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UNIVERSITY OF MINNESOTA.

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UNIVERSITY OF MINNESOTA,
ST. ANTHONY, MINN.,
December 1st, 1870. }

*To the Hon. Horace B. Wilson, Superintendent of Public
Instruction, for the State of Minnesota:*

SIR: I have the honor herewith to transmit the fourth
annual report of the University of Minnesota, for the year
ending this date.

Very respectfully,

Your obedient servant,

WILLIAM W. FOLWELL,

President of the University.

REPORT

OF THE

PRESIDENT OF THE UNIVERSITY.

The statute authorizing the annual report requires that it set forth (1) the progress and condition of the University; (2) the number of its professors and students; (3) the nature, cost and results of all important investigations and experiments; and (4) such other matters, including industrial and economical statistics as may be deemed useful.

Probably no better arrangement of topics could be suggested than that given in the statute: wherefore,

1. OF THE PROGRESS AND CONDITION OF THE UNIVERSITY.

The last annual report, made to your predecessor, left us near the close of the first term of the University Year 1869-1870. That term was closed on the 22d day of December, 1869, upon which day the Board of Regents proceeded to the formal inauguration of the President of the University elect, with appropriate formalities. Addresses were made by the Hon. J. S. Pillsbury, President of the Board of Regents, by the Hon. Mark H. Dunnell, Superintendent of Public Instruction, and by the Governor, Hon. Wm. R. Marshall. An inaugural address, prepared at the request of the Board of Regents, was also delivered.

After the usual holiday vacation, the second term of the year referred to, began on the 6th day of January, 1870, with a considerable increase in the number of students in the Preparatory department. In the course of the winter the daily

attendance ran up to 190. It is probable that for a long time to come that the winter classes of the lower departments will be largely swelled by transient students, and it will be a practical question for the Board of Regents, by what means best to accommodate them.

Examinations of all these classes were held at the close of the respective terms, conducted sometimes in writing, at others orally.

At the close of the University Year, June 22, 1870, those regular students who had successfully passed their examinations were advanced to the next higher classes. This promotion gave us college classes of the first and second years.

Instruction was given during the period under consideration in the following departments and subjects:

I. Mathematics:—In Higher Arithmetic, Algebra and Geometry.

II. Sciences:—In Physical Geography, Natural Philosophy, Botany, Chemistry and Physiology.

III. Languages:—

(1.) English:—In Grammar, (advanced), Composition and Rhetoric.

(2.) Latin:—Grammar and Reader, Caesar, Cicero, Virgil, Horace; in Latin Composition and other Collaterals.

(3.) Greek:—Grammar and Reader, Anabasis, Homer, Demosthenes; in Greek Composition and many Collaterals.

(4.) German:—Grammar and Reader, the critical reading of authors and numerous additional exercises.

IV. History:—Outlines of General History, History of United States, &c.

V. Rhetoric:—Vocal Culture, and Elocution, and a variety of exercises in Composition. Public Rhetorical Exercises of the higher classes were held weekly in presence of the whole body of students.

VI. Other Exercises:—

(1.) Military Exercises. Throughout this year the male students were, whenever the weather permitted, instructed in Military Tactics, the instructions extending to the School of the Soldier, the Company and the Battalion; arms and accoutrements were furnished by the State.

(2.) Drawing, an excellent beginning was made during the last two terms of the year in this useful branch. It is hoped that means may be soon provided for extending the instruction to larger numbers and over a greater length of time.

(3.) Agriculture: During the whole of the second

term of the Professor Agriculture, (that chair having been filled a short time subsequent to the last annual report), gave four lectures per week to the whole student body, upon various topics of his department. Much valuable information was imparted and a considerable interest excited, particularly in regard to the laws of vegetable growth and some of the processes of horticulture. These lectures were continued once a week throughout the third term.

From this recapitulation it will be seen that the University is steadily approximating toward the work appropriate to institutions of its nominal rank. Time will justify the policy which was content to begin with doing the humbler, not less noble, work of preparation for higher studies, belonging in older States to Academic Schools.

No changes were made in the Professors during the year 1869-70, except the appointment of Col. D. A. Robertson to be Professor of Agriculture, as above mentioned.

Before proceeding to speak briefly of the subsequent progress, and present condition of the University, it is necessary to refer to the important modifications of the general plan of organization adopted by the Board of Regents, at their summer meeting held in St. Paul, in June. Inasmuch as these changes are regarded as reforms and involve some apparent novelties, and because it is hoped that the new organization will simplify some of the grave problems in higher education now pending, and meet some new demands, it will be proper to set them forth in sufficient detail.

In October, 1867, the University of Minnesota, organized as a preparatory school, opened its doors to the youth of Minnesota. Ably officered and sufficiently equipped, it secured at at once the patronage it deserved.

The same persons continued to conduct its affairs and give the instruction, up to the close of the academic year, 1868-9, at which time a class of students, small in number, but of high character, was passed as competent to enter upon the studies of college freshmen. At the same time the Board of Regents determined to enlarge the faculty and to give the institution some kind of a college status. Upon the recommendation of Rev. Mr. Washburn, who as principal of the preparatory department had managed the institution with ability and success, the Board adopted as a provisional arrangement that organization set forth in the well known report of a committee on organization of which that gentleman was chairman.

Although this plan of operations was provisional and tentative, it sufficed to show in what general manner the Regents

intended to develop the University, and in that report may be found suggestions of the modifications which have since been adopted.

The act of the Legislature, approved February 18th, 1868, recognizing the University, had intrusted to its Regents the income to be derived from the lands granted by the general government for the benefit of agriculture and the mechanic arts. This statute required the Board of Regents to establish and maintain five or more colleges or departments, specifying these :

1. A Department of Elementary Instruction ;
2. A College of Science, Literature, and the Arts ;
3. A College of Agriculture, and the Mechanic Arts ;
4. A College of Medicine ;
5. A College of Law.

Hitherto the department of Elementary Instruction had been provided for by the so called Preparatory Department, covering a period of three years. This Department was *preparatory* not to university studies proper, but to those of the Freshman year of the old college courses. Under the modified plan the "Department of Elementary Instruction" called for by the statute, embraces along with the three years of the preparatory department just named, two other years—five years work in all. These additional years correspond very nearly to the so-called Freshman and Sophomore years of the old colleges. For a reason which will appear further on, we separate the studies of the first of these five years, and give to that division the name of Preparatory or Latin School.

The remaining four years are grouped into a so-called COLLEGIATE DEPARTMENT, which receiving students well grounded in the "common branches" and in Latin Grammar, if they are to take a classical course, brings them out at or near the point usually reached by sophomore classes.

There are *classical* courses of study, which coinciding as to other matters, offer a choice between Greek and German.

There are *scientific* courses, which offering the same mathematics, sciences, &c., give an option of any one at a time of the English, French, German, Latin and Greek languages. To this list we shall add as soon as may be the Scandinavian languages.

Then there are Military Exercises and Gymnastics, Drawing, Elocution, Lectures on Agriculture and Mechanics, and other subjects, common to all the courses.

No degrees are conferred at the end of these courses, but only certificates of fitness to proceed with some proper University course.

Now the theory of this Collegiate Department is, that the student having mastered some one of the courses, and being about eighteen years of age, is prepared to choose what one of the *colleges of the University* he will enter, and what special course of studies he will pursue. If he proposes to be a man of letters, or of science, or an original investigator in any professional or technical calling, he will enter the College of Science, Literature, and the Arts, and pursue some such course of study as the old colleges offer, and compete for the degree of Bachelor of Science, of Literature, or of Arts, as the case may be. This college will offer the best and highest general, superior education. No young man should be content with anything less, if he can by any labor or sacrifice attain to it. Its object is to make *men* rather than *workmen*, and to train them *to be* rather than *to do*. Fully and profoundly as I appreciate the importance of providing another education to meet a new demand, I will not abate a jot of faith in the old classical discipline, especially when pursued as I think it may be under a new regime.

But while the University offers the best and highest literary, scientific and classical discipline in a college specially consecrated to that work, she will not forget her other duty of providing for the artisan, the tradesman, the engineer, the manufacturer and the agriculturist, that liberal and practical education they are calling for, and which is demanded for them by the law. Accordingly the graduate from the Collegiate Department, having received a good liberal education furnished with his elementary pure Mathematics, his Algebra, Geometry, Trigonometry, Surveying and Drawing, expert in the use of his own language, and perhaps acquainted with one or two foreign tongues; familiar with the elements of the Natural Sciences and Natural Philosophy; well versed in general History; above all, accustomed to protracted and systematic mental labor; with such an equipment he steps at once, if he will, or must, upon his professional or technical studies in some one of the colleges, of Agriculture and the Mechanic Arts, of Law, of Medicine or of Business. The Collegiate Department is therefore the common feeder of all the upper colleges or departments of the University which now or hereafter may exist. It corresponds in location, at least, with the great schools of England, the Lycees of France and Switzerland, the Gymnasia and Real Schools of Germany.

It is a school of secondary instruction, as the colleges above are institutions of superior instruction.

It is a curse of our present college organization in America that it mingles college and university methods and discipline. The original and proper theory of the college is that the students are under the fatherly care and surveillance of the faculty, the President, in particular, standing *in loco parentis*. The youth are supposed to be in training, "under tutors and governors." How far this is from the actual state of things, I need hardly stop to indicate. The "academic freedom" proper to the maturer University student, has invaded our colleges, broken down their morale, and in very many instances has reduced their discipline to a mere farce. Particularly is this the case in the small colleges, to which males only are admitted, and where the removal of a student shortens the lists of the catalogue.

Now the Collegiate Department of the University is intended to remedy these evils, so far as organization can do so. It is to be conducted as a school—a secondary school. Students will be held to a strict accountability. A marking system will be maintained, not as a stimulus to competition, but as a convenient means of recorded information for the authorities and the parents. The military organization will be made a useful instrument of order and discipline. In this department there will be no election of studies, or a very limited one, by pupils. The parent, or the student himself if he be of age, will select the *course* to be followed at the time of entrance, and the pupil will not be allowed to change quickly nor frequently, nor at all, except for good reasons. In short, there will be maintained the school discipline, as being the proper thing for immature and inexperienced youth. It will be time enough for university liberty when the student, trained to good manners, to diligence and to self-control in this Department shall have been dismissed to the University proper, to pursue in one or other of its colleges his man's work of literary, professional or technical study. There he will have reasonable option of study and large personal liberty. The law student, the medical student, the agricultural or engineering student, should not be subjected to minute surveillance. But university liberty is one thing, for one kind of students, and collegiate training is another thing, for another kind of learners.

Again, as the discipline of the two epochs is diverse, so also are the methods of instruction. The collegiate student will be taught in recitations from text books, in order to merely to give him facts and phenomena, but to train him to

acquire for himself. Lecturing should have but small place in the instruction of youth. The University Professor, however, will employ that method largely, presuming that adult students, trained in the secondary school to learn from books, may be relied on to investigate the subject and verify for themselves the statements of the lecturer. Valuable as the lecture system is for those who are prepared to use it, it is ridiculously defective when employed for those who do not know how to investigate a subject. Used almost exclusively in our present law and medical schools, we know by painful experience how it serves to impart that little knowledge which is so dangerous a thing.

Various incidental considerations had their influence upon the Board of Regents in adopting the Modified Plan and not the least important item was that of *economy*. In the collegiate work it will be feasible and desirable to employ younger and cheaper instructors, who may in the meanwhile be fitting themselves for promotion. Another item was the simplification of the problem of the military instructions we are to give. The drill can very properly be made obligatory upon the boys of the Collegiate Department, while the experience of other institutions has shown that University men do not profit by it. A third item of greater account must not be omitted. One of the still open questions is that of the mixed education of the sexes. Progress has, however, been made in the solution of it. The experience of several generations has settled it that the sexes are united with decided advantage in the common schools. And all over New England, and the Middle States, there are academies which for a half a century have been training still older boys and girls in common. I think we may dismiss our doubts as to the feasibility of mixed education for these periods. But while it seems to be conceded that during the earlier stages of education girls keep pace with and often outdo the boys, it is the opinion of many of our best observers that there comes at length a time when the young men take the lead, the ladies loosing heart in the higher and abstracter work.

Now a slight examination of our collegiate courses of study will discover the fact that they cover substantially the ground occupied by our best female seminaries. The faculty is authorized to modify any of the courses for the benefit, if need be, of ladies who wish to complete their school life in this department. This consideration naturally had much weight with the Board of Regents who have very wisely determined upon the conservative policy of not organizing far in advance of the demands made upon them by the public.

I ought here to state that young ladies are admitted to the Preparatory School and the Collegiate Department not by virtue of any positive legislation. So far as I am aware there is not anywhere a line nor a word which discriminates between the sexes. There is nothing on record to prevent or embarrass the admission of ladies to any department of the University.

Nor am I prepared to recommend the exclusion of ladies from any department. If we were to close the doors of any one of the colleges to females, that one would certainly be the medical college, whenever it shall be in operation; but it would hardly be becoming in us to take such action in the same year when the University of Zurich is admitting women to all departments, and the University of Paris is conferring degrees upon American lady graduates in medicine. But while I am unwilling to dogmatise upon this question, I am free to say that it will be time enough to debar the ladies when the union of the sexes, in our place and under our conditions shall have been found mischievous; or when our State shall be rich enough to found an additional and equivalent University for women.

I am ready, however, to recommend the establishment, so soon as it may be practicable, of a ladies' college, in which shall be taught those branches of learning, and those arts fine and useful which are especially calculated to fit woman for her chief duties and functions. This college should be co-ordinate with the others, starting from the common basis of secondary instruction given in the Collegiate Department. I think I am safe in saying that it is the present mind of the Board of Regents to open such a college.

Before proceeding further, I will here consider some objections which may suggest themselves against our plans. First, then, is the consideration of *Novelty*. Novelty is *not* really an objection, but merely a summons to the alleged innovator to show cause why he disturbs the ancient order of things.

In this case the innovation is rather in appearance than fact. If you will take the pains to inspect the catalogues of the American colleges, great and small, and to compare the courses of study set out in them, you will find them agreeing together, almost unanimously in this one thing: That while the studies of Freshmen and Sophomore classes are uniform and obligatory, from and after the beginning of the Junior year optional studies are allowed, generally to the extent warranted by the strength of the teaching force of the respective institutions. I will here remark that when impatient reformers complain of the scantiness of college

courses, and of the confining of all students to one or two courses, they need to be reminded that options, whether of studies or of courses, require additional teaching force. This consideration alone will presently revolutionize our college systems and draw a broad line of demarcation between college and university work.

This remarkable fact that the close of a Sophomore year has been generally pitched upon as the proper time from which to grant options, indicates that as the present practical *branching point* from collegiate to university work. Through this point the Minnesota Plan merely strikes a line, thus doing avowedly and formally what other institutions are doing informally. We merely formulate and utilize their experience. But if this shall still be called an innovation we are ready with a reason for it.

Under her original charter, it is probable that the University of Minnesota might have contented herself with providing the old college course for the higher education of young men alone, looking forward to the so-called learned professions. But when in 1868, she became the grantee of the income to be raised from the sale of lands donated to establish colleges for the benefit of Agriculture and Mechanic Arts, she undertook an additional and novel kind of work—for the benefit of classes hitherto unknown to colleges. What that work is, and for the benefit of what classes, let the act of endowment itself answer. The title reads, "An act donating lands to States which may provide colleges for the benefit of agriculture and the mechanic arts." A further paragraph adds: "To teach the sciences relating to agriculture and the mechanic arts, without excluding other classical and scientific studies, and including military tactics"—all this in the further language of the act, "to promote the liberal and practical education of the industrial classes." It appears, then, that the State of Minnesota, with others, received this donation from the general government for the purpose of providing one or more colleges for the benefit of the industrial classes, without, however, debarring other classes from participating in that benefit. Be it noted that this grant was made expressly to endow *colleges*, high scientific institutions of superior rank; not to pay itinerant lecturers, nor to distribute tracts, nor to convey instruction through the primary schools.

Charged, then, with the duty of establishing a college, the Legislature of Minnesota proceeded at once to do the wisest and most obvious thing possible, namely: to turn over the income from this grant to that University estab-

lished by the constitution of the State, which had long before anticipated the action of Congress, in having already provided for a College of Agriculture in her statutes. It would have been sheer folly to found a new College of Agriculture to compete with, possibly to supplant, that one. Required by the law, then, to establish among others "a College of Agriculture and the Mechanic Arts," the Regents of the University made that duty the subject of protracted and earnest deliberation. Two or more of their number were sent to visit other institutions. The experiments made in other States, while showing some errors to be avoided, have not yielded much in the way of positive instruction.

Of all the causes which have led to failures and disappointments in attempts at technical education in America, there have been none so powerful as this—the undertaking to mingle in the same school, and during the same period, technical and general studies. Take up the catalogues of our earlier industrial schools, and what do you find? A curriculum of general and liberal studies, mathematics, natural sciences, languages, history, with just a *seasoning* of agriculture or other technical matter. How ridiculous would such an arrangement be in a college of medicine or law! Those institutions, presuming that the candidate has already received a sufficient liberal education, proceed to instruct him in his professional studies proper. In like manner the most successful schools of Technology require their students to have or to acquire the proper general training, before entering upon the technical studies of the miner, the chemist or the engineer.

Now the agricultural college and the college of the mechanic arts, which includes both civil and mechanical engineering, and touches upon architecture and landscape gardening, are, or ought to be, professional schools as strictly as those of law or medicine. This is a principle of the Minnesota plan. A reference to our circular of announcement for the current year will show the college of agriculture and the mechanic arts abreast of the departments just named.

Now the candidate for the degree of Bachelor of Agriculture requires just about the same amount and kind of general education as is necessary for those entering upon the professions of law, medicine or engineering; that is to say, if the young man wishes to ground himself in the principles of his profession, if he will be an *original investigator* in it, he needs no less a liberal education than that of the old college course offered in the College of Science, Literature and the Arts; but secondly, if he can only hope to become a

practitioner, if he is content with knowing merely the processes of his craft, he will find then a good preparation in any one of the scientific courses of the Collegiate Department.

My own expectation is that for many years in our new State, the majority of those who come to us to fit themselves for the industrial professions, will content themselves with this latter preparation. They will be largely young men, advanced in years, and of limited means. My fear is that many of them will wish to evade even these modest requirements, so long as they see hundreds of young men, all over the land, crowding into Law, and Medicine, and even Theology, with barely the common school training.

It will be our hope to contribute to the elevation of those professions, by offering, along with the good old classical discipline, a course of liberal studies less formidable and expensive, and yet which is a fair preparation for special study. We will not pretend that the two are of equal value.

For the sake, then, of accomplishing a novel object, the offering to the industrial classes that liberal and practical education required by the law, and of economically distributing those two kinds of work, our Minnesota Plan strikes out a seemingly novel plan of operations.

Secondly, the fear has been expressed that sufficient importance is not given in our plan to the Classical Languages and Literature. What my own views are upon the value of the classical discipline, may be gathered from what I have above said. I have only to add in defense of the plan that it leaves the classics just where they were under the former provisional organization, namely: obligatory for two years, and optional for two years.

An objection more worthy of discussion has suggested itself in some such shape as this; "Your organization covers too much ground. It undertakes not only the work of the high school, but of the common school also. This compact and complete collegiate department looks too much like permanency. If it is to continue in operation, the result will be the degradation of the high schools, if not throughout the State, certainly in the vicinity."

As for the *kind* of work the University has been employed about, it is simply necessary to say that she has been doing such as there has been to do. When she began operations in 1867 I suppose there was hardly a high school in the State ready to send up students prepared for a Freshman year. Pending the time, now steadily and rapidly approaching, when we shall be fully employed in our proper work of superior instruction, the Faculty of the University cheerfully give such instruction as the people are demanding.

As to the permanency of the collegiate department, what we have to say is, that in the original announcement of the Minnesota Plan there is to be found this statement:

"It is a part of this plan that, from year to year, some branches shall be dropped off the lower end of the collegiate courses, so that, at length, the whole department having been relegated to the schools below, shall 'expire by limitation,' leaving the federated, classical, professional and technical schools of the University proper."

In an earlier paragraph of the same document the intention was declared of dropping off as soon as practicable the first year of the old preparatory department, the same now covered by the "preparatory school." As an earnest of this intention I beg to refer you to page 6, of our announcement for 1870-71, where you will find notice given of the dropping off of the English course after the close of this year. Fearing that the schools would not be ready, generally, to teach Latin, it was not thought prudent to strike off the whole work of the year.

Now how fast and how far shall this process of abscision extend? Just as fast, we say, as we find other schools ready and willing to take the work.

It seems to me not extravagant to ask that the high schools ought within a period of *five* years, to relieve us of nearly all our scientific work in the collegiate department. It will take a longer time for them to shoulder the classical burden. I presume there are some places, almost of city pretensions, in which the question is still open as to whether the classics shall have any place at all in the public schools. This is only a question of time.

The Minnesota plan then looks forward to the relegation of the whole collegiate work to the high schools, public and private. Will those schools by and by undertake that work? It will be seen that the high schools are asked to assume the whole work of *secondary instruction*. They are already doing a part of it. Why shall they not undertake the rest of it? Is there any need of cutting this stage of education by an arbitrary line through the middle, or any necessity for removing a boy from the high school to the University to pursue for two years the same kind of studies? Why should our boys learn Algebra to quadratics, and the Plane Geometry, in the fitting school, and then proceed to college to get the balance of those studies? The classics of the first two years in college are pursued for the same chief end, namely: to learn the languages, for which they are taught in the fitting schools. All these studies can be pursued to better

advantage under the discipline of a good school than in colleges.

It is an intended effect of this plan of organization then, to build up in every city and large village, at least, of the State, an institution of quasi college rank, officered by teachers of high culture, which shall retain the youth of their respective neighborhoods,—that is, those of them who are put on a course of higher education, under the wholesome discipline of a well conducted school, till they are ready for university work and university life. All this time the youth are living at home, where they ought to be. There is a time when the parent must send his child out in the world, to be tried as silver is tried, but that time is not best chosen in childhood nor in early youth. Particularly is this the case with girls, who need the parental care more than boys. The University town is not the best place in which to set down a young girl to seek out as best she can a place to lodge, and to choose from a mass of strangers, her companions. For the sake of our girls, then, if not for the boys, let us build up these collegiate schools in our villages: in them keep up that discipline so necessary for youth.

I do not think we propose an impossible thing. It is not a great thing to extend the high school courses two years, to employ a few additional teachers, to purchase a few books and a moderate amount of illustrative apparatus. Very rarely would additional buildings be required. We are already requiring in principals of high schools qualifications sufficient to give the instruction of at least one of these courses. My own experience as an academic teacher persuades me that those teachers will not be reluctant to take such work. A few advanced pupils of high scholarship give character to a school, in which all take pride; and a successful high school gives tone and stimulus to every other school in a city. Such a collegiate high school as I am speaking of would be the glory of the village. The expense attending the extension would be more than balanced by the saving to parents keeping their children at home for the longer period, and, indeed, it is not to be thought of when we remember that the opportunity for obtaining a good higher education, sufficient for all the ordinary passages of life is brought home to the doors of the great part of the population. If you were to insist on the University continuing to do the higher academic or collegiate work, you put this education beyond the reach of that great number. Besides, the University has other work to do. To give secondary instruction is no more a function of hers than to give

primary instruction. I rejoice to see that already some of our American High Schools are undertaking to embrace the whole period of secondary instruction, among which I may mention those of Chicago, St. Louis, Boston and Cincinnati. The college of the city of New York, which is the culmination of the public school system of that city, carries its students over substantially the secondary ground.

It is in the interest of the University that we advocate the upbuilding in our villages of such preparatory institutions. Universities can not be built in the air. They must rest on a solid foundation of secondary schools. If I could summon all the college presidents of America, to answer to the question, what is the chief requisite of your respective colleges? They would cry out with one voice, "More and better fitting schools." Immense sums of money and a world of labor might have been saved in this country if the founders of our colleges had used the ordinary business-like precaution of inquiring beforehand where their customers were to come from.

In order to illustrate what may be a just ratio of such collegiate schools to the University, and to show what organization can do, I state briefly the condition of the school system of the little kingdom of Wurtemberg:

1. This State has one University, that of Stuttgart, which has upwards of fifty instructors, and is provided with libraries, laboratories, observatory, botanical garden, work shops and modelling rooms. The number of students, 450.

2. There is a school for the building trades, also at Stuttgart, for the training of carpenters, decorators, modellers, engravers, smiths, gardeners, etc. This school is conducted by the most distinguished architect in the kingdom, assisted by twenty-eight masters. Number of students about 600.

3. The agricultural college at Hohenheim, near Stuttgart, with twenty one masters. Connected with this is a great veterinary college, in which nearly 2,000 animals were treated in 1868.

4. To feed these institutions there are no fewer than 88 collegiate public schools, classical and scientific. In the year 1868 there were in the classical schools 4,565 pupils; in the scientific, 4,734—9,299 in all, and as you observe nearly equally divided. Below these schools, and supplying them, are the primary schools of various grades, both public and private.

Now, the little kingdom of Wurtemberg is not as large, I suppose, as any one of several of our Minnesota counties, and her population is 1,700,000, about four times that of

Minnesota. The cost of this school system is seventy-five cents per head yearly.

I must not forget to mention what I think a crowning merit of the Minnesota plan, and that is, that while awaiting the development of the schools which are to relieve her of secondary work, and to supply her with material, she constantly maintains a close and vital connection with them as they are. As they assume branch after branch of secondary work she drops them, so that her position in respect to them may be formulated thus: "*The University begins always wherever the high school leaves off.*" I trust there may be no misapprehension on this point.

I have been speaking of education mainly as a function of the State. But there are other agencies which are not to be put out of the account.

An attempt to drive them out of the field would probably result in failure. It seems to me that we ought to follow the example of some foreign States which, instead of crushing out private enterprise in education, have embraced the private institutions in their plans; in fact, have incorporated them into their public systems. In Prussia, for instance, the graduate of a private academy is entitled by law to be examined by the public examiners, and, if passed, to be admitted to the University. But we may pass mere individual enterprises as of trifling account competing as they must at an immense disadvantage, with the public schools.

But what shall we say of institutions of learning founded by the liberality of, or maintained in the interests of Christian churches? Shall they have any recognized place in our general system? That they *may* have I have no doubt. Whether they will, depends on the disposition and temper of their supporters. As a general thing the Christian bodies are not inclined to establish and support primary schools, but to unite heartily in the maintenance of the public schools. What measures to make with those few who are disaffected towards the public schools, is a question apart from our present business. It is only necessary to recall the general and undeniable fact that in Minnesota, primary education, at least, will always be in some manner public. The school fund in the hands of the State settles that.

Now, I think it not difficult to show that the churches have no proper interest in superior, that is University education. The day of small colleges, aping university functions and customs is drawing to an end. We are learning to concentrate resources for superior education. We talk of millions of money, when a University is proposed. The

small college, and any strictly denominational college must be small, cannot compass a university corps of instructors, nor the requisite university equipment; and if the church college could procure all these things I do not think she ought to. Why should the tithes and offerings go to the cultivation of science and letters, or to the training of lawyers and physicians, farmers and engineers? When a thousand villages are without churches or pastors, shall the church found observatories to study spots on the sun? Rather let the Gospel be preached to the poor, and carried to the heathen; let orphans be housed and fed; let the sick, the aged and the wounded be tended. I think it clear that the church has no proper business in the university sphere. There remains, then, that of secondary instruction. Has she any work there?

The importance of keeping our youth *at home* up to the proper age for university work, both on the score of manners and economy, has already been referred to. Now there are a great many youth who have no homes in fact—many more who have them only in name; who have fathers and mothers but no parents. There are sons, whose widowed mothers can not manage them; daughters whose fathers can not replace for them the tender care of departed mothers. There are both sons and daughters of people holding public offices away from home, travelling in foreign countries, or living in public houses. All these constitute a very great class. To what schools shall they be sent? Not very well to the public high school, for that cannot give them the first thing they need—a *home*. Now, briefly, what educational work can a church so well undertake as that of spreading her sheltering arms around these homeless ones, and while training them up in the way they should go, provide at the same time for their instruction in good learning. Good, thorough, family schools will be a permanent necessity. I should have no confidence in a boarding or family school, which was not also a Christian school; and all the more would I value it if some reputable Christian body were answerable for it.

Such schools must be, as I have shown, secondary schools, covering that ground occupied by our collegiate department of the University. They will stand on the same plane with the public high schools, supplementing, by no means supplanting them. Indeed, I do not see why our school system should not embrace and incorporate them, so far as their purely secular work is concerned. So far from marring the symmetry of our organization, they would complete and bal-

ance it. The denominational schools, largely interested in the training of candidates for their respective ministries, would naturally incline to classical studies and discipline, while the public schools will for some time be likely to give the scientific courses a preponderance. The competition would be mutually beneficial, and would ensure the University a joint proportion of scientific and classical candidates.

I am not of the number who warn the Christian agencies off the ground, insisting that all schools shall be public in the sense of being government institutions. I do, however, hold that the church has no proper business with university education, which is *secular*. But I allow that there is noble work for her to do in the field of secondary instruction, at least, alongside of our public high schools. Let her build up then as many Rugbys and Etons, as many Andovers and Exeters and St. Pauls, as many Mt. Holyokes as she can. There is room for all. This work will not be overdone in this century at least. *I repeat, secondary instruction is the present great need of the country.* When our public schools are as plentiful and cheap as in some of the petty kingdoms of Germany, it will be time enough for us to forbid private parties from interfering in education.

I have made no allusion to theological education, because that is confessedly the business of the respective religious denominations.

As to the organization of the permanent work of the University, it will be only necessary to say, that the University will be in fact, as well as in theory, a federation of classical and scientific, professional and technical, or industrial colleges, each imparting liberal and practical instruction. They will be established and developed according to public demands, and to the means at the control of the Board of Regents.

At their meeting on the 12th of July, 1870, the Board of Regents also adopted a code of by-laws putting the new organization into practical effect. The DEPARTMENT OF ELEMENTARY INSTRUCTION received its organization in quite minute detail; the colleges of SCIENCE, LITERATURE AND THE ARTS, and of AGRICULTURE AND THE MECHANIC ARTS, each a provisional organization. The results of this legislation will appear further on.

At the same meeting Assistant Professor Arthur Beardsley, C. E., was elected Professor of Civil Engineering and Industrial Mechanics, and Edwin A. Thompson, A. M., a member of the Board of Regents, was chosen Professor of Mathematics.

It was also resolved to renovate the University building and to make such repairs and alterations, as the increase of numbers had rendered indispensable. This work was soon after begun under the superintendence of a competent mechanic, but so little time remained before the opening of the new year, that a part only of the alterations planned could be completed. Much remains to be done before the departments now in operation can be suitably accommodated. A new tin roof—an absolute necessity—was put on the whole building; four new class rooms on the upper floor, and one on the second floor, were opened by the removal of the partitions of dormitories; the walls of nearly the whole building were neatly calcimined, the woodwork grained in oak, and the new class rooms and the upper hall wainscotted with yellow pine and butternut.

The University year 1870-71 began according to appointment, on the 6th day of September, under rather discouraging circumstances; within doors numerous mechanics were still at work, their stagings, implements, and materials obstructing the hall. In fact, but one room, the assembly room, was ready for occupation. Out of doors the heaviest rain storm of the whole season was falling. Spite of these drawbacks eighty-six (86) applicants for admission presented themselves and were put under examination. Four only of the whole number made complete failures; but a considerable number were admitted with conditions. Generally it was the *Spelling* and *Geography* which were most behind-hand.

The examinations being over the classes were promptly organized, and the regular work of the term begun. All the classes of the "Department of Elementary Instruction" (called here the Collegiate Department and the Preparatory or Latin School) were represented, and the new plan of organization went into operation without confusion and almost noiselessly. All of the Professors had reported for duty except PROFESSOR CAMPBELL, who, having early in the preceding July, obtained a leave of absence for one year, had sailed for Europe. It is proper to remark here that Professor Robertson, who, some weeks previous to the opening of the term, had prepared to tender his resignation, (to enable him to attend to urgent private business) had been induced to defer it, and had volunteered to assist in our elementary work. Overtaken, however, by a severe illness about the 1st of October, the Professor found it impossible to perform his University duties, and therefore, forwarded his resignation.

While speaking of changes in the Faculty, I may take

occasion to add that Professor Johnson has lately forwarded, through me, his resignation, to take effect on the 31st day of December, 1870. It will, no doubt, be acted upon at the coming annual meeting of the Board of Regents, the second Tuesday of this month (December).

With the exception of Thanksgiving day and the Friday following it the exercises of the various classes have proceeded without interruption, for five days in each week.

Having thus sketched the progress of the University during the year past, we may proceed to a statement of its present condition, recalling for a sake of clearness, a few points relating to the new organization :

PRESENT CONDITION OF THE UNIVERSITY.

I. ORGANIZATION.

The act of the Legislature of Minnesota, approved February 18, 1868, reorganizing the University, and confirming to it the income to be derived from the sale of lands granted by the United States, "by virtue of an act of Congress donating lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts, approved July 2, 1862," requires the Board of Regents to establish "five or more Colleges or Departments, that is to say :

- A Department of Elementary Instruction;
- A College of Science, Literature, and the Arts;
- A College of Agriculture and the Mechanic Arts;
- A College or Department of Medicine;
- A College or Department of Law.

In obedience to the law, the Regents first organized "A Department of Elementary Instruction," which went into operation Oct. 7, 1867, under the name of the Preparatory Department. In order, however, to increase its usefulness, and to make it serve its intended purpose, as a proper introductory school to the higher classical, technical and professional Colleges of the University, this Department of Elementary Instruction has been reorganized and extended. It now embraces, along with the three years heretofore assigned to it, two other years which correspond very nearly to the so-called Freshman and Sophomore years of the older American Colleges. It is divided into two periods, of *one* and *four* years, respectively, forming

1. The Latin School.

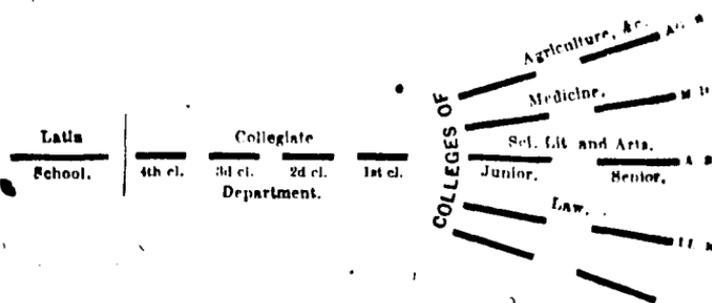
2. The Collegiate Department.

Of the remaining Departments or Colleges, a provisional organization has been made for those of

1. Science, Literature and the Arts.
2. Agriculture and the Mechanic Arts.

The Departments of Law and Medicine will be put in operation as soon as the means of the University will permit

The following diagram will suggest the relations of the various Departments :



REMARKS.—1. The Collegiate Department, receiving the student from the Latin School or from the public High School, brings him, in the course of four years, to the end of the Second (commonly called the Sophomore) year of the ordinary college course. At this point he has his option, whether, equipped with the fair preparation for special studies acquired in the Collegiate Department, to enter at once some one of the professional schools as they may hereafter be established, or to proceed with the higher academic studies, classical, scientific or literary, in the "College of Science, Literature and the Arts," with a view of securing the best and fullest preparation for professional or technical studies. The courses of study offered in this College, cover a period of two years (Junior and Senior), and lead to Baccalaureate degrees. A "University course in Arts," is strongly recommended to all who can, by any reasonable means and sacrifices, attain to it.

2. It is a part of the plan of organization that the studies not only of the Latin School, but also of the Collegiate Department, shall be dropped off as fast as the High Schools can take the work. The University benefits wherever they leave off. It is hoped that not very many years may pass before the whole work of the Collegiate Department will have been assumed by those schools.

3. In the announcement for 1870-71, notice was given that after the close of the current academic year (June 30, 1871), the English course of the Preparatory School would be dropped. Accordingly no further mention of that course will be made and that school is, for obvious reasons, spoken of as the LATIN SCHOOL.

4. Those interested should take notice, that from the beginning of the next academic year, September 5, 1871, all students of the Latin School will study Latin Grammar. This school is continued for the benefit of those youth who are as yet unable to receive instruction in Latin in the local High Schools. It is assumed that those schools can already sufficiently instruct in English Grammar and studies of the same grade. Generally students are not urged to come to the University to pursue studies in which their High Schools can successfully instruct them.

For convenience, the details of the existing Departments are announced in the following order viz:

- I. The Latin School.
- II. The Collegiate Department.
- III. The College of Science, Literature and the Arts.
- IV. The College of Agriculture, and the Mechanic Arts.

THE LATIN SCHOOL.

1. Candidates for admission must be at least 18 years of age, and must pass satisfactory examinations in

- | | |
|--------------|--------------------------|
| 1. Reading, | 4. Practical Arithmetic, |
| 2. Writing, | 5. Introductory Grammar, |
| 3. Spelling, | 6. Local Geography. |

The examinations in the first three branches particularity strict.

2. The principal studies of this school are :

- | | |
|----|--------------------------|
| 1. | { Higher Arithmetic, |
| | { Elementary Algebra. |
| 2. | { Geography (reviewed.) |
| | { United States History. |
| 3. | Latin Grammar. |

3. The Text Books now in use in this school are: Higher Arithmetic, Robinson's; Elementary Algebra, Robinson's; Geography, Cornell's; U. S. History, Anderson's; Latin Grammar, Harkness'; Latin Reader, Harkness'.

4. Students of this school do not wear the uniform of the Military Corps, nor are they required to drill, except that during the first term of the year they are instructed in the "School of the Soldier without arms."

Students who *pass* the examinations of this school are admitted to the Collegiate Department without further examination.

THE COLLEGIATE DEPARTMENT.

I.

THE FACULTY.

THE PRESIDENT,
 Professor CAMPBELL,
 " TWINING,
 " WALKER,
 " BROOKS,
 " DONALDSON,
 " JOHNSON,
 " BEARDSLEY,
 " THOMPSON.

THE COURSES OF STUDY.

The courses of study are :

1. CLASSICAL; of which the principal studies are Mathematics and Latin, with Greek or German.
2. SCIENTIFIC; of which the principal studies are Mathematics and the Natural Sciences, with one at a time of the following Languages, viz: English, Latin, Greek, French, German.

In addition to the principal studies, there are exercises in Military Tactics, Drawing, Elocution, and Composition, &c., common to all the courses.

Lectures are given upon Agriculture and the Mechanic Arts, and other subjects.

REMARK.—Members of classes are assigned to sections designated by the letters A, B, C, &c., according to the course of studies they are respectively pursuing.

The following synopsis will explain :

Class.	{	CLASSICAL.	{ Section A, Mathematics, Latin, <i>Greek</i> .
			{ Section B, Mathematics, Latin, <i>German</i> .
			{ Section C, Mathematics, Science, <i>Latin</i> .
		SCIENTIFIC.	{ Section D, Mathematics, Science, <i>German or French</i> .
			{ Section E, Mathematics, Science, <i>English</i> .

PROGRAMME.

FOURTH CLASS—*First Year.*

MATHEMATICS, SCIENCE,		Algebra—Geometry—Drawing. Math. Geog and Mapping—Phys. Geography. Composition and Rhetoric—Study of Words.
LANGUAGE,	{	English, Latin, Greek, German,
HISTORY, RHETORIC,		Cæsar and Cicero—Composition. Grammar and Reader—Composition. Grammar and Reader—Composition. Outline of Universal History. Compositions—Elocution.

THIRD CLASS—*Second Year.*

MATHEMATICS, SCIENCE,		Geometry—Chain Surveying—Drawing. Natural Philosophy—Bo any.
LANGUAGE,	{	English, Latin, Greek, German,
HISTORY, RHETORIC,		Analytical Reading of Lat r Authors. Cicero and Virgil—Composition. Xenophon and Herodotus—Composition. Selections—Composition. Roman—English. Compositions—Elocution.

SECOND CLASS—*Third Year.**

MATHEMATICS, SCIENCE,		Trigonometry—Mensuration—Drawing. Chemistry—Physiology and Hygiene.
LANGUAGE,	{	English, Latin, Greek, German, French,
HISTORY, RHETORIC,		Anglo-Saxon (optional)—Early Authors. Livy—Cicero (Moral Works)—Composition. Herodotus—Homer—Composition. Selections from Prose Authors—Conversations. Grammar and Reader—Charles XII. Grecian—German. Compositions—Declamations.

FIRST CLASS—*Fourth Year.†*

MATHEMATICS, SCIENCE,		Descriptive Geometry (Elementary)—Drawing. Physics—Astronomy.
LANGUAGE,	{	English, Latin, Greek, German, French,
HISTORY, RHETORIC,		Logic—General Grammar. Horace—Tacitus—Antiquities. Demosthenes—A Tragedy—Antiquities. Selections from Lyric and Dramatic Authors. Prose Selections—Composition. French—Political History of the United States. Themes—Orations.

I. ADMISSION.

Candidates for admission to the Collegiate Department must be not less than 14 years of age. They are examined in

Reading,
Writing,
Spelling,

Arithmetic and Elementary Algebra,
U. S. History,
Geography,
English or Latin Grammar.

* Corresponds to Freshman Year.

† Corresponds to Sophomore Year.

The examinations in reading, writing and spelling are rigorous.

Candidates for advanced standing will be further examined in the studies already passed by their respective classes or sections. Only *real equivalents* will be accepted.

The regular examinations of candidates for admission are held on the day before the close of the third term, and on the first day of the first term of each year. The candidates meet in the Assembly Hall at 9 o'clock A. M.

The course of study to be followed will be selected for the student at the time of his entrance, by his parent or guardian, who shall notify the President of his choice.

Candidates for admission will be furnished with a blank form of application, which must be properly filled up, signed, and filed in the President's office before the student can be registered.

The following is the form of application :

.....
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Application is hereby made for the admission of my as a student of the University of Minnesota. It is my present intention that if admitted *he* shall remain..... and I hereby engage not to withdraw *h* from the Institution during term time, except in case of sickness or other unavoidable necessity, nor at any time without due notice.

I further engage that if admitted *he* will be regular and punctual in attendance upon all proper duties and exercises; that *he* will refrain from injuring or defacing the grounds, buildings, enclosures and furniture of the University; and that *he* will carefully use, preserve and return all books, instruments, specimens, arms and accoutrements, or other property of the University which may be entrusted to *h* or which may in any way come into *h* possession.

Conformity to the regulations and discipline of the University is hereby promised. The subjoined statements are made part of this application.

.....Parent or Guardian.

Please state,

1. The candidate's full name.
2. The date and place of *h* birth.
3. The parent's or guardian's name, titles, occupation and Post-Office.
4. The school *he* last attended and the Principal's name.
5. The *course of study* the candidate is to follow.
6. Make any statement in regard to the candidate's health or habits, of which the authorities of the University should be informed.

THE MILITARY ORGANIZATION.

The Military exercises are obligatory upon all male students of the Collegiate Department, unless specially excused by the faculty; but only those who declare their intention to complete a course of study are entitled to wear the uniform of the Military Corps.

The uniform consists of coat and trousers of "University Gray," and a blue cap of the U. S. Army pattern. Trimmings vary according to rank. The cloth, manufactured at the Minneapolis Woolen Mills cost but \$7.00 per suit. The whole uniform need not cost more than \$24.

The following is the present roster of company officers :

PUBLIC INSTRUCTION.

Company A.

Capt. WARREN C. EUSTIS,
1st Sergeant, JOS. WILKINSON,

Company B.

Capt. HENRY M. WILLIAMSON.
1st Sergeant, IRA W. CASTLE.

Company C.

Capt. ALFRED B. JOHNSON.
1st Sergeant, CLARENCE C. BUEL.

Company D.

Capt. MORTIMER VAN CLEVE.
1st Sergeant, WARREN B. DUNNELL.

EXAMINATIONS.

Examinations are held upon the studies of each term, and certificates are given to students who pass. Upon presentation of certificates for all the studies of his course, the student receives a "Final Certificate," which admits him to any appropriate College of the University without further examination.

Any student of the State of Minnesota is entitled, upon application, to be admitted to any examination, and if successful, to receive a certificate to that effect.

The merits of students are ascertained from recitations and examinations, the relative weight of the latter increasing from year to year.

The charges for incidental expenses are:

For the 1st Term.....	\$2.00
For the 2nd Term.....	3.00
For the 3rd Term.....	1.00

These sums are paid at the beginning of the Terms respectively before the student is admitted to recitations. No deductions are made for absence nor late entrance. Tuition is free.

THE COLLEGE OF SCIENCE, LITERATURE AND THE ARTS.

THE FACULTY.

THE PRESIDENT,

Professor CAMPBELL,

" TWINING,

" WALKER,

" BROOKS,

" DONALDSON,

" THOMPSON.

The studies of this College extend over a period of two years, having the same Terms and Recesses as the Collegiate Department.

The courses of study embrace all the secular topics taught to the Junior and Senior Classes of the best American Colleges.

The option of courses will be as large as the strength of the teaching force will permit.

The merit of students is ascertained from examinations only.

The Degrees of Bachelor of Science, Bachelor of Literature, or Bachelor of Arts will be conferred upon students who complete an appropriate course of study to the satisfaction of the Faculty; but any person not a student of this College may undergo the examinations, and if successful, receive an appropriate degree; but he shall not be entitled thereby to rank as an Alumnus of the University.

REMARKS:—This College, as has been observed, has only a provisional organization. At the close of the present year a number of students will pass from the Collegiate Department into this College. The programme of study will be announced in due time.

THE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

THE FACULTY.

THE PRESIDENT,
 Professor ROBERTSON,
 " JOHNSON,
 " BEARDSLEY,
 " TWINING,
 Mr. BAINBRIDGE.

1. DIVISION OF AGRICULTURE.

The instruction in Agriculture is conducted upon the following general plan:

<i>Departments.</i>	<i>Associated Subjects.</i>	<i>Practical Applications.</i>
CHEMISTRY,	GEOLOGY, MINERALOGY,	Nature and origin of soils and their Analysis—Chemistry of Animals and Vegetables—Fertilizers—Food—Process of Dairy, Sugar factory, &c., &c.
ROTARY,		Horticulture and Pomology, Arboriculture—Improvement of varieties—Cereals—Textile Plants—Weeds, &c.
ZOOLOGY,	ANATOMY, ENTOMOLOGY, ORNITHOLOGY, &c.	Stock-Breeding—Veterinary Science—Insects Injurious to Vegetation—Poultry—Pisciculture, &c.
PHYSICS,	METEOROLOGY, CLIMATOLOGY,	Effects of Light, Heat and Electricity—Theory of Winds and storms—Acclimation of Plants and Animals, &c.
MECHANICS,	ENGINEERING, ARCHITECTURE,	Construction and Tests of Farm Implements and Machinery—Roads—Ditching,—Fencing—Farm Buildings and Grounds, &c.
ECONOMICS,		General Theory and Practice of Agriculture—Rent—Wages—Accounts—Market—Transportation, &c.
JURISPRUDENCE	HIST. AND LIT. OF AGRICULTURE	Tenures of Lands—Laws of Highways—Taxation—Estrays—Contracts, &c.

The course of study extends over a period of two years. The Terms and Recesses are the same as those of the Collegiate Department.

Applicants for admission who bring a Final Certificate for any Scientific course of the COLLEGIATE DEPARTMENT, are admitted without further examination.

Other applicants must be at least 16 years of age, and must pass examinations in the English language, in Arithmetic, Algebra (except Higher Equations), Geometry, Plane Trigonometry, Mensuration, and Industrial Drawing; in Geography, and the Elements of the following Sciences, viz: Botany, Zoology, Chemistry, and Physics; and in General History.

Students who complete a course of study to the satisfaction of the

Faculty, will, upon their recommendation, receive the degree of Bachelor of Agriculture, *but any person not a candidate for this degree, who may appear to be competent to receive the instruction, may attend the classes and undergo examination in any subject, and if successful, will receive a certificate to that effect.*

The merit of students in this College is ascertained from examinations only.

2. DIVISION OF THE MECHANIC ARTS.

The courses of study extend over a period of two years, and lead to the degrees of Civil Engineer, Mechanical Engineer, &c.

The programme of studies has not yet been officially announced.

GENERAL INFORMATION.

THE LIBRARY.—Since the beginning of the current academic year, large and valuable additions have been made. Upwards of 1,200 volumes, selected from the well-known private collection of Col. D. A. Robertson, have been placed upon the shelves. Among these are many rare and curious works relating to the early explorations of the Northwest, a large number of (meritorious) voyages and travels, and a fine collection of ethnological books.

I regret that it has been impossible to prepare a catalogue of this valuable collection, in time to be embodied in this report.

The Regents have entrusted a considerable sum of money to Professor Campbell, now traveling in Europe, who will be able to secure many valuable works at low prices. An invoice of some hundreds of volumes, principally of mathematical and scientific books, is now filling by a leading book house in New York. Some of them have been received; and so soon as they can be catalogued, will be ready for issue.

THE MUSEUM.—Collections of considerable value and interest have already been made.

TUITION in all Departments FREE.

BOARDING is obtained in families at prices varying with the seasons.

Table board in the best families is now \$4.00 per week. A limited number of students are accommodated with rooms in the University building, furnished with bedstead and mattress, wash-stand, table, and stove, at \$8.00 per term. A Boarding Club formed by them is allowed the use of a dining-room, a kitchen and some furniture. The cost to each member has not exceeded \$2.00 per week.*

* **REMARKS.**—How to maintain students, is one of the troublesome questions which College Boards have to encounter. The Board of Regents have made it the subject of protracted discussion, without, such are the difficulties which beset the question, having arrived at definite results. Among the propositions, which they have entertained, the following one has met with considerable favor, and it has been voted to make an experiment of it, upon a moderate scale, as soon as may be practicable. It has been called a "Colonization Plan" for maintaining students. Its points are:

1. Let a number of houses be built upon University ground, each contrived to lodge a family of (say) sixteen persons.
2. Let these houses be rented at minimum rates to colonies of students, coming from different villages, counties, &c.
3. Let each colony be accompanied by some suitable person or persons—generally it should be a relative of some of the students, and of mature age—who shall have charge of the colony, and be head of the *student family*, and answerable to the University authorities for the good order of the house.

ADVANTAGES.

1. Cheap boarding on the *Club* system.
 2. Maintenance of a *quiet* home life.
 3. Avoidance of many evils of the old dormitory system, while sufficiently separating the students from the excitements and dissipation of the city.
 4. In these families students of both sexes might reside, just as at home.
- It should be noted that this is but one plan.

HOW TO ENTER THE UNIVERSITY.

1. Candidates procure, personally or by mail, from the President's office a blank form of APPLICATION and have it properly filled and signed.
2. On the appointed day and hour they present themselves with their applications in the Assembly Hall for examination. Each receives a number, by which alone he is known to the Examining Professors.
3. After the examinations, the numbers of the successful candidates are announced.
4. At an appointed hour these assemble in the President's office for Registry. On payment of the charge for incidental expenses for one term, each candidate whose papers are satisfactory, is Registered as a member of the University, and receives a STUDENT'S CARD.

II. THE NUMBER OF PROFESSORS AND STUDENTS.

During the period covered by this report the following has been the composition of

THE UNIVERSITY FACULTY.

WILLIAM W. FOLWELL, M. A., PRESIDENT.

GABRIEL CAMPBELL, M. A., B. D.,

Professor of Moral and Intellectual Philosophy, and Instructor in German.

EDWARD H. TWINING, M. A.,

Professor of Chemistry, and Instructor in Natural Sciences and in French.

VERSAL J. WALKER, M. A.,

Professor of the Latin Language and Literature.

JABEZ BROOKS, A. M., D. D.,

Professor of the Greek Language and Literature.

ARIS B. DONALDSON, B. A.,

Professor of Rhetoric and English Literature.

R. W. JOHNSON, M. A., MAJ. GEN. U. S. A.,*

Professor of Military Science.

D. A. ROBERTSON,*

Professor of Agriculture.

ARTHUR BEARDSLEY, C. E.,

Professor of Civil Engineering and Industrial Mechanics.

*Resigned.

EDWIN J. THOMPSON, M. A.,
Professor of Mathematics.

MAHLON BAINBRIDGE, B. S.,
*Superintendent of the Farm and Instructor in Practical
Agriculture.*

NUMBER OF STUDENTS.

*The whole number of Students in the Collegiate Department was 157,
classified as follows:*

Class.	Section.	Gentlemen	Ladies.	Total.	Classical.	Scientific.	Totals.
FIRST.	A,	2	.....	2	.....	.....	.....
	B,	.....	.....	.....	2	.....	.....
	C,	1	.....	1	.....	.....	.....
	D,	2	.....	2	.....	.....	.....
	E,	.....	.....	.....	.....	8	.....
.....	.....	5	.....	5	2	3	5
SECOND.	A,	12	1	13	.....	.....	.....
	B,	4	5	9	22	.....	.....
	C,	2	.....	2	.....	.....	.....
	D,	9	4	18	.....	.....	.....
	E,	2	.....	2	.....	17	.....
.....	.....	29	10	39	.....	.....	39
THIRD.	A,	6	.....	6	.....	.....	.....
	B,	6	2	8	14	.....	.....
	C,	1	1	2	.....	.....	.....
	D,	2	3	5	.....	.....	.....
	E,	1	.....	1	.....	8	.....
.....	.....	16	6	22	.....	.....	22
FOURTH.	A,	29	.....	29	.....	.....	.....
	B,	8	19	21	44	.....	.....
	C,	17	5	22	.....	.....	.....
	D,	11	8	19	.....	.....	.....
	E,	5	1	6	.....	47	.....
.....	.....	64	27	91	.....	.....	91
G. Total.	.....	144	48	157	82	75	157

SUMMARY BY SECTIONS.

Sections.	Gentleman.	Ladies.	Classical.	Scientific	Total.
A	48	1	44	.....	.....
B	18	20	38	.....	.....
C	21	6	.....	27	.....
D	24	15	.....	39	.....
E	8	1	.....	9	.....
	<u>114</u>	<u>43</u>	<u>82</u>	<u>75</u>	<u>157</u>

The nomenclature of these tables will be at once understood by reference to the synopsis given on page 146.

In the Preparatory (or Latin) School the Attendance was as follows:

Course.	Gentlemen.	Ladies.	Total.
LATIN.....	37	12	49
ENGLISH.....	52	31	83
	<u>89</u>	<u>43</u>	<u>132</u>

FINAL RECAPITULATION.

Departments.	Courses.	Gentlemen.	Ladies.	Total.
Collegiate Department	Classical.	61	21	82
	Scientific.	53	22	75
Preparatory (or Latin) School	Latin.	37	12	49
	English.	52	31	83
Unclassified .....	.....	7	5	12
		<u>210</u>	<u>91</u>	.....
Grand Total .....	.....	.....	.....	301

The number of rejected candidates in the course of the year was 25. The examinations of applicants though strict are not severe. Probably none have been rejected, whose time could not have been more profitably employed elsewhere.

It must be remarked that the scientific courses mentioned

above, form the *introductory portions* of the AGRICULTURAL and MECHANICAL Courses.

III. EXPERIMENTS AND INVESTIGATIONS.

It could not be expected that our Professors, burdened as they are with excessive labor in the elementary class rooms (a burden they very cheerfully bear) would be able to carry on any extensive or systematic investigations.

Professor Campbell, however, has found time to edit a new edition of his excellent German Grammar, and to prepare as a companion to it a Reader, with notes and a copious vocabulary. The publication of the latter he has postponed till after his return from abroad.

Professor Twining made a number of chemical analyses: one of them of a specimen of *alkali* from the South Bend of the Mouse River in Dakota Territory. He has kindly furnished the following results:

1. Coarse gravel, principally quartz.....	28	per cent.
2. Finer material, " " sand.....	18	" "
3. Fine dust (passes through sieve of 80 to inch).	54	" 100

Composition of No. 3.

Loss by ignition (water and organic matter).....	3.99	per cent.
Insoluble in acids (principally quartz sand).....	67.47	" "
Soluble silica.....	1.36	" "
Sulphuric acid.....	7.43	" "
Carbonic acid.....	5.98	" "
Lime	} Combined with carbonic acid {	3.62
Magnesia			1.18
Potash.....		1.06
Soda.....		6.18
Alumina and Sesquioxide of Iron.....		1.72
Chlorine.....		Trace.

99.98

Partly during the past summer and partly in the preceding one, the same officer determined some 200 species of wild plants collected, with a few exceptions, on the University grounds. His descriptions of these plants form the basis of a report to the Minnesota Natural History Society, of which Professor Twining is Secretary.

Professor Brooks has been engaged in the preparation of a course of lectures on Grecian literature, to be delivered next year to the Junior University students.

I regret that I have not received from Professor Robertson any report of the operations of the experimental farm, which, during the summer was under his immediate charge. I may say, however, that owing to the extreme drought and to the invasion of the potato-bug, some promising experiments in oats and potatoes yielded no valuable results.

Soon after his appointment to the Chair of Agriculture, Professor Robertson, availing himself of his previous European acquaintance, began a correspondence, with a view to organizing a system of exchanges of plants, trees, seeds, botanical specimens, &c., with parties in the north of Europe. He was so fortunate as to meet with a hearty response from the director of the Imperial Botanical Gardens, at Riga, a gentleman of learning and enterprise, and who has been largely instrumental in extending the culture of the apple throughout his country. A package of apple seeds, sent by him, arrived in good order, but too late for use last spring. One small consignment of pear and apple trees was also received late in the season. I do not learn what proportion of them have survived the summer. Other consignments were stopped *in transitu* upon the outbreak of the European war.

Valuable results may be confidently expected from such exchanges if they can be vigorously prosecuted for a sufficient length of time. Such are the climatic coincidences of our own region and those of central and northern Russia, that it would seem highly probable that fruits flourishing there would also thrive with us.

I may add that I have myself edited and published the first number of "The University Almanac." The computations are specially adapted to the central latitude of Minnesota and for the year 1871. It is hoped that this serial may not only be found a useful manual for citizens generally, but will be the means of keeping the University constantly and prominently before the *people*.

IV.—Inasmuch as no original compilations of industrial and economical statistics have been made here during the past year, none are offered in this report.

There remain, therefore, but a few miscellaneous items to be noticed.

The question of maintaining students is one of the most troublesome connected with university economy. That task this University does not undertake, as a general policy, but leaves the students to select for themselves such lodgings as suit their pleasure or convenience. Nevertheless it is found that so great is the demand for the few dormitories still at our disposal, that the question is forced upon us whether the University ought not to provide for adding to their number. A poor young man can make a shift to live if he can find shelter. I have little doubt that if we could offer lodgings to one hundred students coming from distant parts of the State, that every one of them would be taken at the beginning of next year. be-

I beg leave to call your attention to the necessity now at length imminent, for an enlargement of the University building, being assured that upon examination you will feel constrained to urge upon the State government to make early provision for that object. The time is at hand when our various departments must have separate accommodation. The Latin school ought immediately to be set apart from the collegiate department. After this year the colleges of science, literature, and art, and of agriculture and the mechanic arts will demand special rooms and furniture. The experiment of mixed education of the sexes ought not to be carried much further without better facilities than now exist, in the way of entrances, corridors, privies, &c. Furthermore, no safe nor economical provision for heating, warming and ventilating the present fraction of a building can be made until the main portion of the plan be added; as for ventilation, there is simply none at all.

Permit me a remark upon the period to be covered by these annual reports respectively. The law directs them to be filed in your office on or before the second day of December. Hitherto it has been the custom of bringing them up to the first day of that month, thus including parts of two University years. It is quite obvious that the reports could be much abridged and simplified if they could be made for one entire university year and no more. I see nothing in the statute which forbids that, and, therefore, request that in future (the time for filing them remaining unchanged) they be restricted to the university year closing in June next preceding.

In conclusion, I think I may say that the University of Minnesota is at length entitled to public attention at least. I am well aware that to secure patronage we must deserve it, and I know that my respected colleagues in instruction and education will spare neither labor nor pains to recommend their respective departments. Mention ought here to be made of a very important piece of legislation affecting them made at the meeting of the Board of Regents in June last; namely, a by-law declaring in substance the engagements of the President and Professors to be permanent, but terminable, however, at the pleasure of either party, on giving reasonable notice.

And yet the State University ought not to appear as a petitioner, or as a competitor, belonging, as she does to the whole people of the State and vitally related to their system of public education. The question for their representations ought simply to be: "How can we best advance her, and increase her usefulness?"

REPORTS
OF
COUNTY SUPERINTENDENTS.
