully acknowledged. The Janesville Sand Company presented a car-load of moulding sand; Spencer Kellog and Company donated a quantity of core oil for foundry use; Goddard and Goddard continued their kindness of past years by a gift of milling cutters, and the Willys-Knight Motor Company presented an automobile chassis with important parts sectioned to show internal arrangements. For several years tests have been conducted on the properties of leather belting through an industrial scholarship provided by the Leather Belting Exchange. These tests have now been concluded and the apparatus has been turned over to the College at a very low price. The apparatus thus obtained is a very valuable addition to the equipment of the College.

The needs of the College are many and pressing. Foremost of course is the need of larger salaries for the older members of the faculty, and for strengthening the work of teaching and research generally. The equipment of the College also needs strengthening in order to keep it up to date. An effort is made to add something to this equipment annually, but the appropriation available for this purpose is not sufficient. We have been fortunate in receiving much help in this regard from interested friends. And while buildings are perhaps of lesser importance, it is true that some of our structures are antiquated and should be replaced as soon as possible. In particular a new building for the School of Civil Engineering and new laboratories for the Schools of Mechanical and Electrical Engineering are much needed.

DEXTER S. KIMBALL,
Dean of the College of Engineering.

APPENDIX XIII

REPORT OF THE ADMINISTRATIVE BOARD OF THE SUMMER SESSION

To the President of the University:

SIR: On behalf of the Administrative Board of the Summer Session, we have the honor to report as follows for the session of 1927:

ATTENDANCE

	Men	*Women*	*Total*
In Summer Session	769	760	1529
In Summer School of Agriculture	170	458	628
	939	1218	2157
Less double registrants	43	151	194
	896	1067	1963
Summer Session of Law	82	8	90
	978	1075	2053

GRADUATE STUDENTS

Graduate students in Summer Session	77	106	183
Graduate students in Agriculture	51	35	86
Graduate students in both	13	15	28
	141	156	297

ANALYSIS OF SUMMER SESSION REGISTRANTS

Undergraduates of Cornell	217	68	285
Undergraduates of other institutions	140	158	298
Students holding Cornell degrees	38	47	85
Students holding degrees from other institutions	114	214	328
Students holding Normal School diplomas	4	122	126
	513	609	1122

TEACHERS

	1925	*1926*			*1927*		
	Total	*Men*	*Women*	*Total*	*Men*	*Women*	*Total*
High School	190	65	170	235	61	191	252
Grades	195	3	205	208	11	190	201
Colleges	19	30	16	46	37	27	64
Normal Schools	5	1	5	6	–	2	2
Superintendents	–	5	–	5	1	–	1
Principals	5	7	5	12	9	4	13
Supervisors	1	–	7	7	2	5	7
Others	27	2	14	16	2	9	11
Kindergarten	7	–	5	5	–	9	9

GEOGRAPHICAL DISTRIBUTION

	1926		*1927*
New York	1214		1122
Pennsylvania	198		217
New Jersey	124		126
Other Middle States (including Md., D. C., Del.)	68		90
New England	113		113
Southern States	114		101
West Virginia	3	5	
Virginia	22	13	
North Carolina	17	15	
South Carolina	6	8	
Georgia	9	7	
Florida	13	13	
Alabama	5	3	
Mississippi	6	11	
Kentucky	12	9	
Tennessee	5	4	
Louisiana	5	2	
Arkansas	3	4	
Texas	9	7	
Central States	85		86
Ohio	48	47	
Indiana	6	9	
Illinois	15	19	
Michigan	16	11	
Middle Western States	39		28
Missouri	10	5	
Kansas	1	2	
Wisconsin	6	5	
Minnesota	6	2	
Iowa	6	8	
Nebraska	4	3	
Oklahoma	6	2	
Wyoming	–	1	
North Western and Pacific Coast	14		18
South Dakota	1	1	
Montana	–	1	
Colorado	3	5	
Utah	2	–	
Arizona	–	1	
Washington	1	1	
Oregon	1	1	
California	6	7	
Idaho	–	1	
Foreign Countries	69		62
	2037		1963

SUMMER SESSION ATTENDANCE BY COURSES

Subject	*1922*	*1923*	*1924*	*1925*	*1926*	*1927*
Astronomy	—	12	16	21	22	19
Chemistry	134	189	165	211	201	205
Drawing and Painting	50	38	60	67	54	59
Economics	236	331	277	288	243	252
Education	166	315	392	434	500	365
Engineering:						
Shop Work	48	18	13	—	—	—
Drawing	18	27	13	7	15	10

	1922	1923	1924	1925	1926	1927
Descriptive Geometry	27	28	27	35	35	38
Kinematics	—	42	54	34	25	20
Mechanics	83	87	116	92	83	92
Hydraulics	20	21	26	16	22	27
Structural Engineering	63	90	115	88	96	105
English	465	591	595	611	607	590
Geography and Geology	315	247	280	231	175	220
German	60	39	75	62	69	51
Government	20	60	57	46	58	40
Greek	—	—	—	—	10	5
Health Education	—	—	—	28	37	31
History	218	268	245	248	269	320
Hygiene	—	12	22	—	—	—
Latin	48	42	66	60	24	75
Mathematics	319	268	293	220	246	236
Music	38	115	114	104	122	162
Philosophy	99	124	115	120	125	115
Physical Education	33	116	153	50	113	188
Physics	186	155	132	100	129	110
Psychology	201	164	208	180	183	117
Public Speaking	114	145	146	147	183	168
Romance Languages:						
French	205	185	185	210	214	202
Spanish	83	80	75	63	59	62
	3274	3629	4035	3773	3919	3884

SUMMER SCHOOL OF BIOLOGY

Botany	57	47	49	61	46
Zoology	55	83	75	90	70
Botany and Zoology (courses dealing with both Plants and Animals)	13	20	13	32	27
	125	150	137	183	143

SUMMER SCHOOL OF LAW

First term	37	62	105	84	77
Second term	32	63	100	79	60
	69	125	205	163	137

COST PER STUDENT HOUR (1927)

Subject	*Student Hours*	*Cost*	*Cost per Student Hour*
Astronomy	43	$ 375	8.72
Chemistry	704	4725	6.71
Drawing and Painting	114	975	9.55
Economics	638	2950	4.62
Education	724	3787.50	5.21
Engineering	906	7050	7.78
Descriptive Geometry	84	575	6.84
Mechanical Drawing	33	750	22.72
Mechanics	266	1500	5.64
Hydraulics	108	750	6.94
Structural Engineering	178	1975	11.09
Highway Engineering	186	750	4.03
Kinematics	51	750	14.70

English	1097		5450		4.97	
Geography and Geology	365		3300		9.04	
German	152		1500		9.86	
Government	80		750		9.37	
History	644		4125		6.40	
Latin	147		1500		10.20	
Greek	20		575		28.75	
Mathematics	816		5900		7.22	
Music	280		1925		6.87	
Philosophy	234		1325		5.66	
Physical Education	215		3775		17.55	
Hygiene	52		1150		22.11	
Physics	390		3975		10.19	
Psychology	229		2500		10.91	
Public Speaking	315		3162.50		10.04	
Romance Languages	732		4300		5.87	
French		552		2550		4.62
Spanish		180		1750		9.72
	8897		$65075		7.31	

In studying the general tables of enrollment you will notice that the total attendance upon all departments offering Summer Session work was 2053 as against a total for the Session of 1926 of 2133, and of 1925 which was 2023. The decreased enrollment was distributed between the three departments of the Summer Session; a decrease of 60 in the Summer Session, of 52 in the Summer School of Agriculture, and of 6 in the Summer Session of Law. The percentage of decrease was then largest in the Summer School of Agriculture, and next in the Summer Session. The undergraduates of Cornell in attendance were 285 as against 332 in 1926, and graduates of Cornell were 85 as against 99 in 1926, whereas there was a marked increase in undergraduates of other institutions, of graduates of other institutions, and also an increase in the number of students holding Normal School diplomas. The decrease in number of Cornell undergraduates was caused undoubtedly by stricter regulations enforced this year for the first time, whereby students who had been dropped from the various colleges were not allowed to take Summer Session work, and more rigorous restrictions were enforced in the case of any students who had failed in their work, a number of these being denied admission to the school. The fact that there was a larger attendance of high and elementary school teachers than in past years is very encouraging, as is also the fact that there was an increase in the number of graduate students registered. In the light of these increases there is reason to believe that we are succeeding in our attempt to attract a more mature and serious type of students than in the past, and for this reason there is no cause for concern in the relatively light decrease as compared with the figures of last year.

The second table covering geographical distribution shows gratifying increases in Pennsylvania, New Jersey, and the other Middle States, but shows a definite falling off in enrollment from New York State. The other parts of the country show no significant changes.

The table showing attendance by courses indicates very satisfactory increases in Economics, Geography and Geology, History, Music, Latin, and Physical Education. The Education courses showed a marked decrease, the reason for which will be discussed later. Most gratifying of the increases were those in Latin, History, and Geography.

The fourth table showing cost per student hour for each department shows a general increase in cost due to the increased salary schedule. The policy of the Administrative Board in cautioning departments which show a high per capita cost that they must be more conservative in their offering seems to bear fruit, for the relative cost in most departments which were very high in 1926 has been brought down to a more reasonable figure. The expense of the Department of

Physical Education is still greater than would be permanently justifiable, but it must be remembered that this Department was only in its second year and that the enrollment showed a satisfactory increase, so that there is reason to believe that it is filling a real need, and that it will continue to grow satisfactorily. A problem is created by the courses offered in Hygiene. These do not seem to have met a popular demand, but some constructive suggestions have been made for changing the type of courses so that the experiment should probably be continued for another year. This work is so vitally important that a determined effort should be made to present courses which will be attractive to teachers and others.

The offerings in the Departments of Education were brought closer together this year through the operation of the Division of Education. The courses offered by the two departments were pooled in the announcement under the head of the Division of Education, with the result that many students enrolling did not discriminate as in the past between registration in the Summer Session and registration in the Summer School of Agriculture. It is probable that the falling off in the enrollment in the Summer Session courses in Education was caused by this pooling of resources. This is not a matter serious enough to cause any concern on the financial side at the present time, but does point out the desirability of having the same tuition fee charged in the Summer School of Agriculture as in the Summer Session proper for the summer work. Another factor which cut down somewhat the enrollment is the increasing tendency of undergraduates to fulfill State requirements for their certificates before receiving the diploma, thus reducing the number of teachers who come into Summer Session for the purpose of making up certificate requirements in the various States. All Pennsylvania teachers are now required to do this work as undergraduates and the tendency of the State Departments of New York and New Jersey is toward the same end. The number taking such courses this summer was reduced from 111 in 1926 to 87 in 1927. It is probable that this group will continue to show a falling-off in succeeding years. This loss will have to be made up by increased emphasis upon graduate courses attractive enough to be elected by teachers wishing to advance themselves professionally.

The needs of graduate students, of whom we have continued to get an increasing number, were considered very carefully in making up the program of work offered and provision was made for additional courses especially in the fields of English, History, Mathematics, and Physics. The result in graduate students enrolled in each of these departments more than justified the added expense, and emphasizes the need for additional graduate courses in these and in other Departments. The ultimate result of this move will of course be to increase costs, for the graduate courses must necessarily be small in size and the work distributed so as not to entail undue burden upon the instructors. Your Administrative Board wishes to continue this policy of strengthening the graduate instruction as rapidly as the financial resources of the Summer Session and of the University will permit. The new regulation recently passed by the Graduate School upon the recommendation of the Summer Session, by which graduate fees for Summer Session registration will be reduced beginning with the summer of 1928 to a par with the fees paid by the graduate students during the academic year, will reduce the fees received from those students who are earnestly working toward the M.A. or Ph.D. degrees. It is expected that this loss will be met by an increased graduate enrollment, but this increase is not of course assured. The principle, however, is just and the Trustees are to be commended for approving it. Another factor which must be considered in this connection is the increasing number of graduate students who are registering for personal direction work during the summer, but who do not register in the Summer Session or pay Summer Session fees. These students would not in most cases find it possible to carry on their work through the summer were it not that a large percentage of the staff of instruction is kept on the campus on account of giving instruction in the Summer Session. There were more than 100 students who were so registered for summer work in 1927. It would seem that such students ought to share to a somewhat greater extent in meeting the expense of the Session. Just how this can be arranged is not entirely

clear, but it is presented as a problem for joint consideration by this Administrative Board and by the Graduate School.

In the report of your Administrative Board for 1926 attention was called to the increased load on the University Library. This load was even heavier during the summer of 1927 than in past years, and the Administrative Board was compelled to make a larger appropriation for support of the Library than in the past. This appropriation was used to pay for additional staff appointments and none of it could be used for adding books to the Library. The Department of Education is especially handicapped by the very limited number of books on Education now in the Library, and yet the funds of the Summer Session do not permit further accessions. The problem is a serious one and it is hoped that some solution may be found.

Since it was not a part of the Summer Session it perhaps should not be mentioned here, and yet its significance was so marked that it is not inappropriate to say that the institute held with the cooperation of our own School of Engineering under the auspices of the American Society of Mechanical Engineers opens a field for possible future development in our general offering. The success of this institute was so marked, bringing as it did representatives of all of the best Engineering Schools of America to our campus for instruction in the best methods of the teaching of Mechanics, that it opens the question as to whether it would not be wise for our Summer Session to consider the incorporation of courses for college instructors as a part of its regular work. This is a development which offers rather large possibilities and so should be given very serious consideration.

The morale of the Summer Session body, which has been steadily improving for the last few years, again showed an improvement over last year. It was almost universally felt by instructors that the classroom attitude and work of the students was the best that we have yet had. The tone of the student body both with regard to meeting academic requirements and to observing a better personal code of conduct was undoubtedly higher than ever before. There will inevitably be some misconduct among summer students, just as there is some misconduct during the academic year, but it is believed that this has been reduced to a minimum and except in minor details it would seem that we should be satisfied if we can maintain the standard set during the Session just closed.

Your Administrative Board does not wish at this time to make any further suggestions for changes in preparation for the Session of 1928. It does, however, wish to consider seriously any changes which may be suggested by you or by others, and holds itself in readiness to act upon such suggestions whenever they are made. You are, therefore, urged to bring to our attention any matters which in your judgment deserve such consideration.

R. H. JORDAN,
Chairman of the Summer Session.

APPENDIX XIV
REPORT OF THE DEAN OF WOMEN

To the President of the University:

SIR: I have the honor to submit to you the following report of the Dean of Women, for the year 1927–28.

RESIDENTIAL SITUATION

The registration of women students for the year 1927–28 was 61 less than the previous year. The residential situation was changed somewhat in that two houses on Wait Avenue were torn down to make room for the new dormitory. In their places were used one at 806 E. Seneca Street and one at 308 Eddy Street, both belonging to the Cascadilla group. The distribution of women students by residence and by classes was as follows:

DISTRIBUTION BY CLASSES

	First Term	*Second Term*
Freshmen	284	276
Sophomores	286	274
Juniors	257	246
Seniors	251	225
Total	1078	1021
Graduates	129	131
Specials	24	18
Medical students in New York City	34	35
Grand Total	1265	1205

DISTRIBUTION BY RESIDENCE

	First Term	*Second Term*
Risley	188	187
Sage	176	166
Approved Houses	130	125
University Houses	149	137
Sorority Houses	223	223
Special Permission	30	21
Earning room and board	34	29
Home in Ithaca	149	132
Sigma Delta Epsilon	11	11

EMPLOYMENT AND HOUSING

Miss Ruby Howe, (A.B., Vermont, M.A., Columbia) came in September, 1927, as Assistant to the Dean of Women, her special department being connected with the employment and housing of women students. Under her management the number of employers and students registering for work of some kind has trebled over the previous year. One hundred and eighty different persons have asked for student assistance of some kind. Six hundred and seven placements have been made, the greater part through this office. About 435 girls (35%) have assisted themselves in some way financially this year, the sums earned amounting to some $60,000. Fifty different kinds of work are represented, such as addressing envelopes, filing, secretarial work, dusting books, serving at teas and dinners, unpacking china, mounting slides, selling candy, running a loan library, etc.

Miss Howe has personally visited all houses where women students are permitted to live, in order to know the actual physical conditions in each place. The housing of graduate women is the most unsatisfactory part of the housing situation, there being no place where groups may live. This situation has been more acute since Sigma Delta Epsilon (scientific honorary) gave up its house. It may, perhaps, be possible to make some provision for them after the completion of the new dormitory which will release the University houses on East Avenue.

SOCIAL LIFE

Three hundred forty-five social affairs the past year required the approval of chaperons, since both men and women were present. Of these, 64 were house parties. The total number of affairs exceeded that of last year by 30.

GOVERNMENT

The Women's Self Government Association has functioned well, and on the whole the women students have cooperated in making the year a success in that regard. The Judiciary Committee had five cases, none being extremely serious. The W. S. G. A. will help plan the necessary reorganization to meet the situation arising with the change to the new dormitory in 1929.

LOANS

All loan funds have been almost depleted this year because of extra demands. Whether this was because of unusual financial conditions at home or because the existence of the fund had not previously been well known to many, is not possible to say. The Women Students Loan Fund, the Women's Guild Sick Fund, the Alumnae Fund (established by Cornell Alumnae), the Dearstyne Fund, have all contributed to meet the demands. Aside from these, the Ithaca Branch of the American Association of University Women has granted a loan of $135 to a senior woman, and the Ithaca chapter of P. E. O. has granted a loan to a graduate woman to enable her to complete her work this year. In all, $14,844.08 has been loaned to 84 different women students. The distribution has been as follows:

	Grad.		*1928*		*1929*		*1930*		*1931*		*Total*	
	Am't	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No*
W. S. L. F.	$ 500	2	$7005	32	$3944	18	$1,673.00	10	——	–	$13,122.00	62
W. G. S. F.	750	3	57	1	——	—	40.08	2	——	–	847.08	6
Alumnae	15	1	210	6	100	2	70.00	2	——	–	395.00	11
Dearstyne	——	–	110	2	——	—	100.00	1	——	–	210.00	3
A. A. U. W.	——	–	135	1	——	—	——	—	——	–	135.00	1
P. E. O.	135	1	——	—	——	—	——	—	——	–	135.00	1
Grand totals	$1400	7	$7517	42	$4044	20	$1,883.05	15	——	–	$14,884.08	84

PERSONNEL AND VOCATIONAL WORK

The personnel work has more than doubled in amount since last year, but even so, the possibilities are scarcely touched. It is the hope of the Dean of Women that some time before long, this office may be permitted to develop this important work to its limit, requiring all women students to come in for consultation in an attempt to help with necessary adjustments early in the college career, thus avoiding some of the great waste in emotion, energy, time, and money.

A number of out-of-town speakers have been here to give suggestions regarding various vocations, and the personal work along that line has been continued all year by the Dean of Women. Consultations thus far have been purely voluntary, the initiative coming from the students.

Miss Eleanor Simonds, A.B., Knox, came in September as secretarial assistant, and through her management the business efficiency of the office has greatly increased. Aside from attention to individual record cards, accounts, correspondence, etc., she has compiled valuable statistics, records, and information.

R. Louise Fitch,
Dean of Women.

APPENDIX XV
REPORT OF THE REGISTRAR

To the President of the University:

Sir: I have the honor to submit herewith my thirty-second annual report as Registrar of the University. The report covers the academic year 1927–28 including the Summer Session of 1927.

THE YEAR

	Days in Session	Sundays	Holidays	Vacation	Total
Summer vacation, June 14—July 4	..	..	..	21	21
Summer Session, July 5—Aug. 13	35	5	..	.	40
Summer vacation, Aug. 14—Sept. 25	.	..	..	43	43
First term, Sept. 26—Feb. 8	101½	15	..	..	116½
Thanksgiving vacation	..	..	..	4	4
Christmas vacation, Dec. 17—Jan 2	..	..	.	15½	15½
First term, vacation, Feb. 8	..	..	..	1	1
Spring vacation, Mar. 31—Apr. 9	..	..	..	8½	8½
Second term, Feb. 10—June 18	103½	17	1	..	121½

The following table shows the age in years and months of students at graduation for the ten year classes 1870–1925. It also shows the age separately for men and women. The Master's degrees are listed in one group and the Doctor's in another. The age at graduation of the youngest member of the graduating class and also that of the oldest member are given as well as the median age.

	Arts		Law		Medicine		Veterinary		Agriculture		Architecture		Civil Eng.		Mech. Eng.		Masters		Doctors		War Al.
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Class of 1870:																					
Minimum....	20– 4																26– 0				
Median.....	21–11																26– 0				
Maximum...	28– 5																26– 0				
Class of 1880:																					
Minimum:	18–11	19– 8							20– 6		19– 6		21– 0		23– 0		29– 3			22– 9	
Median.....	22– 3	22– 2							21– 0		21– 5		22– 8		25– 1		29– 3			22– 9	
Maximum.	32– 8	24– 6							30– 0		23– 5		25– 9		28– 1		29– 3			22– 9	
Class of 1890:																					
Minimum....	19– 9	20–11	20– 1						20– 1		20– 7		19– 2		20– 2		20– 7	23– 5	28–10		
Median.....	22– 4	23– 0	22– 6						23– 2		23– 9		22–11		23– 1		24– 1	26–10	29– 6		
Maximum...	32– 6	27– 1	36– 2						25– 3		26–11		27–10		36– 1		29–10	31– 5	30– 3		
Class of 1900:																					
Minimum....	20– 0	20– 6	19– 6		21– 3	23– 6	22– 6		22– 7		21– 2		20–11		19– 9		22– 0	21–11	24– 0	30– 8	
Median.....	22–10	22–11	22– 5		24– 5	26– 9	25– 1		23–10		23– 0		23–10		22–10		24– 9	36– 6	30–10	31– 3	
Maximum. .	36– 3	33– 8	34– 4		38– 4	38– 2	34– 9		28– 2		28– 1		28– 8		30– 0		40– 2	42– 0	41– 0	33– 0	
Class of 1905:																					
Minimum....	19–11	20– 6	20– 9	22– 1	20– 9	21–10	20–11		20– 9	27– 6	22– 9		20–		20– 4		21– 4	23–11	23– 5	37– 5	
Median.....	22– 6	22–10	23– 5	22– 1	23– 6	29–10	25– 5		23–10	27– 6	24– 4		24– 1		23– 3		25– 1	29– 3	31– 2	37– 5	
Maximum...	33–10	52– 5	29– 3	22– 1	38–10	38– 4	33– 0		38– 3	27– 6	30– 0		33– 8		32– 6		36– 1	32– 5	40– 4	37– 5	
Class of 1910:																					
Minimum....	20– 1	20– 8	20–10	22– 6	21– 3	27– 6	21– 0	24– 8	20– 9	21–10	22– 3		19– 9		20– 2		21– 7	29– 8	23– 0	26– 5	
Median.....	22– 5	22– 6	22–10	22– 6	23– 9	30– 8	23– 7	24– 8	24– 0	23– 0	23– 0		23– 5		22–11		26– 1	29– 8	28–10	29– 6	
Maximum....	34– 7	45– 2	26– 9	22– 6	33– 9	39–11	47– 0	24– 8	34–10	24– 2	36– 4		31–11		32– 7		32– 4	29– 8	38– 7	36– 1	
Class of 1915:																					
Minimum....	20– 1	20– 0	20– 5		23– 6	26– 4	20– 7		20– 2	20– 8	20– 4		20– 7		20– 1		24– 6	24– 7	25– 6	28– 2	
Median.....	22– 6	22– 5	22–10		25–10	27– 3	23– 0		23– 7	23– 4	23– 9		22– 8		22–10		27–10	28– 5	29– 4		
Maximum...	34– 4	36– 5	32– 3		31– 9	40– 5	43– 5		40– 8	40– 5	36– 0		32–11		27–10		42– 1	42– 0	42– 1	34– 0	
Class of 1920:																					
Minimum....	16– 9	20– 6	20–11	21– 4	23– 9	23– 9	21– 7		19– 9	20– 3	21–11		19– 8	34– 7	20– 8		21– 4	20– 9	24– 9	25– 8	19–10
Median.....	22– 6	22– 3	22–11		26– 8	26– 6	25– 0		23–10	22–10	24– 8		23– 6		23– 5		24–10	26– 0	30–11	30– 7	24– 9
Maximum...	33– 2	44– 5	29–11	26–10	30–10	44– 1	32– 0		43–11	38– 2	31– 0		33– 6	34– 7	28– 2		51– 6	47– 6	49– 9	45– 4	69– 9
Class of 1925:																					
Minimum....	19– 4	19– 7	21– 7		23– 1	25– 2	20– 9	22– 9	20– 3	19– 1	23– 1	20– 7	20– 4		20– 4	23– 7	20– 1	19– 8	23– 4	30– 4	
Median.....	22– 0	22– 0	23– 8		25– 9	27– 4	24– 0		23– 3	22– 7	24–11	22– 8	22– 8		22–10		26– 8	24–11	28– 8	40– 2	
Maximum...	29– 7	30– 1	33– 1		32–11	34– 2	38– 2	25– 7	45– 3	35– 2	31– 6	26– 1	28– 3		34– 6	23– 7	43– 6	43–10	47– 4	52– 2	

STUDENTS

The accompanying table shows the attendance for 1927–28, gives the number of students who have received instruction this year, including those in the 1927 Summer Session, in the 1927 Summer School of Agriculture, in the 1927–28 Winter Courses in Agriculture, and the Summer School in Law, but excluding duplicates, as 7359.

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

MATRICULATES

The following table shows that 2551 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	219	Coll. Ent. Board Exams.	28
Advanced standing	235	Medical (N. Y. C.)	49
Regents' credentials	570	Summer Session (1927)	701
School certificates	405	Summer School in Agr. (1927)	266
By examination	6	Summer Grad. (Per. Dir.)	6
As special students	28	Summer Law School	38
Total			2551

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.

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 list 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 the tables.

The number of students admitted to advanced standing as candidates for the first degree during the past forty-two 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.	Agr.	Arch.	Civil Eng.	Mech. Eng.	For-estry	Law*	Vet.	Med.	No. of Cases
1886–87	2	8	1	4	1	4	6	18					50
1887–88	6	4	1	1			11	10			.		37
1888–89	5		6	5	2	2	12	21		.			64
1889–90	4	5	6	3	2	1	2	25					50
1890–91	8	8	2	4	1		14	28					69
1891–92	7	9	2	5	2	2	10	52	.				90
1892–93	6	6	1	8		6	11	44					87
1893–94	5	6	5	8		6	6	56	.			.	98
1894–95	4	2	3	3	2	3	6	44		.			71
1895–96	5	11	4	7	3	3	9	33		.			85
1896–97	10	4	2	4	3	3	11	42	. .	12	5		100
1897–98	11	6		7	9	2	15	41		15	1		108
1898–99	27	6	1	7	4	3	16	56	1	6	2		134
1899–00	28	. .		1	5	3	25	64	1	7	4		138

Year	Arts	Phil.	Let.	Sci.	Agr.	Arch.	Civil Eng.	Mech. Eng.	For-estry	Law*	Vet.	Med.	No. of Cases
1900–01	37	.	.	..	4	6	6	64	3	10	2	2	134
1901–02	38		..	..	6	2	29	92	5	7	..	2	184
1902–03	33	..	..	..	8	2	24	105	9	12	1	..	194
1903–04	31	..	.	..	9	5	39	112	..	9	1	1	207
1904–05	29	..	.	..	9	5	44	101	..	3	..	..	191
1905–06	39	..	.	.	14	8	36	89	..	1	..	..	187
1906–07	40	.	..	.	19	5	55	86	.	15	..	..	220
1907–08	43	.	.	.	22	10	60	79	..	11	..	..	225
1908–09	37	.	.	.	21	10	53	71	..	5	1	5	203
1909–10	47	..	..	.	41	7	30	88	..	9	..	..	222
1910–11	41	.	..	.	44	8	44	47	..	11	..	.	195
1911–12	36	..	..	..	52	6	38	57	..	7	4	..	200

Year	Arts	Home Econ.	Agri.	Arch.	Engineering	Law	Vet.	Med.	No. of Cases
1912–13	57	..	76	8	83	7	1	..	232
1913–14	58	..	76	5	78	7	..	..	224
1914–15	70	..	87	5	93	7	1	6	269
1915–16	85	..	94	7	75	9	4	8	282
1916–17	76	.	84	9	73	9	2	10	263
1917–18	64		45	3	50	12	2	4	180
1918–19	87	.	52	3	79	11	6	6	244
1919–20	126	.	102	8	146	9	2	8	401
1920–21	75	.	68	13	134	5	5	3	303
1921–22	95	.	62	6	100	13	2	1	279
1922–23	61	..	74	14	75	7	6	5	242
1923–24	59	..	82	12	72	21	1	5	252
1924–25	60	..	90	13	62	41	3	6	275
1925–26	60	38	43	13	61	16	3	6	240
1926–27	70	34	36	6	68	13	5	7	239
1927–28	57	26	40	7	61	26	8	10	235

*No data prior to 1896–97.

Of the 235 admitted in 1927–28, 102 registered as freshmen, 99 as sophomores, 27 as juniors, 7 as seniors.

During the past forty-two years there have been admitted from 565 other institutions of collegiate rank 7,703 students. The distribution in general of these students can be seen by reference to the table on page xciii of the Report for the year 1907–08.

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

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

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

	'12–13	'13–14	'14–15	'15–16	'16–17	'17–18	'18–19	'19–20	'20–21	'21–22	'22–23	'23–24	'24–25	'25–26	'26–27	'27–28
Cert.	601	587	647	683	605	524	648	636	646	600	527	595	483	470	438	405
Regents	404	476	494	520	544	476	649	575	543	527	596	605	570	603	631	570
Examin.	11	6	9	28	9	7	4	12	7	8	4	2	9	11	6	6
C.E.E.B.	13	14	27	7	13	20	22	31	23	23	33	34	21	29	28	28
Total	1029	1083	1177	1238	1171	1027	1323	1254	1219	1157	1160	1236	1083	1113	1103	1009

The inserted table gives the number admitted to graduation. 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.

DAVID F. HOY,
Registrar

APPENDIX XVI
REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I herewith submit the annual report of the work and needs of the University Library for the year 1927–28.

The library has been open for use to the University officers and students for reference and home use and to all others for reference use 309 days during the year from 8 a.m. till 10:30 p.m. during the teaching periods, and from 9 a.m. till 5 p.m. during the vacation periods. The library was closed on New Year's day, Labor day, Thanksgiving and Christmas days.

The service to readers in the main library continues fairly satisfactory although the crowded condition of the stacks, causing books to be displaced or not kept in place at all, results in having to report more often books that cannot be found, and also increases the total number of books reported missing until found. This, together with the fact that the number of library workers is limited by the working space, results in the fact that a good many books that are ready for accessioning, classifying, and cataloguing are still scattered about the stacks and tower awaiting the needed room and workers to care for them. This makes the library service less satisfactory than it might be.

The opening of the library building on holidays such as July 4, when the regular staff must be given the holiday, calls attention sharply to the wrong construction of the present library building. Practically all libraries that open on holidays with a necessarily restricted force are able to close to the public such parts of the building as can not be properly supervised. Our library building is so constructed that once the doors are open the whole library is open, and users can go practically every place that they may go on days when the full library staff is on duty.

The provision made for the care and preservation of the rare and valuable books in the library is totally inadequate. The vault, so kindly contributed by Mr. Andrew Carnegie, is crowded to the limit of its capacity. The lock presses distributed about the stacks are far from complete protection. During every year we have evidence that someone has forced entry into these groups and the locks have had to be changed several times during the past few years for fear that someone had been able to have keys made to fit them.

All through the stacks, on open shelves, are standing books that are either already scarce or will become so in time, and for the service of the library in years to come these should be segregated, but there is no place to shelf them. It should be the duty of the custodian of rare books to go systematically over the shelves year after year and take out the rare items and shelve them where they can be used when needed but not accessible to those having no need for them. This means that the library should have a rare book room open only under the closest supervision. I know of no library where the rare books are so poorly protected as in our library where there are so many almost priceless items.

ACCESSIONS DIVISION

The total number of volumes, maps, manuscripts, etc., as shown by the accompanying table is 780,790. The additions to the general library number 10,807, of which 5,102 were received by gift or exchange. The balance, by purchase, is a small number when the amount expended for them is considered, and shows how the price of books and periodicals has increased. The demand for larger appropriations to the several subjects covered by the annual allowances is most insistent because of this increased price, but no additions can be made from the present income.

In addition to this general library increase, the special collections, within the library, such as the Dante, Petrarch, and Wason Chinese collections, have added some 1,700 volumes. From Mr. M. N. Crouse the library received 75 volumes on the Fascista movement, which the donor generously bound for the library. Mr.

Charles Mason Remey, of Washington, D. C., gave the library 80 volumes of architectural works and some 366 architectural photographs.

Among the more important additions made during the year are:

Geological Society of South Africa. Transactions. 1896–1927.
R. Accademia di Scienze Fisische. Napoli. Atti 1863–1927.
Archives historiques du Department de la Gironde. 1859–1920.
Paris Museum d'histoire naturelle. Annales. 1802–1920.
The Mask. 1–8. 1908–19.
Archives de zoologie experimentelle 1–11. 1872–83.
Archiv für die Geschichte der naturwissenschaften und der Technik 1–11. 1908–22.
Institut National Genevois. Bulletin. 1865–1919.
Belfast monthly magazine. 1–13. 1808–14.
Ireland. House of Commons. Journal. 1613–1794.
Naturwissenschaftlicher Verein Hamburg. Verhandlungen 1875–1881. 1894–1928.

The first installment of the British Headquarters maps and sketches, known as the Clinton maps, copied by photostat from the originals in the William Clements Library, Ann Arbor, Michigan, has reached the library. There are 72 maps and sketches received in exchange for photostat copies of the Washington maps that came to Cornell with the Jared Sparks collection. Additional copies of the Clinton maps may be expected as the demand for copies of the Washington maps arises.

Appended is a list of donors for the year 1927–28.

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

General Library, exclusive of the following		522,821
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 1883	13,000	
British Patents, gift 1868	3,108	
		53,786
Fiske Dante Collection, gift 1893	9,674	
Fiske Petrarch Collection, gift 1905	4,216	
Fiske Icelandic Collection, gift 1905	17,829	
Wason Collection, gift 1918	11,531	
Volumes of C. U. Theses Deposited	8,046	
Philological Seminary Collection	1,091	
Philosophical Seminary Collection	954	
German Seminary Collection	769	
French Seminary Collection	24	
Latin Seminary Collection	325	
American History Collection	616	
		55,075
Manuscripts	818	818
Maps in Cornell University Library	1,087	
C. U. Plans deposited	200	
U. S. Coast Survey Charts	950	
U. S. Geological Survey Topog. sheets	3,505	
U. S. Geological Survey Atlases	215	
British Geological Survey Maps	600	
		6,557

Gen. Law Library, gifts and purchases	50,943	
Moak Law Library, gift 1893	12,500	
Flower Veterinary Library, gift	6,094	
Barnes Hall Library, gift	2,879	
Goldwin Smith Hall Library	3,181	
Van Cleef Memorial Library	2,427	
Comstock Memorial Library	1,137	
Kuichling Collection, gift 1919	2,137	
Architectural College Library	1,607	
Economic Laboratory Collection	340	
Entomological Laboratory Collection	2,403	
Prudence Risley Hall Collection	841	
Gray Memorial Library	543	
Chemistry Library, Special	76	
		87,918
N. Y. S. College of Agriculture Library	51,056	
New York State Forest College Library	1,181	
New York State Plant Pathology Collection	424	
Physics Library	1,154	
		780,790

PERIODICAL DIVISION

The crowded condition of the periodical room restricts the number of current issues and bound volumes that can be placed on open shelves for ready reference. The removal of the mathematical periodicals to the newly assembled group of mathematics in White Hall has given a little additional space for some crowded sections.

Periodicals currently received:

By subscription	1,275
By gift and exchange	1,123
Number of bound volumes on open shelves	3,578
Current periodicals on open shelves	732
Volumes of periodicals bound	3,388

The use of periodicals, both current and bound, is increasing rapidly. The value of the new Union list of serials is evident in connection with the consultation of periodicals, as it not only gives the run of those kept in the room but serves as a catalogue of those kept in other parts of the library.

CLASSIFICATION AND SHELF DIVISION

The union of these divisions under one head, which took place at the beginning of the present year, has proved advantageous. The close relation between the books classified and the finding of space and caring for them on the shelves calls for constant planning and supervision and the services of the former supervisor of shelves, who was transferred to the classification work, has made it possible to continue the difficult work of shelving books without the interruption that would have come with a new supervisor. The pinch for room is naturally more acute here than elsewhere because the books must be kept in order or the service to readers cannot function. How much longer it is going to be possible to do this it is difficult to say. Already some dislocations have become necessary and this has had its effect on the service. Some 1200 presses have been moved during the year and eight new presses have been added where no book presses were originally planned for.

Number of volumes classified	11,438
Number of volumes reclassified	150
Number of volumes missing from shelves	755
Number of volumes found misplaced	600

CATALOGUE DIVISION

The work of the catalogue division has gone on in the usual manner. The cataloguing has been brought more nearly up to date than in some time past, due to the fact that more workers have been engaged in cataloguing. Besides the nornal accessions, some special groups from the accumulated materials have been dealt with. The Walt Whitman materials, and in part, the Wordsworth collection have been shelved. Lack of working space for more cataloguers prevents increasing the workers in this division which is necessary if much progress is to be made on the accumulated materials received from the Loewy estate.

Number of volumes catalogued	14,663
Number of maps catalogued	160
Number of manuscripts catalogued	22
Number of titles added to catalogue	7,947
Number of written cards added	12,614
Number of printed cards added	10,773
Number of cards added to L. C. catalogue	30,288
Number of cards added to Harvard catalogue	3,200

READERS DIVISION

The readers division, which is so dependent on all the other divisions of the library, in spite of the difficulties of placing and finding materials, shows an increase over the previous years in serving the users. As no record is kept of the occasions when readers could not be supplied with what was wanted, it is not possible to say what could have been done with better facilities for service.

There were 1,946 registered borrowers for home use of which 800 were students. Eighty-nine other libraries also borrowed books for special work elsewhere and to these libraries were sent 596 volumes. Cornell borrowed books that could not be supplied from our library from 22 other libraries, a total of 169 volumes. This practice of interlibrary loans is becoming more and more useful in library service, and we are glad to be able to help other libraries in return for favors received, although the libraries from which we borrow are not necessarily the same as those to which we lend.

The recorded use made of the library is as follows:

Reading room use	123,855
Seminary rooms	5,524
Laboratory and department use	4,211
Home use	45,509
Foreign loans	596
Borrowed from other libraries	169

Besides this recorded use, books are placed about the library so that they may be used frequently without application, and of this use no record is made. To facilitate this, reserved groups of books are placed in the reading rooms, seminary rooms, and elsewhere. In all, some 23,484 were thus reserved during the year, some of which were allowed to go from the building over night and holidays, others not at all.

SPECIAL COLLECTIONS

Absence from the University of the curators of the Icelandic and Italian literature collections prevents me from giving any specific statements regarding conditions and additions to these collections, other than the totals recorded in the appended table. The Wason collection, dealing with China and the Chinese throughout the world, has been under the supervision of the joint curator of the White Historical collection and the Wason collection. The White collection is not accessioned separately from the general library and therefore no separate count is made of books added to history and allied subjects. Books are bought for this group from Sage funds, Warfare of Science funds, and the special grants made each year by the Trustees. To the Wason collection has been added 667

volumes making the total 11,531. The additions have been largely publications, printed since the death of the donor, as very little was added for some time pending the receipt of the income. Although all materials lacking could not be added, a large part has been, and another year should bring the collection pretty well up to date. Among the interesting titles added are:

Stein, Sir Aurel. Serinda. 5 v. 1921.

Canton register. v. 5, 8–10. 1832, 1835–37.

Callery, J. M. Journal des operationes diplomatiques de la légation francaise en chine. 1845.

Mémoires concernant l'historie, les sciences, les arts. . . des chinois. 16 v. 1775–1814.

Académie des Inscriptiones et Belles Lettres. Paris. Memoirs concernant l'Asie orientale. 3v. 1913–19.

DEPARTMENT LIBRARIES

The annual survey of the collections of books deposited from the general library in other buildings calls for some consideration. In the first place their removal is made necessary by the lack of shelving room in the main building. A building with a capacity for one-half a million of volumes cannot be made to house three-quarters of a million of volumes. But some features in connection with this removal are not wholly satisfactory. As has been said before, the books thus removed are not under the supervision of assistants responsible to the main library, and the assistants are, generally speaking, untrained in library work and, therefore, cannot be called upon to do the things necessary for the best use and preservation of the books so removed.

The annual inventory of books in the outlying libraries reveals the fact that too large a number of books are missing from these collections, either temporarily out of place or permanently gone. Every used collection of books must expect a small percent of this irregularity, but a lack of constant attendance and careful supervision when issued for use sooner or later causes many books to disappear, and their whereabouts become unknown.

The following is a rough list of the number of books recorded as missing from the several groups outside the library:

21 Laboratory collections	117
Architectural library	82
Chemistry	28
Civil Engineering library	75
Sibley College library	79
Electrical Engineering library	55
Entomological library	42
Van Cleef Memorial library	8
Barnes Hall library	46
Flower Veterinary library	23

The libraries of the College of Agriculture and the Law School are under special supervision and the missing books are not reported to the main library.

The foregoing brief summary of the present conditions of the University Library is aimed to keep in mind the serious situation confronting this division of the university work. The Cornell University Library is still the fourth largest university library in the United States and stands preeminently as rich in special materials that are attracting scholars. It seems, therefore, most unfortunate that the provisions for maintaining and using this great collection should remain so unsatisfactory.

WILLARD AUSTEN,
Librarian.

APPENDIX XVII

REPORT OF THE SECRETARY OF THE UNIVERSITY

To the President of the University:

SIR: Loans and grants from the University's student aid funds, exclusive of scholarships, during the year 1927–28 aggregated $54,839.13, of which $6,360 was in grants of money and the rest was in loans. The several funds contributing to this total were the F. W. Guiteau Fund for men (including the Guiteau Revolving Fund), $25,685.60; the Women Students' Loan Fund, $12,082; the Martin J. Insull Fund for loans to students in the College of Engineering, $2,742; the John Knickerbacker Fund, $8,700; the Albert and Olive Jonas Fund, $700 in grants to needy students; the Women's Guild Fund, $1,144.53 in gifts and loans for the pecuniary relief of sick students; and several minor funds for the benefit of special groups or colleges, $3,785.

The six major funds named above are, all except the Knickerbacker Fund, administered for the Trustees by the Committee on Student Loan Funds, consisting of the President, the Treasurer, the Registrar, and the Secretary of the University. The Secretary's office has kept a record of the distribution of their benefits to students during the year. Graduate students received 11 per cent of their benefits; seniors, 53 per cent; juniors, 25 per cent; sophomores, 10 per cent; and freshmen, 1 per cent. The total of $51,054.13 disbursed by those six funds was distributed among the University's major divisions as follows: to graduate students in the Graduate School, the Law School, and the Medical College, $5,991.26; to the College of Arts and Sciences, $17,489.27; to the College of Architecture, $3,042.10; to the College of Engineering, $10,931.50; and to the three State colleges, $13,600.

Loans from the Guiteau and Insull Funds were granted to 152 men during the year and the average loan from those sources was $187.02. Loans from the Women Students' Loan Fund were granted to 52 women and the average loan from that source was $232.35.

The sum of the loans from the Women Students' Loan Fund during the year, $12,082, was large beyond any precedent, but the fact that three-fifths of the sum was lent to members of a single class, that of 1928, suggests that the year's heavy draft from the fund was an abnormal occurrence. Being a revolving fund, this source of aid ought to maintain an approximate parity between the amount of loans and the amount of income from repayments.

The principal sum of the F. W. Guiteau Loan Fund was increased during the fiscal year to $483,707.11, being augmented by $22,286.73 received in repayment of the principal and interest of loans to former students. The income of this fund is now growing at the rate of about $1,000 a year. By the terms of Mr. Guiteau's bequest, it is available only for aid to young men. Mr. Martin J. Insull '93 added $2,000 in the course of the year to the Insull Fund for loans to students of engineering, and Mr. John Knickerbacker '87 continued his generous maintenance of the very useful Knickerbacker Fund.

WOODFORD PATTERSON,
Secretary of the University.

Publisher's Note.—No list of the publications of the Univirsity staff was compiled for 1927–28.