

# CORNELL ALUMNI NEWS

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## \*REPORT

OF THE

### HON. JOHN DeWITT WARNER, ALUMNI TRUSTEE RETIRING IN 1899.

In accordance with Article III, Section 1, of the By-Laws of the Associate Alumni, which reads as follows: "Each trustee representing the alumni shall make a written report to the association at the end of his term of office, and such report may be made either jointly or separately by the retiring trustees," the following report has been written by the Hon. John DeWitt Warner:

CORNELL UNIVERSITY, June 22nd, 1899.

#### TO THE ALUMNI:

In accord with your action in 1895, I now present, at the end of my term, my report on University affairs.

Since it was my privilege in 1883, to inaugurate the practice, such a report has I believe, been rendered in turn by every Alumnus whom you have placed in the Board of Trustees. So full have been the suggestions of those who have preceded me, and so generally familiar are you with the progress, status and prospects of the University, that it would be superfluous for me to attempt more than summarily to note the present conditions and outlook.

#### FINANCES.

Not to repeat here the story of Cornell's late rapid growth in all that makes a University, her material assets may be thus summarized:—

Income producing funds . . . . .	\$ 6,500,000
Unproductive investments (mainly Western lands awaiting sale) . .	1,000,000
Capital investments for University purposes—real estate . . . . .	2,000,000
Personalty . . . . .	1,200,000
Total . . . . .	\$10,700,000

For the current year the income of the University will have been as follows:—

From investments (including State Endowment Scrip) . . . . .	\$360,000
Tuition . . . . .	155,000
Special department charges, (chemical, etc.) . . . . .	40,000
Rents of campus, etc., property . . . . .	20,000
Congressional appropriations . . . . .	37,500
State do. (for special accounts) . . . . .	70,000
Current subsidy (Medical Dept.) . . . . .	45,000
Miscellaneous . . . . .	10,000
Total . . . . .	\$737,000

For the same period the expenditures will have been; say:—

Salaries of Professors, Instructors, etc., (above 200 in number) . . . . .	\$360,000
Library (including Law and Veterinary do.) . . . . .	41,000
Scholarships and Fellowships . . . . .	25,000
Current maintenance, (equipment, printing publications, wages, labor, taxes, insurance, light, heat, power, business office, legal expenses, etc., etc.) say . . . . .	246,000
Net additions to permanent plant (exclusive of Library) . . . . .	75,000
Totals . . . . .	\$737,000

In this connection two points should be noted:—

*First*, Cornell's original endowment has no further possibilities. Not merely is \$1,000,000 a liberal estimate of the present worth of the University's unsold Western lands and temporarily unproductive investments, but no probable realization upon them can add to capital at a rate greater than needed to make good the declining rate of interest. In this conclusion, the fact that the Medical College subsidy cannot be permanently counted upon as an income item, is not a factor; since I consider it entirely probable that before the time at which it will be no longer available, the increase in tuition fees in that department will have made it unnecessary.

*Second*, the standard of expenditure must rise rather than fall in two important regards:—(a) The tendency of University education is toward special work of high grade, constantly involving larger expenditure in equipment. (b) As to salaries, not merely are they twice as high at Cornell as in 1880 (if measured either by comforts procurable thereby or the capital now necessary to procure them), but it is probable that true economy will soon be subserved by such an "evening up," as shall cause the normal salary of a Cornell professor to be fixed at four thousand dollars, which (local circumstances considered), would make them equal to the highest corresponding salaries paid elsewhere.

\*Owing to circumstances some portions of this report have not been revised by Mr. Warner.

Late conditions have tested the policy and methods adopted by the University in handling its investments. We have already long benefited by the enterprise of our trustees which has secured us an average annual income from capital of from 1 per cent. to 2 per cent. higher than that realized in similar cases about us. We have now tested their prudence. Of that part of the total capital—say \$5,800,000,—directly invested by the Trustees, the amount of principal either lost or in apparent danger of depletion, has aggregated less than \$175,000; and this is mainly as the result of investments in well-reputed railroad bonds or mortgages on City real estate. Our experience may therefore be thus summed up:—By keeping our funds so largely invested on the security of live contracts for lumber lands, or in small farm mortgages, or in local bonds of counties or small cities in the West, our annual income on investments has been at from 1½ per cent. to 2 per cent. higher rate than could otherwise have been secured; and, even tested by the extraordinary strain to which for years of late such investments were subjected, these securities have proven more safe than others of supposed high class.

To illustrate: The income of the University has averaged say \$100,000 more per annum than could have been secured from other available investments. From this about \$25,000 has been annually set aside as an insurance fund to meet losses from bad investments. This provision has proved so much more than ample to meet such losses that not merely has our prin-



HON. JOHN DEWITT WARNER.

cipal been thus kept good and our productive funds never reduced one dollar by such losses, but from the superfluous accumulations of this insurance fund have been met most of the late building operations of the University—\$100,000 having been thus used within the past few years.\*

#### ATTENDANCE.

Counting special, etc. students, the total attendance during the year will have been at least two thousand five hundred, and the average attendance of university grade students throughout the college year say twenty-one hundred, or, omitting Medical, Veterinary and Forestry students, say eighteen hundred—about the same as in 1893-4—five years since, when these departments had no existence.

Moreover this record is one not simply of holding our own—which, in view of the depression through which we have passed, would be a good one—but rather of surprising growth, when it is recalled that a steady raising of the standard for entrance has each year excluded a greater proportion of those who, five years since, would have been admitted.

The standard of scholarship enforced has been on the whole steadily raised, not merely by addition to the requirements, but also by the increasing strictness with which the standard set has been adhered to. From and after 1897, Cornell entrance examinations have assured an undergraduate body as well fitted to benefit by University instruction as that of any of our rivals: and after 1900 a Cornell degree will be in every department, as it now is in most, inferior to that of no other institution as a guarantee of the liberal culture of the one who holds it.

In this connection it is interesting to note the effect upon standards of the policy lately adopted in the general courses, of requiring neither Latin nor Greek, provided equivalents are offered, and giving the Bachelor of Arts degree for four years of University work in any of these courses. The soundness of the reasoning on which this plan was based had long been admitted by many who still feared that any toleration of equivalents for Greek and Latin would attract less mature students, and therefore practically lower

\*Note. The above statement though made as of date June, 1899, holds good as of the date when this is "passed" for printing—December 1, 1899. The statement of Ex-Auditor Scott as to Cornell's losses in Western Kansas, printed in New York Sun, of November 30, 1899, is without foundation—the University never having loaned any money on Mortgages, or owned an acre of land in Western Kansas, and having never abandoned, or dreamed of abandoning, or had cause to abandon any Kansas lands.

our standards for admission and graduation. The event has proved the contrary. In adjusting these equivalents (in German, French and Mathematics,) Cornell seems to have "leaned backward" in her stiffness. Since they went into effect not merely has the proportion greatly increased of those who, on entrance, offer Greek or Latin or both; but we have now to deal with an unexpected problem—the fact that our classical requirements (at the highest American standard) are found so much less severe than the alternatives permitted, that a steadily increasing number, who do not intend to take advanced Greek or Latin in the University classes, offer them for their entrance examinations—as the preparation which, compared with the equivalents permitted, they can make with least of time and study.

While this situation is one to be dealt with rather than commended, it certainly indicates that Cornell's degree of Bachelor of Arts will not be cheapened by her bestowal of it upon the more mature and more fully prepared students to whom she proposes to give it.

#### THE SEVERAL DEPARTMENTS.

Summary as must be any mention here of separate departments, it is hardly possible to give even a bird's eye view of the University without attempting this.

##### ART AND ARCHÆOLOGY.

Though no department covering these fields has been organized, a comparatively small expenditure would well equip it from the start. A net addition of perhaps two full professors—who could also give special courses in other departments, as some of those now assigned elsewhere might then do in this—would make up a strong special faculty. Our collections are already so large and becoming so well known throughout an extended region about us, and their presence is so steadily attracting additions to them, as to make it a most interesting question whether Cornell could not best serve herself and the public by establishing a department in Art and Archæology, with museum and full special faculty. The direct aid which such a department would give to others in the University—in especial those in Classics, History and Architecture—can scarcely be over-estimated. And once thoroughly established as the art center of the populous region about it, the University Museum would receive a constantly increasing stream of gifts from those whose affection for what they had been at such pains to gather, would prompt them to place it where it could be most surely preserved as a part of a choice and permanent collection.

##### GREEK.

Cornell's Greek department has always been a creditable one; while the work of its professor at the American School of Classical studies at Athens, during his sabbatical year; the decipherment by Andrews, '95, (now our instructor in Classic Archæology) of a lost inscription on the Parthenon, by study of the nail prints by which the letters had been affixed; and the large share of this department in the Cornell publication "*Classical Studies*" all have brought it into most creditable prominence.

In this latter regard Mr. Ferguson's treatise on the Athenian Secretaries, and that of Mr. Bates on the organization of the so-called Kleisthenæic Tribes have called forth most appreciative notice from German philological journals.

The most noteworthy item in this connection is the probable loss of Professor Wheeler, by call to the Presidency of the University of California. In one sense it is irreparable. In another, it has been lessened by the rare extent to which Professor Wheeler attracted and encouraged strong men in his department; so that, as compared with the time when it seemed hopeless to expect to fill Professor Albert S. Wheeler's place, or the occasion when a successor was sought for Professor Flagg, not merely has the department of Greek every prospect of creditable prominence under Professor Bristol, but Professor Wheeler's retirement gives occasion for a much needed development. He has been Professor of Greek and Comparative Philology and practically in charge of instruction in Archæology. It is time that for each Philology and Archæology a Professor be found; and that the Professor of Greek be free to give all his time to this important chair. The duties of this have increased with the department, which in thirteen years, the term of Professor Wheeler's service, has grown eleven-fold—from a total in all classes of twenty-one in 1886 to two hundred and forty-one in 1889; while the quality of the work achieved by students has steadily grown more exceptional in excellence.

A better library outfit, more appropriate and commodious lecture and seminary rooms, more Fellowships for graduate students, at least one and probably two additional instructors, and provision for at least one special course of lectures each year from some distinguished lecturer—all are needed, some urgently so; and teaching in Comparative Philology and Archæology should be otherwise provided for. While to the writer it has always seemed a mistake to regard the study of Greek as a fetic, it is also plain that, with the dropping of Greek as a required study, this department, so great a factor in general culture, should be kept an attractive one for those who elect it.

##### LATIN.

In Latin the general prosperity of the department leaves but little to be said. The traditions of Peck and Hale are continued by the good work of its present head. The extent to which this study is regarded both a practical one and a means of general culture has kept its numbers steadily upon the increase. An additional instructor, additional Fellowships, somewhat larger annual appropriation, and better class rooms and facilities, would be welcome.

##### COMPARATIVE PHILOLOGY.

Although scheduled as a department this branch is hardly organized as such. Courses given in other departments cover its main branches; but,

without further organization and somewhat of addition to its teaching force, Cornell must lack a department for which her scope and her equipment offer an inviting field.

##### GERMANIC LANGUAGES.

This department has always been well conducted and prosperous, and if possible is more so now than ever. The Zarncke collection is but the principal of late additions to its equipments. Its more pressing needs are a professor of Scandinavian languages, an instructor in Dutch, more Fellowships and Scholarships, somewhat more liberal annual appropriation for seminary and special equipment; and more spacious and better arranged rooms for both classes and professors.

##### ROMANCE LANGUAGES.

Here again, long continued good work has been coincident with steadily increasing prosperity. More Fellowships and somewhat more liberal appropriations, are the additions most desirable; while, with the department of Germanic languages, this department shares the greatest disadvantage at which are placed departments not supplied with convenient quarters.

##### RHETORIC AND ENGLISH PHILOLOGY.

Though a large amount of good work has always been done here, only within the last few years has the department been effectively organized or given such facilities as to permit this. Of late, however, its energetic head has been given a fairly adequate staff; the standard of admission to the University has been so raised as greatly to increase the capacity for good work of the students in its classes; insistence by the University upon the study of English as a requisite for general culture has greatly stimulated work; and, most important of all, the instruction given has been of such high order as to have attracted the best students.

As a result, this department at Cornell is probably the very best of its class in America; and so popular that its chief needs are more convenient accommodations and an additional force of examiners to scan and note preliminary criticism of the mass of written work required of students. With this aid the department will be able to assume even more thoroughly than now its full share in the most important of Cornell's late developments—the thorough study of English as a means of general culture.

##### ENGLISH LITERATURE, ELOCUTION AND ORATORY.

The condition in these departments is also most encouraging. In English Literature periods, the courses are on the whole the best in the country, and those in Shakespeare probably superior to any given elsewhere. It is hard to exaggerate the importance, as an exercise in the best English forms or as a factor of the best English culture, of the Cornell courses in Shakespeare,—which practically involve a thorough study of the whole of his works, and of the specialty in which Cornell is now followed by other institutions here and in Great Britain—the study of the life and significance—as distinguished from mere inquiry into the sources and influences—of the masterpieces of English. In Elocution as well, the extent to which this branch is so handled as to make it a feature of general culture, is its notable feature.

The lacks in this department are two:—Instruction and drill in forensic and extempore speaking should be more fully provided for, and more attention might well be given to the English Bible. Thoroughly as it is studied from another point of view in the school of Philosophy, and from still another by voluntary classes aided by the Barnes foundation, no addition to our University courses would be more appreciated and useful than one which should give to the English Bible as a classic of our language an amount of study equal to that now deservedly bestowed upon Shakespeare.

##### PHILOSOPHY.

The development of the Sage School of Philosophy has steadily progressed under the endowment provided by its founder, until it is now one of the two or three equally comprehensive schools of its kind in the country. At first its student body was mainly made up of those who expected to make a specialty of Philosophical research; but of late years the practical character of its instruction, the attractive way in which its work is presented, and the ability of its instructors to interest students in what have been considered abstract studies, has prompted many students in general courses to elect studies in this department as those in which they hope to secure the greatest amount of general culture; while the attendance still continues of those who after graduation expect to pursue their studies in Philosophy or Theology. Though there was never any real reason to apprehend trouble, it may be proper to note for those who feared it, that there has been no serious criticism, either from conservatives of iconoclastic tendencies, or from radicals of lack of courage and frankness in dealing with mooted questions; while in Sociology and Ethics the courses have been found peculiarly interesting and inspiring.

The needs of this department include a Chair of Hebrew—which would supplement work in other departments as well, larger appropriations for library purchases, more liberal allowance of class and seminary rooms, and better provision of casts and illustrated matter on Assyrian and Egyptian cults and ancient religion in general.

##### HISTORY AND POLITICAL SCIENCE.

In History and Political Science the White School gives the University a creditable prominence among American institutions; and in the number and eminence of its instructors, courses given, and material facilities, especially in the way of library and seminary equipment, it easily ranks as one of the foremost of the University. Indeed it is this fact, added to the appreciation for such studies of late shown by our American public, that makes urgent the further development of this department.

In History, though the branches in question are more or less covered by professors whose principal duties are in other Chairs, Cornell needs Chairs in State and Colonial History—with special reference to New York State and its Dutch period, in Ancient History, and in International Law and Diplomacy. As to this last, Cornell is probably *the* University of all those in the land where such a Chair might be confidently expected and is most called for. Next to this, perhaps even more urgent, is the need of increased expenditure, preferably on the basis of a liberal endowment in facilities, for post-graduate work, for which in her libraries and excellence of related departments Cornell offers special attractions. More Fellowships also are needed here, and might be economically provided through utilizing their incumbents as examiners and assistants in seminary work.

In Political Economy, the energy of the professor in charge and the devotion of his colleagues have made the most of a situation which, but a few years since, seemed hopeless from inadequacy of facilities in the face of extraordinary demands. Proof of this is the extent to which this department is meeting public demand for statistical and other government work of the greatest prominence and importance.

The system of special lectures given by leading experts upon the more prominent business questions that come within the scope of this department has proved a thorough success.

What is here most needed is more professors and more class and seminary room to meet the simply overwhelming demand for the teaching of this department, both in the University and from those who would be glad to come there to obtain it. Original work should be stimulated by a liberal publication fund; and more Scholarships and Fellowships should be provided if Cornell is to emulate the work of such rivals as are, for example, Columbia and Chicago.

#### THE LAW SCHOOL.

While this department has steadily bettered the expectations of its friends, and thus always earned the right to be considered a success, the writer has been one of those to whom, so long as the standard for entrance and for its degree was at the low point at first prescribed, its existence seemed no profit to Cornell and its success no compliment to the legal profession. From the first, however, its instructors have been capable and zealous; its student body of far higher average than was measured by the requirements; and material facilities so generously supplied as to better every probability otherwise existing. Late increase in requirements, both for admission and graduation, have now met the main criticism heretofore possible; and the Law School may be added to the lists of the departments of Cornell which are not merely successes in themselves, but by their prestige must add to the ease with which every other department of the University may become creditably conspicuous.

Experience here has been the same as in similar years with other departments. The immediate result of raising the standard was to hasten into our classes all who could possibly prepare for them within the pending notice of the change, and thus to lessen the number of those entering for later classes even more than the added requirements would naturally have done. This, however, is so far compensated by the added repute of the school, and its popularity among the best class of students, that its numbers are again rapidly increasing.

The most urgent need of the Law School is such increase of annual appropriations as shall make possible more liberal inducements to professors both resident and non-resident.

#### MATHEMATICS AND ASTRONOMY.

This department, always strong at Cornell, is today on a better footing than ever before, its work having kept well abreast of the best anywhere, the one qualification being that at Cornell the instruction in Astronomy is limited.

The size of the department, its thorough organization and the number of its students—some seven hundred—are now such, as to make peculiarly advantageous such grouping of recitation rooms and facilities for instruction as only a specially constructed building can provide; and this is the greatest need here.

So far as concerns Astronomy, the site of the University is not such as to justify expenditure in observation facilities to rival more favored localities. Even for instruction work, however, one hundred to one hundred and fifty thousand dollars could be profitably used at once in adding equipment and supplying the capital required to meet the additional fixed charges which a proper development of the department would involve.

More instructors are also more urgently needed—though in this respect the department is not cramped when compared with others of the University; and the department as a whole would be a peculiarly appropriate object of liberal endowment.

#### PHYSICS.

In Physics, the effect of the first rate equipment provided a few years since, the enterprise of the professor in charge, and the liberality of the Trustees in meeting his requirements have made and kept this department one of the most conspicuously successful in the University. Now, however, late developments of similar departments in other institutions have been such, that there must be further growth and larger expenditure upon Cornell's part, if she is to hold her own. From twenty-five to fifty thousand dollars for an additional building, bringing laboratory accommodations "up-to-date"; prompt expenditure of at least ten thousand dollars for additional apparatus; and an increase in the amount allotted each year for that purpose, are wants which require no special explanation, and the meeting of which cannot much longer be postponed.

#### CHEMISTRY.

This department is one which since the beginning of the University has been kept upon a creditable footing which it still maintains, and its equip-

ment, including a spacious new building, is well abreast in most respects of that which any rival institution can present; but in Industrial Chemistry the time seems now to have arrived when Cornell must either step to the front and assure her prestige for a generation to come by establishing proper courses, or lose forever the opportunity which now seems ripe.

The principal needs of this department are a professor of Industrial Chemistry, and a professor of Toxicology, Sanitary Chemistry and Bacteriology. If these two were provided, not merely would the department be in peculiarly effective condition; but its service both to our students and the country specially increased. Until lately, the life work for which the student in Chemistry prepared here was largely instruction and philosophical investigation. Of late, however, the call for industrial chemists has so largely increased that, while for eligible positions as professors there is a surplus of applicants, the supply of industrial chemists is so far short of the demand as practically to guarantee usefulness and financial success to all qualified to accept positions.

#### BOTANY.

In Botany we lost by his death, a few years since, the distinguished professor under whose charge the department had been a credit to the University from the start; but its organization had been so carefully developed by him that his retirement left little but promotion necessary to complete it; and it is now in better shape than ever.

Among its more pressing needs are an assistant professor of plant Physiology, an instructor in Comparative Morphology and Embryology, and trained helpers for the culture, preparation and care of material for study.

While in most studies the writer believes it would be a mistake to regard sex of instructors, this department is one in which so large a proportion of the students are women, and for the prosecution of important branches of which such special aptitude has been shown by them, that, without excluding others from consideration, it would seem well to make efforts to find a qualified woman to take, either the assistant professorship or the instructorship suggested. The helpers could doubtless be best provided for by small compensation either to fellows or to special students who, in this connection, could be permitted to do independent work of their own. This department also is one of those which could well use a specially constructed building, with room, not merely for class and seminary rooms, but for collections, propagation and preservation of specimens, especially laboratory work. These necessitate such special provision for maintaining and modifying conditions of heat, light, moisture, etc., that there must be a steadily greater waste of energy and opportunity in proportion to results until one is provided.

#### ENTOMOLOGY AND INVERTEBRATE ZOOLOGY.

In Entomology, the department has steadily systemized and extended its work, which is, as it has long been, the best in the country. More spacious and more specially fitted quarters are here needed, not merely for class and laboratory work, but for arrangement and display of collections—the growing repute of the department and the number of students taking its course having already crowded its accommodations to an extent which would be comical did it not involve such serious and increasing embarrassment.

#### PHYSIOLOGY, VERTEBRATE ZOOLOGY AND NEUROLOGY.

In Physiology and Vertebrate Zoology the department is doing the thoroughly good work which has always characterized it.

The museums have been steadily built up, largely by specimens prepared in the department, until, in important lines, they are unrivalled and too extensive for effective display or convenient use in the narrow quarters allotted to them; while the accommodations for care of live specimens and laboratory work are not merely cramped, but so incapable of convenient arrangement as to demand relief.

Here, as elsewhere, what is needed is a specially constructed building, large enough to accommodate the department and display its collections, and sufficiently commodious and so arranged as not merely to meet the convenience of each branch, but to facilitate mutual co-operation in allied work.

An important step in advance has lately been taken by more adequately providing for neurology, though the facilities so far furnished by the University in this line are rather an evidence of good will than an adequate basis for the work that should be done. The growing interest of the scientific world, in this branch, the repute and prominence which our professors have already won, the superb collections which have been built up by their labors, all offer an opportunity which should be utilized. The Medical College and College of Veterinary Science alike increase the demand for advanced work in Neurology and add to our facilities for its prosecution.

A larger annual allowance for specimens to fill gaps in collections, an increased allowance for publications, an additional graduate Fellowship and more liberal appropriation for original investigation, are the principal needs here.

#### MICROSCOPY, HISTOLOGY AND EMBRYOLOGY.

Though the work within its scope has long been successfully done at Cornell, this department is one of those but lately organized as such.

For the short term of its independent existence it has proved a success, not merely in the quality and extent of the work done but in its popularity, among students attracted to its classes by their selection of general courses, and especially in the extent to which advanced and original work is being done by those who have selected subjects in this department as their specialties; and peculiar importance has been given to the department by its relation to the State School of Veterinary Science and the Cornell Medical College, lately established.

Its special needs are: better facilities and apparatus for demonstrating. Histological and Embryological preparations, a substantial expenditure in



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models—especially for teaching of Embryology and for apparatus for photography in connection with the microscope; and more convenient rooms.

In view of the fact that, so far, instruction for women in the first two years of our medical courses has been provided for only at Ithaca, it was natural that a woman should be named as one of the assistants in this department, and gratifying to know that her choice has been justified, both by her work and by her success in meeting just that requirement of sympathy and appreciation that, without in any way modifying either the nature or the methods of instruction, has made it effective and popular with what promises to be a most important contingent of our classes in medicine.

MEDICAL COLLEGE.

The most important and in some respects the most prominent of our late departures has been the establishment of a Medical College upon a basis that, while provision is made for instruction at Ithaca in the first two years of its course, it must be assumed to be located at New York City for the purposes of the more advanced of its work, and by far the greater part of it. The writer is not one of those who have believed it good policy, from the standpoint either of University or of public interest, to attempt, so far from its main work at Ithaca, the conduct of any department, especially one of such importance as this—with its attendant division of interest and danger of complication—and he has seen no reason to modify his opinion. But the above views are noted, not so much as a continuing protest against what has been done, as to make more emphatic, if possible, his impression of the extraordinary success (in view of circumstances) of the College in its first years, and of the tact and good fortune with which really serious crises have been successfully passed.

It is as yet too early to estimate its normal attendance or probable growth; and it will be another year before the required accommodation can be furnished by the well planned new building now in course of erection. The College, however, is in active operation and is well to the front among other institutions, not merely of this country but of the world, in standard for entrance, instruction and graduation; and its faculty proves most happily chosen both in the eminence of its members and in their influence upon and inspiration of their classes.

During the year past the total number of students registered has been two hundred seventy-eight, of whom two hundred fifty-two were men and twenty-six women; and so far from the College of New York having lessened the number of students in preparatory medical work at Ithaca, it has increased their number so that forty were actually registered there during the year just past, with the probability that this number will be more than doubled in the next year, and steadily increase for some years thereafter.

As to the needs of this department, they are at once too rapidly developing and too fast being met to make valuable any special suggestion here.

When all has been said, however, the writer feels that for the completion and growth of Cornell as a University, nothing can take the place of a properly equipped Medical College at Ithaca—this scarcely less for the sake of allied departments, than for the work in this that can be no where so well done or which will otherwise so largely remain undone—this without reference to whether the branch at New York shall be maintained or added to; and irrespective of whether certain disadvantages of the present plan—by which, in the case of women, a forced change of residence and somewhat of

a break in continuity of instruction in the middle of the course is required—shall continue indefinitely.

It is not forgotten how generally Medical Schools are assumed to be capable of success only in large cities. This has resulted from the fact that until very lately Medical Schools were compelled by poverty to exist as adjuncts of charity hospitals. Without depreciating the advantages of city hospitals with their enormous aggregate of cases, largely made up of a few familiar types, it is demonstrably true that a comparatively small special hospital under the control of a Medical School, so managed as to attract to it the greatest possible variety of cases from all classes in the community, has special advantages over great city hospitals.

Such a hospital at Cornell would supply comforts for the ailing of every class and station, and hence would attract from the region about, including numerous cities of the second and third classes, a variety of patients scarcely to be collected elsewhere. Again, the resources gathered during the past twenty-five years at Cornell for Physiology and Medical Preparatory Instruction, when supplemented by those which gather about the School of Veterinary Surgery, would give a Medical College at Cornell peculiar advantages.

GEOLOGY AND PHYSIOLOGY.

Here again, under able instructors, aided by our extensive collections, first rate work is done by classes of students. The principal advance of note during the past year here has been the addition of an instructorship in Economic Geology, which was much needed and has already been justified by results.

The facilities afforded this department are, however, inadequate, either to meet its opportunities, to maintain the standing it has had as compared with others elsewhere, or to offer a well rounded system of courses. It needs more instructors for unrepresented aspects of the science, more money for equipment, and, above all, more commodious and more convenient quarters—in which respect, in proportion to its needs, and having in view the really important collections which it now possesses, it is probably more inadequately supplied than is any other in the country.

AGRICULTURE AND HORTICULTURE.

In this department not merely has the liberal provision, which has always been made, been steadily increased of late, but the student body has so grown both in quality and quantity as largely to realize the ambitions of its friends who so long worked with large faith and slight encouragement. This is the only department in the country in which serious attempt is made to give post-graduate courses. The number of students in these, as well as special and advanced students, is far in excess of those in any other institution, and increasing every year.

What was lately the experiment of extension teaching has become a demonstrated success. In the line of systematic nature study alone some twenty-five thousand teachers in all parts of the country are now working in co-operation with the department. In another branch of this extension work, "The Farmer's Reading Course," above eight thousand five hundred regular readers were registered during the last year; and the prospects are that this number will be more than doubled within the year to come.

The needs here are such as spring from prosperity and growth. First and foremost of them all, perhaps, is a new building or group of buildings to provide accommodations, not merely for Agriculture, Horticulture and Forestry, but for applied Agriculture, Agricultural Chemistry and Entomology, to serve as a headquarters for University extension teaching, and to house the great Agricultural Museum into which our present large collections should be expanded. To this should be added additional instructors, and somewhat of increase in appropriations for salaries and museum additions. Advantage would thus be taken of the presence of the Veterinary College; and the worth to the agricultural interests of New York of such a department, the most thoroughly equipped one of its kind on the continent, would be incalculable, and the prestige and repute thus gained to the University correspondingly great.

The writer's views of the independence desirable for the University are such as to make him slow to suggest direct co-operation of the State. It seems evident, however, that here, if anywhere, is the direction in which the State and the University may most profitably work together, on lines suggested by the State provision for the Dairy Building already used by this department, and the State School of Veterinary Science.

While there is not now and cannot be for years to come any rival for such a school as Cornell is developing, movements are already in view in a number of the states which, if our opportunity for meeting a great and growing demand is not promptly utilized, will soon be pre-empted by some now less favored rival. It seems certain that adequate provision for advanced instruction in the several branches which this department should include will result in such a demand for thorough preparatory work elsewhere, as to insure us a student body able to profit by the opportunities which Cornell will then offer; and by the development of University extension facilities, Cornell can do more for the general body of Agriculturists than by offering University facilities at Ithaca to students not prepared to take the regular course.

ARCHITECTURE.

Dating from the very opening of the University, and then having but one rival on the continent, our department was long first in equipment and standing, and up to 1883, led its rivals in this country.

Just as awakened interest in technical studies gave Cornell the opportunity of her early years; as twelve years since the new field of Electrical Engineering offered the chance then utilized by the Cornell department which is her most signal late success; so the last few years have been marked by such appreciation of Architecture that this is plainly a field in which for many years to come educational services will be peculiarly useful and appreciated.

Until lately our School of Architecture has helped to meet a demand which otherwise must have been unsupplied. This situation is now totally

changed. Harvard is specializing culture in the direction of Architecture. The Illinois University, working from a so-called "practical" side, is well patronized. Syracuse and Lehigh have each undertaken special instruction in this line. At Chicago a great Architectural School is "in the air," and preparatory classes and allied schools are rapidly gathering. The Architectural Schools of Columbia, the Massachusetts Institute, and the University of Philadelphia are rivalling us in most directions and surpassing us in some.

It is pleasant to note that, during his brief incumbency, the present head of this department has not merely shown his full appreciation of its needs and opportunities, but has so well selected and organized his staff that the enthusiasm and devotion to their work of his students is evident and inspiring, even to the casual observer; and is but one feature of the vigorous growth towards ideals that characterizes the department. As a result of this, under-graduate work of originality and excellence is becoming the rule; and, all considered, I believe our standard and opportunities at least equal those of any other school of Architecture in America; and this is generally recognized outside.

About the only late recognition of needs and deserts of this department, however, has been provision for travelling Fellowships upon a most ingenious basis, which secures more of work and experience from the holders and of repute and usefulness to the University than does any other elsewhere of which the writer has learned. Generally speaking, and without forgetting certain creditable details, the facilities furnished this department—especially in room and scarcely less so in collections—are pitiful in extent, and almost totally depraved as to convenience. It is fair to add that this has not resulted from lack of appreciation or sympathy on the part of the Trustees, but from circumstances which, in the straitened circumstances of the University, have made impolitic expenditure, that would become wasted whenever adequate housing and provision for this department shall be possible.

As may be imagined, a schedule of wants here would be depressing. The most urgent are: additional Fellowships; fuller provision for instruction in decorative—especially household—architecture; the provision of a course in landscape gardening; and more adequate salaries to recognize if not to compensate the extraordinarily good work done by gentlemen, every year of whose continuance with us involves a financial sacrifice. And to round out even the present organization of the school, there should be established a Chair of Architectural Composition, sufficiently well endowed, if not to compensate its incumbent in proportion to his professional repute, at least to make it attractive to successful and distinguished architects, who are willing to sacrifice income to the creditable distinction of such a Chair, as a feature of such a department of Architecture as that now being built up at Cornell.

Cornell owes it to herself not less than to her state and her country to put and keep her School of Architecture on such a basis that she can challenge comparison with all rivals present and prospective. We have only to make the most of our special advantages, and fairly meet the enterprise of others. We should have as extensive a faculty as that which deals with architectural specialties at the Massachusetts Institute; and even if we should hesitate to follow Columbia in the extent to which Mathematics, Chemistry and Physics are specialized for her architectural students, we should give students in Architecture what they need of allied branches without wasting precious time that might be better used for architectural study. We can copy, if not improve upon the ingenious arrangements by which the new architectural building at Boston has been so admirably fitted up at a minimum of expense. We have the space and surroundings which make it easy for us to surpass in provision for display and use of our collections the building planned for Architecture at the University of Pennsylvania. We can follow, if not excel, the admirable methods by which Columbia's illustrative material is preserved and kept available. At a small part of the expense at which Schermerhorn and Avery have enriched Columbia, Cornell could have a library and collections that would surpass in utility those at New York. For a tithe of the expense at which the Willard collection is gathering the reduced models of whole buildings, we can secure full sized models of typical or special features that would be of greater value from an artistic, as well as a practical standpoint. And by moderate further expenditure Cornell could well round out her present collections in Archaeology and Art.

Such a program would make Cornell's department unapproachable for a long time to come.

#### CIVIL ENGINEERING.

In Civil Engineering the work of the school continues to be directed by the tireless energy which gave it so large a repute at the start and has so steadily maintained it as one of Cornell's successes.

This is the first college of its class to use laboratory work in connection with teaching of engineering. Of this policy the most signal feature has been the recent creation of such a hydraulic laboratory as can scarcely be imagined at any other educational institution. The important service which the University has thus rendered the country has already been recognized by such requests to undertake governmental experiments (notably those of the Deep Waterways Commission) as seriously to test the capacity of the laboratory.

In view of the fact that the writer had frequent occasion to criticise the low standard of admission formerly tolerated here, it is a duty as well as a pleasure to note, not merely that this has been raised to that required for other courses, but that, though the late severe requirements have doubtless kept down the numbers in the department, yet on the one hand its head is already forced to plan for a larger number of students than he will probably be able properly to care for; and on the other, from our increased requirements for admission it has resulted that a large and increasing number of students enter freshmen with us who have already been one to three years at other institutions; so that by the time we graduate them as Civil Engineers they have had five or six years of special training.

This department specially needs more spacious and convenient rooms.

#### MECHANICAL ENGINEERING.

This department, especially in Electrical Engineering, has long been the most conspicuous of Cornell's successes. The questions to be met here result from the extent to which our opportunities have been so enlarged as to strain our resources to meet them.

Of late achievements here, the school of Marine Engineering is already supplying their best men to the principal ship-builders of the country. Its great experimental department should be completed as planned and provision thus made for more adequate teaching in Naval Architecture and Shipbuilding. The School of Railway Engineering, but a single year old, is already prominent and bids fair to be as much embarrassed as have been the other branches of this department by applications for admission far beyond its capacity to handle. A laboratory for research in Mechanical and Engineering Science, including Railway Mechanics and Marine Engineering, seems so urgently called for as scarcely to be postponed, but would involve such expenditure as must probably postpone it.

Without in any way depreciating the importance of other departments, or even differing with the general policy of the Trustees—which in this case, as in so many others, has been compelled to stint imperative demands in one direction to meet necessities in others—it is simply a fact that—whether considered in view of the numbers of well-prepared students seeking instruction, or of urgency and variety of the demand from every quarter for its graduates as fast as they become such, or the directions in which opportunity to serve the public is offered—this department is today more nearly a real University than was Cornell itself at the time its present director took charge; and merits that its development and extension be accordingly provided for.

#### VETERINARY SCIENCE.

From the first Cornell has provided in this branch the best instruction possible under the circumstances. Until lately, however, her role has been that of a prophet in the wilderness. But the great service thus rendered by Cornell to the country has at last been appreciated; and it is now recognized not merely that enormous investments in farm and other domestic animals depend upon this service; but that the general health of our people and their exposure to or immunity from decimation by some of the principal diseases from which they now suffer are within the practical scope of this department. For a time this awakened appreciation was mainly shown in the extent to which Cornell's faculty and graduates were drawn upon for expert work and investigation to meet exigencies occurring in this and other states and affecting the whole country. Lately, however, this has taken a more practical shape—the establishment at Cornell, at state expense and with liberal annual appropriation, of a School of Veterinary Science. It is to be regretted that the Legislature did not appropriate at once sufficient to furnish buildings and equipment on a satisfactory scale. Cutting off fifty thousand dollars from the two hundred thousand dollars necessary, has postponed important provision for Physiology, Materia Medica and Therapeutics. Nevertheless, the State Veterinary College thus established has provided (1) for the education of veterinary surgeons, (2) a center for state work in veterinary sanitation, (3) a laboratory for production of guaranteed organic products for use in diagnosis, prevention and treatment of animal diseases, and (4) for experimental investigation of diseases of animals, especially those communicable to man.

Its experimental years have passed, and now the demand for its graduates so ensures the congenial and profitable employment of all holding its degree that its accommodations must soon be crowded. Of the practical way in which it has already served the state, no better example can be given than its work for the State Tuberculosis Commission, which, as well as a number of private veterinarians, Cornell has supplied with tuberculin from her laboratory—without expense for state use, and at mere cost of packing and shipping for private use. Mallein from the bacillus of glanders is likewise supplied; and meanwhile visits to different parts of the state, called for by outbreaks of disease in different classes of domestic animals, have been made by members of the staff, directions given for suppression, and materials secured for investigation.

#### FORESTRY.

Though this department is scarcely a year old, its teaching is well organized and the essential facilities already secured. The attendance is already such as to show how great is the demand for the step we have taken and the opportunities for usefulness upon which we may count. The state has provided a College forest in the Adirondacks of thirty thousand acres, about half of which is in virgin timber and the remainder but slightly culled. This is now being surveyed and by another year will be under thorough management, involving extensive annual cutting and marketing of lumber and cord-wood, planting of burned over and cut over lands to reclaim them for wood production, establishing a nursery for forest plants and seeds, etc. The premises include a farm of two hundred acres with boarding house, cottages, store, farm buildings, etc., and the junior and senior classes may be expected to spend at least the Spring term entirely in the college forest in practical work. How interesting and important is this work in view of the enormous extent of the forest lands of this country and especially of this state, and the extent to which, as experience elsewhere shows, they might be preserved and utilized, needs no argument here. In common with others of the lately established departments, while the needs are many, especially in the way of accommodations for class rooms and collections and full provision for allied branches of study, the appropriations by the state are such as to provide for the more urgent wants.

#### PEDAGOGY.

Among sciences which have but lately come to be recognized as such is that of pedagogy, and for the last ten years Cornell has been almost alone in her plans for the development of this branch of instruction. It is now

appreciated by the people of the state and its representatives in the Legislature that provision for a school of Pedagogy to ensure for our academies and high schools teachers as thoroughly trained as, by the normal schools, are those for common schools is the one feature necessary to complete the century old educational system of New York State. Of late the University has provided for this branch as a division of the Sage School of Philosophy, and the courses thus instituted have proved peculiarly successful and attractive. Indeed it is probable that, by an addition of an assistant and an instructor to the present force in this branch, a creditable department could be instituted. It would, however, require a much larger force, much more extensive collections, and far more spacious accommodations than the University can now allot to this, adequately to cover the field in the way that such a department of Cornell University should do.

It has been suggested that the State establish at Cornell a School of Pedagogy, to be supported by it on terms somewhat similar to those by which the School for Veterinary Science has been provided. To the University the main advantage would be to relieve it from carrying on a separate department. For the state the advantages would be, *first*, that the proposed school could be at once instituted without any expenditure for a site, with the moderate original appropriation necessary to erect buildings and the limited annual appropriation necessary for current maintenance, and, *second*, that in the collections and libraries and museums at Cornell the school would possess an unrivalled equipment; that the students of the proposed school could take instruction at the same time in any of the general departments of the University; and that—since Cornell now furnishes free instruction to some six hundred students selected from the various assembly districts of the State—this scheme could be best rounded out by offering the state students at Cornell inducements so to educate themselves as to return to their respective counties qualified to head the Academies and High Schools at their homes. Here even more, if possible, than in the case of Agriculture, Veterinary Surgery and Forestry, the alliance between the State and the University seems so natural as almost to be inevitable and certainly not to be declined by the University.

#### MILITARY SCIENCE.

In Military Science the chaotic enthusiasm of Cornell's early years has settled into a steady interest in military training; while there has been perfected a system of drill and instruction, in co-operation with the State and Congress, that now constitutes an orderly, dignified and effective system—giving to Cornell students the main advantages generally assumed to be afforded by military schools. There is thus kept in readiness for any call which the country may make upon it, a corps of educated gentlemen whose experience, first in the ranks and later as officers, has prepared them effectively to drill and to head the volunteer militia who may be called into service. This was strikingly demonstrated during the late war with Spain in the extent to which, from her student body as well as from her graduates, Cornell furnished quotas that served in Cuba, Porto Rico, the Philippines and the Navy.

#### HYGIENIC AND PHYSICAL CULTURE.

This department has never been in more flourishing condition. The Gymnasium is constantly occupied to its utmost capacity, and the new Gymnasium for women in the Sage Annex has been provided none too soon to meet urgent wants. While the department has steadily refused to assume the responsibility for college athletes, its relations with the athletic organization and committees have been mutually helpful and pleasant.

The system of personal statistics as to matters relating to Hygiene has been steadily developed until its results now furnish a basis which, as to each student, is accepted by him as a matter of course, and pertinent suggestion for treatment of himself to ensure best physical condition and development generally followed. The great need of this department is more spacious and appropriate quarters. For example, at least twice the present accommodations for baths would be steadily used; and moreover, while the University should not assume direct responsibility for athletic training, it is certainly desirable, not merely from the standpoint of this, but to avoid interference with University work, that ample provision be furnished upon the campus.

#### LIBRARY.

The University Libraries have grown at an increasing rate until they now include some two hundred twenty-five thousand bound volumes and nearly forty thousand pamphlets, to which are added about fourteen thousand volumes per annum. This but inadequately suggests the excellence of the selections, and the fulness with which, as compared with libraries of other Universities, the more important branches of research are covered. Statistics as to use are inadequate in view of the constantly increased extent to which facilities are afforded for off-hand consultation, without record, of reference books, but the number of recorded calls during the past year (112,423) is suggestive of the extent to which, by extending the hours of use, keeping open evenings, and carefully selecting additions in directions where demand is peculiarly pressing, the library has become a large factor in the work of every student and the facilities of every department; and it would be hard for anyone but Alumni, who have been long familiar with the growth and management of our University library, to appreciate how great has been its fortunate dependence upon our exceptionally capable librarian, who, in the "lean years," made a little of resources go so far, and latterly has so economically used more liberal provision.

In comparison with other departments of the University, the present appropriation for the library, from special funds, and otherwise, is fairly liberal; but if the honorable rivalry of other institutions is to be met, and especially if our library force is to be compensated in better proportion to the rate at which similar services are elsewhere rewarded, here, too, is a call for a much larger annual expenditure—so large indeed that endowment, general or special, is the most obvious suggestion to meet it.

#### SUMMER SCHOOL.

Of this, the latest important step taken, we have yet to have actual experience—though the extent to which, as private ventures, Summer classes on the campus have been popular, argues its almost certain success.

Indeed it was the fact that these had at once demonstrated the call for opportunities thus furnished, and had become unmanageable as University tenants, that compelled the University to assume the responsibility of conducting Summer classes or to take a dog-in-the-manger attitude. Cornell has taken the public spirited course; has secured the services of those who had most successfully done such work; has added such others as were necessary to complete an effective instruction staff for branches in which Summer instruction is most favorable; and undertakes this enterprise with every prospect of usefulness and prestige in her new field.

#### MEMORANDUM.

Were not this report already too long, I should attempt two summary statements—each most creditable to Cornell. One would have noted the extent to which, by publication of the results of original research, Cornell has become a supply center of educational literature in the broadest sense of that word. The second would have shown how largely, in leading institutions throughout the country, the chairs of the most successful departments are filled by Cornell graduates.

It is rapidly becoming a general condition that the student must choose between listening at Cornell to the professor or lecturer foremost in his specialty, or of being taught elsewhere by professors who use the Cornell professor's work as a text book; while among our Post-Graduates, are in even greater numbers those who may be called Cornell's second generation—leading Alumni of other institutions coming to Cornell to take special work under the professor, from whom, years before, the one at whose feet they had studied in their own alma mater had received his instruction.

#### THE UNIVERSITY AS A WHOLE.

Considering the University as a whole, the following points remain to be noted:

#### THE STANDARD.

The late steady increase in her requirements both for entrance and graduation have been such that, generally speaking, there is less of sham about Cornell than is still tolerated by other leading Universities.

Cornell is now squarely facing her duty, which is not to extend her catalogue by the length of her freshmen lists, but so to use the trust funds placed at her disposal as to produce the greatest profit to the public for whose sake they were given.

A University such as Cornell is by no means the place where all grades of education can be most economically given. For all time to come, perhaps, the most essential part of the education of our people will be better and more economically given in our district schools. And what is termed intermediate education, including not merely what may be termed preparatory French, German and Latin, but also all of the mathematics now required for our most carefully guarded courses, can be well taught in our high schools and academies at one-tenth of the cost involved in attempting to supply at Cornell the deficiencies of straggling localities, or the irregular preparation of individuals.

Cornell's budget provides as nearly as may be \$300 for the average University student remaining in attendance for three trimesters. That is to say Cornell pays on an average \$300 each year for the opportunity to educate each student whom she instructs. On this the writer has no criticism to offer. Provided the selections are made with reasonable care, there is probably no use of public funds (and educational foundations are such) that will so promptly and so surely produce great financial results—not to mention any other—as will the expenditure of any amount reasonably required to educate those to whom are to be entrusted the great duties of the "learned" and "technical" professions, and the political education of the country.

It goes without saying, however, that so great an expenditure should be carefully guarded; and the suggestion now made is simply this: So long as what may be called secondary education is on the whole so well provided at say one-tenth the cost involved in the use of University facilities to that end, there is no excuse for the waste involved in the latter practice; and in the end any swelling of our numbers by robbing the academies and high schools of students who can be more economically educated there, is a misuse of the trust funds. And therefore to all other reasons which prompt insistence upon a high standard for admission to the University, there is added this, which we cannot disregard—that we have no right to expend \$300 per annum in educating a single student except under such conditions as shall ensure that the student thus favored at public expense is the one whose preparation and capacity make him worthy of that consideration.

For similar reasons the writer feels that a much larger proportion than now of the University income should be expended in scholarships and fellowships, allotted by competition among those whose acquirements have already been found to be above the normal standard. For if, as the writer believes, it is as true economy to expend on an average \$300 a year on a student who is really qualified for University study, as it is to expend \$30 per year upon the average high school student, or \$10 a year on the average primary scholar, then it follows that the best possible education of the best quarter of our students is of such importance that for each of these might well be afforded double or treble the average expenditure upon the average student.

Looked at simply as an expenditure of four or five hundred dollars for each Fellowship, or of half that sum for each Scholarship, the extent to which Cornell has already gone has seemed extraordinary to some. When, however, it is remembered that she expends on each of her students three hundred dollars a year on the average, it is easy to see that true economy



might be subserved by doubling the average expenditure on the best quarter of her student body, and so administering this plan as to make the whole student body the picked men of the state. Were this done the latter would be attracted to Cornell by the knowledge that so liberal are her provisions for Scholarships and Fellowships as to insure to each every opportunity, so long as he showed himself capable of profiting by it.

Such a plan might temporarily decrease the number of our student body. In the long run, however, this country is large enough and its youth sufficiently ambitious to crowd any institution, which shall have gained for itself the repute of being the most thorough in the land. And even were this not so, there can be no question but that the smaller number of splendidly equipped men that could be thus selected and educated would be a larger contribution to the public welfare than could be any greater number of graduates of a merely average standard of attainment.

#### CO-EDUCATION.

Though to most of the Alumni this subject has become one of historic rather than other interest, such inquiry and comment has come to me that a word may not be amiss.

There is no such lack of facilities outside for the higher education of women as thirty years since was urged as a reason why Cornell should admit them; and, on the other hand our experience has so completely refuted what, in advance of trial, seemed the more formidable arguments against co-education that they have long since been forgotten.

There remains therefore simply the question of how, with the means at our disposal, most can be done for education, and, having decided on a general course, to adjust details accordingly.

Irrespective of any extent to which we may be claimed to be committed to co-education, it seems clear that to secure the best results from the funds and facilities in our hands we should not limit our student body to men alone. As to special provision for women students, we have apparently thought it politic to concede as little as might be that could be argued to illustrate the complications which some of our friends assumed must result from co-education; and therefore until lately we have practically limited this special provision to Dormitories (Sage College, etc.)

Of late, however, we have met the comfort and needs of our women students more nearly to the extent that we would have done those of an equally important group of men students—to some extent even in faculty appointments. Instead of a "Matron" who capably managed Sage College, considered as a Women's Residence, we have substituted one of the most prominent of Bryn Mawr's late graduates, appointed as "Warden of Sage College and Lecturer in English Literature"; and, as already noted, a woman has acceptably served as assistant in another department, while for still another position, the suggestion that a woman be chosen is by no means especially my own.

I have noted the above to make clear what seems to me the essential status of co-education at Cornell. It has long ceased to be an experiment; it has never been unduly deferred to; if the University was to be criticised it was for not going further in special provision for women students; and this fault, if it was such, has now been remedied. While, therefore, the proportion of women among our students is not likely to increase, those who come to us in the future will find facilities more nearly equivalent at once in quality to the best that rival Universities furnish for either women or men, and in comfort and association to the best that Women's Colleges afford—which (having personally opposed co-education) the writer believes is just as it should be.

#### DORMITORIES.

The great increase in the student body of late years, taken together with the size and situation of Ithaca, a town of twelve thousand inhabitants, has so strained the supply of student accommodations, as to have brought this question again to the front. The annual reports of the President have made unnecessary any detailed discussion here. While the objections against any attempt to house undergraduates of the lower classes in dormitories under University supervision are greater perhaps at Cornell than elsewhere; yet it would seem in every way beneficial to the University community, helpful to the large body of Post-Graduates and tutors, and a profitable investment of University funds, should a series of Fellows' Halls be erected, with suites of rooms somewhat more spacious than required by the average student, and ranging in this regard so as to meet the demands of the upper classmen as well as graduates. The presence of Fellows Halls and the experience gained would be the best possible foundation for such broader treatment of the dormitory question as might later prove desirable. With the late decline in the rate of interest on investment funds, the income obtainable from a few such residence halls, charged with no payment for site, might be expected at least to equal that from any other investment of the amount required to build them.

#### NEEDS.

These have been to some extent suggested in connection with mention of the several departments. They may be summed up in one, More Funds—for buildings—for equipment—for additional endowment. It is a mistake to fancy that with a University, success ever tends towards financial ease. As noted above, the average annual expenditure on each University student is some three hundred dollars. It is not practicable to charge tuition approaching that rate; and moreover, aside from Fellowships and other Scholarships, over six hundred of our student body are free ("State") students. That means that on her present endowment, Cornell grows poorer in proportion as she grows more popular and successful; is more cramped, must submit to greater inconvenience, must pinch salaries of her instruction staff more and more, in proportion as larger classes are attracted. It is true that in some lines moderate increase of numbers might not involve substantial increase of expense but

in most departments this is not the case. It does not need that I suggest direction in which aid should be given. It will not come amiss either in any form it may take or at any point to which it may be applied. I only wish that every Alumnus, every friend of higher education, every well-wisher of intellectual culture could see, as Cornell's Trustees are forced to see, how miserably poor is our alma mater in view of the demand upon her, how starved she is by her very success, how well she merits a better reward for the services she is rendering the State and the Nation.

#### ASSIMILATION OF DEGREES.

Directly bearing upon the standard to be insisted upon for preparation and of University culture, the step lately taken is most important; as note above, in our general courses, as preliminary to admission to any course an amount of preparatory work intended to be equivalent to that exacted for any other is, generally speaking, required; and, similarly, but few specified studies (those mainly in Freshman and Sophomore years and largely in English) are required for a degree, but every course is, as it were, "keyed up" to the highest standard insisted upon for any other, and at the end the same degree, A.B., is given. Such a plan, making it the concern of the whole faculty that no slackness in requirements is permitted in any department, and equalizing the worth of all first degrees by insisting upon an equal amount of culture for each, has advantages too plain to need that they be noted. Events have shown that the educational world was ready for just such a movement; and if Cornell had not led she must have followed some more enterprising institution.

The foregoing leads up to questions which have been widely mooted of late by students contemplating a career for which more than general education is requisite, by parents who are deciding for their children, and by Universities in their plans for the future, viz: How long should the college course be? And what should be the divisions in point of time between preliminary, general (or college), and post-graduate (or special) education? Without discussing here the numerous considerations which have brought him to such a conclusion and premising that it is offered here rather to prompt discussion than with any hope of settling it, it has seemed to the writer,—

First, that in view of the late advance in the quality of preparatory education, the standard for admission to a college course should be raised to a point somewhat higher than our best standard at present—that is to say, to a point which would leave to the academies and seminaries nearly all educational work which in its nature is such as can be properly handled by their methods. This would include part of the work of the Freshman year.

Second, that the college course be made three years instead of four, increasing electives after the first year, and insuring at the end of three years attainment now equivalent to that required for the first degree in our present four year courses.

Third, that there be provided post-graduate courses of two years in Law, Medicine, Pedagogy, Theology, Philosophy, Architecture, Engineering, Literature, Chemistry, English, &c. &c. In each case three years of special preparation could be provided by permitting the senior year of the college course to be scarcely less specialized than the first post-graduate year, and distinguished from it in the methods of study rather than in subjects of work.

A second degree (that of Doctor or Master) with the addition "in" etc., could be given on completion of any of the prescribed Post-Graduate courses.

The adoption of such a plan would involve five years of preparation for professional or literary work after leaving the high school or academy.

The proposed increase in entrance requirements would soon secure a better prepared and more mature class of students than now constitutes our entrance classes, while adherence to high standards for University work would leave such students fully entitled after a three years course to the first degree now given at the end of four years.

Five years of preparation is certainly none too much for professional work. Five years of time, however, is as much as in the increasing competition, the American student can be expected to give after attaining a fair general education, before commencing his life work, and there is a natural division, between (a) the general education required for the business man and good citizen, who is not to be at a general disadvantage with his educated fellows; (b) that which, even though laying the foundation for given professions, is pursued by methods applicable to general culture; and (c) that in which the special object is practical attainment in the direction of one's chosen career.

#### UNIVERSITY MANAGEMENT.

In this regard grave problems have presented themselves since the very opening of the University. Cornell's situation at one of the smaller of our rural cities, surrounded by a region which is certain to remain rural for an indefinite time to come, has many advantages which will continue to be utilized to her prosperity, especially in the reduced scale of student expenses and in the enhanced worth of professors' salaries.

Disadvantages as well, however, must be taken into account. The more obvious of these have long since been removed by the growth of the University. This has developed a center of educational resources, helpful and attractive alike to students and instructors; so that, although urban Universities will always have their peculiar advantages, the balance between them and Cornell will stand more and more in her favor.

From the point of administration also, advantages and disadvantages have been involved in our site. In her early days Cornell was under the watchful care of her founder and his friends resident at Ithaca; and from then to the present there have always been found among Ithaca residents

public-spirited and self-sacrificing friends of the University, to whose interest and care has been due in the main the extraordinary success with which her finances have been handled, and the courageous administration which has carried her successfully through one crisis after another, until she may be said to be beyond the probability of one.

On the other hand so inevitably is any local management beset by petty personal and social influences that in Cornell's case the wonder is, not how much there may be found in her history not otherwise to be accounted for, but rather that the University has been on the whole so far independent of these influences.

And in this respect, somewhat of observation at different periods justifies the writer in stating that in this regard there is proportionately less to be criticised now than in most former periods. But the situation is more serious now than ever before.

This results in the main from the increase of detail which the growth of the University has thrown upon its managing body, the increase of time and attention required of the local Executive Committee, the decrease in the possibilities of assistance in University direction by non-resident trustees, and the increasing extent to which, under the present system, the direction of University affairs must be at and of Ithaca.

The situation is similar with reference to what may be called the educational administration of the University. Fifteen years ago when the University was small, the faculty comparatively so, and its numbers largely made up of those who had been together since the University was opened, there was a general loyalty to the University and to each other that could be and was easily stirred and organized. To meet and encourage this feeling, a dozen years since, the faculty was formally given an important place in University direction. The results were such as to justify the belief that the effective co-operation thus secured was a large factor in the extraordinary growth in attendance and repute that characterized the Cornell renaissance.

It would probably be impossible now to reproduce the relations between President, faculty and instructors that then proved of such mutual helpfulness. The President's office is now the center of so many and so complicated details of administration that he lacks the opportunity for personal influence and conference that was enjoyed by his predecessors; and an inevitable result of the mass of business that must now be handled is such necessity for decision and promptness as prevents the sharing of responsibility. As a result, faculty influence as such, exerted in an orderly and systematic way, is largely a thing of the past. The Faculty Council which shared in University administration in the times when Cornell was advancing fastest, has been so long disused that it may be considered as extinct. And while there is no epidemic of dissatisfaction raging among the faculty, it is simply true that there is not now prevalent that feeling of responsibility for the University and of loyalty to it that formed so great a part of Cornell's strength in former years.

I should ignore a leading factor in late University progress did I not make note that this has been mainly directed and is largely due to the tact, energy and enterprise of our President. These have been so marked and so well-rewarded that Cornell's danger (and it is a real danger)—is that, in the effort to extend her field, she will fall short of the standard she should set in that to which she is already committed. It is also true, however, that the repute earned in new ventures is no small factor in giving prestige to old ones; and the writer is so far from lamenting our President's talents, that his main regret is that they have of late been so largely diverted to outside matters. Not that his services in the Philippines Commission could well be refused. While the University, as such, owes the Federal Government no debt as absolute as that of maintaining itself, there could be but one response from a citizen thus summoned by his country. But it it to be hoped that patriotism may rarely require such sacrifice.

#### THE ALUMNI.

So far as concerns Alumni their duty and the most effective service they can render Cornell is to keep themselves constantly and thoroughly informed as to the University, and, by frequent visits and prompt response to every call, to help keep the University in touch with the opinions and interests of the world outside.

In this connection—though the writer has long hesitated in suggesting that Alumni effort and interest be turned into special lines, he believes that the time has come when her Alumni may well provide a building that shall serve as the social center of the campus, and creditably witness the continuing interest of her sons; that shall contain halls for student and Alumni meetings and trophy rooms where may be shown the memorials of Cornell victories; and that in its gathering associations shall more frequently draw the steps of each toward his alma mater, and more effectively voice her Welcome Home whenever he enters the campus.

#### CORNELL'S FUTURE.

Of this the more important factors are two:—the opportunity offered, and the extent to which it shall be met.

As to this it is the writer's conviction that Cornell's opportunity is unapproached by that of any rivals.

In the case of most of them, indeed, the University town itself has resources of patronage and culture beyond those furnished by Ithaca. It is generally appreciated however, that but limited use is actually made by most students of metropolitan advantages; while the distractions of a great city are justly dreaded by the parents of more. To others the peculiar charm of University life (realized only at other than city colleges) is most attractive; and the \$200 or \$300 per year of increased expense of residence at either of our leading competitors will long—probably always—largely help determine the choice of many of the best of American students.

Moreover, while too much dependence should not be placed upon the state, Cornell's relations to New York are an endowment of greater promise than are the aggregate funds of any other University in America. Great has been the sacrifice that since 1868 has constantly offered free instruction to more than 500 of the best students of the State, picked from the several assembly districts, and no other return could be so rich as is the resulting appreciation of the University in every assembly district each year added to by the return to his native place, to be henceforth one of its leading citizens, of him who four years before was sent forth as one of her most promising youth.

Again, from the public spirit of a great, wealthy and enterprising commonwealth like New York, there constantly wells up a stream of benefactions as to which the first question of the donors is Where shall they be expended? To keep first place in the interest and pride of a State such as this—even though not claiming any legal status as a State University—is the best title of heirship to the generosity of its citizens. As compared with that of other institutions in New York, Cornell occupies that place; and of late every year has strengthened her right to it.

There remains the question as to how Cornell may realize this opportunity. It is not an occult one. The interest and pride of our people can be kept and increased by such constant reaching out for the best youth of the state as shall witness to every locality in it Cornell's determination to fulfil the commission of her founders; and by such enterprise and courage as shall cause the legend to be current from Chatauqua to Suffolk, that Whatever is at Cornell is the best of its kind; and Whatever in education is best of its kind is to be found at Cornell. The people of the great State of New York, in and out of the Legislature, may then be trusted to make and keep Cornell the greatest and best of American Universities.

JOHN DE WITT WARNER.