

THE PRESIDENT'S REPORT  
FOR THE YEAR 1925-26

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## THE PRESIDENT'S REPORT

*To the Honorable Board of Regents,  
University of Minnesota.*

GENTLEMEN: I have the honor to submit herewith my report including the reports of the various administrative officers of the University, for the year 1925-26. This report which deals largely with programs, policies, and achievements of the University during the year, does not reveal fully the major problem of the University. This problem is one which grows out of numbers. During the biennium the registration at the University has increased over 2,700. At the close of the current year there had been 14,410 students of collegiate grade registered in the University. An increase of 2,700 in a biennium is astonishing. It brings us face to face not only with the question of support, but with many difficult problems of administration.

During the current biennium some of the additional income which the University has received by virtue of this increase in students has been used to purchase equipment, to erect buildings, and to expand the campus. By the close of the biennium all the remainder will have been put into salaries of the faculty. All of these things, that is the enlargement and improvement of the staff, the continuation of the building program, the purchase of equipment, and the expansion of the campus, must go forward simultaneously if the University is to serve its student body to the best advantage.

The amount of money which the University receives from tuition fees from the students does not pay the cost of education. It is now costing for teachers' salaries and instructional supplies, \$137 per student per year in the College of Science, Literature, and the Arts, while the tuition fees collected from the students in that college amount to \$60 per student per year. A similar situation exists in the other colleges of the University. This means that the University cannot maintain its educational standard and move forward without additional support in the form of gifts, or from the state, or both. The coming of 2,700 new students requires an increase in the administrative staff, additional teachers, additional equipment, more classrooms, and,

of course, complicates the number of existing administrative problems and raises many new ones.

The University has raised its standard of scholarship, it checks the abilities and attainments of the students more accurately than ever before, and it eliminates those who are unfit, or unable, or unwilling to do college work more quickly than heretofore. But this does not solve the major problem, for the reason that the percentage of students unable to do satisfactory college work is not nearly so large as many suspect. Those who cannot or will not do satisfactory work, however, are soon sent home from the University. We do not believe that we are serving the state as we should by sending those home who are able to profit by a college education and who attend with reasonable diligence to their studies.

There are some persons who fear that educational institutions may become too large. Not infrequently am I asked the question, "How large can the University be?" My answer is that if an institution of higher learning has a hundred students in it, and the staff are incompetent, it is too large. If it has a hundred students with a very competent staff who have no interest in the personal welfare of the students, it is still too large. But if it has 20,000 students with a competent staff who are interested in the personal and individual welfare of the students, it is not too large. In other words, an institution is not to be measured by its size, but by the competency of its instruction, and the attitude of the institution toward the welfare of the students. Our aim should be to secure as competent instructors as it is humanly possible for us to secure, to provide them with favorable conditions for instruction, and to develop the attitude of interest in the students at all times.

The University of Minnesota has accomplished much in recent years in the organization of its system of advice for the students. With its Freshman Week, the system of psychological testing, physical examinations, the freshman dean, a social director in the office of the dean of women, vocational adviser, Personnel Department which gives attention to special cases, orientation courses, and the upper classmen's advisory system, all working in harmony and with a given end in view, I am certain there never was a time in the history of the University when more

attention was given to the welfare of the individual student than now.

We are trying at all times at the University to remember that its primary purpose is to promote learning; that everything about the institution should be thought of in terms of its contribution to learning; that all of the student activities are only accessories to the chief purpose of the students; that the faculty are not here primarily to make rules, devise systems of organization and administration, invent new methods of bookkeeping; set entrance requirements, or to engage in any other extra-instructional activities. We appreciate the fact that these things may be so overemphasized by students or the faculty, or both, as to become ends in themselves. Whenever either faculty or students lose sight even for a moment of the basic reason for the existence of the University, learning suffers.

As one studies the problems of education he becomes more and more conscious that intellectual training, certainly in this generation, is not the sole aim of education. Knowledge, when pursued for its own sake, may be a source of personal pleasure, but it is of no great practical value; when pursued as an intellectual exercise without reference to its social utility or to the obligations that accompany its acquisition, it is futile. College training, whatever the field, is presumed to provide a liberal and social type of mind. The college bred man presumably should be more tolerant, more open-minded, than the man who has not enjoyed college training. He should be more interested in everything. He should be more willing to hear every side of every question. He should be less controlled by prejudices and biases. He should have a more sensitive social conscience than the man who has not gone to college.

I often wonder whether we are realizing these aims to the extent that we should, for education works against heavy odds in its efforts to insure magnanimity and catholicity among its disciples. Historically and traditionally it has emphasized class education and has been controlled usually by the prevailing political theory. Even with the establishment of popular education in this country, we have not been able to free ourselves entirely from the conception of traditional control. Then, with the development of a powerful industrialism there has been an increasing demand, still growing more insistent, that the schools somehow

or other, shall train for profit. Again, there is the demand of special groups who maintain that the schools shall be used to promote the species of reforms which they advocate. And finally, there is that innate quality of human selfishness, which expresses itself sometimes in opinionated, ignorant leadership and at other times in unthinking opposition, which seeks to bend education to its will. Every time one of these forces secures a new control over education, the schools suffer. They are no longer free agents engaged in the high calling of educating a generation to think freely, fairly, and sympathetically, and to act considerately in the interest of the common good. The schools should never become the creature of any particular group, the victims of any political doctrine, nor the servants of an industrial order. They should never be denied the privilege of considering every phase of every important question or problem that relates to human welfare, and they should never become the abiding place of intolerance. They cannot operate in the interest of public good under duress of any kind.

It is of little consequence whether a given teacher is permitted to teach freely what he desires to inculcate. It is a matter of genuine concern whether the youth of a democracy shall be permitted to learn freely on all subjects which affect their welfare as human beings and as citizens of a free country.

It is of small moment whether a particular professional school trains its students with a view to increasing professional fees. It is a matter of extreme importance whether the graduates of professional schools generally shall recognize that their primary mission is to improve the ways of securing justice, of healing the sick, of instructing the youth, or of raising the ethics of business.

It is a matter of local concern whether a given class or group seeks to control the educational policy of an educational institution so as to make it serve partisan interest. It is a matter of vital concern whether the interests of that group are consonant with public interests and public welfare.

It makes little difference that an individual, a newspaper, a group here and there is able so to control the policies and programs of the University as to require it to teach certain things and to omit others. It makes a vast difference whether a generation is to be reared incompetent to read, study, and decide the questions

of life and conduct free from the exercise of some kind of autocratic control.

These are the things which constitute the true price of democratic education. This price is the hardest to bear, the most difficult the social order has to pay, for against it is arrayed an old order and a multitude of fixed opinions. One has only to look to the fields of politics, religion, economics, and sociology, for abundant current evidence of the intolerance of present opinion. It is highly important, therefore, that from time to time higher institutions of learning conscientiously rededicate themselves to the service they are expected to render to a democratic society. With the presence of so much intolerance in the world, it is difficult for a university to hold fast to these fundamental principles. Pressure to deviate from a constituted course comes from every possible source. If we are to be intolerant against anything, it should be against intolerance. On the other hand, tolerance should never become a cloak to conceal shams, fakes, hypocrisies, or false reasons. The badge of scholarship, whether it be a degree, election to an honor society, or a prize, should be the badge of generous impulses, of fair-mindedness, and of a willingness to reach conclusions in terms of successful experience. It should carry with it an obligation to keep the universities what they were ordained to be—intellectual republics which search unceasingly for the truth and faithfully present it, where every important question receives a fair hearing and thoro consideration before a tribunal of unprejudiced minds.

#### A STUDY OF THE UNIVERSITY'S PROBLEMS

Perhaps one of the most significant things that has been done at the University of Minnesota in many years, has been the study of a number of university problems by a special faculty research committee appointed by the president. This committee is known as the University of Minnesota Committee on Educational Research. The personnel of the committee is as follows: Dean M. E. Haggerty, Dr. L. B. Wilson, Dean A. Owre, Dean E. P. Lyon, Dean O. M. Leland, Dean J. B. Johnston, Dean E. M. Freeman, Dean E. Fraser, Dean G. S. Ford, Dean G. W. Dowrie, Professor D. G. Paterson, Professor F. Bass, Dr. R. E. Scammon, and Dean F. J. Kelly. This committee has appointed

a number of subcommittees each one of which is concerned with some special problem. The following reports have been prepared for me by the chairman of the general committee and the chairman of each of the subcommittees. While more detailed reports will be prepared and presented later on, these tentative reports are of such extraordinary significance that I am presenting them at this time.

*To the President of the University:*

DEAR SIR: I have the honor to present herewith my report as chairman of the Committee on Educational Research of the University of Minnesota.

The University of Minnesota Committee on Educational Research is a non-administrative body appointed by the president of the University for the purpose of studying problems of college education in this University. Its formal reports are made directly to him. The committee is composed of fourteen members of the university faculty, eleven of whom are administrative officers.

Inasmuch as the character of the committee is indicated to some degree by its personnel and the positions which they hold in the University, it will be of interest to indicate that personnel here. The members are:

Mr. F. Bass, professor of municipal and sanitary engineering; chairman, Department of Civil Engineering; also chairman, Education Committee of the University Senate

Mr. G. W. Dowrie, dean, School of Business and professor of economics

Mr. G. S. Ford, professor and chairman, Department of History; dean, Graduate School

Mr. E. Fraser, professor of law; dean, Law School

Mr. E. M. Freeman, chief and professor, Division of Plant Pathology and Botany, and dean, College of Agriculture, Forestry, and Home Economics

Mr. J. B. Johnston, professor of comparative neurology, and dean, College of Science, Literature, and the Arts

Mr. F. J. Kelly, dean of administration, and director, Summer Session

Mr. O. M. Leland, dean, College of Engineering and Architecture, and dean, School of Chemistry.

Mr. E. P. Lyon, professor and director, Department of Physiology, and dean, Medical School

Dr. Alfred Owre, professor and dean, College of Dentistry

Mr. D. G. Paterson, professor of psychology

Mr. R. E. Scammon, professor of anatomy

Mr. Louis B. Wilson, director of administration, and professor of pathology, Mayo Foundation

Mr. M. E. Haggerty (chairman), professor of educational psychology, and dean, College of Education

It will be seen that the committee is widely representative both of subject-matter divisions and of the administrative units of the University.

The committee whose activities it is my function to detail, grew out of the Committee on Educational Guidance, appointed by President

Coffman in 1922. The immediate objective of this committee was to study the advisability of calling a conference at the University for the consideration of the problems of the educational guidance of its students both before their entrance to the University and afterwards. In the report of the earlier committee, it was recommended

"that the President of the University appoint an Educational Research Committee which shall promote the study and investigation of educational problems within the university. Such agency should not, for the present at least, have administrative functions, but should be for the purpose of investigation, experimentation, publicity, and co-operation among administrative agencies now existing. The membership of such an Educational Research Committee might well consist of administrative officers and in part of other faculty members specifically interested in the study of university education. The immediate purpose of such a research committee would be to provide a means of co-ordinating the research now being done by individuals now in the university, of advising in regard to the direction which research should take and the methods to be employed, and in promoting the dissemination of resulting information throughout the university."

Inasmuch as the Committee on Educational Research does not have any full time personnel, it has operated much as any other university committee, through meetings, discussions, and memoranda circulated among the members of the committee. It will be convenient to review the scope of the committee's activities and at the same time indicate the one special feature of its machinery by describing its subcommittees. From time to time, it has seemed wise that the work of the general committee should be carried on through subcommittees especially interested in particular research projects. Ten such subcommittees have been created for the investigation of projects which were deemed of sufficient worth to the University as a whole to warrant their investigation as university questions. For the personnel of the subcommittees it has been found desirable to go outside the membership of the general committee for the purpose of enlisting the aid of specially interested faculty members and in some cases of graduate students. Through this extension the committee has grown until it now embraces approximately forty individuals.

In some cases the investigation of the projects has gone forward through the labors of the individuals who are members of the subcommittees. In other cases it has been possible to supplement the work of these individuals by university appropriations, and additional clerical staff has been secured. In no case have these appropriations been large, however. The total amount of research money authorized thus far for all projects is \$3,600.

The work which the general committee has sought to promote will be best revealed by a review of the activities of such of its subcommittees as have made substantial progress in the pursuit of their several projects. The statements which follow are, in the main, abstracts from the reports of the subcommittee chairmen to the Committee on Educational Research. The chairman of the general committee accepts responsibility for the form of the several statements in so far as they differ from the reports made

by the subcommittees, but the substance is to be credited to the subcommittee chairmen and their colleagues.

The subcommittees whose work is reviewed in the following pages are:

1. The Subcommittee on Student Personnel.
2. The Subcommittee on the Analysis of the Marking System at the University of Minnesota.
3. The Subcommittee on the Relation of Class Size to the Efficiency of Instruction.
4. The Subcommittee on Extra-curricular Activities.
5. The Subcommittee on Mental Hygiene of College Students.
6. The Subcommittee on the Teaching of Science.
7. The Committee of Seven.

## REPORT OF SUBCOMMITTEE ON STUDENT PERSONNEL

### *Members of the committee*

- Mr. L. J. Brueckner, associate professor of education  
 Mr. E. Fraser, professor of law; dean, Law School  
 Mr. D. G. Paterson (chairman), professor of psychology

The initial work of this subcommittee was to plan a student personnel record to be used as a basis for advice and guidance of students and for the accumulation of information to be used in later researches. An extended study was made of personnel blanks already in use in the several colleges of the University of Minnesota and in other institutions throughout the country. On the basis of these studies the subcommittee devised a personnel record which, after much discussion by the general committee, was approved and recommended for tryout in such colleges as cared to use it. The form finally agreed upon was first used at the fall registration in 1924 in the College of Science, Literature, and the Arts, the College of Engineering, the College of Agriculture, Forestry, and Home Economics, and the College of Education.

In the use of this record it is understood that it will follow the student as he travels through the University. It can thus always be found in the office of the dean of the college in which the student is registered. As students transfer from the academic college to the professional schools the cards will follow them and become the property of the Law School, the Medical School, the College of Dentistry, or other professional schools.

Thus far the use of the record is to be regarded as experimental. By its means there have been collected data on approximately ten thousand students. Beginnings have been made upon analyses of these materials and further work is in contemplation.

In the meantime the records have been widely used by individual members of the faculty, by advisers, and by committees in the daily work of student consultation and direction.

Closely related to the work of this subcommittee has been the investigation of student quality through means of intelligence examinations and other measures of human ability. The following quotation from a recent

paper by Dean J. B. Johnston on "Predicting College Achievement As a Basis for Educational Guidance" will give the history of the testing movement at Minnesota.

"In very few words the story of our efforts to find a rational and reliable basis for educational guidance (for all selection, admission requirements, etc., are phases of educational guidance) is as follows:

"For many years we had as an entrance requirement a certain standing in the high school, expressed in marks. The reliability of this was questioned, and through the efforts of President Vincent in 1913-14 the rule was abandoned. In 1914-15 a study of the college records of those who would have been refused admission under the old rule showed that the rule kept out of college some students who would have failed and a larger number who would have made satisfactory records.

"In 1915-16 I called attention to the mental tests which were then developing as giving hope of placing student selection on a sound basis. Conferences were held between university faculty representatives and the Schoolmen's Committee on University Entrance Requirements and a program of investigation was agreed on, to be carried out by the university with the moral support of the schoolmen's committee.

"In 1917, since the university had given leave of absence to Professor Yerkes for psychological research work in the Army, we secured through his help a supply of the Army Alpha tests and were the first institution to use these. A program of testing was carried out under the direction of Professor Haggerty, from which our faculty gained some valuable information and some interest in and respect for psychological testing.

"In 1919 and 1920 tests were given to liberal arts freshmen under the direction of Professors Miller and Van Wagenen. Beginning with the fall of 1921, Professor Paterson took charge of the testing of freshmen for the College of Liberal Arts. In later years the Colleges of Engineering and Architecture and of Agriculture, Forestry, and Home Economics have had their freshmen take the same tests. Next fall, with the inauguration of a full "Freshman Week" plan, the tests will be given to all newly entering students, whether freshmen or advanced standing students, in all schools of the university."

The basic reason for providing a personnel record and for giving psychological tests is to improve the means for the educational and vocational guidance of students. The two basic factors determining the capacity of a student to pursue a college or university course successfully are (a) the native intellectual capacity of the individual, and (b) the training, scholastic and otherwise, that the student has received prior to his entrance to the University. The second of these facts is best represented by the transcript of work which a student has carried in a secondary school. A measure of the first of these factors we attempt to secure through the intelligence examinations. There are, however, many secondary factors, such as chronological age, economic status of the family, nationality, occupational activities of the parents, schooling of the parents, etc., which exercise an undetermined but in many cases an apparently important influence in the student's success. All such information should be gathered together and made available to the counsellors who are provided by the University for the advising of students.

The "educational guidance" of students is not a new activity of teachers. It has always been a major interest with them. Recent advances, however, in personnel work have changed the character of this service.

Numerous attempts in the history of the University of Minnesota have been made to organize this work on a more effectual basis. The Committee on Educational Guidance reporting in 1923 recommended certain improvements in this regard. In particular, it recommended the designation of "certain faculty members of the requisite personal qualities who will constitute an organized body of advisers." Subsequent to this report, the president of the University appointed a group of advisers under the chairmanship of Dean Johnston, of the College of Science, Literature, and the Arts. This group of advisers were drawn from all colleges in the University. They have met in conference numerous times, and in their respective colleges they serve as counsellors for students. The group is so composed as to include psychologists, sociologists, and representative bodies of instructors in the wide variety of subjects included in the university curriculum.

Among the activities which have resulted from the personnel work in the University are (1) greatly improved methods for advising high school graduates as to their likelihood of success in college work; (2) the selection and segregation of students of like ability into class units for purposes of instruction; (3) the improved guidance of students in regard to choice of professional or other work; (4) the initiation of experiments in the technique of collegiate instruction.

In the several years that the personnel work has been in progress numerous members of the faculty and graduate students in psychology and education have made investigations and prepared theses bearing upon these problems. Some of these have been published.

The investigation of the problems of student personnel at the University of Minnesota is only well begun. Methods of fruitful investigation, however, are now available, and there is widespread interest not merely among administrative officers but throughout the faculty in the study of these problems and in the improvement of educational guidance in the University.

D. G. PATERSON, *chairman of the subcommittee*

#### REPORT OF SUBCOMMITTEE ON THE ANALYSIS OF THE MARKING SYSTEM AT THE UNIVERSITY OF MINNESOTA

##### *Members of the subcommittee*

Mr. W. L. Hart, professor of mathematics

Mr. A. C. Krey, professor of history

Mr. H. B. Wilcox, assistant professor of mathematics and mechanics

Mr. Holbrook Working, professor of agricultural economics

Mr. W. S. Miller (chairman), professor of educational psychology

Mr. John E. Bohan, working under the direction of the subcommittee, has prepared a doctorate thesis on the subject of "Students' Marks in University Courses."

The project of this subcommittee was to study the relation of marks which students receive in their several classes to the marks which they receive in other courses, to measures of intelligence, and to other factors affecting student achievement. The progress of this subcommittee's work may be indicated by a list of its activities as follows:

1. The preparation of a complete annotated bibliography on the practice and theory of the distribution of marks and the prediction of scholastic success.

2. The assembling through means of a questionnaire of information from the deans of the several colleges of the University of Minnesota as to practices in the use and standardization of marking systems, the uses made of marks in the control and guidance of students, and attempts at producing objectivity in the awarding of such marks.

3. A similar investigation of the practices in student marking in thirty-nine colleges and universities other than Minnesota.

4. A statistical investigation into the prevailing practices and results of the marking system now in vogue at the University of Minnesota over a four-year period, including a study of the distribution of marks of the same students in different departments of the University.

5. A study of the marks obtained over a period of four years by 1,031 students who entered the College of Science, Literature, and the Arts as freshmen in the fall of 1921, and who were given an intelligence examination upon entrance to the University. The academic career of these students was followed for a period of attendance, and studied for the "length of stay" in the University, for the average honor points attained up to the time of leaving, and for the relationship of intelligence level to the honor point average.

6. A study of the results of objective tests of College achievement as checked against student marks.

7. A study of achievement in foreign language in its relation to the intelligence of students and to their achievement in the required courses in rhetoric.

In presenting its conclusions, the subcommittee urges the following caution against misinterpretation of what may superficially appear like distinctly different types and practices of student marking. It points out that the comparison of marks given by one instructor with the marks given by another instructor, and the comparison of individual instructors' marking with group averages of marks is likely to be unfair to the instructor himself and to the situation as a whole. This is true because of the wide variation of student abilities which are repeatedly demonstrated by intelligence tests and other measures of mental ability because of the prevailing practice in some departments of classifying students into ability groups, and because of the distinct differences of appeal made by required and elective courses, and the slant of interest given through professional or other leanings of the student. In general, it is true that the requisite data for properly interpreting the marks of a single instructor are not available to an investigator who derives his data wholly from the registrar's records.

Another obstacle which makes interpretation of statistical data difficult and, in many cases, impossible, is the lack of a clearly defined policy of marking in the several colleges and departmental units of the University. Apparently no statement exists in any college or unit of the University giving objective definition to the meaning of the marks A, B, C, etc. Until some method shall be devised for such objective determination of marks, wide variations may be regarded as interesting phenomena but not as grounds for censure of particular individuals because they vary from their fellows or from the group as a whole. Just comparisons, therefore, are possible only where all the concomitant factors are known to the investigator, or in the case of large administrative units such as colleges and departments having many students.

Dealing with the total distribution of marks in large units certain differences which tend to persist over a period of time become apparent. These indicate a consistency of practice in the awarding of marks altho there is no evidence of a consciously declared policy.

When large bodies of students are considered, it becomes apparent that marks are given somewhat in terms of the intellectual abilities of students as measured by intelligence tests. The group of 1,031 students entering the College of Science, Literature, and the Arts in the fall of 1921 continued in the University for varying lengths of time. Altho there were wide variations, in general, students dropping out earlier had the lowest intelligence scores, and those remaining longest had distinctly high intelligence records. The marks of these students indicate that from the very start, their marks are in direct relation to their intellectual ability and their length of stay in the University. The group destined to remain longest had distribution on a higher level than that which remained the shortest time.

Interesting variations, however, from the tendencies of these group data occur. There is, for instance, an apparent tendency for instructors to mark graduate students somewhat higher than they do undergraduate students in the same courses. It is further true that the variation of marks within individual courses is apparently little affected by the intelligence level of particular students. It even appears that some courses that have a fairly highly selective intellectual group issue marks in a severe fashion, while other courses with a less highly selected intellectual group give high marks generously. It also appears that when the same group of students are considered in different courses—for instance, elementary courses in two different science fields—they receive their marks in distinctly different forms of distributions. Constant differences in standards of marking are thus shown to exist between departments apparently requiring somewhat the same abilities. On the basis of its studies, the sub-committee offers certain suggestions for the improvement of the marking system.

## SUGGESTIONS FOR THE IMPROVEMENT OF THE MARKING SYSTEM

These suggestions are based upon the following points:

1. Variation in standards exists between colleges, between departments, and between courses.
2. These variations are the natural outcome of a rather complete lack of accepted standards or definitions or marks, official or otherwise.
3. Correlation between achievement in courses and correlation between achievement in a course and intelligence generally exist.
4. Selection of student body throughout the university career tends to improve the scholastic ability of the group through the ascending stages of the college career.
5. A basic five-letter system of marks is well established both at the University of Minnesota and elsewhere.
6. Standardization is to be desired in order that administrative action in reference to the setting of various scholastic requirements may be made with knowledge of the effect which such requirements will have.
7. The growing use of objective tests makes possible a greater differentiation than the fivefold one at present used.

Upon this basis it is believed that these recommendations are valid:

1. For the University as a whole, or at least for each college receiving entering freshmen, a basic group should be set in comparison with which all future marks should be determined.
2. This basic group should be the entire fall freshman class in a given year and thereafter be constant for a period of time.
3. A definite distribution of marks for any class typical of the entire freshman group should be officially established.
4. Variations from this distribution should be justified at first by selection as evidenced by difference in intelligence levels or differences on the basis of other general ability tests.
5. In the later quarters of work an index for the students in any one class for any one quarter based upon the average of all previous marks should be the means by which the general level of the marks should be determined for that class.
6. In order to make possible legitimate variation which may occur as a result of such things as superior teaching, special administrative devices, and any other elements which may operate in a single term, a consistent effort should be made to devise for courses objective tests which are general enough and comprehensive enough to be used with validity over a period of time. These tests could be used to indicate fluctuations in the level of achievement from one quarter to another and so set the general level of the marks but would not necessarily be used to decide the marks of individuals in the course. A set of equivalent tests of such a nature would make it possible to compare the student body over a period of time on the basis of achievement in definite subjects.
7. The use of objective tests which lend themselves to the rating of individuals on the basis of percentile ranks or standard scores could eventually supplant the latter rating but this should occur only as comprehensive objective measures come into general use. In the meantime in order to allow for the growth of such a system supplementary space on the class report to the registrar might well be provided. Such space could allow for the S.D. scores or the P.R. and also provide for the designation of the group upon which the scores were based.

Advantages which would accrue from the use of a basal group upon which to derive the standing of all students would include the possibility

of the actual administrative control of elimination. With a fixed standard it would be possible by administrative action and with knowledge of the results that would occur to set the level of achievement which the state and the institution should demand as a minimum for continuance in residence.

The professional schools requiring preliminary preparation for entrance could set entrance requirements with full knowledge of the size of the group which would be eligible for entrance. The standards of training which any course should require for credit would be adjusted by the better outlining of the amount of work required for the unit or term's course. Thus a course which at present fails nearly one half of the group enrolled would of necessity extend the period for the same work over a greater length of time. The desirability of proceeding more slowly rather than repeating exactly the same procedure in such cases will not be argued here.

The difficulty involved in such a standardization of marking procedure need not stand in the way of a tentative statement of the definition of marks. To set a standard at which to aim should certainly be preferable to a blind trust in chance to take care of the situation in a just and wise way.

The failure to recommend a definite type of distribution for the freshman group is intentional. It is felt that the setting of the standard distribution is definitely an administrative matter involving such things as facilities for handling students, judgment of what per cent of students can or cannot profit by university instruction, etc. However, any policy adopted must allow for progressive selection and selection in individual courses if injustice is to be avoided.

A further point should be mentioned. Publicity of distributions of marks may do much toward gaining the interest of the faculty in securing uniformity. Questions which have been put to committee members by heads of departments and deans indicate both a desire for information as to the distributions of marks and a present lack or unavailability of such material.

W. S. MILLER, *chairman of subcommittee*

## REPORT OF THE SUBCOMMITTEE ON THE RELATION OF CLASS SIZE TO THE EFFICIENCY OF INSTRUCTION

### *Members of the subcommittee*

Mr. E. Fraser, professor of law; dean, Law School

\*Mr. W. S. Foster, professor of psychology

Mr. F. von Borgersrode, assistant director, Bureau of Educational Research.

Mr. R. E. Scammon, professor of anatomy

\*Mr. E. Hudelson (chairman), professor of education

\* Deceased.

The relation of class size to efficiency of instruction is important for several reasons. The most obvious is cost. The greatest single determinant of educational expense is the cost of instruction. The major factors involved in instructional costs are salary schedule and teaching load. Teaching load includes hours of teaching and number of students. As these factors are ordinarily administered today, class size is the greatest single variable determinant of educational cost.

A less obvious, but possibly no less significant, aspect of the problem of class size is that of instructional emphasis. For example, 80 per cent of the teaching in the College of Science, Literature, and the Arts is being done in junior college courses. This means that only one fifth of the teaching in this college is available for instruction at a distinctly university or graduate level. The possibility of relieving this situation by developing techniques for handling larger junior college classes is worth careful consideration.

As one approach to the problem, the subcommittee on class size studied trends in class size over a six-year period since 1920. Tho the average size of classes has remained about constant in some colleges and has even decreased in a few departments, the general tendency throughout the University has been toward larger teaching units. Classes in one college have more than doubled in size since 1920.

In view of the frequent claim that large classes are not conducive to efficient student work, a comparison has been made of student marks in large and small classes in five populous courses from 1920 through 1925. In these five courses there has been practically no difference in the percentage of A's, B's, C's, D's, E's, failures, incompletes, and withdrawals between large and small sections. In the only course showing a difference that might be considered significant the small sections had a higher percentage of failures than the large sections had. It appears that if small classes are more efficient the advantage is not revealed in instructors' marks.

In addition to these investigations, the relative effect of large and small classes upon efficiency of instruction is being studied experimentally. Controlled experiments have thus far been concluded by seven instructors in six different courses in three different colleges. Ten instructors are now co-operating on other experiments, and a number of units have been arranged for 1926-27. Some of the completed experiments have extended over five successive quarters.

It is proposed next year also to determine by means of questionnaires, conferences, and visitations the attitude of instructors and students toward class size and the teaching techniques that are proving most successful with the present large classes. It is hoped that from these reactions and observations a body of information may be accumulated which will reveal generally successful large classes. Attention is now being given to developing means of recording objectively the teaching procedures to be observed next year.

TABLE I.—PERCENTAGE DISTRIBUTION OF MARKS FOR LARGEST AND SMALLEST CLASSES\*

University of Minnesota, Fall Quarters, 1920-21, Inclusive

Course	Sec.	No. of Cl.	No. of Stu- dents	Av. Class Size	PER CENT OF STUDENTS MARKED							
					A	B	C	D	E	F	I	W
General	L	30	1185	39.5	5.91	16.11	44.89	18.73	2.03	6.24	1.52	4.56
Psychology if	S	32	811	25.3	5.30	14.53	43.53	17.63	3.45	6.41	2.22	7.03
Modern	L	24	861	35.9	4.65	19.40	37.86	19.74	3.83	5.46	1.39	7.67
World if	S	24	602	25.0	5.15	20.93	35.04	18.60	5.15	7.31	1.99	5.81
Beginning	L	14	519	37.1	6.74	13.49	24.66	16.76	3.08	16.76	1.54	16.96
French if	S	12	329	25.3	8.51	11.55	22.19	12.16	2.43	24.32	2.13	16.72
Introd. to	L	12	742	61.8	3.77	18.06	46.63	16.44	0.00	5.53	1.21	8.36
Sociology if	S	13	334	25.7	5.69	17.37	47.31	14.97	1.50	3.29	1.20	8.68
Economic	L	23	670	29.1	4.03	19.70	36.42	22.24	4.78	4.33	1.64	6.87
History if	S	22	489	22.2	4.70	17.38	36.61	16.77	4.70	7.36	3.48	9.00

\* By "largest classes" is meant those in the highest one fourth of a distribution of sections of that course, arranged according to size. By "smallest classes" is meant those in the lowest one fourth in enrolment.

As fast as controlled experiments are completed their results are being subjected to a detailed analysis including such questions as the relations of class size to student intelligence, to homogeneous grouping, to immediate and ultimate educational aims, to direct and concomitant educational outcomes, to the nature of the course, to methods of teaching, to the size, shape, lighting, and equipment of the classroom, to the adequacy of library or laboratory facilities, to teaching and clerical assistance, and to the physical and emotional effects of large and small classes upon instructors and students.

While a thoro analysis has not yet been completed, certain general tendencies seem to be emerging. It appears that the size of the classes in the courses thus far investigated has little or no effect upon results measured in terms of student achievement. It may be that there are important educational outcomes accruing, or at least accruable, only from small classes which have not been detected in these experiments; but when measured in terms that are commonly employed in university teaching, these students seemed to be unaffected by the size of the classes.

There may be no single solution to so complex a problem as that of class size. It may be that certain classes can be increased without loss whereas others cannot. It may be that the optimum size of class is different for different teachers and students. Possibly the aim or nature of the course will ultimately determine the ideal class size. Methods of teaching may have something to do with it. Physical conditions may be found to be the determining factor. On the other hand, classes at their maximum size under present methods of teaching and classroom management may be considerably increased under modified instructional or administrative techniques. It is therefore important that the problem be studied

widely as well as thoroly. Additional support has accordingly been given to the subcommittee with the request that it continue its researches in the hope that it may reach conclusions important to the administrative policies of the University. Interest in the question on the part of the faculty has already become so widespread and requests for experiments so insistent as to tax the facilities and resources of the committee.

E. HUDELSON, *chairman of subcommittee*

## THE REPORT OF THE SUBCOMMITTEE ON EXTRA-CURRICULAR ACTIVITIES

### *Members of the subcommittee*

Mr. W. Anderson, associate professor of political science

Mr. W. F. Holman, professor of mathematics and mechanics

Mr. F. Engelhardt, professor of educational administration

Mr. F. S. Chapin (chairman), professor of sociology, chairman of the Department of Sociology, and director of the Training Course for Social and Civic Work

Mr. O. Myking Mehus, a graduate student in sociology, has rendered to the subcommittee invaluable assistance in the analysis of the data reported herewith.

In the fall quarter, 1924, a preliminary study was made of the time spent on extra-curricular activities, by some of the students in certain colleges at the University of Minnesota. These students were asked to fill out a daily log in which they indicated how they spent every minute of their time for a week and other students were requested to fill out a schedule covering their activities for a week. Five hundred of each were sent out, but only 80 logs and 120 schedules were filled out and returned by the students. These were tabulated and the results were carefully studied. But since the returns represented several colleges and different classes in these colleges, it was clearly seen that there were too few returns from the different classes to be of any value in drawing any conclusions. It was also seen that it would be impossible to get the whole student body to fill out the logs, as it involved too much detailed work to keep an accurate account of how a student spent his time during each day for a long period of time. It was decided that a questionnaire offered the best means of securing the desired information. Accordingly the schedule was thoroly revised and developed into a questionnaire.

Ten thousand copies of this questionnaire were printed and distributed to the entire undergraduate student body. This was done during the latter part of the winter quarter and the first part of the spring quarter. In all the colleges the co-operation of the deans and the heads of the departments was secured. In some of the colleges the students filled out the questionnaires when they registered for the spring quarter, while in others they filled them out during part of the regular class period. The total enrolment in the colleges to which questionnaires were sent was 7,130. A total of 4,637 students, or 65.1 per cent, filled out and returned questionnaires.

An alphabetical list of students who attended the University during the spring quarter (1925) was secured from each of the colleges, and the names of the students who filled out the questionnaires were checked against these lists in order to determine whether the sample was a representative one or not. The returns were found to be evenly distributed up and down this alphabetical list in every case, thus suggesting that this was a representative sample and not a selected group.

A second questionnaire was prepared and sent to each of the campus organizations. A list of campus organizations was secured from the office of the dean of student affairs. A total of 306 organizations were listed, but when questionnaires were sent out it was found that a number of these organizations were no longer in existence. A total of 151 organizations filled out and returned questionnaires.

In order to secure the attitude of the alumni in regard to the social and educational value of extra-curricular activities, a questionnaire was prepared and sent out to 1,000 of the alumni of the University of Minnesota who were graduated from 1910 to 1915 inclusive. A group of 500 of those alumni who were especially active in extra-curricular activities as students was selected. This group was chosen from the *Gopher* and included the presidents of different campus organizations, editors and managers of the publications, captains of the athletic teams, and members of certain honorary fraternities such as the Grey Friars and Iron Wedge. Another group of 500 was selected at random from the remaining alumni of the above years—every seventh name being selected.

Analysis of the facts collected by the methods just outlined has consumed the balance of the year. The committee has had frequent meetings to discuss reports made by Mr. Mehus, a graduate student working under the direction of the committee in the analysis of the data.

The following preliminary findings are reported:

The first findings relate to the facts of student participation in extra-curricular activities. Upper classmen engage in more activities than under classmen.

Women tend to engage in more activities than men.

Considering special types of activities, 40 per cent of the students engage in fraternities and sororities, altho the per cent is higher than this among senior colleges and in the professional schools.

One third of the students report membership in religious societies.

There is an increase in the percentage engaged in religious activities from the Junior to the Senior College.

Women are more active than men in literary activities and student government.

Men are more active than women in dramatics and music.

About 35 per cent of the students report earning money. This percentage rises to as high as 50 per cent and over in the senior college classes.

A larger percentage of men earn money than women.

The returns which estimate the time spent in activities are not regarded as very reliable and complete, but in general these returns show that men spend more time than women in athletics, fraternities, and earning money. Women spend more time than men in religious activities and housework. On the whole, more time is spent in earning money than in any other activity.

To supplement the general figures from the entire student body a special study was made of 379 prominent students who returned questionnaires by special request. These prominent students were those mentioned by campus organizations as their most active members. Another group of 114 honor students also received special study. Our analysis showed that honor students take part in more activities than prominent students and that in nearly every activity the prominent and honor students show a higher percentage in student participation than the student body as a whole. The median number of campus activities for the student body was found to be one activity, whereas the median for the prominent students was 3, and for the honor students 4.

In 1924-25, 278 campus organizations were found to be active. These were survivors from a total of 527 organizations in existence since 1887. The mean duration of life of the 249 dead organizations was found to be 5.2 years. When the different major types of organizations were ranked in order of the percentage that died, from the highest down, these organizations seem to fall into three groups; (1) 104 organizations consisting of musical and literary societies, scientific and language societies, oratory, debate, and dramatics showed the highest death rate; (2) 215 organizations, including publications, miscellaneous groups, athletics, military organizations, political and government activities showed a median death rate; and (3) 208 organizations such as societies, fraternities, religious groups, and honorary societies showed the smallest death rate. Possibly the low death rate in this last group is in part due to the support these organizations get from national associations.

A questionnaire was sent to 1,000 alumni. From a group of 500 alumni who had been prominent in extra-curricular activities when in college, 241 returns were made, and 169 out of a random sample of 500 alumni.

Analysis of these returns seems to indicate that there is a relationship between the amount of participation in extra-curricular activities during student days and the amount of participation in corresponding activities after graduation. Alumni opinion of student extra-curricular activities tended to emphasize their value for primary face-to-face contacts rather than for information or habits of study gained.

The committee recommends a continued study of the materials and the collection of additional information.

F. S. CHAPIN, *chairman of subcommittee*

REPORT OF THE SUBCOMMITTEE ON MENTAL HYGIENE  
OF COLLEGE STUDENTS

*Members of subcommittee*

Mr. A. W. Morrison, associate professor of nervous and mental diseases

Mr. W. C. Olson, assistant in educational research

Mr. D. G. Paterson, professor of psychology

Mr. F. M. Rarig, associate professor of public speaking

Dr. H. S. Diehl (chairman), director of University Health Service and Department of Preventive Medicine and Public Health

The subcommittee has been assisted in the formulation of its program by Dr. Smiley Blanton, director of the Child Guidance Clinic in Minneapolis, and Dr. J. S. Stevenson, director of Mental Hygiene Clinic at the University of Minnesota.

The purpose of the subcommittee has been to study the problem of mental hygiene of college students at the University of Minnesota. It is perfectly clear that college students have "problems" (some big, some small) in addition to those having to do with their curricular work. Such problems as financial worries, failure to get along, family difficulties, unhappy home relationships, feelings of inferiority, love affairs, and other sex difficulties are not unusual. They affect scholastic achievement profoundly.

During 1923-24, 198 men and women were interviewed at the University of Minnesota Student Health Service on account of certain suggestive responses in their histories or because they were referred by deans or student advisers. Of the 1924-25 freshman class at least 6 per cent, both men and women, needed advice. It has been estimated that probably 10 per cent of students have quite real problems and should be properly advised and that in addition to this group there is a fairly large number who should receive some aid.

The following abstracted histories give very briefly some of these students' difficulties:

M. is so self-conscious that he never feels normal except when occupied by some mental or laboratory work. Had to leave school at ten years of age on account of nervousness, self-consciousness, and a feeling of inferiority. Schooling has been constantly interrupted for these reasons and he finds it impossible to make acquaintances and is terrorized at the prospect of meeting new people. His scholastic work is excellent, and has made determined efforts to overcome his handicap.

B. feels that nobody has been interested in him in the University and that he has not had a square deal. He knows few students and feels that he would like to drop out of school at the end of the quarter.

H. since a child has had all sorts of fears, particularly that he is suffering from some disease. He thought that he had tuberculosis, later diabetes, etc. He stated on questioning quite frankly that his feeling of being discriminated against was probably due to his desire of being shown partiality and not getting it. Day dreams excessively; desires to be a hero; and is trying to work out a philosophy of religion for himself. Stands exceptionally high in studies.

C. has been nervous during the past year. Wished advice as to continuing his university work. Is an only child that has had everything all his life but during the recent business depression, worked for his father for three and a half years. Moved to Minneapolis from a small town. He made few acquaintances. His engagement was broken and he has been greatly concerned about this. Also has a very definite sex problem.

W. is a boy who has always lived on a farm and felt backward and self-conscious while in high school. Has found difficulty in mixing with other students. Is inclined to be self-conscious and bashful. Apparently did not understand how to adjust himself to college life.

N. is an only daughter, one of whose parents is extremely nervous. Has always had difficulty in mixing with other people. Is quite self-conscious and has been very carefully supervised and chaperoned at home. She had apparently been so chaperoned that she does not know how to make an adjustment to university life.

With the limited facilities available a complete analysis of the causes of these and many other similar problems was not always possible.

#### THE RELATION OF MENTAL HYGIENE TO THE SPECIAL ADVISING OF STUDENTS

The following cases were selected from the file of special advisees because they illustrate typical problem cases demonstrating beyond question (1) the fact that there are serious mental hygiene cases among our present student body, and (2) the fact that these very students who are so greatly in need of an improved mental hygiene service would undoubtedly be greatly benefited by the appointment at the earliest practicable date of a competent first rate neuropsychiatric social worker.

*Case 1.*—This is the case of a girl student, highly talented linguistically, who was following the pre-medical curriculum with very unsatisfactory grades. Apparently her desire to study medicine was not in harmony with her fundamental talents and leanings but based on a probably unconscious desire to win the admiration of her father who as a young man had been unable to complete a medical course. She was in a greatly fatigued state showing nervousness, sleeplessness, and irritability when first seen in the fall quarter of her sophomore year. This unfavorable condition was probably due to a very unhappy situation existing in her home since she was about fourteen, to her failure to cope successfully with her pre-medical courses, and to the partial breaking up of an innocent but unwholesome intimate friendship with a roommate, this being the only friendship made by this student during her stay at the University. Transfer from pre-medical work to the general course with emphasis on English was effected with a marked improvement in scholarship. Her physical condition and nervousness seemed to improve as a result of advice given by our consulting psychiatrist, Dr. Morrison. This student is not "out of the woods" by any means, and aid continues to be given by her special adviser, by our vocational adviser, and our psychiatrist. A psychiatric social worker would be able to visit her rooming place which is a considerable distance from the University, interview her friend with whom she lives and thus gain more information concerning that phase of her social adjustment, and could probably make suggestions that might result in extending her circle of friendships.

*Case 2.*—Here is a young man who has apparently undergone a marked personality change during the past two years as indicated by his loss of interest in church, in dancing, in social activities, and his loss of confidence in his own ability. He was one of the outstanding students in high school, winning a gold medal for high scholarship. When assigned to his special adviser he was on probation. He exhibited mental symptoms

no basis for which could be found by elaborate physical and physiological examinations made by the Health Service. Consultation with this student was unsatisfactory because of the lack of a social worker who could have visited his home and obtained many facts needed for a better understanding of his difficulties. This student's scholarship improved markedly and he is apparently getting along well this year. Nevertheless those advising him feel themselves handicapped by the lack of many facts needed fully to understand his difficulties.

*Case 3.*—This student entered the College of Agriculture and transferred to the College of Science, Literature, and the Arts this fall. He reports his work to have been unsatisfactory in agriculture. He is now failing in two subjects. His intelligence rating is low and altogether it seems as tho he is questionable college material. He is urgently in need of mental hygiene treatment for he is in an emotionally exhausted state, having been in difficulties of one sort or another for the past five years. He needs aid now in becoming self-disciplined, before he is turned loose on society as an academic failure. There was an elaborate history to be obtained in this case involving lengthy interviews with his special adviser, and with the psychiatrist. In addition his special adviser interviewed a friend and a brother who are students in the University. Much of the time devoted to these interviews could have been saved had a social worker been available to assemble the history. Furthermore, an interview with his mother and a visit to his home are both advisable but no one on the staff is able to do this. A social worker would be invaluable in a case like this not only in saving the time of the psychiatrist and his special adviser, but also in unearthing additional facts that might aid materially in helping this student to recover his poise and self-control.

*Case 4.*—This case not only illustrates the need of a psychiatric social worker but also the need for a psychopathic hospital for it is possible that this student could have benefited by more intensive study which would have been possible had the facilities of a psychopathic hospital been available. This student had attracted the attention of various members of the Psychology Department because of her abnormal behavior, constantly seeking advice, weeping, then laughing boisterously without apparent provocation during the interview. Her father had recently suffered from a long period of depression incapacitating him for work. Her intelligence rating was extremely high being 98 percentile yet her achievement scholastically was rather mediocre altho up to the required C standard. Little progress could be made with this student because of lack of adequate facilities for observation, diagnosis, and treatment.

Other cases could be cited which would serve to emphasize the seriousness of the mental hygiene problem and the urgent need to improve our facilities for dealing with these cases by the employment of a competent psychiatric social worker. These cases indicate that the mental hygiene problem is not confined to the unintelligent student, nor is it confined to students who are making a scholastic failure. They represent all possible variations in ability and scholastic attainment with complicating emotional difficulties and mental conflicts ranging from very mild to exaggerated conditions bordering on insanity itself. Since our educational objective is concerned with the personality as a whole and not with a narrow training of the intellect alone we are obliged to aid these students in various and sundry ways to develop their personalities so that they may make an adequate adjustment within the institution as students and without the institution as future citizens in the state. To make a more serious attack on this problem requires added facilities, the most important step being the addition of a tactful psychiatric social worker.

## MENTAL HYGIENE IN RELATION TO PUBLIC SPEAKING

A considerable number of students take public speaking not because they have any particular aptitude for it, but because they feel the need of overcoming speech difficulties of various kinds. Not a few are sent into the course by other instructors who find them unable to communicate their ideas in classroom discussions. Many of these students have difficulties which the instructor is able to help them remove. The great majority of them make fairly satisfactory progress in substituting good habits for bad ones; but there are always a number who have serious emotional difficulties, the causes of which are too remote and subtle for the department to deal with them as effectively as they should be dealt with. If the instructors had the training and skill for this task, which they have not, they would not have the time. Some of these are cases of stammerers, who, of course, need very special attention. Most of them, however, are victims of emotional conflicts which must be dissolved before they can do their best work as students.

As one example, there is the case of a man who is now in the fundamental course, a Norwegian about twenty-eight years of age, who grew up in the backwoods somewhere in the northern part of the state, had little social life of any kind, and never felt the need of making any adjustments to such an environment as he finds at the University. He is determined to remain scared before an audience. "I am trembling right now all over," is a favorite formula. He stands with leg, back, and arm muscles perfectly rigid, face flushed. At times a profuse nervous perspiration covers his face and entire body. He formerly spoke at a very rapid rate, which he has recently modified but not yet got under complete control. This man's case probably is not serious, but he is nevertheless an example of the need of expert mental hygiene service at this University. He is out of adjustment because of his early training and because of the fact that he learned Norwegian before he learned English, to which he is not yet thoroly habituated.

Another case of emotional difficulty is a girl. Her outstanding muscle habit response is a constant smile, a smile that is very affected; and to one who converses with her, it is evident that she feels very inferior. While making a speech in class, it is not an uncommon thing for the smile to leave her face, and her next reaction is to burst out in tears. Also, she has a tendency to leave the platform the moment that she has difficulty in thinking about what she wants to say; and if asked to go back to the platform, she sometimes refuses, sometimes goes back reluctantly, sometimes weeps. Perhaps a case history of her family life would give some clue as to the reason for these reactions. This girl is at least twenty-five years old, and states when questioned that her muscles quiver and that she, too, perspires. She admits that she smiles constantly in order to prevent weeping. In delivering a very emotional speech, one calling for a pugnacious attitude on the part of the speaker, she will maintain this smiling facial set. Personally the instructor believes this is a case in need of mental hygiene, which members of the department lack both the training and the time to handle.

Only one more case with some reaction will be cited. This is the case of the girl who comes on the platform and takes a body response with enormous tensions, refuses to look at her audience, trembles, but does not perspire, talks so that one cannot understand her six feet from the platform, has great difficulty with articulation, tho in private conversation she speaks very distinctly. She says that she is not afraid of anyone in private conversation but that when she faces an audience she is overcome

with fear. She will not voluntarily even raise her hand in gesture. Attempts to get her to relax on the platform have all been unsuccessful. On the other hand, in private conversation, she relaxes very well. Inquiries into her home conditions seem to indicate that she is repressed and that her case is also one for a specialist. Her problem is a personality problem which the department is unable to handle.

These three cases are typical of perhaps a dozen cases that have been noted among our beginning students in public speaking.

#### MENTAL HYGIENE IN RELATION TO PHYSICAL HEALTH

A certain influence of the mind upon physical health has been recognized for many centuries. The marvelous cures accomplished by faith healers, Coué, and Christian Science are well-known popular examples of what can be accomplished with some cases. During recent years on the basis of the scientific progress made by psychiatrists and psychologists much knowledge has been obtained concerning the causes and processes of these mental and nervous disorders.

Mental disturbances may affect physical health both directly and indirectly. Practically every physician has patients whose symptoms are rather indefinite and whose physical examinations reveal nothing abnormal. In the age group to which most college students belong these patients are less frequent than in older groups but they are by no means rare. During the last two years, the physicians in the general dispensary of our own Health Service have discovered 31 cases of this kind among the girls and 34 cases among the boys. By many physicians these patients are diagnosed as neuroasthenics, told that there is nothing organically wrong, and advised to go home and forget it. Practically all of them then seek another physician or fall in with the followers of some cult. The physician's diagnosis that there is no organic lesion may be correct but this does not mean that the patients should be ignored or that nothing can be done to help them. Their sufferings are just as real to them as tho they were caused by some organic disease. The recent work of Janet, Freud, Prince, and others has shown that in many instances it is possible to discover and remove the mental conflict which is causing the trouble and that with the removal of this conflict symptoms tend to disappear. If these neuroasthenic patients are unrecognized or improperly treated many of them will become chronic invalids.

The so-called nervous breakdowns, which are popularly believed to be due to overwork, in reality are caused by some type of mental maladjustment. In the year 1923-24, several boys and girls dropped out of the University because of "nervous breakdowns" and many others wanted to limit their work because they felt that they were "on the verge of nervous breakdowns." The entrance of physical examination records of the Health Service taken over the last three years show that 0.9 per cent of the boys and 2.6 per cent of the girls gave histories of nervous breakdowns prior to entering the University. Every one of these students should have special study and some of these, special supervision in the University in order to prevent the recurrence of this condition and the development of other symptoms.

Hysteria is another symptom of mental conflict. Every year the Health Service receives emergency calls to see students who have "fainted" in university buildings or rooming houses. The typical case of this sort always "faints" when there are people about and under conditions where fainting causes great excitement, and most of them tend to repeat the performance. Hysteria also may take other forms of expression.

Last winter a University girl called about midnight for a physician from the Health Service because her roommate was having severe abdominal pain. The patient thought that she had appendicitis and the history and symptoms were very suggestive. To the physician, however, the symptoms seemed too extreme for appendicitis. Whenever the doctor would even touch her abdomen she would scream with pain. So he called a consultation, and while one physician was making a forced examination of her throat, the other was able to palpate her abdomen without eliciting any pain, tenderness, or muscle spasm. The next day she was discharged with no abdominal symptoms. By brief questioning it was discovered that conditions at home were probably responsible for her mental reactions. Sometime later she had a similar attack: a friend called a surgeon and she had her appendix removed at one of the private hospitals in the city. The report of the pathological examination was "normal appendix." During the following summer she had another operation, at which time her gall bladder was removed. Following this she dropped out of the University. If this girl could have been properly studied and followed up, it is possible that some of her later troubles could have been prevented.

Most students who are unable to make proper mental and social adjustments are backward, bashful, secretive, and seclusive and sorely in need of social contacts, exercise, and recreation. Because of these very characteristics, however, these students usually hesitate to mix with others and consequently get little or no exercise. In this way their health is doubtless indirectly affected by their mental conditions. Physical examinations show that certain physical defects, such as high blood pressure, cardiac abnormalities, pulmonary defects, albuminuria, decreased lung capacity, and pathological tonsils are considerably more frequent among this psychoneurotic group of students than among the student body as a whole. Some of these defects, such as deafness, unquestionably are factors in the development of maladjustments, but most of them are the result, directly or indirectly, of the psychoneurosis.

The subcommittee outlined in the spring of 1925 an elaborate program of research studies relating to mental hygiene problems of university students. The program as thus outlined would involve a large sum of money for its proper execution. This money has not as yet been forthcoming. In the meantime, the subcommittee has planned some studies to be carried on without a special allotment of funds.

Three psychiatrists, two men and one woman, gave part of their time during the past year (1925-26) to interviewing students in regard to their personal problems and worries. Some of these students consulted the psychiatrists voluntarily, having heard of this service from other students, some were referred by deans, advisers, and faculty members, and some were interviewed as they were in the process of cancelling their registrations. The first groups were studied as individual cases and furnished further information concerning the types of problems and maladjustments

which may seriously disturb students in their university life, work, and relations. The interviews with students during the process of canceling their registrations were held for the purpose of gathering some additional information concerning the causes for which students leave the University. There was no intention of attempting to see any such large numbers of students as were reported in the excellent studies on "Student Mortality" made by the registrar several years ago, but it seemed that a personal interview with the psychiatrists might elicit reasons which would not be reported in an answer to questionnaires. A considerable number of students have already been interviewed and the study will be continued during the next year.

Provisions have been made in the Health Service budget for next year for the regular part time employment of a psychiatrist and assistant to carry on these mental hygiene studies. This is a definite step in advance of anything that has been done before and it is hoped that considerable more progress will be made in the work.

H. S. DIEHL, *chairman of the subcommittee*

#### REPORT OF THE SUBCOMMITTEE ON THE TEACHING OF SCIENCE

##### *Members of the subcommittee*

Mr. H. A. Erikson, professor of physics and chairman of the Department of Physics

Mr. J. A. Harris, professor of botany and head of the Department of Botany

Mr. C. M. Jackson, professor of anatomy and director of the Department of Anatomy

Mr. E. P. Lyon, professor of physiology, director of the Department of Physiology and dean of the Medical School

Mr. D. E. Minnich, associate professor of animal biology

Mr. M. C. Sneed, professor of chemistry

Mr. E. M. Freeman (chairman), chief and professor of the Division of Plant Pathology and Botany and dean of the College of Agriculture, Forestry, and Home Economics

The objective of the Subcommittee on the Teaching of Science is to study current methods of instruction in the field of the laboratory sciences and to promote experiments and investigations in this field. This subcommittee was only recently organized, but the following abstract will indicate the scope of its interests.

1. It is proposed to collect objective information concerning the prevailing methods of science instruction in the various departments of the University of Minnesota. In particular, it is intended to secure information on those courses which are (a) outstanding for their apparent success as judged by students and faculty. There is often a wide divergence in practice in laboratory instruction in courses that appear much alike in content. Consideration will be given to practices in the use of textbooks,

the development in research techniques, the employment of specific objectives, etc., (b) on those courses where instructors have consciously changed methods of work within recent years with a desire to improve them. In this latter field, the subcommittee has already gathered preliminary information on courses in chemistry and physics, in human anatomy, and in psychology.

2. It is proposed to prepare a comprehensive bibliography on the objectives and techniques of science instruction. The committee is particularly interested in any literature based on experimental investigation. It is further interested in the authoritative statements of distinguished scientists and competent educators, and it is proposed to analyze the literature in this field with a view of formulating both the claims as to the value of scientific instruction and the procedures for obtaining these desired results.

3. The subcommittee, however, is chiefly interested in the experimental investigation of the results of particular techniques in scientific instruction. The departments of Physics, Chemistry, Botany, Animal Biology, Human Physiology, and Anatomy have all been represented at the conferences of the subcommittee, and each of these departments has concrete ideas on the methods of experimental approach to studying the problems of instruction in this field. The main purpose of the subcommittee will be to encourage formulation of experimental projects and to assist in carrying them through with due regard to scientific controls.

4. Arrangements have been made by which Mr. A. W. Hurd, an instructor in physics in the University High School, will devote one half of his time for the year 1926-27 to the work of this subcommittee.

E. M. FREEMAN, *chairman of subcommittee*

#### THE COMMITTEE OF SEVEN

As indicated earlier in this report, the Committee on Educational Research grew out of a committee on educational guidance appointed by President Coffman in 1922. The conference of superintendents and principals which the original committee was asked to consider was organized and called by the president of the University in April, 1924. This conference was chiefly significant because out of it came the Committee of Seven composed of public school administrators and teachers. This committee devoted two years to the study of certain university problems, particularly the problem of adjusting high school seniors to the beginnings of university work. Because of the close relationship between the origin of this committee and that of the Committee on Educational Research, a brief reference to its work is in place here.

##### *Members of the Committee of Seven*

Mr. J. C. West, superintendent of schools, Bemidji, Minnesota

Mr. J. P. Vaughn, superintendent of schools, Chisholm, Minnesota.

Miss Elizabeth Clark, principal of the Technical High School of St. Cloud, St. Cloud, Minnesota

Mr. J. E. Marshall, principal of Central High School, St. Paul, Minnesota

Miss Marie Lange, teacher in the high school of Mankato

Mr. E. M. Phillips, state inspector of high schools, St. Paul

Mr. C. W. Boardman (chairman), principal of the University High School, University of Minnesota

The Committee of Seven has prepared an elaborate report of several hundred typewritten pages to the president of the University. This report covered the following projects which it endeavored to investigate.

First, an attempt to study the selective factors which controlled the entrance of high school graduates into the University. Second, a quantitative study of the preparation of high school graduates for entrance into the various colleges. Third, a study of the guidance programs of the secondary schools and the University. Fourth, an attempt to gather information concerning various factors in the University which contribute to student success, particularly in the freshman year. And fifth, a study of the reaction of eliminated freshmen to the University, its methods, and its teaching staff.

The scope of the committee's work and conclusions have been recently presented in a paper by Mr. C. W. Boardman, chairman. In the opinion of the committee, the significance of its report lies, (1) in the fact that these studies represent an attempt by representatives of the University, the secondary schools, and the State Department of Education to study the joint problems of the secondary schools and the University; (2) in the fact that an attempt was made to base the conclusions of the committee upon objective data rather than opinion; (3) in the hope that the conclusions drawn from the studies and suggestions and proposals made will stimulate discussion, experiment, and further study. The committee feels that the most valuable contribution it could make will be to have such outcomes result from its report. It believes that similar committees should be appointed both at Minnesota and at other universities to carry forward further studies of the joint problems of the secondary schools and higher education.

C. W. BOARDMAN, *chairman of the Committee of Seven*

In addition to the work of the committees represented in the foregoing reports, mention may here be made of certain projects which have been approved by the Committee on Educational Research for investigation. In some cases, subcommittees for direction of work have already been arranged for. In other cases, subcommittees are yet to be appointed.

1. On the educational and vocational guidance of women.

2. The teaching of history and the social studies in the University. It is believed that the time is opportune to initiate such a study making local application of the nation-wide investigation now going forward under the direction of the Council of the Historical Association. Minnesota should be especially favored for such a local study since Professor A. C. Krey is the executive secretary for the national investigation.

3. The reading attainments of college students, their deficiencies, and the means of their improvement.

None of the work which has been initiated under the leadership of the Committee on Educational Research has as yet received comprehensive publication. The time will shortly arrive, however, when certain full reports should be made available in printed form. The committee has canvassed this matter in discussion, and will, in the near future, make definite recommendation regarding it.

Respectfully submitted,

M. E. HAGGERTY, *chairman, Committee on Educational Research*

## GENERAL UNIVERSITY PROBLEMS

### THE GENERAL EDUCATION BOARD GIFT

No progress was made during the year with reference to the acceptance of the General Education Board gift. It will be recalled that the offer of a gift was made by the General Education Board of New York City of \$1,250,000 to be matched by \$2,350,000—the entire sum of \$3,600,000 to be devoted to the building of laboratories and hospitals on the campus and the purchase of land adjacent to the campus for the location of the Minneapolis General Hospital thereon. It will also be recalled that the Board of Public Welfare of the city of Minneapolis joined with the regents of the University in requesting this gift of the General Education Board. Soon after the offer of the gift was announced various officials of the city of Minneapolis began considering the possibility of purchasing additional land adjacent to the present site of the Minneapolis General Hospital. There was no active co-operation on the part of the city to carry out the proposal which had been originally subscribed to when the General Education Board was asked to make the grant. Consequently the regents of the University became convinced that they should take some action with reference to the matter so as not to lose, if possible, that part of the gift which might be applied to the development of the Medical School at the University. The regents, on November 14, 1925, directed the president of the University to file an amended petition with the General Education Board.

Soon after the filing of this amended petition, the president of the University was invited to appear before the Board of Public Welfare, which had to a large extent been reconstituted on account of resignations, deaths, and expiration of terms, to discuss anew the whole question with the new board. The Board

of Public Welfare refused to reaffirm the action of the earlier board. The Board of Regents accepted this as tantamount to withdrawal from the original proposition.

Soon after this a special committee of the city council on welfare matters started to give some consideration to this matter itself. It asked the regents to file with it a definite statement. The regents appointed a special committee consisting of Regents Coffman, Snyder, and Partridge who drew up the following letter which was filed with a special committee of the City Council.

April 9, 1926.

*Mr. O. J. Turner, Chairman,  
Special Committee on Public Welfare.  
Minneapolis, Minnesota.*

MY DEAR MR. TURNER:

In reply to your communication of April 6th in which you state that a Special Committee on Public Welfare of the Minneapolis City Council adopted the following resolution:

"Alderman Kjorlaug moved that the chairman be authorized to communicate to the University that this Committee refuses to act until the University authorities present their proposals in proper written and definite form."

I am attaching to this letter copies of all of the correspondence which has passed between the Board of Public Welfare and the Board of Regents of the University of Minnesota relative to this matter. The understanding which was reached by the representatives of the Board of Public Welfare and of the Board of Regents of the University of Minnesota was a result of a series of conferences between representatives of these two Boards. These understandings were as follows:

1. The two boards would join in a request to the General Education Board for a gift, part of which would be used for the purpose of a site adjacent to the Medical School for the new city hospital.
2. The University would proceed as soon as the General Education Board gift had been matched, with the purchase of the site.
3. The site would contain eight or ten acres.
4. The University upon completing the purchase of the site, would deed it to the city as needed for the construction of the new city hospital plant, with a proviso in the deed that would provide mutual protection to the city and the University in case the city ever decided to abandon the site for hospital purposes.
5. The control of the city hospital would reside, after its removal to the new site, then, as now, with the city.

These understandings were reached after a committee of the Board of Public Welfare had investigated the needs of the General Hospital of the City and the possibility, as well as the desirability and necessity of moving the City Hospital to a new site. This committee recommended to the Board of Public Welfare that it join with the Regents of the University of Minnesota in requesting the General Education Board of New

York City to make a gift to the University of Minnesota, a part of which, it was understood, was to be used in purchasing a site adjacent to the Medical School for the location of the Minneapolis General Hospital thereon. A resolution to that effect was adopted by the Board of Public Welfare unanimously on March 4, 1924, and it accompanied the resolutions of the Board of Regents to the General Education Board of New York City. The Regents of the University asked for more money than would be necessary for the purchase of land for the location of the Minneapolis General Hospital thereon. They asked for money to apply toward the completion of the University's medical plant. You will observe by reading the resolution which the Board of Public Welfare adopted, that it was concerned only with that part of the request which related to money for the purchase of a new site.

It was understood that approximately eight or ten acres would be required for the city hospital. The exact boundaries of the new location were never agreed upon, but the general area in which it was to fall was clearly understood. It was also understood by the Board of Public Welfare and the Board of Regents that all questions of control of the city hospital would remain as they now are without change. It was still further understood that the University would deed the land as needed after it had once been purchased, to the City of Minneapolis for the location of a city hospital, and that this deed would carry with it a proviso which would furnish mutual protection to the City and to the University in case the City ever at some future time abandon the site for hospital purposes.

The resolution which was adopted by the Board of Public Welfare and also the resolution adopted by the Board of Regents of the University which were sent to the General Education Board, were sent on the assumption that the city hospital is already overcrowded and that it will be necessary for it to seek a new location. The question of the location of the General Hospital and the general program of the University were the only matters presented to the General Education Board of New York City. The representatives of the General Education Board came here and went over the situation thoroughly. The offer of a gift of \$1,250,000 was made to the University of Minnesota with the understanding that the University would match it with \$2,350,000, making a total of \$3,600,000. Out of this it was expected that the University would purchase a new site for the city hospital and would use the remainder for the development of its own medical school plant. No other conditions were implied in the offer.

It was not expected at the time when these negotiations were opened with the General Education Board, that it would be possible for the city to start its new structure immediately upon receipt of the gift. It was understood that time would be required, a year or more, perhaps, to match the General Education Board offer. It was also understood that after the offer had once been matched additional time would be required for the purchase of the site. This certainly could not be accomplished in less than a year and it might take longer. As soon as a definite site was agreed upon and purchased, ready for transfer to the City, it was expected that

the City would begin the consideration of the development of its plan for the new structure. This, in turn, would take time. No one ever contemplated that the entire City Hospital would be removed at one time. It was expected and the offer of the gift was made with the understanding that the City Hospital would find it necessary to move to new quarters and that it would proceed normally and naturally with this matter. If for any reason this condition has changed or if it has been found that the assumption upon which the request was made, is not true, then the General Education Board should be appraised of these facts.

Since the General Education Board made its offer (November, 1924), the Board of Public Welfare has been considering other possibilities, both with reference to expanding on its own site and to purchasing the block known as the Judd Block. So long as there seems to be any question about the matter, the University is in no position to proceed with its plans. It cannot say to the General Education Board that the Board of Public Welfare and the Regents of the University confidently expect to go forward with the proposal submitted to the General Education Board so long as there seems to be doubt as to the attitude of the City with reference to the original proposal. Nor can the University return easily to the General Education Board for a new gift when the conditions of the first gift have not been rejected. It was for these reasons that the University asked the Board of Public Welfare, whose personnel has changed materially in the last four years, if it would not give some expression as to the status of the matter. The Board of Public Welfare recently declined to reaffirm the action of two years ago upon which the gift of the General Education Board was requested and upon which it was granted. It was at this point that your committee became interested and began to give consideration to the proposition.

Now may I add that the committee of the Board of Public Welfare which investigated this whole matter and later reported to its Board, was composed of three representatives of the medical profession. Both they and the Regents of the University became convinced after thoroughly investigating the matter, that the removal of the General Hospital to a site adjacent to the campus would be mutually beneficial. It was justified on the ground of the care of the patients (which is the first concern of any hospital), on the ground of sound economics, of the proper development of the medical and nursing professions, and of experiences of other communities where relationships somewhat similar to this have already been established and have been in existence for some time. It was also clear that this arrangement would mean better education for the intending doctors, surgeons, and nurses of this community and of this state, and that it would promote and stimulate research in many ways. It is difficult always to outline the benefits of a relationship of this sort in black and white. Great values would come from human contacts, human associations and relationships which would arise out of the contiguity of the two hospitals. These are the reasons which influenced our judgment more than two years ago. We believe that they still apply with equal force. If it is necessary

for the City Hospital to seek a new site, then we believe this represents the great opportunity which the City of Minneapolis has of joining with the University as is being done in certain other cities, in building a great clinic to heal the sick, to study human disease, and to minister to the comfort and happiness of our people in manifold ways.

Let me add that if your committee desires to discuss any of these matters still further, the special committee of the Board of Regents, which was appointed with power by the Board at its last meeting, will be glad to meet with you at your early convenience. The special committee of the Board of Regents is composed of Mr. Fred B. Snyder, Mr. George H. Partridge, and myself. This letter has been reviewed by this committee and it represents their understanding of the situation.

Yours very truly,

L. D. COFFMAN, *president*

The council then invited the special committee of the Board of Regents to confer with its special committee. At this conference the history of the negotiations with the General Education Board was discussed in detail and the special committee of the City Council decided that it would make a survey of the needs of the General Hospital with an attempt to determine whether or not it was possible for it to be expanded upon its present site, if so to what extent, how long it would serve the city, what the expense would be, or whether it would be necessary for the General Hospital to secure a new site. All of these, of course, were proper questions for the city to consider. The city should be satisfied with reference to them before it enters into any proposal to move the General Hospital to a new site.

At the close of the year, therefore, I am compelled to say that no progress has been made relative to the acceptance of the General Education Board gift and that no decision can be reached with reference to the matter until the City Council comes to some conclusion concerning the needs of the General Hospital.

## THE CONSTRUCTION OF SERVICE BUILDINGS

### DORMITORIES

For several years now the regents have been considering the possibility of constructing service buildings with borrowed money. Permission was sought of the last legislature to erect dormitories in this way. Permission was denied on the ground that the credit of the state would be pledged by such an arrangement. No one has seriously questioned the need of the dormitories or of certain

other service buildings at the University. The need is urgent, imperative, and immediate, so that after studying the matter, the regents came to the conclusion that they should proceed with the construction of such buildings in case it were possible for them to borrow money for this purpose without in any way affecting the credit of the state. Finding that it is possible for them to do this, they authorized the appointment of a committee to select a site and to prepare plans for dormitories.

#### THE NEW FIELD HOUSE

The need for a field house has existed at the University for years. The present armory and gymnasium was built in 1896 when the registration of the University was less than 2,000. It has been inadequate for the purposes for which it was constructed for more than fifteen years. No means, however, could be found with which to provide a new building. Meantime other institutions of learning, for example, Illinois, Michigan, Iowa, Indiana, Purdue, have built new field houses and gymnasiums. The need of Minnesota was accentuated both by the fact that the institution has grown in size and the registration in numbers to such a point that the old building does not serve more than one fifth of the students, and by the additional fact that in this particular climate there is need for more enclosed space than there is at some of the other institutions of learning.

The regents came to the conclusion that it would be possible to build a field house and to pay for it out of athletic receipts. Consequently they directed the purchase of the block lying east, across the street from the Stadium. Practically all of that block has been purchased. Condemnation proceedings have been entered into for the purchase of the remainder of the block. The Department of Physical Education and Athletics has been directed to prepare plans for the construction of the field house upon this block. It is expected that it will be possible to borrow money with which to erect the field house and to pay the indebtedness out of athletic receipts. If these plans materialize, the University of Minnesota will have by 1927, that is the fall of 1927, a field house which will provide facilities for drill and for intercollegiate and intramural sports.

A PLAN FOR PARTIAL PROTECTION AGAINST DEATH, DISABILITY, AND OLD AGE FOR THE TEACHING STAFF AND EMPLOYEES OF THE UNIVERSITY OF MINNESOTA.

One of the great needs of the University for years has been a plan for the protection of employees and staff against death, disability, and old age. Many of the older members of the staff will receive a pension if they live to sixty-five or beyond from the Carnegie Pension Fund. This fund, however, does not apply to teachers of agriculture, teachers in the College of Pharmacy, teachers in the College of Dentistry, or teachers who have not given full time in every respect to the University. Furthermore, this plan will not apply to those who have become members of the staff since September 15, 1915.

Then again the University of Minnesota has not been in a position to purchase insurance from the Teachers Insurance and Annuity Company which is the lineal descendant of the Carnegie Pension Fund. To purchase insurance from this company means that the University would pay 5 per cent of the salary of a member of the staff, he in turn would pay 5 per cent, that is 10 per cent in all. The reason why the University has not been able to avail itself of this privilege as a number of other institutions have, is because of lack of funds. It would cost somewhere between \$150,000 and \$200,000 a year, that is, the University's part alone would amount to that. The staff, in turn, would put up a corresponding amount.

But the University has felt that it was highly improper for it to continue without some plan which provides some protection against death, disability, and old age. It has already had a number of tragic cases for which it could make no provision. While it has made every effort to be as liberal and as magnanimous as its finances would permit and as its policies seemed to justify, it has nevertheless not been in a position to extend the relief that was needed. For this reason a faculty committee of which Dr. Scammon has been chairman, has been working upon a plan for more than two years. This plan has been approved by the Administrative Committee of the Senate and by the Board of Regents.

In general terms, the plan provides that the University shall buy insurance on each staff member to the extent of \$5,000 and on each employee to the extent of \$2,500 with the understanding

that each member of the staff shall save \$5,000 and each employee the sum of \$2,500 by the time he is 68. The plan still further provides that each member of the staff and each employee shall upon retirement purchase an annuity with his savings. The disability features are included in the group insurance plan. In case a staff member or employee dies before reaching the retirement age, his beneficiaries will receive the insurance plus the savings with which to purchase an annuity. The savings of the staff belong to the members of the staff and will be given to them in full plus their earnings if they leave the University of Minnesota. If the plan is at fault in any respect, it is because the annuity will not be as large as it should be.

#### PROFESSORSHIP IN FINE ARTS

For many years the University has recognized the importance as well as the desirability of having a professorship in fine arts. Many courses are offered in the institution in this field now, but no effort has ever been made to correlate them. Furthermore there has been no one on the faculty who was interested primarily in the development of this field.

The general tendency of American institutions of learning in recent years with reference to the introduction of new subjects, has been to emphasize subjects of so-called practical value, those which have a commercial aspect, those which are related to the earning of money or to the development of some one of the professions. But everyone recognizes that all life does not consist of mere money getting and mere money spending, that there is something besides credits and debits. The individual who knows nothing of music, has no appreciation of painting, is not instructed in literature, is uninformed about architecture and sculpture, has missed some of the great disciplines for the liberalizing of the human mind. For years the University has recognized its weakness in this regard and, upon the recommendation of the president, the regents established a new professorship, a professorship in fine arts.

#### LANDSCAPING

The time has arrived for us to give more attention to the landscaping of the campus of the University. We have been passing through a rather acute building stage. While we do not yet have all the buildings needed for the work of the University,

we have reached that point where it is possible for us to give more attention to the appearance of the campus. This should be done in accordance with some definite plan. Someone who thoroly understands shrubbery and flowers, and who has had experience as an expert landscape artist, should be invited to lay out the campus for us with such definiteness and detail as will enable the superintendent of buildings and grounds to go forward with the purchase and planting of the shrubbery and the flowers. There are few things which contribute more to the spirit and interest of an institution than beautiful surroundings. We should do everything within our power to make the campus of this University as attractive as it can be made. Trees, grass, shrubbery, and flowers will do much to accomplish this.

### ADMINISTRATIVE MEASURES

#### THE REORGANIZATION OF ADMINISTRATION OF THE MEDICAL SCHOOL

For the purpose of simplifying and fixing with greater definiteness the responsibility for the administration of the Medical School, the following proposals were adopted unanimously by the Board of Regents on February 17, 1926:

##### 1. *Ranks and Titles*

- (a) The responsible officer of the Medical School shall be the Dean. Heads of Departments, Directors of Divisions not parts of Departments, and the Superintendent of the Hospital are responsible to the Dean.
- (b) The responsible officer of a Department of Instruction shall be called Head.
- (c) The responsible officer of a Division of a Department of Instruction or of any major activity of the School except a Department shall be called Director. Directors of Divisions of Departments shall be responsible to their respective departmental heads.
- (d) The University Hospital is a part of the Medical School and is recognized both as a service enterprise and as a Department of Instruction. The responsible officer is the Superintendent, with rank of Departmental Head.
- (e) The School of Nursing is a Division of the Medical School and is recognized both as an administrative unit for the nursing curriculum and as the Department of Nursing Instruction. The responsible officer is the Director, with the rank of Departmental Head.

## 2. *The General Faculty*

- (a) The General Faculty shall consist of all members of the teaching staff above the grade of assistant.
- (b) The General Faculty shall hold a meeting in April of each year, and at any other time on call of the Dean.
- (c) The General Faculty shall be entitled to two representatives on the Executive Faculty; one from the laboratory departments and one from the clinical departments.

## 3. *Executive Faculty*

- (a) The Executive Faculty shall consist of the President of the University and the Dean of the School, the Heads of Departments and Directors of Divisions, the Superintendent of the University Hospital, the Director of the School of Nursing, the Director of the Cancer Institute, all Professors and Associate Professors on full time in Medical School Departments, two representatives of the General Faculty, one representative of the Minneapolis General Hospital, one representative of the Ancker Hospital, and such other important administrative or teaching members of the University as may from time to time by vote of the Executive Faculty, with the approval of the President, be added to it.
- (b) The Executive Faculty shall be responsible for educational matters in the School, as defined in the regulations of the Board of Regents.
- (c) A meeting of the Executive Faculty shall be held in each of the three quarters of the regular school year and at any other time on call of the Dean.

## 4. *Administrative Committee*

- (a) There shall be an Administrative Committee of the Executive Faculty, which shall administer the regulations of the Executive Faculty on educational matters and be advisory to the Dean on the general conduct of the School. The Administrative Committee shall be composed of the Dean and two representatives from the clinical and two from the laboratory departments. Each member shall serve two years and may not be reappointed for more than a second term except after a lapse of two years. First appointment shall be so arranged that one clinical and one laboratory man retire each year. The members of this Committee shall be appointed by the President on nomination of the Dean.
  - (b) There shall be a Committee on the School of Nursing consisting of the Dean, the Director of the School of Nursing and four members appointed annually by the Dean with the approval of the Executive Faculty. There shall be an Advisory Committee in the School of Nursing consisting of the Nursing School Committee together with the Superintendents and the Superintendents of Nursing of the allied hospitals.
  - (c) Other committees of the Executive Faculty may be appointed by the Dean with the approval of the Executive Faculty.
5. All previous actions of the Board of Regents in conflict with the foregoing are rescinded.

THE INCORPORATION OF THE SUMMER SESSION BUDGET  
WITH THE BUDGET OF THE REGULAR YEAR

Two budgets have been prepared heretofore for the four quarters of the university year. The first budget is for the regular academic year. The second budget is for the summer quarter. The University, as a matter of fact, is in operation for four quarters. There has been no attempt heretofore to prepare a four-quarter budget. Realizing the possibility of preparing such a budget at the time the budget for the regular academic year is prepared and appreciating that the preparation of such a budget would permit the distribution of time of members of the staff to correspond with the teaching load quarter by quarter, the regents approved the following plan:

Any college, school or department of instruction may apply to the President of the University for permission to organize on the four-quarter basis when the following condition has been met:

The application implying approval of the following plan, shall be by vote of a majority of the faculty members of the unit concerned, and with the approval of the Dean.

The adoption of the four-quarter plan involves the following:

1. The budget for the regular year shall incorporate the work of all four quarters beginning the summer quarter following the approval of the budget.

2. Toward this budget there shall be contributed from summer session funds an amount to be determined by the instruction load carried in previous summer sessions, and by the plans for the subsequent summer. This amount shall be determined by the president on recommendation of the director of the summer session.

3. The four-quarter organization does not affect officers who are employed on the "A" basis.

4. Members of the teaching staff may be engaged on the regular year basis to teach any three of the four quarters during any fiscal year. Those who are members of the staff at the time the four-quarter organization is adopted, will not be required to teach during the summer session unless they elect to do so.

5. Those who teach more than three quarters in any fiscal year shall be paid for the extra teaching at the rate prevailing for the summer session.

6. While the period of service shall be determined by the academic calendar, the payments shall be made for each quarter as follows:

Summer Quarter—1st half—	July 16 to July 31.
	2nd half—Aug. 1 to Sept. 15.
Fall Quarter—	Sept. 16 to Dec. 15.
Winter Quarter—	Dec. 16 to March 15.
Spring Quarter—	March 16 to June 15.

7. No members of the faculty, except those on the "A" basis, shall offer instruction in the University of Minnesota more than eleven quarters in any three consecutive fiscal years. In this calculation one summer session term shall be regarded as equivalent to one-half of a quarter.

#### FOUR-YEAR COURSE IN PHARMACY

Recognizing the need of improving the standards of pharmacy, upon the recommendation of the faculty of the College of Pharmacy, the following resolution was adopted:

That after the close of the University year 1928-29, that is, June 30, 1929, no degree be granted in Pharmacy for less than four years of college work. Students who meet general university requirements for admission may, however, be admitted to the College of Pharmacy and be allowed to enroll for the technical courses in Pharmacy in preparation for the examinations of the State Board of Pharmacy without satisfying other requirements than the prerequisites for the courses involved. Such students will not be candidates for degrees from the College of Pharmacy but will receive certificates indicating the courses completed.

#### THE 2-3 BASIS FOR DENTAL EDUCATION

It will be recalled that the Carnegie Foundation for the Advancement of teaching has completed a study of dental education in the United States and Canada. It was found, of course, that there is a wide variety of types of dental education offered, and that they vary equally in the results attained but one thing stood out clearly, viz: the tendency, now almost universal, to raise the standards for dental education. Our own dental college, believing thoroly in the wisdom of this movement, recommended that its program be changed from a 1-4 basis, that is, one year in the Arts College, and four years in the Dental College, to a 2-3 basis, that is, two years in the Arts College and three years in the Dental College. Many of the dental colleges in the United States, particularly those associated with universities, have already accepted the 2-3 year basis. Some of the reasons for it are that students entering upon the profession of dentistry need more instruction in certain fundamental sciences than they have been receiving, and secondly, greater concentration on certain subjects, than it has been possible for the students to have with the existing curriculum.

With this new 2-3 year plan it is hoped and expected that in the course of time, medicine and dentistry will have practically

the same pre-professional curricula and the same general requirements for admission. There seems to be little or no reason except that of inertia or tradition for not so modifying the curricular requirements for these two schools at an early date. There also seems to be ample justification and reason in assuming that the time may not be far distant when dentistry will be regarded as a branch of medicine, or perhaps that medicine and dentistry will be regarded with their various specialties as branches of a common science. Many of the leading thinkers believe that it is possible to provide training in dentistry on the same academic and scientific level as training in medicine and surgery. The medical and dental professions are not fundamentally separate. They do not represent separate units, but rather are branches of one art and one science with common aims and common objectives. If their programs were outlined in terms of these aims and objectives, it would be found that many of the curricular requirements of these two would be identical. Differentiation would not be required except to emphasize the specialties. The 2-3 plan will result in an improvement of the standards in dental education, it will furnish the basis for a better selection of students, and it will make more intense the training which the students receive in the various specialties of dental education.

The plan was adopted by the Board of Regents with the understanding that in case the board is not able to supply funds from other sources a year hence with which to carry it forward, the board would, upon the recommendation of the faculty of the Dental College, increase the fees to \$225 a year.

#### ACCEPTANCE OF GRANTS BY PERSONS ON SABBATICAL FURLOUGHS

It is not the practice of the University of Minnesota to grant sabbatical furloughs to members of the staff who will receive pay for service at other institutions of learning or who are employed by some outside agency or corporation. It is expected that those who are on sabbatical furlough will spend their entire time in study or research or travel as the case may be. In recent years, however, there have been established many fellowships and scholarships, some for study and research in this and in foreign countries. Believing that members of the staff who are entitled to sabbatical furloughs may receive one of the grants, that is

to be devoted entirely to the promotion of some research or investigation, the Board of Regents adopted the following policy with reference to the acceptance of such grants:

A member of the faculty on sabbatical furlough is not privileged to accept remunerative employment or to engage in professional practice during the period of the furlough. This restriction, however, shall not apply to the acceptance of a grant made for purposes of study and research, the results of which are to become public property, but the acceptance of such a grant should not carry with it duties or obligations which hinder the pursuit of the purpose for which the leave is granted. It was understood that each case would be submitted to the Board for consideration and action.

#### HONORARY FELLOWS

From time to time members of other faculties in this country and abroad, come to the University of Minnesota to pursue their researches with members of our staff. We regard it as a great privilege and honor to have men of this type visit the University of Minnesota. In order that they may receive the proper welcome and the proper recognition, the regents adopted the following resolution:

1. Professors or other eminent scholars who may desire temporarily the privileges of the library, research facilities and seminary in the University, and who are not candidates for a degree, may upon the recommendation of the Dean of the Graduate School and the approval of the President of the University of Minnesota, be appointed as Honorary Fellows without stipend.
2. Honorary Fellows shall not be required to pay any fees except to cover the cost of unusually expensive supplies or equipment.

#### THE ASSISTANT DEAN OF STUDENT AFFAIRS

The number of duties which the dean of student affairs is called upon to discharge has grown so numerous and so complex that it is impossible for him to look after all of them any longer. It was believed that the additional assistance, which his office required should be devoted largely to work with freshmen. In a general way the class organizations of the freshman class have been under the observation and guidance of the office of the dean of student affairs through a group of three upper classmen called "Advisers of the Freshman Commission." These three are appointed by the dean of student affairs. They in turn organize the freshman class as an all-university organization and as college

organizations. They meet with the freshman commission composed of college group presidents and others elected in the case of larger groups. The advisers assist and advise in the development of all class activities. The dean of student affairs meets with them as often as possible, attends social affairs whenever he can, and in other ways seeks to advise them. This system has its advantages. It has helped to break down the old college lines and to establish a spirit of responsibility and good will toward the University on the part of the freshmen.

The upper classmen, who have been largely responsible for this organization but not entirely so, reached the conclusion that they cannot handle it alone. In other words, they recognized that it must be carried on in co-operation with the office of the dean of student affairs, so that beginning with the spring of 1926, the office of the dean of student affairs became an integral part of the system having the general administrative, appointive, and advisory responsibility. All work and all records center there. The results to be obtained through this system are: personal contact with each freshman and as intimate a knowledge of his personality, ability, and personal problems as possible.

Another thing which needs more careful attention and consideration, is the establishment of a system of records which will show at reasonable intervals a student's progress in his work. This is necessary for all students but it is particularly necessary on account of a scholastic standard which is now required of the various organizations, fraternities, and sororities of the University. Furthermore, it is believed that it is important that there should be an officer who is here for the use of the students, to be called upon at any time and at all times for advice and assistance on all sorts of problems, vocational and otherwise. There has been a slow but steady growth in the number of students, particularly freshmen, who seek help voluntarily. There should be a personal contact between the office of the dean of student affairs and every individual freshman some time during the year, and every freshman should be encouraged to come in voluntarily and make use of the office. For these reasons as well as for others as represented by the dean of student affairs, it seems that an assistant should be provided. Consequently the regents voted to establish a new office of assistant dean of student affairs. Vernon M. Williams, a former graduate of the University of Minnesota,

who had been teaching at the State Agricultural College at Manhattan, Kansas, and at the State Agricultural College of North Carolina, was invited to accept the position. He reported for work early in the fall with the understanding that his activities would be confined largely to work with freshmen.

#### SUPERVISOR OF STUDENT FINANCES

Upon the recommendation of the dean of student affairs, the regents voted to approve the appointment of a university officer to devote not to exceed one half of his time to the supervision of the finances of the major student publications and such other student affairs as may be deemed advisable on the condition that his salary and such other expenses as his office may incur shall be charged against the income of other student activities.

#### ESTABLISHMENT OF A UNIVERSITY PRESS

For the purpose of centralizing and rendering more effective the various publications of the University of Minnesota, the following resolutions, upon the recommendation of the president, were adopted by the Board of Regents:

1. That there be established a University of Minnesota Press.
2. That there be a director appointed.
3. That the President shall appoint annually a committee of five from the faculty who, with the director, shall constitute an executive committee in charge of all matters pertaining to the press.
4. That all publications of the University, except the following, shall be in charge of the University of Minnesota Press:
  - a. The official bulletin series.
  - b. Other publications containing chiefly information about the University and distributed without charge.
  - c. Publications giving results of investigation but distributed without charge.

The publications in charge of the University of Minnesota Press shall include all books, bulletins, studies, syllabi, outlines, papers and other materials which are to be published by the University of Minnesota and sold.

5. That the Executive Committee shall, upon recommendation of the director, make all rules and establish all policies relative to type, paper, covers, size of pages, number of volumes issued, price, royalty, methods of sale and distribution, and all other matters that normally belong to the jurisdiction of a reputable publishing house.

6. That all questions concerning the desirability of publishing a particular document shall be passed upon by the Executive Committee on recommendation of the director. No college, school, or other unit of the University shall publish, independent of the Press, any document which by its nature falls under the jurisdiction of the University of Minnesota Press.

7. That all moneys collected from the sale of such books, syllabi, outlines and papers or other materials, shall be held by the Comptroller, subject to the recommendation of the Executive Committee to the President of the University. All appointments and expenditures of money should follow the usual channels and conform to the established practices of the University.

8. That except for subsidies from income from sales which may be allocated by the Executive Committee, the cost of all publications in the future or at least until such time as the finances of the Press may justify a change, shall be paid for as now, i.e., out of the various college and departmental budgets.

9. These regulations shall become effective at once. They shall be subject to change only by action of the Board of Regents.

#### PASSING OF THE BUCKET

For a number of years members of the student body have passed the bucket at one or more football games to raise money and in other ways to assist with the support of the band, to pay the expenses of the band to attend a football game at some one of the neighboring institutions. The band, of course, gets certain support from the University. Some two or three years ago, the University provided, at the request of a committee which had been investigating the needs of the band, a number of scholarships--thirty-five in all. These scholarships are available to those members of the band who are especially recommended by the director of the band and the head of the Department of Music, for special proficiency in music, but no provision has ever been made by the University for the purchase of equipment for the band, nor to pay for many other expenses which it necessarily incurs. The band is called upon by all sorts of student organizations to aid them in their activities. In addition to appearing at certain official university functions, it appears at all sorts of student functions. It ministers to the student life in many ways in the course of the year. In order to meet these needs, the students have passed the bucket at football games to

raise money for the benefit of the band. Raising of money in this way, however, has not been altogether pleasing to the students nor to the faculty, nor to the spectators at the game. Recognizing this fact, the students this last spring petitioned the Board of Regents to set aside annually from their deposit fee the sum of \$.50 to be used to finance the band. The regents, after giving careful consideration to the matter and after having the request of the students reviewed by certain university officers who have been responsible for the administration of the affairs of the band, approved the following proposals:

More than 6500 students of the University signed the following petition:

All-University Council,  
University of Minnesota,  
Minneapolis, Minnesota.

COUNCILMEN:

We are pleased to herewith submit to you a list of approximately 5,000 signatures of students petitioning that the Board of Regents set aside from the general deposit fee, the sum of fifty cents (50) to be used to finance the University of Minnesota Bands in their extra-curricular activities which are now financed by the custom of "bucket passing."

These petitions were drawn up by a committee of band members and circulated among the student body by members of the band itself, and by its student friends.

This is approximately 40 per cent of the total number of signers, the rest of whom will not be received until late Friday.

We hope that this movement as voiced to you from the student body will receive your approbation and will be passed on to the Board of Regents for their action.

Sincerely,  
(Signed) HAROLD COX  
PAUL NELSON

This petition with the signatures was forwarded to my office accompanied by a letter from Mr. Lester E. Swanberg, President of the All-University Council, a letter from Mr. R. M. West, Registrar, another from Mr. E. E. Nicholson, Dean of Student Affairs, requesting the Board of Regents to take favorable action upon it. Mr. Swanberg, the President of the All-University Council, requests that the cheer leader be included and be classed as a member of the University Band. Mr. West calls attention to the fact that we should take the money from the incidental fee rather than from the deposit fee, and Dean Nicholson makes some very definite recommendations, that is that only the cheer leader may be sent upon any trip which the band may make and another is that instead of taking 50c from the incidental fee, that only 35c be taken; and the

third is, that the money be placed in a special fund under the jurisdiction of the Comptroller of the University to be drawn upon only by requisitions approved by the Dean's office.

After giving careful consideration to the matter, I am convinced that the students in general have acted wisely in their proposal. We should do everything possible within reason to discontinue the practice of passing the bucket at football games. Furthermore the band is in constant need of music and equipment. For these reasons I should like to make the following specific recommendations:

1. That the action of the students making this request be approved and that we express our appreciation of the action they have taken.
2. That the Regents authorize taking 50c from each incidental fee or such part thereof as may be necessary to cover those expenses of the band which may properly be designated as general University student expenses.
3. That if any part of this money be used to pay the expenses of the band on a trip to attend any athletic game at any other educational institution, the band shall be privileged to make only one such trip during the academic year.
4. That only those members of the band may go on this trip who are approved by the bandmaster and the Dean of Student Affairs.
5. That the amount to be expended by the band on a trip shall be determined by the Dean of Student Affairs.
6. That in no case shall the expenses of any other person except the expenses of the cheer leader be paid from this fund and in that case he shall be regarded as a member of the band.
7. That the surplus may be used, as it is intended that it shall be used, to purchase equipment and music for the band, when the requirements are approved by the bandmaster, the head of the Department of Music, the Dean of Student Affairs, and the President of the University.
8. That in case the surplus accumulates, then the Dean of Student Affairs and the President shall have power to reduce the rate the following year.

#### FRESHMAN WEEK

For the further orientation of students in the life and work of the University of Minnesota, a special committee of deans appointed by the president of the University, proposed the plan outlined below for Freshman Week. This plan was approved by the University Senate to be in operation this fall.

#### REPORT OF THE SPECIAL COMMITTEE ON FRESHMAN WEEK

The committee appointed by you "to prepare plans for a more systematic direction of the freshmen during the week preceding the beginning of classes next year" having studied the plans for freshman week as conducted in other institutions and having canvassed with some care the conditions arising out of our local situation (the two campuses, the large

number of freshmen, the urban location of the university), recommends the following plan and program for the fall 1926.

A. Attendance. Announcements should state that attendance throughout this week is required of all students entering as freshmen for the first time.

B. Calendar. For 1926 Freshman Week will include the dates September 21 to 25. Freshmen who are new matriculants must appear at the Registrar's office before 5 p.m. Monday, September 21. Those appearing at any later time will be subject to the penalty for late registration.

C. Administration. All matters regarding attendance, make-up or penalties for absence from University exercises are under the control of the All-University Students' Work Committee. Similar matters concerned with exercises intended for students of any one college alone will be in the hands of the Students' Work Committee of that college.

Other committees for the direction of various exercises are suggested later in this report.

D. General Program. The exercises of the week should include the following:

1. Processes of registration, selection of studies, payment of fees, etc.
2. Physical Examinations
3. Psychological tests
4. Lectures on the following subjects:
  - a. How to study
  - b. The use of the Library
  - c. What is a University?
  - d. An Address by the President
5. The following trips:
  - a. The University Library, demonstration
  - b. The Main Campus
  - c. The Farm Campus
6. Vocational Guidance. It is recommended that a room, preferably in the Administration Building, be kept open throughout the whole week for advice to students who wish help in the choice of their profession or the college which they should enter. There should be present in this room at all times one or more persons who will give advice on general matters (not duplicating the work of registration advisers in the colleges) or who will make appointments with persons better able to advise in special cases.
7. Evening Entertainments. The committee recommends that musical, dramatic, educational moving pictures, or athletic entertainments be provided for Monday, Tuesday, Wednesday, Thursday, and Friday evenings. It is suggested that three entertainments might be carried on simultaneously in Music Hall, Old Library, Chemistry Auditorium, or Armory, each accommodating about 600 to 800 students, so that all who care to come will find places.
8. Special exercises as desired by each college. These would include placement tests and such other examinations as colleges may wish to give

to facilitate the classification and enrolment of students. Examples of these are the tests given in recent years by the Department of English. They might include also additional lectures or trips to scientific laboratories and other points which may be of interest to freshmen in relation to their choice of studies or of vocation. These will be arranged and managed by each college without conflict with the exercises required of all.

9. The program leaves Saturday afternoon free except for such exercises as may be necessary for students who come late. This afternoon will be available for the meeting for freshman women under the direction of the W.S.G.A. and Big Sisters.

E. Schedule. A schedule has been prepared by the Registrar, who has acted as a chairman of a subcommittee on schedule. The whole body of freshmen is divided by colleges and then distributed into sections of 55 for trips, of 275 for tests and examinations, and of 550 for lectures. Each student must report first at the Registrar's office, when he will fill out an address blank, be assigned his post-office box, and be given directions and schedule for all the exercises required of him through the week. Coupons will be provided to be taken up by proctors who take attendance at each lecture or other required exercise. Provision is made for special modifications of schedule for those who come late or who fail to send in credentials beforehand.

The schedule shows what time of each section is left free for the use of colleges or for the student's personal affairs. Physical examinations will be given on Saturday and Monday and announcements request as many as possible to take them on those days.

F. Information in printed form. It is recommended that a brief statement entitled "Where to find what you want to know" be prepared for distribution by the Registrar. This should be a guide to officers and institutions like the Health Service, Intramural Sports Director, and also to rules and regulations and the officers who administer them. Another printed page might give a guide to the opportunities in art and music afforded by the two cities.

G. Committees. It is recommended that the following committees be appointed by the President:

1. A General Committee for Co-ordination. This committee would secure persons to give the lectures, prepare such printed information as may be necessary, etc.

2. A committee on schedules, rooms, equipment, etc.

3. A committee on evening entertainment. The following membership is suggested: Mr. Holman, Chairman, Messrs. Carlyle Scott, Rarig, Walter, Roy Smith, and Miss Baker.

4. A committee on trips, guides and proctors for attendance. It is to be expected that this committee will seek the co-operation of the student groups to act as advisers for freshmen. It is recommended that student help be employed at current hour rates in order to secure regular service

and to avoid interrupting or drawing strength away from the programs of the Big Sisters and the senior student advisers.

5. A committee on vocational guidance.
6. A committee on advice and help for foreign students.

Respectfully submitted,

E. E. FREEMAN

O. M. LELAND

M. E. HAGGERTY

F. K. WALTER

J. B. JOHNSTON, *chairman*

#### A SOCIAL DIRECTOR

A social director has been added to the office of dean of women and Miss Lila Hainer of Sanford Hall, who has had this position in Sanford Hall for the last two years, has been transferred to Dean Blitz' office.

#### FRATERNITY SCHOLARSHIP

The scholarship of the fraternities has, as a whole, shown but slight improvement, notwithstanding the notice given to them last year that those whose scholarship fell below a C average (1.000) would be placed on probation. For example, we find that of the 31 fraternities in the Interfraternity Council for the school year 1922-23, there were only 12 who had a C average. For the year 1923-24, 17 had a C average; and for the year 1924-25 (the first year of the notice mentioned above), 14 had a C average.

However, the scholarship of the men pledged by the fraternities has decidedly improved, as shown by the following table:

Year	No. Pledges	Time Pledged	Scholastic Standing End of Fall Quarter
1921-22	216	End of first two weeks, fall quarter	0.605
1922-23	193	End of first two weeks, fall quarter	0.407 (Stadium drive)
1923-24	283	End of first two weeks, fall quarter	0.584
1924-25	274	End of 10 days beginning winter qtr.	0.873 (first year deferred rushing)
1925-26	...	End of 10 days beginning winter qtr.	1.015

It will be noticed that there has been a very decided improvement in the scholarship of pledgmen beginning with the year 1924-25. This was the first year of the rule of the Interfraternity Council prohibiting the rushing and pledging of freshmen. This was also the year that the university rule requiring a C average went into effect and, doubtlessly, influenced many of the fraternities in their selection of freshmen.

In order that the fraternities may be better able to judge the scholastic caliber of the men they pledge, it has been found practicable to furnish them with the first quarter grades of all their rushees just at the beginning of the second quarter, that is the beginning of the rushing period; and for the past two years this has been done. Consequently, the fraternities may now select men of proven scholastic ability if they so desire. A few of the fraternities are now selecting their pledgemen almost entirely from those who maintained at least a C average for the first quarter.

The rule of the Interfraternity Council that no entering student may be rushed or pledged by a fraternity before the first day of his second quarter in residence at the time has been extremely beneficial, not only to the fraternities but also to the freshmen. The old system was to rush for two weeks at the beginning of the fall quarter. The scholarship of the freshmen (and the upper classmen) suffered. In fact, statistics gathered by the president of the Interfraternity Council show that for each of the fall quarters, 1921, 1922, and 1923, between 20 and 25 per cent of the men pledged to the fraternities were dropped from the University for poor scholarship. Under the new system, nearly every man pledged by the fraternities completes his freshman year. This year only 5 of the 299 pledgemen failed to complete the winter quarter.

The above table shows that the men pledged to the fraternities at the beginning of the winter quarter had a scholastic average of 1.015 (slightly above a C) for the fall quarter. These same men, after having been rushed for 10 days at the beginning of the winter quarter and having been pledgemen for the balance of that quarter, had for the winter quarter a scholastic average of .980 (slightly below a C).

A study made this year of the grades of pledgemen shows that while at the end of the fall quarter the men pledged to 17 of the fraternities had better than a C average, at the end of the winter quarter but 13 had better than a C average. It also shows the interesting fact that 12 of the 13 were above a C average for both quarters and only one increased the standing from below a C to higher than a C average.

There was, in several cases, a marked improvement in the scholarship of the pledgemen during the winter quarter; but the

evidence is pretty strong that the only safe method for a fraternity to use in selecting pledgemen is that of scholarship.

#### POINT SYSTEM FOR STUDENT ACTIVITIES

The point system has been in use for many years on the campus, but as there was no enforcing officer, it was practically a dead letter. In the spring of 1925, the Women's Self-Government Association decided that it needed rehabilitation. They, therefore, tabulated every office held by a woman on the campus, and all work done by women students. They then evaluated these offices and this work in terms of effort demanded, responsibility assumed, and time used in the proper fulfillment of the duties of that office. They divided all these offices into three classes. In the first class, they placed those offices which they felt would consume all of a person's time and energy, aside from that necessary for classroom work. Such offices are president of the Women's Self-Government Association, the Young Women's Christian Association, and the Women's Athletic Association. A student can hold only one first class office. In the second class, they put positions of great responsibility, but not so important as the first class. Under this come such offices as memberships on the Women's Self-Government Association board, membership on the small cabinets of the Young Women's Christian Association, and so on. A student may hold two second class offices. In the third class, they put all the minor offices and pieces of work on the campus. A student may carry 4 third class offices; or 1 second class, and 2 third class. They changed the constitution of the Women's Self-Government Association to make it the business of the vice-president to check on all these offices, to look up the standing of the holder, to see that she is maintaining a "C" average, and to see also that she is not carrying more than the amount of extra-curricular work that the office permits. The vice-president has given a great deal of her time to the task this year, and it has worked out with surprisingly good results. It has meant that a girl does not carry more work than she is capable of handling in addition to her college courses. It also means that, of necessity, more students are drawn into extra-curricular activities, and the work is more widely distributed. The All-University Student Council adopted the point system

that the women students proposed, and in the light of it revised their own point system for men, which had previously been based almost entirely on prestige and honor of the office.

## CHANGES IN THE FACULTIES

### RESIGNATION OF DR. SOLON MARX WHITE

During the year Dr. Solon Marx White resigned from the active headship of the Department of Medicine retaining a professorship in the department. Dr. S. Marx White has been associated with the University of Minnesota since 1899. He has held various positions in the School of Medicine, but since 1919 he has been chief or acting chief of the Department of Medicine. At the same time, he has been professor of medicine. Dr. White has resigned because his work in the Nicollet Clinic has so developed as to require practically all of his time. It is a matter of regret to the University of Minnesota that it is not in a position to avail itself of the full time services of Dr. White, but it is happy in the thought that he still retains a professorship in the department, and that he will be able to devote some time to the teaching of medicine at the University.

### RESIGNATION OF DEAN GEORGE W. DOWRIE

We record the resignation of Dean George W. Dowrie of the School of Business with great regret. Dr. Dowrie came to the University of Minnesota in 1918 as professor of economics. In 1919 he was made dean of the School of Business. He resigned to accept a professorship in the Graduate School of Business at Stanford University for the reason that he is more interested in teaching than he is in administration. The University of Minnesota has accepted his resignation with great regret. He has developed an excellent School of Business. He has maintained high standards, developed a spirit of loyalty among the students and staff, and secured the good will and co-operation of the various business agencies of the Twin Cities; at the same time he has maintained his interest in teaching and in productive work and has stimulated research among the members of his staff. In every way he has been a distinguished administrator, teacher, and leader.

## RETIREMENT OF PROFESSOR OSCAR WILLIAM OESTLUND

At the close of the year Professor Oscar William Oestlund was retired as professor emeritus. Dr. Oestlund is a graduate of Augustana College from which institution he received his Master's degree in 1887 and the degree of doctor of philosophy in 1900. He came to the University of Minnesota as an assistant in animal biology in 1894 at a salary of \$900. He advanced rank by rank and step by step to his professorship. His researches and writings brought him national distinction. He has been one of those faithful, quiet, unostentatious workers, who was never known to do any self-advertising, but who on the other hand has been an earnest searcher after the truth. He possesses a scientific mind, the kind of a mind that institutions of higher learning find so rarely and know so little how to reward.

## RETIREMENT OF DR. GEORGE B. FRANKFORTER

Dr. George Bell Frankforter was retired at the close of the year with the title of professor emeritus. Dr. Frankforter had been a member of the staff of the University of Minnesota since 1893. He came here at that time from Nebraska to accept a professorship in chemistry. Before coming he had received his bachelor of arts and his master of arts degrees at the University of Nebraska and his doctor of philosophy from the University of Berlin. He had served as instructor, lecturer, and professor of chemistry at the University of Nebraska from 1885 to 1893. In 1904, Dr. Frankforter was made dean of the School of Chemistry which position he filled for a period of fourteen years, retiring to devote himself to research work and to teaching. He served his country during the late war in chemical engineering service and received the title of major. Dr. Frankforter was vice-president of the American Chemical Society; president of the Minnesota section of the American Chemical Society; counsellor at large of the American Chemical Society, and a member of the Committee on Organization, eighth International Congress of Applied Chemistry.

His chief work, however, was that of thirty-three years' service to his students. During the entire period while a member of the staff of the University of Minnesota and dean of the School of Chemistry, he taught one or more classes. He saw the School

of Chemistry develop from a small and insignificant department into an influential school in a new building well equipped in every respect. The University of Minnesota is grateful for the faithful and devoted service of Dr. Frankforter. It joins with thousands of his students in wishing for him many years of active interest in his chosen field.

#### RETIREMENT OF RICHARD O. BEARD

Dr. Richard O. Beard, associate professor of physiology and secretary of the Administrative Board and of the faculty of the Medical School, reached the retiring age during the year. He came to the University in 1888 and became secretary of the faculty in 1904. He has been one of the most active and aggressive leaders of the field of medical education during his long service at the University. He had a prominent part in the development of the central School of Nursing at the University which incorporates the work of training nurses at several of the Twin City hospitals. He will continue his service for medical education by acting as executive of a volunteer committee of medical men who are seeking to enlist support for the Medical School throughout the state.

#### RETIREMENT OF HENRY F. NACHTRIEB

Mr. Henry F. Nachtrieb, professor of animal biology, reached the retiring age during the year. He came to the University of Minnesota as instructor in animal biology in 1886 and has been continuously in the service of the University since that time. His genial personality and his interest in the students have won for him a host of friends now scattered far and wide throughout the country. The thoroly organized Department of Animal Biology is a monument to his administrative ability. He has moved to California and hopes to spend the remainder of his life in the neighborhood of animal biology laboratories on the Pacific coast.

#### RESIGNATION OF ALBERT J. LOBB

Mr. Albert J. Lobb, comptroller of the University, resigned his position to accept a more lucrative one in the administrative staff of the Mayo Clinic at Rochester. Both as comptroller of the University and secretary of the Board of Regents, Mr. Lobb rendered a distinct service to the University. A thoro organizer, a man of unusual ability to keep essential details in mind, Mr.

Lobb provided a most efficient financial administration for the University. Only those intimately concerned with university administration realize how important for educational administration is effective financial administration.

#### RESIGNATION OF KARL S. LASHLEY

Dr. Karl S. Lashley, professor of psychology, was among those attracted to other institutions during the year. He left the University of Minnesota to join the staff of the Institute of Behavior Research at Chicago.

Dr. Lashley came to the University as instructor in 1917 and was rapidly promoted through the various ranks and in 1924 was made professor. Dr. Lashley has a wide reputation as one of the most productive scholars in the field of psychology and his leaving the University is a source of great regret.

#### IN MEMORIAM

Death laid a heavy hand upon the University during the year. Four members of the faculty with the rank of professor were stricken. The following words of tribute were prepared by their colleagues on the faculty:

#### JAMES H. FORSYTHE

Throughout a life all too brief Professor James H. Forsythe had so husbanded his strength and applied his talents that his achievements, when matched and measured beside those of our common day seem to stand forth as of one who had lived his full allotment of years. What drew his associates and students to him was not solely their appreciation of his services as teacher and builder. It was the lovable qualities of the man who had friends because he showed himself friendly, who gave himself unselfishly to the day's task, who illumined his intercourse with the cheer and healing of a spirit that hated sham and revered beauty and truth.

The University of Minnesota, housed in these newer structures to which Professor Forsythe contributed so much, stands as his temporal and visible monument. The memorial achieved by his spirit's impress upon those who knew him day by day will outlast them and the printed page on which we, his colleagues in the Senate of the University of Minnesota, have here set down our tribute for the consolation of those bowed in personal grief.

#### WILLIAM S. FOSTER

William S. Foster possessed in combination and fine proportion the intellectual and personal qualities that won the love and respect of his

colleagues and his students. His frank and forthright intellectual honesty, his zest for work and play, his modesty that concealed a scholarship both broad and exact, his generosity in all labors and organizations that knit our University life together, made him the sort of man whom we all knew and treasured in the knowing. In its expression of its sense of loss by his death on January 2, 1926, the Senate of the University of Minnesota speaks not only for the University, but for its individual members.

## JOHN J. FLATHER

In the death of Professor J. J. Flather the University of Minnesota, its College of Engineering and Architecture, and the community in which he lived has lost a valued member.

As one of the Faculty he always had the interests of the College closely at heart and applied his constant thought and effort to maintain high ideals and standards of education: as Professor of Mechanical Engineering he directed his department from its infancy to its development as a strong and effective organization and aided materially in the advancement of mechanical engineering by vitalizing his teaching and by contribution of scientific papers and discussion within his field: and as a member of the University his genial, friendly manner and his broad interest in other fields of science, art, and literature enabled him to win friends easily in those with whom he came in contact.

## GEORGE D. SHEPARDSON

In the death of Dr. George D. Shepardson, the College of Engineering and Architecture lost one whose contributions to education during his thirty-five years of active service stand as his great monument.

Dr. Shepardson was a cultured, Christian gentleman, very widely read in both the sciences and humanities. All his students will remember him for his readiness to help, his conscientiousness, patience, courtesy, and kindness.

*Appointments.*—The following appointments to positions of professorial rank were made during the period under review:

William T. Middlebrook, comptroller

B.A., 1912, Dartmouth College; M.C.S., 1913. Amos Tuck School of Business Administration and Finance; Great Northern Railway-Accounting, traffic, operating, and executive departments in clerical positions, traveling auditor, station accounts, traveling freight agent and representative, executive department, 1913-17 and 1919-20; second and first lieutenant Q.M.C., U.S. Army, army transport service, May, 1917, to September, 1919; with Griffenhagen and associates, management engineers, 1920-22; comptroller at Purdue University 1922-25.

Vernon M. Williams, assistant dean of student affairs

B.S., 1921, University of Minnesota; M.S., 1921; instructor at Kansas State Agricultural College, 1922-23; assistant professor, 1923-24; assistant professor of dairy research at North Carolina State College, 1924-25; associate professor, 1925.

John E. Anderson, director of Institute of Child Welfare with rank of professor

B.A., 1914, University of Wyoming; M.A., 1915, Harvard University; Ph.D., 1917; instructor in psychology at Yale University April to June, 1917; research work for War Department on intelligence tests June to August, 1917; attended second officers' training camp from August to October, 1917; commissioned first lieutenant, Sanitary Corps, October, 1917; clinical examiner and then chief examiner at Camp Devens, Massachusetts, October, 1917, to February, 1918; commanding officer psychological company No. 1 at Camp Greenleaf, Georgia, from February to July, 1918; commanding officer at School for Military Psychology at Camp Greenleaf, Georgia, July, 1918, to January, 1919; instructor in psychology at Yale University from February, 1919 to 1921; assistant professor, 1921-25.

Hilding Berglund, professor of medicine and head of Department of Medicine

"Matura," 1904, Karlskrona, Sweden; attended University of Upsala, Sweden, 1904-10; M.D., 1916, University of Stockholm, Sweden; S.D., 1920; interne, resident, and assistant at "Serafimerlasarettet" in Stockholm, 1915-20; assistant professor of medicine at University of Stockholm, 1920; fellow and assistant in biochemistry at Harvard Medical School, 1921-23; assistant professor of medicine at Harvard Medical School and associate in medicine at Peter Bent Brigham Hospital, 1923-25.

Henry Schmitz, professor and chief of Division of Forestry

B.S., 1915, University of Washington; M.S., 1916; Ph.D., 1919, Washington University of St. Louis; instructor in forestry at University of Idaho, 1919-20; assistant professor, 1920-22; associate professor, 1922-24; professor, 1924-25.

Charles Sheard, professor of physiological optics on Mayo Foundation

B.A., 1903, St. Lawrence University; M.A., 1907, Dartmouth; Ph.D., 1912, Princeton; assistant in physics at Dartmouth, 1905-7; instructor and assistant professor at Ohio State University, 1907-14; professor, 1914-19; head of scientific bureau of American Optical Company, 1919-24; head of section of physics, Mayo Clinic, 1924-25.

Clarence W. Spears, head football coach with rank of professor

B.S., 1917, Dartmouth; M.D., 1921, Rush Medical College; head football coach at Dartmouth, 1917-20; head football coach at University of West Virginia, 1921-25.

Samuel E. Sweitzer, associate professor of dermatology and syphilis

M.D., 1901, University of Minnesota; studied at Vienna, Berlin, and Paris in 1904; at Vienna and Paris in 1907; clinical assistant at University of Minnesota, 1905-11; instructor, 1912-14; assistant professor, 1915-16; associate professor, 1917-21.

Parker O. Anderson, farm forestry specialist in Agricultural Extension with rank of assistant professor

B.S., 1921, University of Minnesota; A.E.F. forest engineers, September 10, 1917, to February 19, 1919; ranger Minnesota Forest Service May, 1919, to November 1, 1919; supervisor November 1, 1919 to 1921; silviculturist, 1921-24; assistant forester in charge of forest management, 1924-25; state forestry board to date.

Edward J. Baldes, assistant professor of biophysics on Mayo Foundation

B.A., 1918, University of Saskatchewan; M.A., 1920, Harvard; Ph.D., 1924; Whiting fellow at Harvard, 1921-22; assistant in physics at Radcliffe College, 1921-24; instructor in physics at Harvard University, 1923-24; assistant in section of physics, Mayo Clinic, 1924-25.

Major Frederick H. Bockoven, assistant professor of military science and tactics

D.D.S., 1916, Ohio State University.

Archibald Butter, assistant professor of dentistry

D.D.S., 1917, University of Minnesota; instructor in dentistry, University of Minnesota, 1918-20; assistant professor, 1921-24.

John F. Cassidy, assistant professor of military science and tactics

Graduate of U.S. Military Academy at West Point, 1920; basic course at Fort Monroe, Virginia, 1920-21.

Margaret Stella Chaney, assistant professor of home economics

Ph.B., 1914, University of Chicago; M.A., 1923, University of California; Ph.D., 1925, University of Chicago; taught in Chicago schools, 1915-19; at Sam Houston Normal, 1919-21; acting head, 1922-23; part time teaching fellow at University of California, 1922-23; instructor at University of Chicago summer of 1924.

Edith D. Dixon, extension worker with rank of assistant professor in Institute of Child Welfare

Diplomas from Winona State Normal School, 1897, Wheelock Kindergarten Training School, Boston, 1899, Teachers College, 1907; B.S., 1916, Columbia University; director of kindergarten of Winona public

schools, 1897-98; assistant director of demonstration kindergarten at Winona Normal School, 1899-1900; director of public school kindergarten at Menominee, Minnesota, 1900-1902; taught at Glenn Ridge, New Jersey, 1902-4, New York City, 1904-6; supervisor and critic teacher at Ypsilanti, Michigan, State Teachers College, 1907-12; Winona State Teachers College, 1912-15; principal of Brush Hill School at Milton, Massachusetts, 1916-19; superintendent at Mary Crane Nursery and Health Center of United Charities of Chicago, 1922-25, during this time taught one summer at University of Tennessee and spent one semester in New York on Laura Spelman Memorial Scholarship.

William L. Fichter, assistant professor of Romance languages

B.S., 1914, Columbia University; M.A., 1918; Ph.D., 1925; taught at High School of Commerce in New York, 1914-17; instructor and assistant professor U.S. Naval Academy at Annapolis, 1917-22; professor and head of department at Girard College, 1922-25.

Florence Goodenough, assistant professor in Institute of Child Welfare

B.S., 1920, Columbia University; M.A., 1921; Ph.D., 1924, Stanford University; research assistant in gifted children survey of Stanford University, 1921-24; psychologist Minneapolis Child Guidance clinic, 1924-25; twelve years' experience in public school teaching chiefly with special classes for subnormal children previous to 1920; director of educational research at Rutherford, New Jersey, 1920-21.

Major Ray C. Hill, assistant professor of military science and tactics

Graduate of school of musketry, 1907; infantry school in 1925; professor of military science and tactics at University of Ohio, 1914-16; Riverside Academy, 1919; University of Iowa, 1920-23.

Nora Iddings, assistant professor of home economics

B.S., 1918, Purdue University; M.S., 1925, University of Chicago.

Maynard S. Johnson, assistant professor of entomology and economic zoology

B.A., 1921, Bates College; M.A., 1923, University of Illinois; Ph.D., 1925; assistant at Bates College, 1920-21; assistant at University of Illinois, 1921-23.

Paul Morand, assistant professor of Romance languages

Bes L, 1911, University of Bordeaux; licencié és lettres, 1921; taught at University of Glasgow, 1921-22; University of Sheffield, 1922-25.

Lieutenant Colonel Kent Nelson, assistant professor of military science and tactics

M.D., 1900, University of Minnesota; graduate of Army Medical School at Washington, D.C., 1902.

John M. Ort, assistant professor of biophysics on Mayo Foundation

B.S., in Chemical Engineering, 1918, Ohio State University; M.S., 1919; Ph.D., 1924; du Pont fellow in chemistry at Ohio State University, 1923-24; assistant in section of physics, Mayo Clinic, 1924-25.

H. Lyle Smith, assistant professor of mathematics and mechanics

B.S., 1914, University of Chicago; M.S., 1915; instructor at Northwestern University, 1915-16; Princeton University, 1916-18; Cornell College, 1919; University of Wisconsin, 1919-21; professor, University of Philippines, 1921-24.

Frederick J. Stevenson, assistant professor of agronomy and farm management

B.S., 1922, Washington State College; M.S., 1925; principal Pine City High School, 1914-19; assistant in farm crops at Washington State College, 1919-22; instructor in agriculture in vocational school of Washington State College, 1922-25.

Nelson W. Taylor, assistant professor of chemistry

B.S., 1918, University of Saskatchewan; Ph.D., 1923, University of California; lecturer in mathematics and assistant in chemistry at University of Saskatchewan, 1919-20; instructor at University of California, 1923-25.

Wendell White, assistant professor of psychology in General Extension Division

B.A., 1917, Iowa State Teachers College; M.A., 1922, University of Iowa; Ph.D., 1925; taught second semester of 1922-23 and three following summers at State Teachers College at Warrensburg, Missouri; graduate assistant at University of Iowa, 1923-25; superintendent of schools at Hanlontown, Iowa, 1920-21; teacher at Alberton, Montana, high school, 1919-20.

Margaret G. Wood, assistant professor in Institute of Child Welfare

B.A., 1912, Smith College; Ph.B., 1916, University of Chicago; took work during summer of 1923 at Art Institute of Chicago and at Greenwich, Connecticut, and at Edgewood School, summer of 1922; taught first grade public school at Winnetka, Illinois, 1916-17; Smith College Relief Unit during World War, 1917-19; taught kindergarten

at Chisholm, Minnesota, 1919-20; supervisor at Teachers College at Mankato, Minnesota, 1920-21; kindergarten and nursery at Children Community School at Chicago, 1922-25.

Dorothea Davis Kittredge, lecturer in School of Business

B.A., 1916, University of Montana; M.A., 1923, George Washington University; special agent and statistical expert of U.S. Bureau of Labor Statistics, 1918-23; director Pacific coast office of the bureau supervising the work of forty-five investigators, 1918-19; on research staff of U.S. Civil Service Commission, 1923.

Gladys Barck Rempel, lecturer in sociology

B.A., 1921, University of Minnesota; visitor for Family Welfare Association of Minneapolis, Minnesota, August, 1921, to October, 1923; district secretary of Minneapolis Family Welfare Association from October, 1923, to present time.

The following have been appointed professor emeritus:

Richard O. Beard, professor of physiology

George B. Frankforter, professor of chemistry

Henry F. Nachtrieb, professor of animal biology

Oscar W. Oestlund, associate professor of animal biology

*Promotions.*—From associate professor to professor: William Anderson, Carl O. Flagstad, William L. Hart, Arthur Henrici, August C. Krey, Cecil A. Moore, Harold Quigley, Frank M. Rarig, Andrew T. Rasmussen, Charles E. Rudolph, Joseph L. Shellman, Lester B. Shippee, Charles F. Shoop; from assistant professor to associate professor: Alfred W. Adson, Benjamin J. Clawson, Harold S. Diehl, Robert G. Green, Frank W. Lathrop, J. Charnley McKinley, Henry E. Michelson, Dwight E. Minnich, Paul A. O'Leary, Ruth Raymond, Martin B. Ruud; from instructor to assistant professor: Leon Archibald, John H. Beaumont, Louis A. Buie, Muriel B. Carr, Jonas J. Christensen, George Fairclough, John Flodin, Edwin G. Gaumnitz, Gladys Gibbens, Olga Hansen, Raymond E. Johnson, Elmer W. Johnston, John H. Kuhlman, Dorothy Kurtzman, Walter M. Lauer, Delmar H. La Voi, Grace Medes, Joseph Michael, Clarence E. Mickel, Earl W. Nelson, Harry Oerting, Orlena Ordahl, Thomas A. Peppard, Adolph Ringoen, Landon A. Sarver, Frederick H. K. Schaaf, Lawrence D. Steefel, George W. Swenson, George A. Thiel, Arthur A. Zierold, Carl C. Zimmerman; from assistant to assistant professor: Maurice Visscher.

*Leaves of absence granted durnig the year.*—Andrew Boss, professor of agronomy and farm management, with pay, from December 1, 1925, to March 1, 1926, for work with division of agricultural economics of United States Department of Agriculture; Solon J. Buck, professor of history, without pay, winter and spring quarters of 1925-26; William Stearns Davis, professor of history, without salary, for 1925-26, to do literary work; E. F. Ferrin, professor of animal husbandry, with salary, from May 1 to August 1, 1926, in lieu of sabbatical furlough, to be spent in Great Britain, Denmark, Holland, Belgium and France; George B. Frankforter, professor of chemistry, without salary, for 1925-26, to teach at Leland Stanford University; August C. Krey, professor of history, without pay, for spring quarter of 1925-26, to work on Commonwealth Fund project in history and social science; Bruce Mudgett, professor in School of Business, sabbatical furlough for 1925-26, to be spent in study in Europe; Edwin L. Newcomb, professor of pharmacy, without salary, for balance of year, beginning January 1, 1926; George D. Shepardson, professor of electrical engineering, sabbatical furlough for 1925-26, to be spent in travel and study; Clinton R. Stauffer, professor of geology, sabbatical furlough for 1925-26, research work in the West; Norman Wilde, professor of philosophy, sabbatical furlough for 1925-26, for study and writing in Europe; Frederick L. Washburn, professor of entomology and economic zoology, from July 1, 1925, to June 30, 1926, on half pay, with understanding that his resignation will be effective July 1, 1926; Alice Beister, associate professor, without salary for 1925-26 to complete work for Doctor's degree at Yale University; John M. Gaus, associate professor of political science, without salary, for fall quarter of 1925-26, for work with Social Research Council for research in civic education in England; Harriet Goldstein, associate professor of home economics, without salary, for fall and winter quarters of 1925-26, for study and travel; Anders J. Carlson, assistant professor in School of Mines, sabbatical furlough from September 15, 1925, to February 1, 1926, to work for Doctor's degree at University of California; Howard Clark, assistant professor in Medical School, without pay, from February 22 to August 23, 1926, on account of ill health; W. P. Dyer, assistant professor of agricultural education, extension of leave without salary to

January 1, 1926; W. M. McClintock, assistant professor of engineering, without salary, from February 8 to March 20, 1926, on account of ill health; Joseph C. Michael, assistant professor in Medical School, without salary, from January 1 to July 1, 1926, to do graduate work abroad; Mrs. Mildred Mudgett, assistant professor of sociology, without salary, for 1925-26; Ethel Phelps, assistant professor of home economics, without salary, for 1925-26, to complete studies for Doctor's degree at Yale University; John G. Rockwell, assistant professor in College of Education, without salary, for 1925-26, with understanding he will teach one course in College of Education and work on child welfare research project of Teachers College; Emerson G. Sutcliffe, assistant professor of English, sabbatical furlough for 1925-26 for study in England; Gilbert J. Thomas, assistant professor of urology, without salary, from July 1 to September 30, 1925; Marvin J. Van Wagenen, assistant professor of education, for 1925-26, without salary, to accept appointment as visiting lecturer at University of California; Maurice Visscher, assistant professor of physiology, without salary, for 1925-26, to accept a National Research Council fellowship; Marion L. Vannier, director of School of Nursing, without salary, from September 1, 1925, to March 1, 1926.

*Resignations.*—During the year the following members of professorial rank resigned from the faculty: Albert J. Lobb, comptroller; George W. Dowrie, dean of School of Business; Karl S. Lashley, professor of psychology; M. C. Elmer, associate professor of sociology; Harold J. Leonard, associate professor of dentistry; Elmer J. Lund, associate professor of animal biology; Holbrook Working, associate professor of agricultural economics; Harry J. Burtis, assistant professor of rhetoric; Mary Ellen Chase, assistant professor of English; Lieutenant Myron J. Conway, assistant professor of military science and tactics; Bessie Duggan, assistant professor of agricultural extension; William Penn Dyer, assistant professor of agricultural education; Edwin W. Gaumnitz, assistant professor of agricultural economics; Fred Griffee, assistant professor of agronomy and farm management; Walter F. Hoffman, assistant professor of agriculture and biochemistry; Houghton Holliday, assistant professor of dentistry; Nora M. Hott, assistant professor of agricultural extension; Grover C. Matthews, assistant professor of beekeeping; Lester

Raines, assistant professor of English; Lee J. Seymour, assistant professor in General Extension Division; H. Lyle Smith, assistant professor of mathematics and mechanics; George S. Stevenson, assistant professor of medicine; George L. Tuve, assistant professor of mechanical engineering; Margaret Wood, assistant professor in Institute of Child Welfare.

*Deaths.*—Rome G. Brown, special lecturer in Law School, May 22, 1926; Russell D. Carmen, professor of roentgenology on Mayo Foundation, June 17, 1926; John J. Flather, professor of mechanical engineering, May 14, 1926; James H. Forsythe, professor of architecture, November 1, 1925; William S. Foster, associate professor of psychology, January 2, 1926; Carl H. Petri, assistant professor of dentistry, June 6, 1926; William C. Smiley, assistant professor and head of Correspondence Department of General Extension Division, January 28, 1926; George D. Shephardson, professor of electrical engineering, May 26, 1926.

STUDENT LOANS

New Loans	No.	Aggregate Amount	Average Amount	Loans of				Balance July 1, 1926
				\$200	\$100	\$100	\$100	
General student loan	22	\$ 1,015.00	\$46.13	..	..	1	21	\$ 3.54
Gilfillan trust fund..	213	11,015.50	51.72	..	4	19	190	537.79
Elliot trust fund....	5	835.00	167.00	2	1	..	2	2,231.99
Ludden trust fund...	55	4,210.40	76.55	..	4	16	35	2,032.45
Ludden estate loan..	37	2,179.00	58.89	1	..	3	33	62.11
Ludden real estate loan .....	203	11,022.50	54.29	1	5	12	185	203.56
Caleb Dorr loan fund .....	45	1,471.50	32.70	..	..	..	45	28.50
Cosmopolitan Club loan fund .....	2	165.00	82.50	..	1	..	1	43.67
E. M. and E. R. Johnson loan fund....	12	381.00	31.75	..	..	..	12	200.80
Law Alumni loan fund	4	256.00	64.00	..	..	..	4	15.31
F. D. Lindquist loan	6	170.00	28.33	..	..	..	6	258.84
Minn. State Organization for Public Health Nursing ...	1	10.00	10.00	..	..	..	1	15.00
Juniata Shepperd ...	5	120.00	24.00	..	..	..	5	38.74
Prof. Sorority Council loan fund .....	2	100.00	50.00	..	..	..	2	25.00
W.C.T.U. loan fund, Eighth Ward .....	2	60.00	30.00	..	..	..	2	40.00
Total of 1925-26...	614	\$33,010.90	\$53.76	4	15	51	544	\$5,737.30
Total of 1924-25...	653	36,162.85	55.38	2	34	57	560	9,613.46

## BUILDINGS AND GROUNDS

## LAND AND BUILDINGS

## 1. LAND

During the year the main campus was extended to include the block bounded by University and Nineteenth avenues, and Fourth and Oak streets. This property was secured partly through direct purchase and partly through condemnation proceedings. Several miscellaneous properties were purchased, which extended the main campus on the easterly side. The Great Northern Railway made a gift to the University of approximately 7,000 square feet near the heating plant. Another small tract near the heating plant was purchased. This purchase and the gift solved our ash disposal problem and rounded out the western boundary of the campus.

Two tracts of land, one of 21 acres and one of 40 acres, were purchased near the agricultural campus and  $76 \frac{13}{100}$  acres were also purchased for a recreational field. The Board of Regents approved the platting and improvement for subdivision into building lots for lease or sale of the south 20 acres of the 40-acre tract purchased in 1919 for a stadium site and recreational field. The proceeds for the sale or lease of this land will be used to reimburse the University for the amount expended to acquire the  $76 \frac{13}{100}$  acres.

## 2. LAND IMPROVEMENTS

Many major improvements were made on the main and agricultural campuses. Shrubs and vines were planted; considerable grading and sodding was done; curbs were provided for some of the roads on the agricultural campus; the overhead wires on Seventeenth Avenue between Washington and University avenues were placed underground; a part of the brick wall and the foundation around Northrop Field were removed; and the road along Seventeenth Avenue between Washington and Union was paved; the retaining wall at the heating plant was extended one hundred feet west; the campus roads at the Northwest School and Experiment Station at Crookston were paved at a cost of approximately \$26,000. The old Campus Club building, which is now used for the housing of nurses, was moved to Harvard and Beacon streets and alterations costing over \$6,000 were made. The house at 113 Church Street, which also accommodates

nurses, was moved to the rear of 119 Union and extensive alterations were made. General surveys were made of the campuses of the West Central School and Experiment Station, Morris, and the North Central School and Experiment Station, Grand Rapids. Improvements to the underground system amounted to \$6,000.

### 3. BUILDINGS

During the year the third floor of Haecker Hall was completed at a cost of approximately \$13,000. The Highway Engineering Laboratory addition to the Experimental Engineering Building was completed at a cost of \$70,000. Part of this building houses the State Highway Department Laboratory. This space is leased to the Highway Department on a rental basis.

Construction was also started on a dormitory at the West Central School and Experiment Station, Morris, to cost \$75,000; on a dormitory and dining hall at the North Central School and Experiment Station at Grand Rapids to cost \$90,000; and on a botany building to cost, with equipment, \$225,000.

Plans and specifications were also started for a physics building of cost, with equipment, \$450,000; a plant industry building to cost, with equipment, \$250,000; and a health service building at the Northwest School and Experiment Station, Crookston, to cost \$27,000. Preliminary plans and specifications were also prepared for a field house for the housing of physical education classes and basket-ball, football, baseball, and track.

The Board of Regents authorized the preparation of plans and specifications for a law building to cost, with equipment, \$250,000, and a small addition to our greenhouse on the University Farm, which will be rented to the State Department of Agriculture for laboratory purposes.

The regents voted to approve in principle the issuance of bonds directly for the construction of field house, dormitories, or other service buildings provided such bonds can be marked with the proviso that the security behind the bonds is limited to such income as may be available from the operation of athletics, dormitories, and other service enterprises.

### 4. BUILDING IMPROVEMENTS AND ALTERATIONS

Many improvements and alterations to buildings were found necessary during the year. The rear end of the Mechanic Arts Building, which houses the School of Business, was removed at

a cost of \$8,000. Excavations under the kitchen of the Minnesota Union and a new supporting floor cost \$9,000. Alterations at the Old Library for the housing of Publications, History, and Geography departments, cost over \$5,000. The changes in the building housing the Institute of Child Welfare amounted to \$5,000. The alterations to Sanford Hall, costing about \$15,000 and providing housing facilities for 24 additional students, were completed. Tile wainscoting was installed in a number of the service rooms of the Hospital.

The south section of the old farm house was removed and the building was generally renovated at a cost of \$5,500. The alterations to the Old Dairy Building, which now accommodates the Agricultural Economics and the Great Lakes Forestry Station, were completed at a cost of \$12,000. Extensive repairs costing \$6,000 were made to the Agricultural Dining Hall and Dormitory. A new refrigeration system was installed in the cold storage plant. A new 50-horsepower return boiler with oil burner and a 100-horsepower motor for operating the generator were installed in the agricultural heating plant.

## UNIVERSITY LIFE

### REPORT OF THE COMMITTEE ON UNIVERSITY FUNCTIONS

#### *To the President of the University:*

SIR: Your committee begs leave to submit the following report for the year 1925-26:

#### UNIVERSITY CONVOCATIONS

October 1—Freshman welcome convocation in the Stadium; Lotus D. Coffman, president of the University.

October 15—Louis Kaufman Anspacher, dramatist and lecturer, "The Drama As a Social Force in Democracy."

October 22—J. Stitt Wilson, publicist and lecturer, "Science and Religion: A Message for the Times."

October 29—Christian L. Lange, secretary general, Inter-Parliamentary Bureau, Geneva, Switzerland, "A Philosophy of Internationalism."

November 5—Rabbi Stephen S. Wise, acting president of the Jewish Institute of Religion, New York City, "The College Man in American Life."

November 19—Isador Loeb, dean, School of Commerce and Finance, Washington University, "The Constitution and Modern Social Needs."

December 3—State Day convocation; Theodore Christianson, governor of the state of Minnesota, "The Privileges and Obligations of Citizenship."

December 10—Miss Maud Scheerer, director of the Studio of the Drama, New York City, "The Twelve Pound Look."

December 17—Fall quarter commencement exercises; Irving Maurer, president of Beloit College, "Wanted—a Sense of Direction."

February 11—John Cowper Powys, novelist, poet, and essayist, "The Ten Best Books."

February 18—Charter Day convocation; Lotus D. Coffman, president of the University.

March 11—Miss Helen Fraser, publicist, writer, and lecturer, "British Personalities in Politics."

March 18—Winter quarter commencement exercises; Sir Henry Simpson Lunn, editor of the *Review of the Churches*, "Young America and the World Outlook."

April 1—Carl Brinckman, professor of political economy, University of Heidelberg, "The Future of Germany and the Rest of Europe under the Dawes Plan."

April 8—Raymond Robins, social economist. "Leadership, the Crux of Democratic Society."

April 15—Band convocation; University of Minnesota military band and University of Minnesota concert band, direction of Michael M. Jalma.

April 17—P. W. Kuo, president, National Southeastern University, Nanking, China, "The Student Movement in China."

April 22—Albert Mansbridge, chairman of the World Association for Adult Education, "Adult Education in England."

April 29—Sir Frederick Whyte, speaker of the Parliament of India, "The Political Awakening of Asia in the Twentieth Century."

May 6—The Reverend James M. Gillis, editor of the *Catholic World*, New York City, "Conservatism and the Modern Spirit."

May 13—Cap and Gown Day convocation; Charles K. Morris, president of the all-university senior class, "Presentation of the Class of 1926"; Lotus D. Coffman, president of the University, "Response."

June 13—Baccalaureate service; The Reverend John Timothy Stone, pastor of the Fourth Presbyterian Church of Chicago, "Education and Character."

June 14—Commencement exercises in the Stadium; Henry Marshall Tory, president of the University of Alberta, "Selected Processes in Education."

June 20—Exercises in the Stadium in honor of Gustaf Adolf, Crown Prince of Sweden, and Princess Louise; Speakers: President Lotus D. Coffman for the University, Governor Theodore Christianson for the state, Secretary of State Frank B. Kellogg for the nation, Crown Prince Gustaf Adolf for Sweden.

This year the committee did considerable work looking toward the presentation in the Stadium of a university pageant that would have educational and cultural values for both participants and spectators. A special committee of which Mr. Van Winkle was chairman made a careful study of the problem resulting in the calling of Mr. Stevens, of Chicago, to Minneapolis for a consultation on the project. It was felt that the most desirable theme would be the history of the state of Minnesota, the development of which would entail a period of study and research in the State Historical Society before a book outlining the drama could be written. As the estimated cost of presenting the pageant was so great it was deemed unwise for the University to guarantee the project.

Perhaps the most interesting occasion of the year was the visit of the Swedish Crown Prince and Princess. The committee in charge was composed of three committees, viz: the Swedish Memorial Committee, the John Ericsson Memorial Committee, and the Committee on University Functions. The chairman of the joint committee was A. A. Stomberg. This committee had many meetings, all of them on the campus. It was

recognized at once that as the royal party were to be guests of the University on June 29, the University would have to assume responsibility for the entire function and act as host to the general public.

While the Stadium was thrown open to the general public for the occasion, a few tickets were distributed (a) to officers of the state, members of the legislature, mayors of towns and villages, presidents of schools and colleges, (b) to the Swedish Memorial Committee and the John Ericsson Committee for such distribution as seemed wise to them, (c) to members of the faculty and student body of the University. The tickets merely guaranteed a seat in a given section prior to 3:45, after which those sections were thrown open to the public.

The visit took the form of a reception in the president's office to which the royal party, regents, administrative committee, and joint committee and their wives were invited. Refreshments were served. The group then adjourned to the Stadium where a large platform, practically the same as that used for *Aida* had been prepared. The university band was on the ground level, the Swedish singers on the second level, and the speakers and special guests on the third. The occasion was a pronounced success throughout. Approximately 25,000 persons were present.

The June commencement exercises were held again in the Stadium, the weather being favorable. The fall quarter exercises were held in the Armory, and the winter quarter and summer session exercises in the Music Auditorium. The number of candidates for each of the graduation periods is as follows:

First Summer Session, July 30, 1925.....	133
Second Summer Session, September 5, 1925 (no exercises) ..	74
Fall quarter, December 17, 1925.....	245
Winter quarter, March 18, 1926.....	149
Spring quarter, June 14, 1926.....	1,183
	<hr/>
Total candidates for year .....	1,784

E. B. PIERCE, *chairman, Committee on University Functions*

#### CONCERT COURSES

The University Concert courses were, as usual, an artistic success and were patronized by capacity audiences.

The student body is learning to appreciate these outstanding musical events and each year there remain fewer tickets for the general public.

The artists presented were Joseph Lhevinne, Jacques Thibaud, Walter Gieseking, Toti dal Monte, and Roland Hayes, and the following ensemble groups: the Flonzaley String Quartet, the London String Quartet, and the Hinshaw Opera Company in *Don Giovanni*. The orchestra brought by the Hinshaw Company was augmented by fifteen men from the Minneapolis Symphony Orchestra.

## OPEN AIR OPERA

An outdoor performance of Giuseppe Verdi's, *Aida*, was given in Memorial Stadium, Friday, June 4. The performance was under the direction of the following committee: Earle G. Killeen, professor of music; Lester Raines, assistant professor of public speaking; S. Chatwood Burton, assistant professor of painting and sculpture; Ruth Raymond, associate professor of art education; Wylle B. McNeal, chief of Division of Home Economics; Gertrude H. Baker, assistant professor of physical education for women; Michael Jalma, bandmaster; and Thomas E. Steward, director of University News Service. Numerous other committees of both faculty and students assisted.

The artists participating were Frances Peralta, soprano of the Metropolitan Opera Company, Cyrena Van Gordon, contralto of the Chicago Civic Opera Company, Paul Althouse, tenor of the Metropolitan Opera Company, Louis Kreidler, baritone of the Chicago Opera Company, Edmund Burke, bass of the Metropolitan Opera Company, and Howard Preston, bass of the Chicago Civic Opera Company. Two students, Gertrude Neubeiser, soprano, and Frederick Stephens, tenor, performed minor rôles. The organizations taking part were the University Choral Society, the University Choir, the University Interpretive Dancers, the University Band, the Rhys-Herbert Male Chorus, and the Symphony Orchestra of fifty pieces.

Active assistance in promoting the opera throughout the state was given by the Minneapolis Civic and Commerce Association, and the St. Paul Association. About seven thousand witnessed the performance.

## IMPORTANT MEETINGS AT THE UNIVERSITY

The University of Minnesota is becoming to an increasing extent a center for the meetings of technological, research, and other educational societies, many of state-wide, and some of them of national, scope. In addition to these it conducts each year a number of meetings of its own which bring to the campus hundreds or thousands, as the case may be, of persons interested in the University either because their sons and daughters are students or because the University's activities are in line with, and helpful to, their own interests.

The following brief paragraphs describe some of the societies that have met on the campus during the past year:

#### THIRD NATIONAL COLLOID SYMPOSIUM

Sponsored by the committee on the chemistry of colloids of the National Research Council, a symposium on colloid chemistry is held annually at one of the outstanding American universities. That in 1925 was at Minnesota. Eminent chemists in the field of colloids came from many parts of the United States and from Canada to attend. The chief visiting lecturer was Dr. Herbert Freundlich, of the Kaiser Wilhelm Institut, Berlin, Germany. Following the three days' intensive work of the symposium proper, a special group of courses in that field was offered during the first Summer Session, for which Dr. Freundlich remained as a guest lecturer. Colloid chemistry, dealing with the behavior of matter in extremely fine division, is basic to much of the best current work being done in chemistry as applied to industry and medicine.

#### AMERICAN ASSOCIATION OF COLLEGIATE REGISTRARS FOURTEENTH ANNUAL CONVENTION

As the university officer who comes into direct contact, personally or through his staff, with more students than any other department head sees, and who also has the duty of assembling important statistics on many phases of student performance, the registrar is becoming an officer of increasing importance in the American college or university. For the discussion of their more important problems among themselves, the registrars have been organized into an association, which for a number of years has held its meetings at one of the interesting institutions of learning. Upon the invitation of Registrar Rodney M. West the association conducted its 1926 meeting on the University of Minnesota campus in April. Addresses and reports on research dealing with a large number of important educational topics were made before the organization, which also conducted group meetings for informal discussion.

#### MINNESOTA STATE HIGH SCHOOL PRESS ASSOCIATION

This organization, made up of boys and girls who publish the newspapers, magazines, and yearbooks of Minnesota high schools, met on the university campus in the fall of 1925 as guests of the Department of English in the University High School, and the

University Department of Journalism. There was an exhibition of the literary productions and journals of Minnesota high schools and a number of keenly interesting reports were read by the secondary school journalists of the state.

#### SCHOOLMEN'S WEEK

Each spring the University of Minnesota acts as host to a thousand or more Minnesota teachers during Schoolmen's Week, conducted by the College of Education, with which is joined the yearly Short Course for Superintendents and Principals, in which the State Department of Education co-operates with the college. During Schoolmen's Week a number of state-wide organizations conduct annual meetings, among these being the Minnesota Society for the Study of Education, founded at the University to encourage and stimulate research in Minnesota school problems; the State High School Athletic Association, which conducts its annual meeting at that time; the yearly Conference of County Superintendents; the annual sessions of the Superintendents' Section, Minnesota Education Association; and the annual High School Conference. As part of the latter meetings of many M.E.A. sections devoted to special subjects, such as English, mathematics, home economics, and the like, are held. The 1926 meeting was held the last week in March.

#### EIGHTH ANNUAL CONFERENCE, DEANS AND ADVISERS OF MEN

As the number of students in colleges and universities has increased additional effort has been necessary to cope with the personal problems of scholarship, self-help, vocational assistance, discipline, moral standards, fraternity standards, and the like. To this end the deans of men and officers with functions similar to those of the deans have organized an annual convention, meeting at one of the larger universities or colleges. On invitation of Dean Edward E. Nicholson, this body conducted its 1926 meeting at the University of Minnesota in May. Most of the better known educational institutions in the United States sent representatives to the gathering.

#### MAY CONFERENCE ON EDUCATIONAL PERSONNEL RESEARCH AND STUDENT GUIDANCE

During the time that the Conference of Deans and Advisers of Men was meeting at Minnesota another national organization of similar purpose also conducted its yearly session on the campus, bodies represented in the May conference being the Personnel

Research Federation, American Council on Education, National Research Council, Committee on Personnel Research, and the Annual Conference of Deans and Advisers of Men, as listed above. The Personnel Research and Student Guidance meetings were given over to such subjects as the selection, orientation, and guidance of students; best ways of handling the entering freshmen; the use of psychological tests as part of a system of student measurement and guidance; placement tests; vocational guidance methods; and the like. Many educational institutions were represented at the conference, which devoted several of its sessions to joint meetings with the deans and advisers of men.

#### MINNESOTA STATE CONFERENCE AND INSTITUTE OF SOCIAL WORK

The fall conference and institute of social work was held on the University of Minnesota campus, at University Farm, for the second time in September, 1925, and is to be held there again in the fall of 1926. The nature of the work accomplished at these meetings may be gathered from the names of the agencies joining in the sessions, such as officials charged with the enforcement of laws relating to children, child welfare boards, probate judges, county commissioners, Minnesota Committee on Social Legislation, State Council of Agencies for the Blind, State Probation Association, Minnesota Conference for the Disabled, the Urban League, Minnesota Council of Americanization, and others. All the problems of social workers in connection with actual endeavors to better conditions in rural and urban Minnesota are threshed out at these conferences, which promise to become one of the most valuable meetings to which the University is guest in the course of each year.

#### MID-WEST PHYSICAL EDUCATION SOCIETY

Societies and institutions interested in physical education which are situated between the Alleghanies and the Rocky Mountains are organized into the Mid-West Physical Education Society which held its sessions jointly in down town Minneapolis and at the University of Minnesota this year upon the invitation of Dr. J. Anna Norris, head of the Department of Physical Education for Women. Dr. Norris was president of the Mid-West Society at the time the invitation was accepted. Universities and colleges, secondary schools, athletic clubs, and other bodies which promote and teach physical education sent representatives. A series of

demonstrations, especially of physical education for women and children, were conducted in the Women's Gymnasium on the university campus.

#### NORTHWEST GYMNASTIC ASSOCIATION

This organization conducts its meetings in the University of Minnesota Armory each year. Its program consists chiefly of a series of gymnastic competitions between representatives of universities, colleges, athletic clubs, and Turnvereins.

#### AMERICAN INSTITUTE OF CO-OPERATION

Running through the first four weeks of the first Summer Session at Minnesota, the American Institute of Co-operation conducted its yearly sessions on the Minnesota campuses this year. This institute is one of the most important of the educational ventures conducted on behalf of the agriculturist. In its meetings it brings together the best thought and experience in the field of co-operative effort in agriculture, including the United States and Canadian departments of agriculture, the representatives of grain, livestock, wool, fruit, cotton, potato, vegetable, milk, cheese, poultry and egg marketing associations; research and field workers from most of the prominent colleges of agriculture; and experts from many bureaus of markets, state departments of agriculture, and the like. This was one of the outstanding meetings of the year at Minnesota.

#### MOTHER'S DAY AND DAD'S DAY

In the spring of 1924 Minnesota established the custom of inviting the mothers of all students to the campus for a day's visit and entertainment, winding up with a dinner in the evening at which university representatives explain to their guests the problems a university faces in doing its best for the state's young people and describe how the institution is meeting these problems. Last spring the third Mother's day was conducted early in May. More than a thousand mothers of Minnesota students visited classes during the morning, went to teas and dramatic performances, or strolled about the campus in the afternoon, and attended the dinner in the evening. Each of the three Mother's Days has been so successful that the event has been firmly established as one that is sure to be continued.

Following the success of the first Mother's Day, a first Dad's Day was fixed on the day of one of the big football games in the

fall of 1924. The second Dad's Day, last fall, was even more successful than the first. University authorities have found that there is the keenest interest among parents over the studies, the friendships, the recreations, and especially over the living quarters of their sons and daughters during student days. It is now the aim of the administration to have within two years the first of an extensive system of carefully supervised dormitories to show to fathers and mothers when they visit the campus for these interesting annual celebrations.

### UNIVERSITY RADIO PROGRAMS

#### I. UNIVERSITY HOURS FROM THE GOLD MEDAL STATION

When the committee decided that it was expedient for the University of Minnesota to enter into the activities of broadcasting for the school year of 1925-26 the administration of the activity was assigned to the Extension Division. In the Extension Division the active administration and organization of the programs was assigned to the Department of Community Service where it has been carried on through the year.

At the outset the programs consisted solely of musical hours broadcast on Monday evenings through the Gold Medal Station, WCCO. The first program was given on Monday, November 23, 1925, and the last one on June 14, 1926. During this period thirty-two university hours were broadcast from the Gold Medal Station and these thirty-two programs included:

- 146 program items of either music or talks,
- 68 of these program items were given by members of the university faculty representing
- 19 departments or colleges on the campus.
- 55 talks or lectures were given on programs with
- 3 entire hours devoted to formal debates on topics of the day by collegiate debaters under the direction of the university debate coach.
- 75 program items of music were furnished by university students. The remaining
- 13 items and programs of literature and music were given by members of the faculty.
- 80 per cent of the replies to these programs have come from our own state;
- 30 per cent of them from Minneapolis and St. Paul and
- 50 per cent from towns of the state not including Minneapolis and St. Paul. These returns are from

54 counties of Minnesota. Of the  
 20 per cent of the replies received from towns outside of Minnesota,  
 Wisconsin has sent the most, as would be expected from its geo-  
 graphical location. The farthest west return is from Colorado;  
 south, Kansas; east, New York. Altogether, responses have come  
 from  
 12 states of the Union and  
 1 province of Canada.

## II. UNIVERSITY PROGRAMS FROM STATION WLB

The University studio was completely equipped and ready for operation so that the first program was broadcast from there on April 6, 1926, and the last one on June 29, 1926. With a few exceptions programs from the University Station WLB were broadcast from 12:30 to 1:30 on Tuesdays, Wednesdays, and Fridays. The Tuesday and Friday programs were devoted largely to talks and lectures while the Wednesday hour was given over entirely to music. During this period of time

37 programs were broadcast from the university station including  
 80 program items.  
 46 talks or lectures were given by members of the faculty while there  
 were  
 9 full musical programs not including  
 2 special senior recital programs broadcast by remote control from  
 the auditorium of the Music Building.

It has been very hard to classify the response to the WLB programs for two reasons: (1) because they were begun so late that the replies received are not sufficient in number to be representative; and (2) because so many people who write fail to specify whether they are writing about the university program broadcast from its own station WLB or the university hour through the Gold Medal Station.

By the close of another year the response from the WLB programs should be great enough to make it possible to determine more certainly the value of this enterprise to the institution.

## STATE HIGH SCHOOL MUSIC CONTEST

Two years ago the University was offered the opportunity to assist in the development of a contest in music among the high schools of the state. The purpose was to stimulate interest in, and improve the quality of, the performance of music by

high school pupils. As an educational device it seemed an effective means towards a desirable end, and the reports of such activities in other states pointed to its effectiveness. The University appeared to be the logical agency to foster such an undertaking and the responsibility was accepted.

The co-operation of the Minnesota Education Association, through its music section, was secured, as was that of representatives of many individual schools. Some of the schools manifesting interest no doubt did so with the hope of winning something; but the large majority had a higher educational purpose. At the fall meeting of the M.E.A. in 1924, the music section assisted in the selection of a committee, composed of school superintendents, music teachers, and supervisors, to represent the different elements concerned with the project. This committee acted in determining policies and deciding some details of procedure, leaving its executive member, a university faculty representative, to carry out the details.

The actual administration, then, was made a part of the work of the General Extension Division. From here went out the bulletins announcing the contest and stating its rules and the music to be used; all the details of promotion, of receiving the entries, of supervising the conduct of the various district contests, and of conducting the final contests, at the University, were similarly attended to in an effective manner. This was made possible through the appointment of Irving W. Jones, as assistant professor of music in the Extension Division, with full responsibility for the management of the contest.

The first year's contests were surprisingly successful. A very satisfactory procedure had been adopted, by selecting the most successful items in that of other states, and the schools that were in any way prepared seemed eager to participate. Nine district contests were held in different parts of the state, with perhaps 3,500 or 4,000 pupils participating. They represented about 90 schools in 60 cities and towns. The winners in the various events were eligible to enter a final contest held at the University, and in this there were about 1,000 participants, coming from about 35 different communities.

The second year's contests, held the past spring, were even more successful. The number of districts was increased to 11, the number of participants to approximately 7,000, from 123

schools in 104 cities and towns. Winners in these contests, to the number of 1,600 came to the final contest at the University, representing 64 schools in 54 different communities. Many of these pupils made long journeys, some of them made heavy sacrifices to be able to join in the tuneful contest. Their presence on the campus was a memorable day for them—perhaps the first of many important days to come—and it was auspicious for the University.

In interest and participation the contest appears to have about doubled in this second year; which is important and indicative of success. But of greater importance is the fact that the quality of performance presented was uniformly improved; just how much cannot be measured because of lack of measuring instruments; such things are to be felt rather than weighed or calibrated. But the expressed opinion of contestants, judges, audience, and everyone concerned was to the effect that new standards had been set that were far in advance of those existing a year earlier.

In this evidence of success the University takes its reward for its support of the undertaking, and receives its commission to continue this support so far as possible. We take pride in this endeavor of ours to foster artistic accomplishment as an important if not indispensable element in a complete life. We hope by this and other similar activities to make it impossible to say that our interest is entirely in the vocational and material, or in the coldly intellectual things of life.

#### COMBINED UNIVERSITY AND HIGH SCHOOL BAND CONCERT

In order to encourage band music in the city high schools of Minneapolis and to demonstrate the possibilities of a musical program by a combination of many music organizations, the director of high school bands, with the leadership of Mr. Michael M. Jalma, director of the university bands, planned and carried out a concert in the Stadium during the evening of June 11, 1926.

There were six high school bands participating in the joint band concert of the university bands and the high school bands last June. There are approximately four hundred forty-four performers on the platform during the night of the concert.

A conservative estimate of the audience would be five thousand, made up very largely of parents and friends of the performers, as well as others.

The high schools participating were: North High, Mr. Arnson, director; Roosevelt, Chester Belstrom, director; Central, Mr. Pehousek, director; South, Allen Abbot, director; West, George Krieger, director; Edison High, Mr. Sodergren, director.

The program played was made up of such numbers as the "Arlisiene Suite," by Bizet, "Danube Wave Waltz," by Ivanovici, "Poet and Peasant Overture," by Suppe, and "Robin Hood," selection.

#### THE VISIT OF THE CROWN PRINCE OF SWEDEN

The visit of the Crown Prince of Sweden, Gustav Adolf, and his consort, the Crown Princess Louise, was an event of marked interest during the last week of the University's year. Both were guests of the University on the afternoon of June 29, the day they devoted to a visit to Minneapolis. A joint body that included the Swedish Memorial Committee, the John Ericsson Memorial Committee, and the Committee on University Functions planned the public reception which was held that afternoon in the Memorial Stadium. Professor A. A. Stomberg served as chairman.

A reception in the Administration Building tended by administrative officers of the University opened the University's part in the entertainment of the royal Swedish visitors. The public meeting in the Stadium followed, and was attended by about 25,000 persons.

Those who spoke in the Stadium, following a brief introductory talk by Frank B. Kellogg, secretary of state of the United States, were President L. D. Coffman of the University of Minnesota, Governor Theodore Christianson, and Crown Prince Gustav Adolf. The crown prince made a principal address in English and then spoke briefly and more intimately in Swedish to those familiar with that tongue.

#### GENERAL UNIVERSITY PROGRESS AND INTERESTS ZONING THE SOUTHEAST MINNEAPOLIS

In November, 1923, the Board of Regents received from Mr. F. M. Mann, the secretary of the City Planning Commission, a copy of the proposed zoning ordinance for the city of Minneapolis. At that time there was considerable agitation over the

proposal to zone the light industrial area—the district between the University and Prospect Park. In December, 1923, the regents adopted the following resolution:

*Resolved*, that the Executive Committee of the Board of Regents of the University of Minnesota recommends that the "Tentative Zoning Ordinance" now before the City Council of the City of Minneapolis be amended so as to provide that all that part of the City of Minneapolis lying south of University Avenue and east of Oak Street except the westerly one-half of the blocks on the east side of Oak Street from Essex Street Southeast to University Avenue Southeast, shall be designated as "A Residence District" and "A Multiple Dwelling District" in said "Tentative Zoning Ordinance" and that said district shall not be open hereafter to additional uses as either "A Commercial District," "A Light Industrial District," or "A Commercial District" save and excepting only as such uses now exist in said territory; and

*Resolved*, further that said westerly one-half of the blocks on the east side of Oak Street between Essex Street Southeast and University Avenue Southeast shall be designated as "A Commercial District."

This resolution was forwarded to the president of the Minneapolis City Council together with the following letter from the president of the University:

December 31, 1923.

Mr. Theodore E. Jensen, President,  
Minneapolis City Council,  
Court House, Minneapolis, Minnesota.

MY DEAR MR. JENSEN:

I enclose herewith a resolution adopted unanimously by the Executive Committee of the Board of Regents of the University of Minnesota at a meeting held in the President's Office on Saturday, December 29th.

The character of the environment surrounding the University is of such importance to the life of the institution that I wish to urge your honorable body to give it the utmost serious consideration. The University is now located in the midst of an industrial district in which it is proposed to increase the number of heavy industries. What a tragedy it is to find a university of which the people are growing prouder every day, located in a great urban center surrounded by all kinds of manufacturing establishments and hedged in by a network of railways which constantly pour clouds of smoke over the campus and buildings. This seems incongruous and not in harmony with the proper development of the University. Every step possible should be taken to correct it. This cannot be done in a day, but the city planning commission should give consideration to the appearance of the neighborhood surrounding the University, and it should join with the University in providing conditions that will make it as attractive as possible. There is no substitute for good books and fine teachers, nor is there any substitute for attractive environments. Members of faculties

and student bodies may achieve more or less distinction with modest equipment, working in a cellar or an attic, or housed in a room whose walls are begrimed with the smoke of passing trains and manufacturing establishments, but they are likely to have a far more wholesome view of life if they live and work in an environment that is pleasant, clean and beautiful to look upon.

The fact that the industrial district is slowly creeping in upon the university community has resulted in decreasing the value of property in this immediate community. It has accounted for the sale of many homes and for the removal to other localities in the city of many residents of the community including many members of the faculty. A few members of the staff have left the University because they felt that it was no longer possible for them to secure proper living accommodations within the immediate vicinity of the University. The further development of industrial establishments in the immediate neighborhood of the University will hamper more seriously than now the possibility of securing proper living accommodations for students, and this is a matter of supreme importance to the University and to the city of Minneapolis. It is important that we should ask ourselves the question, Shall Minneapolis develop its residential districts around the lakes and in sections remote from the University and leave the University in an area blackened and checked with industrial development? Not only should the area which extends down the River Road toward the Milwaukee bridge be protected, but the area lying to the north and east of the present campus should also be protected. There should be no further encroachment upon this territory by industrial establishments, and steps should be taken as rapidly as conditions will permit for an abatement of the smoke nuisance, both on the part of those industrial establishments which already exist and on the part of the railroads.

Very respectfully,

(Signed) L. D. COFFMAN, *president.*

The controversy as to whether or not this area should be a light industrial area or a residential area, became very acute. It is not necessary, indeed it is not proper, for it to be detailed in this report. It is sufficient to say that representatives of the City Realty Board of the Civic and Commerce Association, the St. Paul Civic and Commerce Association, and the Manufacturers' Association, together with certain other organizations, insisted upon the right to expand the industries in the area, while the residents on the area secured a determination of damages which should be paid to the industries in case they were not permitted to expand and offered to tax themselves for a sum sufficient to pay such damages. From time to time an effort was made to draw the University officially into this controversy. The position of the University was stated in an official communication

which was filed with the *Minneapolis Journal* by Mr. Fred B. Snyder, the president of the Board of Regents, at the general request of the University to appoint some one or more of its representatives to sit in with a general committee to vote upon some general policy with reference to the matter.

Mr. Snyder's letter is herewith inserted:

April 15, 1926.

DEAR JOURNAL:

In reply to a suggestion that the University appoint one member from its Board of Regents and one other to sit on a voluntary arbitration board to hear, consider, and if possible formulate a basis upon which the South-east zoning controversy may be compromised and settled, I beg to make answer as follows:

For the past fifteen years people living in Prospect Park in Southeast Minneapolis have protested against the extension of industries in that district. When the City Planning Commission presented the City Zoning problem to the City Council the solution of this issue became one of the pivotal problems blocking the passage of the zoning ordinance. Both sides to the controversy had hearings. The University did not participate in the hearings, but its attitude had long been known as in favor of every measure which would tend to preserve that particular district for residential purposes, because on all other sides the University is hemmed in by closely built up territory, heavy industries, a multiplicity of railroad tracks and the Mississippi River. As a State institution the University does not concern itself in local municipal policies. It has a right to expect that the Twin Cities will, in formulating their policies, have due regard for the well being of State institutions located within their borders.

The present controversy in Minneapolis was self planted, and like Topsy, just grew. At the time the Zoning Ordinance was under consideration members of the City Council requested the Board of Regents to state its views. It complied with the following resolution adopted by the Board on December 29, 1923, and officially filed in the City Clerk's office:

"Resolved, that the Executive Committee of the Board of Regents of the University of Minnesota recommends that the 'Tentative Zoning Ordinance' now before the City Council of the City of Minneapolis be amended so as to provide that all that part of the City of Minneapolis lying south of University Avenue and east of Oak Street, except the westerly one-half of the blocks on the east side of Oak Street from Essex Street Southeast to University Avenue Southeast, shall be designated as "A Residence District" and "A Multiple Dwelling District" in said "Tentative Zoning Ordinance" and that said district shall not be open hereafter to additional uses as either "A Commercial District," "A Light Industrial District," or "A Heavy Industrial District" save and excepting only as such uses now exist in said territory: and

"Resolved, further that said westerly one-half of the blocks on the east side of Oak Street between Essex Street Southeast and University South-east shall be designated as "A Commercial District.""

The resolution was accompanied by a letter from President Lotus D. Coffman giving reasons for its passage.

The Zoning Ordinance was passed. There were some compromises, but on the whole, the ordinance was an admirable piece of legislation for the good of the whole city. Subsequently the owner of a parcel of land zoned as industrial in the Southeast district applied for a permit to build an oil plant. The application was protested and denied. This re-opened the controversy. It flourishes now as never before. Proceedings have been instituted and are pending in State and Federal Courts to determine the legal status of the respective parties. The City Council has appointed a commission to hear both sides, to determine damages, and to award and assess benefits. The report of this committee is now before the Council.

The University adheres to its resolution of 1923, and feels that the present controversy should be left to the courts and to the legislative body of the City, where it now rests, for final solution.

The University has a student population of 10,000. It has a teaching staff and employes of 1,800. The University agencies, students and faculty, expend between \$11,000,000.00 and \$14,000,000.00 annually in the Twin Cities. The book value of its invested capital in the Twin Cities is \$18,553,739.41. The full value is upwards of \$30,000,000.00.

Is it too much to hope that the people of these Cities will appreciate the importance of the University to all the state and will always aim to shape their policies in a manner that will foster and protect to the highest degree, the welfare of the State institutions located within their borders?

The Executive Committee of the Board of Regents finds it to be inconsistent with the established policy of non-interference in local municipal policies, to accede to the suggestion and regrets that the Board cannot make the appointments.

Yours very respectfully,

(Signed) FRED B. SNYDER, *president, Board of Regents*

## GIFTS

### THE EUSTIS SUPPLEMENTARY GIFT

In March, 1926, Mr. William Henry Eustis supplemented his original gift with the remaining one-fifth interest in the Flour and Corn Exchange properties for the Minnesota Hospital and Home for Crippled Children. The total value of the money and property which he has now given to the University of Minnesota for this purpose, amounts to approximately \$2,000,000. The Board of Regents was not only impressed by the liberality of Mr. Eustis' gift for the uses for which it is to be used perpetually, but by his vision with reference to the possibilities of medical science and research. The letter of gift here follows:

Hon. Fred B. Snyder,  
Pres. Board of Regents,  
Minneapolis, Minn.

March 29, 1926.

MY DEAR SIR:

Having given to the project of the Minn. Hospital and Home for crippled children, further consideration, it has occurred to me that it would be for the best and permanent good of the Trust that the University should possess the whole interest in the Flour and Corn Exchange properties, instead of the undivided  $\frac{4}{5}$ ths. part thereof as at present.

This will advise you that acting accordingly, I have arranged to purchase of my brother G. T. Eustis the other one-fifth interest which he holds on or before the end of this year. On the accomplishment of this, I will deed the same to the University supplementing the gift and under the terms of my former communications to you under the dates of June 14, 1923, and of December 22, 1924, thus vesting in the University of Minneapolis the entire interest and control of said properties.

Permit me to respectfully suggest that you appoint a small committee of which Dr. Will Mayo shall be chairman, having full authority to act for your Board with whom I may consult as to the plans and details when the appropriate time shall come for the active administration of the Trust.

It seems wise for me to advise you of this contemplated action now as it may have some slight bearing on the scope of your general hospital plans for the future.

The time is ripe under your guidance to establish here one of the great medical centers of the World. The helpful generosity of the Rockefeller Foundation, the genius of the University, and the old time spirit of Minneapolis united and working in the closest accord, bearing aloft the banner of Excelsior would establish here a beacon light of medical science and research that shall for all ages redound to the glory of man's genius and the highest welfare of his being.

Only yesterday the barbers were our surgeons and the pharmacists our physicians. The time is short and the distance long between the barber's pole and the Mayo clinic. In the medical profession some men are worth more dead than alive in the aid of this, the most progressive of all sciences. Others, however, living have achieved honorable fame in the pursuit of truths so essential to the well being of man and when dying have bequeathed their bodies to post-mortem duties in the interest of science.

The tide is at its flood. The golden opportunity is here, and I cannot believe that the heroic, civic spirit that once dominated Minneapolis will now be weighed in the balance and found wanting. In my judgment you can safely count on the city's hearty support and co-operation in the development of your far-reaching and noble aspirations. This prestige of close hospital unity once established would insure bright prospects and happy results measureless to man's present prophecies.

Very truly yours,

(Signed) Wm. H. EUSTIS.

## THE GEORGE G. EITEL SCHOLARSHIP FUND

One of the most significant events of the entire year was a gift to the University of Minnesota by Dr. George G. Eitel of certain policies of insurance amounting to \$80,000 to be held in trust by the University with the purposes set forth in the terms of gift. If Mrs. Jeanette E. Eitel survives Dr. Eitel, the entire net income on the investment of these policies is to be given to her. Upon her death, the fund will be known as the George G. Eitel Scholarship Fund. The income from it is to be used to assist worthy medical students including medical graduates of the University of Minnesota or from other institutions of learning in acquiring an education along medical lines and in carrying on research in connection therewith. Dr. Eitel has included one additional provision which, in our opinion, is a wise provision—his letter of gift, that is, that should the time ever arise in the history of the University of Minnesota when all of the income from this fund is not needed for the purposes set forth in the terms of gift, the Board of Regents, may at their discretion, use the surplus income in any other way which will promote the interests of medical education.

This particular deed is significant because of the fact that it involves the assignment of insurance to the University of Minnesota. This is the first gift of this kind in the history of the institution. There is no reason why it should not be done with greater frequency. Insurance furnishes one of the best means of providing for a memorial or trust fund. The plan which Dr. Eitel submitted and which was accepted by the Board of Regents reads as follows:

KNOW ALL MEN BY THESE PRESENTS, That George G. Eitel of the County of Hennepin and State of Minnesota, party of the first part, in consideration of the sum of One Dollar and other valuable considerations, to him in hand paid, the receipt whereof is hereby acknowledged, does hereby give, grant, transfer and deliver to the "UNIVERSITY OF MINNESOTA," party of the second part, those certain policies of insurance on his life described in Schedule "A" hereto attached and made a part hereof, and any and all proceeds of said insurance policies, and each of them, and said party of the first part may at any time hereafter cause other policies of insurance on his life to be delivered and deposited with the said "UNIVERSITY OF MINNESOTA," to be described in a supplemental schedule hereto attached, the same and proceeds thereof to be the property of the "UNIVERSITY OF MINNESOTA" and subject to the conditions hereinafter provided.

Said party of the second part shall hold and safely keep said policies of insurance during the lifetime of said party of the first part and upon his death the amount or amounts of said policies shall be paid to said party of the second part, and the amount so paid shall be held by the party of the second part IN TRUST for the following uses and purposes and subject to the following conditions:

1. Said party of the second part shall invest the amount of proceeds of said policies and pay the entire net income from said moneys so invested to Jeanette E. Eitel, the wife of the said party of the first part, from time to time as the same are received, and as long as she shall live.

After the death of said Jeanette E. Eitel said Trust Fund shall be known and designated as the GEORGE G. EITEL SCHOLARSHIP FUND and the net income thereof shall be used by said party of the second part to assist worthy medical students, including medical graduates of the University of Minnesota, or other institutions of learning, in acquiring an education along medical lines and in carrying on research work in connection therewith, and it is the earnest recommendation of the party of the first part that such assistance be given in the form of loans to such worthy students in order that said income may benefit the largest possible number of medical students and medical graduates. Should the time ever arrive when the demands made by worthy students are not great enough to employ all the funds available, the Board of Regents may, at its discretion, use the surplus income in any other way that will promote the interests of medical education.

Said party of the second part shall have, and it is hereby given, full power and authority to collect, receive and receipt for all sums of money due by the terms of said insurance policies upon the death of the party of the first part; to invest and reinvest all funds included at any time in the trust estate hereby created, in securities as hereinafter provided; to sell, assign, transfer, convey, exchange or mortgage any property which may at any time become a part of this trust estate investing and reinvesting any securities as hereinafter provided, all principal sums of money as and when received by it from time to time; and to make, execute and deliver any and all written instruments necessary or incidental to the carrying out of this agreement in every particular and to the fullest extent.

Said party of the second part shall invest said funds in securities in which the funds of Savings Banks of the State of Minnesota are or shall be authorized to be invested by law, except that said funds may be invested in other securities by three-fourths vote of the Board of Regents or other governing body of said University of Minnesota.

IN TESTIMONY WHEREOF the said party of the first part has hereunto set his hand and seal this nineteenth day of February, 1926.

GEORGE G. EITEL (Seal)

Signed, Sealed and Delivered  
in the Presence of:  
Lulu E. Gray  
George S. Grimes

STATE OF MINNESOTA }  
COUNTY OF HENNEPIN } ss:

On this 19th day of February, A.D. 1926, before me a Notary Public, within and for said County, personally appeared George G. Eitel to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

George S. Grimes  
Notary Public Hennepin County, Minn.  
My commission expires January 30, 1930.

## EXHIBIT A

Policy Number	Insurance Company	Amount
224141	Fidelity Mutual Life Insurance Company of Philadelphia	\$1,000.00
224124	" " " " " " " "	3,500.00
262149	" " " " " " " "	1,500.00
262150	" " " " " " " "	2,000.00
307434	National Life Insurance Company of Montpelier, Vt...	3,500.00
85507	" " " " " " " "	1,000.00
85586	" " " " " " " "	500.00
653175	The Penn Mutual Life Insurance Company of Philadelphia	30,000.00
255265	Germania Life Insurance Company (now Guardian Life Insurance Co. of America)	3,000.00
855266	" " " " " " " "	2,000.00
4453775	The Prudential Insurance Company of America	5,000.00
471833	The Northwestern Mutual Life Insurance of Milwaukee, Wisconsin	3,600.00
534140	" " " " " " " "	5,000.00
973490	" " " " " " " "	3,000.00
973491	" " " " " " " "	2,000.00
1315357	" " " " " " " "	14,000.00
Total		\$80,000.00

## THE REYERSON RESEARCH FUND

Professor Reyerson having invented a process for the metalizing of silica gel for which he has been granted a patent by the United States Patent Office, submitted the following proposals which were accepted by the Board of Regents:

1. To give to the School of Chemistry of the University of Minnesota ten per cent of any money that I may receive for Patent Number 1547236 inasmuch as the discovery leading to this patent was made in the laboratories of the School of Chemistry.
2. That the control of any funds which may come from this gift be left with the Board of Regents of the University of Minnesota.
3. That the income from this fund be used for research purposes in the School of Chemistry and that recommendations for its expenditure be made by a committee of the faculty of the School of Chemistry.
4. That this fund be known as the Reyerson Research Fund in the School of Chemistry.
5. That, in the event there is no further need for research funds in the School of Chemistry, the income from said fund may be used to advance the interests of the School of Chemistry, or the income from said fund may be used as the Board of Regents may deem best.

## CASH GIFTS

- \$3,000 From the Potash Importing Corporation for a fellowship in Agricultural Economics for study in the sale and use of fertilizing materials.  
From L. H. Reyerson ten per cent of any money he receives for Patent Number 1547236 for the Reyerson Fund for Research in the School of Chemistry.
- 10,250 A year for five years from the Bureau of Social Hygiene for the conduct of investigations of the work of the Women's Co-operative Alliance of Minneapolis.
- 37.50 From Lotus D. Coffman for the Coffman Research Foundation.  
10 From Henry S. French to the student loan funds.
- 1,200 For the completion of the Todd Memorial Room in the Todd Memorial Hospital.  
100 From the Minneapolis Journal for a prize for an English contest for the year 1925-26.
- 1,000 From the American Dry Milk Institute for the American Dry Milk Institute Fellowship in Biochemistry.
- 1,000 From the Victor Chemical Works for the Victor Chemical Works Industrial Fellowship for the purpose of having conducted at the University in the Division of Agricultural Biochemistry fundamental research as to the effects of the addition of calcium phosphate in the manufacture of yeast-risen bread.
- 450 From an anonymous giver to create the Law Scholarship Trust Fund for the development of legal education.
- 1,200 From Thomas Irvine to be used for the purchase of dental equipment for the out-patient department of the University Hospital.
- 1,500 For fellowship of \$750 each from the Cloquet Lumber Company and the Northern Lumber Company for the continuation to June 30, 1926. of the Cloquet Wood Fiber fellowships.

- 50 From the Alpha Alumnae Chapter of Phi Upsilon Omicron for the Phi Upsilon Omicron scholarship in Home Economics.
- 500 From the Northwestern Branch of the American Meat Packers' Institute Fund to supplement the project on methods of cooking meat.
- 500 From the Greens Committee of the United States Golf Association for experimental turf work.
- 80,000 Life insurance from Dr. George G. Eitel for the George G. Eitel Scholarship fund.

## Insurance policies

Policy Number	Insurance Company	Amount
224141	Fidelity Mutual Life Insurance Company of Philadelphia....	\$1,000
224124	Fidelity Mutual Life Insurance Company of Philadelphia....	3,500
262149	Fidelity Mutual Life Insurance Company of Philadelphia....	1,500
262150	Fidelity Mutual Life Insurance Company of Philadelphia....	2,000
307434	National Life Insurance Company of Montpelier, Vermont....	3,500
85507	National Life Insurance Company of Montpelier, Vermont....	1,000
85586	National Life Insurance Company of Montpelier, Vermont....	500
653175	The Penn Mutual Life Insurance Company of Philadelphia...	30,000
255265	Germania Life Insurance Company (now Guardian Life Insurance Company of America).....	3,000
855266	Germania Life Insurance Company (now Guardian Life Insurance Company of America).....	2,000
4453775	The Prudential Insurance Company of America.....	5,000
471833	The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin .....	3,600
534140	The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin .....	5,000
973490	The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin .....	3,000
973491	The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin .....	2,000
1315357	The Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin .....	14,000
		\$80,000

- 100 From the Eighth Ward Woman's Christian Temperance Union for the establishment of a scholarship and loan fund.
- 3,000 A year for three years from the Minnesota Cannery Association for the purpose of investigating methods of preventing the diseases of canning peas and canning corn.
- 3,400 From the Minneapolis Journal for scholarships and educational trips for the members of the boys' and girls' clubs.
- 15 From Phi Lambda Upsilon for an annual prize to the male sophomore student in School of Chemistry or specializing in agricultural biochemistry who shall have the highest scholastic standing up to the beginning of the spring quarter.
- 100 A year for three years from L. R. Boswell for E. J. Stilwell Journalism Scholarship in the Department of Journalism.

- 2,084 From the Council of Jewish Women for the establishment of a fund for the Nina Morais Cohen Scholarship to be awarded a deserving Jewish girl, the council to have the privilege of suggesting a candidate.
- 50 Presented by the faculty of the School of Architecture in two prizes of \$35 and \$15, respectively, for the purchase of books, to be awarded to the two students who attain the highest scholarship average in the required work of the sophomore year in architecture and architectural engineering. It is understood that these prizes are to be awarded at the beginning of the junior year to students who are registered for junior work at that time and are to be known as the Faculty Prizes in Architecture.
- 15 From Alpha Alpha Gamma Sorority for a prize in books to be awarded to the author of the design which is placed first in a designated competition consisting of one of the regular long problems in the sophomore course in design in the School of Architecture.
- 10 From Twin City Alumni Association of the Alpha Chi Sigma fraternity for an annual prize of books to be awarded to the male sophomore in the School of Chemistry having the highest scholastic average up to the end of the winter quarter of the sophomore year.
- 1,000 From St. Louis County Club and Farm Bureau Association for experimental work on peat and sand lands of the county by the Department of Agriculture.
- 25 Award from the Minnesota Quarterly, known as the Minnesota Quarterly Prize.
- 8,000 From the National Research Council to the Department of Psychology for the completion of the project for the investigation of mechanical ability and the formulation of results in so far as this can be accomplished through the year beginning July 1, 1926.
- 2,500 From the Commonwealth Fund to the Department of Psychology for research in connection with the standardization of point performance test.
- 25 From Colbert Ralph Bennett to be known as Colbert Ralph Bennett Prize for imaginative writing in the College of Engineering and Architecture.
- 150 From the Fox Breeders' Distemper Fund for the study of distemper to be conducted by R. G. Green, associate professor of bacteriology.
- 500 Proposed for a gift from the United States Department of Agriculture to the Division of Horticulture for co-operative studies in the bent grasses.  
Remaining one-fifth interest in the Flour and Corn Exchange properties from William H. Eustis for the Minnesota Hospital and Home for Crippled Children Fund.
- 1,400 Proposed a year for five years from the Minnesota Valley Canning Company of Le Sueur, Minnesota, for the purpose of developing the fundamental principles as applied to sweet corn improvement.

## GIFTS OF BOOKS

From 2,324 donors, 10,442 gifts to the Library.

From Professor Emeritus H. F. Nachtrieb, gift of certain books.

From Dr. William Lerche, 12 volumes of *Folia Urologica*.

From Her Royal Highness Krom Khun Suddha Siniardh, Queen Aunt of His Majesty, the King of Siam, the *Jatakathakatha* from the *Pali* in ten volumes and the *Milindapanha* in one volume.

## MISCELLANEOUS GIFTS

Papers, journals, and equipment from Professor Emeritus H. F. Nachtrieb, presented at the time of his retirement.

Electrical gifts to the Electrical Engineering Department from the following firms: American Plumbing and Heating Company, Minneapolis, Minnesota; Edison Lamp Works, Harrison, New Jersey; General Electric Company, Minneapolis, Minnesota; Independent Electric Company, Minneapolis, Minnesota; Kuhlman Electric Company, Bay City, Michigan; National Lamp Works, Nela Park, Cleveland, Ohio; National Lamp Works, Cleveland, Ohio; Northland Electric Supply Company, Minneapolis, Minnesota; Elmer J. Peterson, Minneapolis, Minnesota; Glen B. Ransom, Chicago, Illinois; St. Paul Gas Light Company, St. Paul, Minnesota; Sangamo Electric Company, Springfield, Illinois, and the Louis Allis Company, Milwaukee, Wisconsin.

Gifts specified in the will of Olive Payne Stover.

A new burner for a mercury-vapor lamp from the Cooper Hewitt Electric Company to the Department of Electrical Engineering.

Bookbinding equipment from James W. Falconer to the Department of Art Education.

A lime sower from the Moline Implement Company to be used by the Division of Soils for demonstration purposes.

Certain portions of Lot 13, Auditor's Subdivision Number 44, in the city of Minneapolis from the Great Northern Railway Company.

Six copies of the Cappelin report on the value of the properties of the Minneapolis Street Railway Company from the city clerk of Minneapolis to the College of Engineering.

A grain grinder from Loidl and Tremper to the Department of Agriculture.

Chevrolet motor from the Chevrolet Motor Company to the College of Engineering and Architecture.

Power driven vacuum pump from the Minnesota Mazda Lamp Company to the Department of Electrical Engineering.

Memorial tablet from the Alumni Association of the College of Pharmacy to be placed in the hall of the Pharmacy Building.

Personal herbarium of J. Arthur Harris to the Department of Botany.

Two hundred twelve letters from J. C. Arthur of Purdue University to the Department of Botany.

A collection of lantern slides on photography from the Eastman Kodak Company to the School of Chemistry.

The placing of a bronze tablet in Shevlin Hall by the Women's Self-Government Association on which is inscribed each spring the name of the freshman woman maintaining the highest scholastic average for the first two quarters of the freshman year.

A steel flag pole from the College of Engineering, Class 1926.

### STATISTICS OF REGISTRATION

*Collegiate students.*—Table I records by class and school or college the attendance of students of collegiate grade in courses leading to degrees. All of the students in this group with the exception of War Specials and those listed in the various schools and colleges as special or unclassified have been required to present for admission evidence of at least the completion of a four-year high school course or its equivalent. Students listed as War Specials are those who have been admitted in accordance with the University's agreement with the United States Veteran's Bureau without reference to entrance requirements. These students, however, together with those admitted as special and unclassified on the basis of maturity and experience are enrolled in regular collegiate classes and constitute a part of the load of collegiate teaching. The comparison of the net grand totals for 1925-26 with those for 1924-25 shows an increase of 1,674 students or 13.1 per cent.

It should be noted, however, that for the three quarters of the academic year the increase is only 828 students or 7.8 per cent, and that for the Summer Session, which is included in the total of all collegiate students there was an increase of 637 students or 16.4 per cent. A comparison of these two sets of figures separately gives a more accurate representation of the actual increase in registration than the figures for the net grand total of collegiate registration. In 1925-26 there were 209 fewer duplicates between the Summer Session and the regular collegiate year than in 1924-25. The net grand total of collegiate enrolment is, therefore, increased by that number without a corresponding increase in load at any time during the year.

A comparison of totals for the individual colleges shows gains in enrolment in the College of Science, Literature, and the Arts, 351; College of Engineering and Architecture, 86; College of Education, 162; and the Graduate School, 140.

Decreases in enrolment appear in the following colleges: Dentistry, 3.1 per cent; Pharmacy, 7.9 per cent; and War Specials, 50.7 per cent. In this last group the loss has been due principally to the policy of transferring to a regular student status whenever possible and to the fact that practically no new trainees have been approved for admission as War Specials by the Veterans' Bureau. The colleges of Engineering and Architecture and Agriculture, Forestry, and Home Economics, which showed slight losses a year ago, show slight gains this year. The enrolment in the School of Mines, which in 1924-25 showed a loss of 25.2 per cent, is numerically the same for 1925-26.

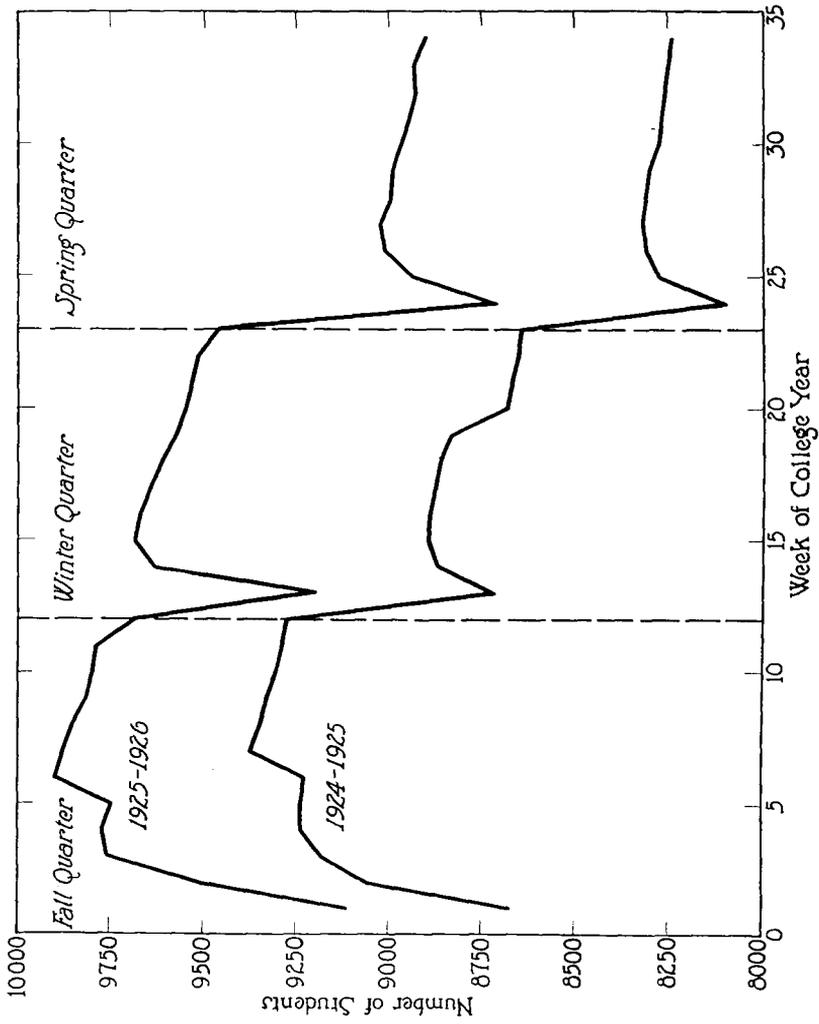
*Collegiate enrolment by quarters.*—Table II records the totals of Table I by quarters showing the peak load of attendance in the fall quarter. As in previous years, opportunities for newly entering students at the opening of the winter and spring quarters are limited. To illustrate in somewhat more effective form the variation in enrolment during the college year Chart I has been constructed from the figures for the actual number of students registered at the close of each week throughout the college year. For purposes of comparison the corresponding attendance curve for 1924-25 is also included on the chart.

*Subcollegiate students.*—Table III shows the enrolment in departments which do not require high school graduation for admission. Each of the three schools of agriculture shows a gain, the most substantial increase appearing for the Central School of Agriculture which amounts to nearly 50 per cent. In the agricultural short courses the largest increases appear for the junior short course and the farm women's short courses of the West Central School. Losses in enrolment are recorded for the beekeepers short course, home nurses' short course, and the nurserymen's short course, at University Farm; and the junior short course at Crookston. The following short courses appear for the first time in 1925-26: playground school for boys at St. Anthony Park, cow testing short course, and farm women's short course at Crookston.

There is an increase in the net grand total of 455 students or 18.6 per cent.

*Extension students.*—Table IV shows two types of students: those who pursue courses in classrooms under the personal direction of instructors, and those whose work is conducted through

CHART I



the medium of written directions sent by mail. The first of these, General Extension, shows a gain of 858 students or 17.6 per cent. The second, Correspondence Study, shows a gain of 175 or 9.4 per cent.

*Summary.*—Table V summarizes the totals of Tables I, III, and IV. The net grand total of 23,618 represents the number of individuals, men and women, who during the past year received instruction at the hands of members of the university teaching staff. This represents an increase of 3,006 students over the year 1924-25 or a percentage increase of 14.6.

Table VI summarizes the registration for the year by administrative units. Agriculture in this table includes the College of Agriculture, Forestry, and Home Economics, the three schools of agriculture, and the agricultural short courses. Medicine includes courses for nurses and medical technicians in addition to those in the regular medical course. Dentistry includes the course for dental nurses, and Education includes the University High School. The term "resident student" as used in this table is meant to distinguish those who were in the day classes in the university buildings from those who attended evening classes in the Extension Division or who took work by correspondence.

*Degrees conferred.*—Table VII compares the number of degrees granted during the year 1925-26 with the number granted in 1924-25. The number for each of the two years is practically the same.

*Geographical distribution.*—Table VIII enumerates the preparatory schools from which freshmen students came to the various colleges and schools during the year 1925-26, and shows the number from each school. The proportionate attendance from Minnesota schools decreased slightly from 87.2 per cent for 1924-25 to 85.6 per cent for 1925-26. The per cent that came from schools outside the Twin Cities was 53.4 per cent as compared with 51.2 per cent in 1924-25 and 49.2 per cent in 1923-24. Thirty-four states including the District of Columbia are represented this year. Students numbering 337 came from states outside of Minnesota, and 12 entered from foreign countries.

*Advanced standing.*—Table IX shows the extent of the migration of students from other colleges and universities to the University of Minnesota. During the past year 893 students have come from 176 different institutions. In 1924-25 the total

number of students admitted with advanced standing was 847 students, and in 1923-24, 813. The University has no basis for estimating the number of students who have left Minnesota to attend institutions in other states.

Table X shows the geographical origin of the entire group of collegiate students, exclusive of the Summer Session, by Minnesota counties, by states, and by foreign countries. This table includes the students counted in Table VIII. Every county in the state is represented, the smallest number, 4 students, coming from Lake of the Woods County and from Mahnomen County. and the largest number, 4,571, from Hennepin. Fifty-five per cent of the students come from Hennepin and Ramsey counties, as compared with 56.2 per cent a year ago. Forty-six states, including the District of Columbia, sent students to the University of Minnesota this year, the largest groups coming from Wisconsin, North Dakota, Iowa, South Dakota, and Montana, in the order named. The only states not represented were Louisiana, Nevada, and West Virginia. The total number of students from states outside of Minnesota was 1,552; those coming from 30 foreign countries, counting the Philippine Islands, numbered 166.

TABLE I. COLLEGIATE STUDENTS BY SCHOOLS AND COLLEGES  
1924-26

COLLEGE OR SCHOOL	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
<b>SCIENCE, LITERATURE, AND THE ARTS:</b>								
Seniors .....	140	127	267	113	142	255	.....	12
Juniors .....	193	182	375	207	183	390	15	.....
Sophomores .....	978	675	1,653	1,071	662	1,733	80	.....
Freshmen .....	1,010	680	1,690	1,198	739	1,937	247	.....
Unclassed .....	134	139	273	160	134	294	21	.....
<b>Total .....</b>	<b>2,455</b>	<b>1,803</b>	<b>4,258</b>	<b>2,749</b>	<b>1,860</b>	<b>4,609</b>	<b>351</b>	<b>.....</b>
<b>ENGINEERING AND ARCHITECTURE:</b>								
Seniors .....	191	7	198	182	5	187	.....	11
Juniors .....	201	3	204	219	3	222	18	.....
Sophomores .....	316	1	317	340	3	343	26	.....
Freshmen .....	411	3	414	457	2	459	45	.....
Unclassed .....	2	5	7	7	8	15	8	.....
<b>Total .....</b>	<b>1,121</b>	<b>19</b>	<b>1,140</b>	<b>1,205</b>	<b>21</b>	<b>1,226</b>	<b>86</b>	<b>.....</b>

## THE PRESIDENT'S REPORT

TABLE I—Continued

COLLEGE OR SCHOOL	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
<b>AGRICULTURE, FORESTRY, AND HOME ECONOMICS:</b>								
Seniors .....	100	104	204	78	88	166	.....	38
Juniors .....	61	74	135	57	70	127	.....	8
Sophomores .....	116	101	217	107	107	214	.....	3
Freshmen .....	97	84	181	126	122	248	67	....
Unclassed .....	13	11	24	16	11	27	3	....
Total .....	387	374	761	384	398	782	21	....
<b>LAW:</b>								
Third year .....	72	2	74	70	5	75	1	....
Second year .....	79	6	85	96	4	100	15	....
First year .....	118	5	123	118	2	120	.....	3
Unclassed .....	3	.....	3	5	.....	5	2	....
Total .....	272	13	285	289	11	300	15	....
<b>MEDICAL:</b>								
Internes .....	132	10	142	123	9	132	.....	10
Seniors .....	121	9	130	106	6	112	.....	18
Juniors .....	104	6	110	95	10	105	.....	5
<b>Clinical period (net total) .....</b>								
Sophomores .....	193	13	206	201	16	217	.....	.....
Freshmen .....	101	11	112	105	7	112	.....	.....
.....	100	7	107	116	5	121	14	....
<b>Didactic period (net total) .....</b>								
Unclassed .....	201	18	219	221	12	233	14	....
Special .....	33	4	37	72	2	74	37	....
.....	200	1	21	11	.....	11	.....	10
Total Medicine .....	579	46	625	628	39	667	.....	.....
Duplicates .....	45	3	48	58	2	60	12	....
Net total Medicine..	534	43	577	570	37	607	30	....
NURSING .....	.....	283	283	.....	350	350	67	....
MEDICAL TECHNICIANS ..	2	4	6	1	12	13	7	....
<b>DENTISTRY:</b>								
Seniors .....	109	1	110	125	2	127	17	....
Juniors .....	112	1	113	78	.....	78	.....	35
Sophomores .....	85	1	86	73	1	74	.....	12
Freshmen .....	79	1	80	99	.....	99	19	....
Unclassed .....	1	.....	1	.....	.....	.....	.....	1
Total .....	386	4	390	375	3	378	.....	12
DENTAL NURSES .....	.....	32	32	.....	32	32	.....	.....
<b>MINES:</b>								
Seniors .....	14	.....	14	15	.....	15	1	....
Juniors .....	17	.....	17	22	.....	22	5	....
Sophomores .....	24	.....	24	20	.....	20	.....	4
Freshmen .....	22	.....	22	20	.....	20	.....	2
Total .....	77	.....	77	77	.....	77	..	....

TABLE I—Continued

COLLEGE OR SCHOOL	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
<b>PHARMACY:</b>								
Third year .....	28	12	40	31	8	39	.....	1
Second year .....	46	11	57	49	8	57	.....	.....
First year .....	62	14	76	55	12	67	.....	9
Unclassed .....	4	1	5	1	.....	1	.....	4
Total .....	140	38	178	136	28	164	.....	14
<b>CHEMISTRY:</b>								
Seniors .....	27	2	29	20	2	22	.....	7
Juniors .....	28	2	30	31	2	33	3	.....
Sophomores .....	49	1	50	59	2	61	11	.....
Freshmen .....	68	2	70	76	5	81	11	.....
Unclassed .....	3	.....	3	1	1	2	.....	1
Total .....	175	7	182	187	12	199	17	.....
<b>EDUCATION:</b>								
Seniors .....	85	433	518	106	423	529	11	.....
Juniors .....	86	421	507	63	413	476	.....	31
Sophomores .....	11	77	88	25	95	120	32	.....
Freshmen .....	13	84	97	31	98	129	32	.....
Unclassed .....	82	379	461	104	475	579	118	.....
Total .....	277	1,394	1,671	329	1,504	1,833	162	.....
<b>BUSINESS:</b>								
Seniors .....	116	14	130	119	20	139	9	.....
Juniors .....	112	22	134	132	21	153	19	.....
Unclassed .....	25	2	27	20	1	21	.....	6
Total .....	253	38	291	271	42	313	22	.....
GRADUATES .....	743	254	997	828	309	1,137	140	.....
WAR SPECIALS .....	88	1	89	35	.....	35	.....	54
Total academic year..	6,911	4,306	11,217	7,436	4,619	12,055	838	.....
Less duplicates ...	296	302	598	315	293	608	10	.....
Net total academic year .....	6,615	4,004	10,619	7,121	4,326	11,447	828	.....
<b>SUMMER SESSION:</b>								
First term .....	1,802	1,620	3,422	1,745	2,000	3,745	323	.....
Second term .....	969	387	1,356	957	604	1,561	205	.....
Total .....	2,771	2,007	4,778	2,702	2,604	5,306	528	.....
Less duplicates ...	792	277	1,069	714	267	981	.....	88
Net total Summer Session .....	1,979	1,730	3,709	1,988	2,337	4,325	616	.....
<b>MAYO FOUNDATION (graduate)</b>								
Summer quarter .....	154	12	166	177	10	187	21	.....
Net total summer enrollment .....	2,133	1,742	3,875	2,165	2,347	4,512	637	.....
Grand total (Collegiate) .....	8,748	5,746	14,494	9,286	6,673	15,959	1,465	.....
Less duplicates....	1,256	502	1,758	1,047	502	1,549	.....	209
Net grand total (Collegiate) .....	7,492	5,244	12,736	8,239	6,171	14,410	1,674	.....

## THE PRESIDENT'S REPORT

TABLE II. COLLEGIATE ENROLMENT BY QUARTERS, 1925-26

	MEN	WOMEN	TOTAL
Summer Session 1925 .....	2,165	2,347	4,512
Fall quarter .....	6,404	3,819	10,223
Winter quarter .....	6,234	3,707	9,941
Spring quarter .....	5,702	3,399	9,101
Total (individual) registrations.....	8,239	6,171	14,410

TABLE III. SUBCOLLEGIATE STUDENTS, 1924-26

SCHOOL OR COURSE	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
CENTRAL SCHOOL OF AGRICULTURE:								
Three year course:								
Seniors .....	88	18	106	69	15	84	.....	22
Juniors .....	77	25	102	97	35	132	30	.....
Freshmen .....	59	20	79	131	32	163	84	.....
Unclassed .....	99	14	113	168	52	220	107	.....
Total .....	323	77	400	465	134	599	199	.....
NORTHWEST SCHOOL OF AGRICULTURE:								
Three year course:								
Seniors .....	24	24	48	26	23	49	1	.....
Juniors .....	47	23	70	54	24	78	8	.....
Freshmen .....	92	38	130	93	32	125	.....	5
Special .....	3	5	8	7	11	18	10	.....
Total .....	166	90	256	180	90	270	14	.....
Intermediate .....	8	7	15	13	6	19	4	.....
Total .....	174	97	271	193	96	289	18	.....
WEST CENTRAL SCHOOL OF AGRICULTURE:								
Three year course:								
Seniors .....	50	25	75	36	25	61	.....	14
Juniors .....	58	32	90	56	30	86	.....	4
Freshmen .....	93	32	125	99	42	141	16	.....
Unclassed and intermediate.....	14	6	20	28	24	52	32	.....
Total .....	215	95	310	219	121	340	30	.....
Intermediate .....	9	6	15	.....	.....	.....	.....	15
Total .....	224	101	325	219	121	340	15	.....
UNIVERSITY HIGH SCHOOL	106	121	227	133	121	254	27	.....
Total schools .....	827	396	1,223	1,010	472	1,482	259	.....
SHORT COURSES:								
Beekeepers' short course	26	5	31	11	6	17	.....	14
Junior short course (Morris) .....	260	219	479	338	297	635	156	.....
Dairy school .....	101	.....	101	103	.....	103	2	.....
Farm women's short course (Morris) .....	.....	96	96	.....	166	166	70	.....

TABLE III—Continued

SCHOOL OR COURSE	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
Home nursing short course .....		119	119	.....	50	50	.....	69
Junior short course (Crookston) .....	152	121	273	101	91	192	.....	81
Nurserymen's short course .....	75	4	79	33	1	34	.....	45
Scout master's short course (Itasca) .....	42	.....	42	63	.....	63	21	.....
Playground school for boys .....	.....	.....	.....	16	.....	16	16	.....
Cow testing short course (Crookston) ..	.....	.....	.....	19	.....	19	19	.....
Farm women's short course (Crookston) ..	.....	.....	.....	.....	127	127	127	.....
Net total short course	656	564	1,220	684	738	1,422	202	.....
Grand total .....	1,483	960	2,443	1,691	1,210	2,904	461	.....
Less duplicates .....	.....	.....	.....	3	3	6	6	.....
Net grand total .....	1,483	960	2,443	1,691	1,207	2,898	455	.....

TABLE IV. EXTENSION STUDENTS, 1924-26

COURSE	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
General .....	2,665	2,195	4,860	2,882	2,836	5,718	858	.....
Correspondence .....	932	922	1,854	1,023	1,006	2,029	175	.....
Total .....	3,597	3,117	6,714	3,905	3,842	7,747	1,033	.....
Less duplicates .....	53	54	107	42	63	105	.....	2
Net total .....	3,544	3,063	6,607	3,863	3,779	7,642	1,035	.....

TABLE V. SUMMARY, 1924-26

DIVISION	YEAR 1924-25			YEAR 1925-26			GAIN	LOSS
	Men	Women	Total	Men	Women	Total		
Collegiate students .....	7,492	5,241	12,736	8,239	6,171	14,410	1,674	.....
Subcollegiate students..	1,483	960	2,443	1,691	1,207	2,898	455	.....
Total .....	8,975	6,204	15,179	9,930	7,378	17,308	2,129	.....
Less duplicates .....	5	1	6	8	.....	8	2	.....
Net total .....	8,970	6,203	15,173	9,922	7,378	17,300	2,127	.....
Extension students .....	3,544	3,063	6,607	3,863	3,779	7,642	1,035	.....
Grand total .....	12,514	9,266	21,780	13,785	11,157	24,942	3,162	.....
Less duplicates .....	633	535	1,168	709	615	1,324	156	.....
Net grand total...	11,881	8,731	20,612	13,076	10,542	23,618	3,006	.....

## THE PRESIDENT'S REPORT

TABLE VI. COMPARATIVE REGISTRATION FIGURES, 1924-26

COLLEGE OR SCHOOL	YEAR 1924-25			YEAR 1925-26			GAIN		Loss	
	Men	Women	Total	Men	Women	Total	Men	Women	Men	Women
Science, Literature, and the Arts.....	2,455	1,803	4,258	2,749	1,860	4,609	294	57	.....	.....
Engineering and Architecture ....	1,121	19	1,140	1,205	21	1,226	84	2	.....	.....
Agriculture (including schools, short courses) .....	1,759	1,212	2,971	1,934	1,484	3,418	175	272	.....	.....
Law .....	272	13	285	289	11	300	17	.....	.....	2
Medicine (including Nursing and Medical Technicians) ..	537	328	865	571	399	970	34	71	.....	.....
Dentistry (including Dental Nurses) ..	386	36	422	375	35	410	.....	.....	11	1
Mines .....	77	.....	77	77	.....	77	.....	.....	.....	.....
Pharmacy .....	140	38	178	136	28	164	.....	.....	4	10
Chemistry .....	175	7	182	187	12	199	12	5	.....	.....
Education (including University High School) .....	383	1,515	1,898	462	1,625	2,087	79	110	.....	.....
Graduate .....	743	254	997	828	309	1,137	85	55	.....	.....
Business .....	253	38	291	271	42	313	18	4	.....	.....
War Specials .....	88	1	89	35	.....	35	.....	.....	53	1
Summer Session (net) .....	2,133	1,742	3,875	2,165	2,347	4,512	32	605	.....	.....
Total .....	10,522	7,006	7,528	11,284	8,173	19,457	762	1,167	.....	.....
Less duplicates.	1,552	803	2,355	1,362	795	2,157	.....	.....	190	8
Net total .....	8,970	6,203	15,173	9,922	7,378	17,300	952	1,175	.....	.....
Extension:										
General .....	2,665	2,195	4,860	2,882	2,836	5,718	217	641	.....	.....
Correspondence ..	932	922	1,854	1,023	1,006	2,029	91	84	.....	.....
Total .....	3,597	3,117	6,714	3,905	3,842	7,747	308	725	.....	.....
Less duplicates.	53	54	107	42	63	105	.....	9	11	.....
Net total .....	3,544	3,063	6,607	3,863	3,779	7,642	319	716	.....	.....
Summary:										
Total, resident students .....	8,970	6,203	15,173	9,922	7,378	17,300	952	1,175	.....	.....
Total, extension students .....	3,544	3,063	6,607	3,863	3,779	7,642	319	716	.....	.....
Grand total ....	12,514	9,266	21,780	13,785	11,157	24,912	1,271	1,891	.....	.....
Less duplicates.	633	535	1,168	709	615	1,324	76	80	.....	.....
Net grand total	11,881	8,731	20,612	13,076	10,542	23,618	1,195	1,811	.....	.....

TABLE VII. DEGREES CONFERRED, 1925-26

COLLEGE AND DEGREES	YEAR 1924-25*			YEAR 1925-26†		
	Men	Women	Total	Men	Women	Total
<b>SCIENCE, LITERATURE, AND THE ARTS:</b>						
B.A. <i>summa cum laude</i> .....	2		2	2		2
B.A. <i>magna cum laude</i> .....	6	3	9	7	3	10
B.A. <i>cum laude</i> .....	9	11	20	10	14	24
B.A. ....	135	104	239	108	101	209
B.S. (academic-medical) .....	77	8	85	25	1	26
B.S. ....	4	17	21	53	7	60
B.S. (arts and nursing).....					1	1
<b>ENGINEERING AND ARCHITECTURE:</b>						
B.S. in architectural engineering ...	4		4	5		5
B.S. with distinction (civil engineering) .....				1		1
B.S. in civil engineering .....	54	2	56	42		42
B.S. with distinction (electrical engineering) .....				1		1
B.S. in electrical engineering .....	67		67	75		75
B.S. in mechanical engineering .....	26		26	29		29
B.S. in architecture .....	13		13	6		6
B.S. in interior decoration .....		4	4		4	4
<b>AGRICULTURE:</b>						
B.S. with distinction (agriculture)..				1		1
B.S. (agriculture) .....	40	1	41	25		25
B.S. (forestry) .....	14		14	22		22
B.S. with distinction (home economics) .....					1	1
B.S. (home economics) .....		29	29		18	18
B.S. (agricultural science) .....				1		1
<b>AGRICULTURE AND EDUCATION:</b>						
B.S. with distinction (agriculture)..	1		1	2		2
B.S. with distinction (home economics) .....		3	3		3	3
B.S. (agriculture) .....	18		18	11		11
B.S. (home economics) .....		55	55		55	55
<b>LAW:</b>						
LL.B. ....	58	2	60	62	5	67
<b>MEDICINE:</b>						
M.D. with distinction .....				1		1
M.D. ....	97	8	105	87	8	95
M.B. ....	93	7	100	103	6	109
Graduate in Nursing .....		70	70		63	63
<b>DENTISTRY:</b>						
D.D.S. ....	84	1	85	94		94
Graduate Dental Nurse .....		7	7		10	10
<b>MINES:</b>						
E.M. ....	7		7	9		9
E.M. in geology .....	3		3	1		1
Met.E. ....	4		4	6		6
<b>PHARMACY:</b>						
B.S. in pharmacy .....	6		6	2	2	4
Phm.C. ....	20	9	29	19	5	24

\* Degrees conferred from July 1, 1924, to June 30, 1925.

† Degrees conferred from July 1, 1925, to June 30, 1926.

TABLE VII—Continued

COLLEGES AND DEGREES	YEAR 1924-25*			YEAR 1925-26†		
	Men	Women	Total	Men	Women	Total
<b>CHEMISTRY:</b>						
B.S. in chemistry .....	5	1	6	5	1	6
B.S. with distinction (chemical engineering) .....				2		2
B.S. in chemical engineering .....	12	1	13	10		10
<b>EDUCATION:</b>						
B.S. with distinction .....	5	28	33	14	34	48
B.S. ....	46	220	266	47	272	319
<b>BUSINESS:</b>						
B.S. in business .....	20	80	100	93	19	112
<b>GRADUATE:</b>						
M.A. ....	42	21	63	36	22	58
M.S. ....	33	6	39	45	7	52
M.S. in chemical engineering.....	5		5	1		1
Chemical engineering .....	1		1			
M.S. in civil engineering .....				2		2
M.S. in electrical engineering .....	4		4			
M.S. in mechanical engineering .....	3		3			
M.S. in architecture .....	1		1			
M.S. in medicine .....	3		3	1		1
M.S. in mental and nervous diseases .....	1		1			
M.S. in dermatology .....				1		1
M.S. in neurology .....				2		2
M.S. in ophthalmology .....				1		1
M.S. in ophthalmology and otolaryngology .....				1		1
M.S. in orthopedic surgery .....				1		1
M.S. in pathology .....	1		1			
M.S. in surgery .....	9		9	9		9
M.S. in urology .....	1		1	2		2
Ph.D. ....	26	4	30	39	5	44
Ph.D. in obstetrics and gynecology..	1		1	1		1
Ph.D. in pediatrics .....	1		1			
LL.D. (honorary degree).....	1		1			
Totals .....	1,063	702	1,765	1,121	669	1,790

\* Degrees conferred from July 1, 1924, to June 30, 1925.

† Degrees conferred from July 1, 1925, to June 30, 1926.







TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
Monticello .....	1	1								2
Mora .....	3	1		1				1		6
Morris .....	1									1
Morton .....								1		1
Motley .....									1	1
Mound .....	1							1		2
Mountain Lake .....		1								1
Naswauk-Keewatin .....	1								1	2
New London .....							1			1
New Prague .....		1	1							2
New Richland .....	1							1		2
New Ulm .....	4	1								5
New York Mills .....	1		1							2
Nicollet .....	1									1
North Branch .....	2							1		3
North St. Paul .....	2									2
Northfield .....	1								1	2
Olivia .....	2									2
Ortonville .....	1									1
Owatonna .....	5	4	4					2	1	16
Park Rapids .....		1					1	1		3
Paynesville .....	1									1
Pelican Rapids .....							1			1
Pembina .....	1									1
Pillager .....	1									1
Pine City .....			1					1		2
Pine Island .....			1							1
Pine River .....	1									1
Pipestone .....	1		1	2						4
Plainview .....	1									1
Princeton .....	5		1						2	8
Proctor .....	1									1
Rapidan .....		1								1
Red Lake Falls .....	1									1
Red Wing .....	6	1	1				1			9
Central .....	3								1	4
Redwood Falls .....	3	1						1		5
Remer .....	1									1
Renville .....	2									2
Rochester .....	2		1							3
Rockford .....	2									2
Roseau .....	3		1							4
Royalton .....	1									1
Rush City .....	1									1
Rushford .....	1									1
Russell .....	1									1
St. Anthony .....	1									1
St. Charles .....	2									2
St. Cloud .....	3		3							6
Franklin .....								1		1
Technical .....	5		1							6
St. Hilaire .....	1									1
St. James .....	2		2							4
St. Louis Park .....	7	1	2							10
St. Paul .....										
Mechanic Arts .....	52	10	18	2	1		1	1		85
Johnson .....	17	6	3	1			1			30
Humboldt .....	26		2	1						29
Central .....	89	5	10	5				2	3	114
St. Peter .....	4									4
Sacred Heart .....		1	1							2
Sanborn .....					1					1
Sandstone .....	1		1							2

TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
Sauk Center .....	1							1		1
Shakopee .....	2	1								3
Sherburne .....		1								1
Silver Lake .....	1									1
Sleepy Eye .....	6		1	2						9
South St. Paul .....	3		1							4
Spring Grove .....	2						1			2
Spring Valley .....	2	1		1	1					5
Springfield .....	3						1		1	5
Staples .....		1								1
Stewart .....	2					1				3
Stillwater .....	11	1	4		2					18
Storden .....	2									2
Taylors Falls .....			1							1
Thief River Falls .....			1							1
Lincoln H. S. ....	1							1		2
Tower-Soudan .....		1								1
Tracy .....	1	1						2		4
Truman .....									1	1
Two Harbors .....	3	1	2							6
Tyler .....		1							1	1
Verndale .....			1							1
Villard .....		1	1							2
Virginia .....	4	1								5
Waconia .....	1									1
Wadena .....	2		1							3
Walnut Grove .....	1									1
Warren .....	1		1					1		3
Warroad .....	1						1			2
Waseca .....	5	6						1	1	13
Watertown .....	1		2							3
Waverly .....	1									1
Wayzata .....	2		2							4
Welcome .....								1		1
Wells .....		1						2		3
Westbrook .....	1									1
Wheaton .....	3		1				1	1		6
White Bear .....	2							1		3
Willmar .....	9	1	8							19
Willow River .....	1								1	1
Windom .....	5		1							6
Winona .....	3	1								4
Worthington .....	2		1						2	5
Young America .....	1									1
Zumbrota .....		1								1
Totals .....	1222	160	267	44	17	8	38	104	78	1938
OTHER SECONDARY SCHOOLS:										
Crookston										
Northwest School of Agriculture .....	2	2	1							5
Duluth										
Cathedral H. S. ....	1									1
Villa St. Scholastica .....	1									1
Faribault										
Bethlehem Academy .....	1							1		2
St. Mary's Hall .....	2									2
Shattuck .....	3		3							6

TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
<b>Minneapolis</b>										
Blake School .....	4									4
De La Salle .....	1									1
Luther College .....	1									1
Minnehaha Academy .....	4	1		1				1		7
Minnesota College .....	14		3						2	19
St. Margaret's Acad. ....	7							1	2	10
Stanley .....									1	1
Northrop .....	4								1	5
<b>Morris</b>										
West Central School of Agriculture .....		1								1
<b>Moorhead</b>										
Concordia .....		1								1
<b>Owatonna</b>										
Pillsbury .....	2									2
<b>St. Paul</b>										
Bethel Academy .....	3	1		1				1		6
Breck .....	4									4
Central School of Agriculture .....		5	1							6
Cretin .....	1		2	1						4
Derham .....	3	1						1	1	5
Immaculate .....								1		1
North St. Paul .....		1	2							3
Oak Hall .....	1									1
St. Benedict .....	1					1				2
St. Joseph .....	6								2	8
St. Paul Academy .....	2									2
St. Thomas .....	9		5							14
South St. Paul .....				1						1
Summit .....	5									5
Visitation Convent .....	4									4
Winona .....	1									1
<b>Totals</b> .....	86	14	17	4		1		5	9	136
<b>UNITED STATES:</b>										
<b>Alabama</b>										
Holy Trinity .....	1									1
<b>Arkansas</b>										
Little Rock .....				1						1
<b>California</b>										
Anna Head .....	1									1
Glendale .....			1							1
Marlborough .....	1									1
Pasadena .....	1									1
<b>Colorado</b>										
Regis College .....							1			1
Timmoth .....			1							1
<b>District of Columbia</b>										
Georgetown .....	1									1
St. Albans .....	1									1
Yakima .....	1									1
<b>Florida</b>										
Lake Wales .....	1									1
<b>Georgia</b>										
Knox Institute .....	1									1
<b>Idaho</b>										
Blackfoot .....							1			1
<b>Illinois</b>										
Atlanta .....	1									1
Austin .....	1									1
Crane .....				1						1

TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
Chicago										
Hyde Park H. S.	1									1
Waller H. S.	1									1
Lake View	1									1
Decatur			1							1
East Chicago	1									1
Evanston	1									1
Jacksonville				1						1
La Grange										
Broadview								1		1
Lyons	1									1
Ottawa						1				1
Rockford	1									1
Skinner	1									1
Springfield	1									1
Indiana										
Culver	1									1
Garrett	1									1
Iowa										
Anamosa	1									1
Bellevue	1									1
Boone								1		1
Bradgate	1									1
Britt	1									1
Buffalo Center			1							1
Canton			1							1
Central		1	1							2
Charles City	1									1
Clinton	2									2
Coeur d'Alene	2									2
Dubuque	1		1							2
Elkader		1								1
Essex	1		1							2
Floyd	1									1
Greenville	1							1		2
Hawarden								1		1
Humboldt		1								1
Humeston			1							1
Ida Grove									2	2
La Plante	1									1
Le Mars	1									1
Manning								2		2
Marshalltown	4									4
Mason City	2							1		3
New Hampton	1								1	2
Ringsted	1									1
Rockwell City		1						1		2
Rolf	1									1
St. Ansgar	2									2
Sabula			1							1
Sauk Center								1		1
Sheldon	1		1						2	3
Sibley	2									2
Strawberry Point								1		1
Swea City	1									1
Weiser	1									1
Kansas										
Summer High	1									1
Maine										
Livermore Falls	1									1
Maryland										
Clear Spring								1		1



TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
Ellendale								2		2
Fargo	3									3
Forbes								1		1
Grafton	3	1								4
Grand Forks			1					1		2
Hurdsfield	1									1
Harvey										1
Hawkinson	1		1							2
Hillsboro	1		1							2
Independence	1									1
Kinmore			2							2
Langdon	1									1
Larimore	1									1
McHenry	1									1
Mandan	1								1	2
Mayville			1							1
Mitchell	1									1
Minot	1							1		2
Napoleon	1									1
New Rockford								1		1
Oaks	1									1
Osnabrook	1									1
Powers Lake	1									1
Rugby	1									1
Ryder								1		1
Stanley	1						1			2
Washburn	1									1
Wildrose							1			1
Williston	1									1
Wilton	1									1
Ohio									1	1
Fayette										
Oklahoma										
Medford	2									2
Virden	1									1
Youngstown	1									1
Oregon										
Bend	2									2
Pennsylvania										
Cannonsburg	1									1
South Carolina										
Wando	1									1
South Dakota										
Aberdeen	2		1							3
Big Stone			1							1
Clear Lake	1									1
Conde	1									1
Cresbard	1									1
Frederick								1		1
Gettysburg			1							1
Harrisburg			1							1
Langford			1							1
Lead								1		1
Leola	1									1
McLaughlin			1							1
Madison	1									1
Milbank				1						1
Mitchell	1									1
Mt. Vernon	1									1
Onida								1		1
Rapid City				1						1
Rosholt	1									1
Scotland			1							1



TABLE VIII—Continued

	Science, Literature, and the Arts	Agriculture	Engineering	Chemistry	Mines	Dental Nursing	Pharmacy	Nursing	Education	Total
Vermont										
Bennington							1			1
Washington										
Hillyard			1							1
Lewis & Clark	2									2
Moran Rolling Bay	1									1
Pasco	1									1
South Bend	1									1
Whatcom	1									1
Wyoming										
Sheridan	1									1
Total for U. S. ex- cept Minnesota.	200	14	56	8	1	3	8	38	9	337
FOREIGN COUNTRIES										
Canada	2		2		1		1			6
Japan		1								1
Paris			1							1
Philippine Islands	2		1							3
Roumania			1							1
Total	4	1	5		1		1			12
Grand total	1512	189	345	56	19	12	47	147	96	2423

TABLE IX. STUDENTS ADMITTED WITH ADVANCED STANDING

	Science, Literature, and the Arts	Engineering & Architecture	Agriculture	Law	Medicine	Nursing	Dentistry	Dental Nursing	Mines	Pharmacy	Chemistry	Education	Business	Total
MINNESOTA:														
Augsburg College .....	..	1	..	..	..	..	..	..	..	..	..	2	..	3
<b>Bemidji Normal</b> .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Carleton College .....	39	1	3	3	6	..	4	..	..	..	..	7	3	68
Concordia College (Moorhead) .....	1	..	..	..	..	1	..	..	..	1	..	1	..	4
Concordia College (St. Paul) .....	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Ely Junior College .....	..	3	..	1	..	..	..	..	..	..	..	..	..	4
Eveleth Junior College .....	5	2	1	..	1	1	..	..	..	..	..	5	1	16
Gustavus Adolphus .....	2	..	..	1	..	..	..	..	..	..	..	2	..	5
Hamline University .....	24	2	..	3	6	1	..	..	..	1	..	9	3	49
Hibbing Junior College .....	7	6	..	2	2	..	..	..	1	..	..	3	3	24
Itasca Junior College (Coleraine) .....	3	..	..	1	3	..	..	..	..	..	..	..	..	7
Macalester College .....	16	3	2	1	3	..	1	..	..	..	..	3	..	29
Park Region Lutheran College .....	1	..	..	..	..	..	..	..	..	..	1	..	..	2
Rochester Junior College .....	6	1	1	2	4	..	..	..	..	..	2	4	3	23
St. Benedict's College .....	2	..	..	1	..	..	..	..	..	..	..	..	..	3
St. Catherine's College .....	7	..	2	..	..	..	..	..	..	..	..	6	..	15
St. John's University .....	3	3	..	..	..	..	..	..	..	..	..	..	..	6
St. Mary's College .....	..	2	..	..	..	..	..	..	..	1	..	..	..	3
St. Olaf College .....	11	1	4	1	12	..	..	..	..	..	..	3	5	37
St. Paul Normal .....	..	..	..	..	..	..	..	..	..	..	..	3	..	3
St. Teresa College .....	2	..	..	..	..	..	..	..	..	..	..	2	..	4
St. Thomas College .....	18	5	..	13	19	..	..	..	3	3	..	2	2	65
State Teachers College (Duluth) .....	..	..	..	..	..	..	..	..	..	..	..	4	..	4
State Teachers College (Mankato) .....	..	..	1	..	..	..	..	..	..	..	..	15	..	16
State Teachers College (Moorhead) .....	1	..	..	..	..	..	..	..	..	..	..	7	..	8
State Teachers College (St. Cloud) .....	..	..	3	..	..	2	..	..	..	..	..	28	..	33
State Teachers College (Winona) .....	..	..	..	..	..	..	..	..	..	..	..	13	..	13
Villa Sancta Scholastica .....	1	..	..	..	..	..	..	..	..	..	..	1	..	2
Virginia Junior College .....	4	3	..	..	..	..	..	..	..	..	..	3	..	16
Totals .....	154	32	17	29	56	5	5	..	1	4	10	125	20	458

TABLE IX—Continued

	Science, Literature, and the Arts	Engineering & Architecture	Agriculture	Law	Medicine	Nursing	Dentistry	Dental Nursing	Mines	Pharmacy	Chemistry	Education	Business	Total
UNITED STATES:														
Armour Institute of Technology (Ill.).....	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Asbury College (Kentucky).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Augustana College (Illinois).....	..	..	..	..	3	..	..	..	..	..	..	..	..	3
Augustana College (South Dakota).....	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Beloit College (Wisconsin).....	1	1	..	..	..	..	..	..	..	..	..	..	..	2
Bradley Polytechnic Institute (Illinois).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
California, Institute of Technology.....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
California, University of.....	..	..	..	..	..	..	..	..	1	..	..	..	..	1
California, University of (Southern Branch)	1	..	..	..	..	..	..	..	..	..	1	..	..	2
Carthage College (Illinois).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Chaffee Junior College (California).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Chicago, University of (Illinois).....	3	..	1	..	..	..	..	..	..	..	..	..	..	4
Coe College (Iowa).....	2	..	..	..	..	..	..	..	..	..	..	1	..	5
Colorado, University of.....	..	1	..	..	..	..	..	..	..	..	..	1	..	3
Colorado College.....	3	..	..	..	..	..	..	..	..	..	..	..	1	4
Colorado State Teachers College.....	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Columbia College (Iowa).....	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Columbia University (New York).....	1	..	1	..	..	..	..	..	..	..	..	..	..	2
Columbus Junior College (South Dakota)...	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Connecticut College for Women (Conn.)...	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Cornell College (Iowa).....	..	1	1	..	..	..	..	..	..	..	..	..	..	2
Cornell University (New York).....	..	..	..	..	1	..	..	..	..	..	1	..	..	3
Crane College (Illinois).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Dakota Wesleyan University (South Dakota)	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Dartmouth College (New Hampshire).....	1	..	..	1	..	..	..	..	..	..	..	..	..	1
Denver, University of (Colorado).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Des Moines University (Iowa).....	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Detroit Teachers' College (Michigan).....	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Drake University (Iowa).....	2	..	..	..	..	..	..	..	..	..	..	1	..	3
Drury College (Missouri).....	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Eau Claire Normal (Wisconsin).....	2	..	..	..	1	..	..	..	..	..	..	3	..	6







TABLE IX—Continued

	Science, Literature, and the Arts	Engineering & Architecture	Agriculture	Law	Medicine	Nursing	Dentistry	Dental Nursing	Mines	Pharmacy	Chemistry	Education	Business	Total
Watertown Junior College (South Dakota).....	2	...	...	...	...	...	...	...	...	...	...	...	...	2
Waukon Junior College (Iowa).....	2	...	...	...	...	...	...	...	...	...	...	1	...	3
Wayne State Normal (Nebraska).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Wellesley College (Massachusetts).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Wells College (New York).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Western State Normal School (Michigan).....	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Willamette University (Oregon).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Wisconsin, University of.....	7	...	4	1	4	...	...	...	...	...	...	1	...	17
Wyoming, University of.....	...	...	...	1	...	...	...	...	...	...	...	1	...	2
Yale University (Connecticut).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Yankton College (South Dakota).....	1	...	1	...	...	...	...	...	...	...	...	...	...	2
Total.....	191	28	34	15	31	6	2	...	2	8	2	85	14	418
FOREIGN COUNTRIES:														
Alberta, University of (Canada).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Berlin, University of (Germany).....	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Hawaii, University of.....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Helsingfors, University of (Finland).....	...	...	...	...	...	...	2	...	...	...	...	...	...	1
Manitoba, University of (Canada).....	...	...	...	...	...	...	2	...	...	...	...	...	1	3
Odessa (Russia).....	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Philippines, University of.....	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Regina College Institute (Canada).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Saskatchewan, University of (Canada).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Tsing Hua College (China).....	2	...	2	...	...	...	...	...	...	...	...	...	...	4
Weyburn Collegiate Institute (Canada).....	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Total.....	7	2	4	...	...	...	3	...	...	...	...	...	1	17
Grand Total.....	352	62	55	44	87	11	10	...	3	12	12	210	35	893

TABLE X. GEOGRAPHICAL DISTRIBUTION OF UNIVERSITY STUDENTS OF COLLEGIATE GRADE  
(OTHER THAN SUMMER SESSION), 1925-26

	S., L., and A.	Engi- neer- ing	Agri- cul- ture	Law	Medi- cal	Nurs- ing	Med. Tech- nicians	Den- tist- ry	Dental Nurses	Mines	Phar- macy	Chem- istry	Edu- cation	Busi- ness	Gradu- ate	War Spe- cials	Dupli- cates	Total
MINNESOTA:																		
Aitkin	5	3	.....	.....	1	.....	.....	1	.....	.....	.....	.....	3	3	1	.....	2	15
Anoka	13	6	7	.....	1	.....	.....	.....	.....	.....	.....	.....	3	3	.....	.....	3	30
Becker	18	4	2	.....	.....	3	.....	.....	.....	1	.....	2	3	1	1	.....	.....	35
Beltrami	10	4	.....	1	1	1	.....	2	.....	.....	1	.....	5	1	2	.....	1	27
Benton	1	4	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	8
Big Stone	7	5	3	2	1	.....	.....	.....	.....	1	2	.....	7	1	1	.....	3	27
Blue Earth	36	11	7	4	6	2	.....	2	.....	1	.....	4	14	5	7	.....	4	95
Brown	21	9	8	1	3	1	1	1	.....	.....	3	4	9	1	1	.....	4	59
Carlton	21	9	4	1	2	8	.....	2	.....	.....	.....	1	4	3	2	.....	1	56
Carver	11	10	1	.....	.....	.....	.....	3	.....	.....	.....	.....	3	.....	.....	.....	1	27
Cass	6	7	.....	.....	2	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1	16
Chippewa	13	.....	7	.....	1	1	.....	1	.....	.....	2	2	10	2	1	.....	4	36
Chisago	8	4	6	2	4	2	1	1	.....	.....	1	1	2	1	2	.....	.....	35
Clay	8	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	8	1	1	.....	1	21
Clearwater	2	2	2	.....	.....	.....	.....	.....	.....	1	.....	2	1	1	1	.....	4	8
Cook	5	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	9
Cottonwood	15	4	2	1	1	2	.....	1	.....	.....	.....	.....	6	4	4	.....	1	39
Crow Wing	20	9	7	2	9	3	.....	5	.....	1	.....	2	7	3	6	.....	2	72
Dakota	15	7	6	1	6	1	.....	.....	.....	.....	.....	1	9	2	2	.....	2	48
Dodge	5	.....	3	3	1	2	.....	1	.....	.....	.....	.....	8	.....	1	.....	3	21
Douglas	17	4	5	2	.....	.....	.....	4	.....	.....	1	3	3	1	5	.....	2	43
Faribault	5	4	2	.....	2	4	.....	4	.....	1	.....	1	6	1	1	.....	1	29
Fillmore	18	7	6	2	7	.....	.....	3	.....	1	1	1	13	4	6	.....	6	63
Freeborn	21	8	6	1	.....	4	.....	.....	.....	1	.....	.....	10	2	4	.....	5	52
Goodhue	31	7	11	5	4	2	.....	3	.....	1	.....	1	11	6	7	.....	7	82
Grant	10	.....	1	.....	2	1	.....	3	.....	.....	.....	2	4	.....	1	.....	4	20
Hennepin	2140	464	270	109	170	64	7	124	15	36	63	80	838	90	317	24	239	4572
Houston	9	2	3	.....	2	.....	.....	3	.....	.....	2	.....	6	5	2	.....	1	33
Hubbard	4	.....	1	.....	1	2	.....	1	.....	.....	2	.....	2	3	.....	1	.....	16
Isanti	8	3	1	2	2	.....	.....	.....	.....	.....	.....	1	1	1	3	.....	4	18
Itasca	11	5	3	3	4	1	.....	4	.....	1	.....	.....	7	.....	3	.....	2	40
Jackson	3	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....	3	.....	.....	13
Kanabec	8	.....	2	.....	.....	1	.....	.....	.....	.....	.....	1	2	.....	2	.....	1	15
Kandiyohi	23	5	1	4	2	2	.....	3	.....	.....	1	.....	9	2	3	.....	2	53

TABLE X—Continued

	S., L., and A.	Engi- neering	Agricul- ture	Law	Medi- cal	Nurs- ing	Med. Tech- nicians	Dent- ist- ry	Dental Nurses	Mines	Phar- macy	Chem- istry	Educa- tion	Busi- ness	Gradu- ate	War Spe- cials	Dupli- cates	Total
Kittson	2	1	3	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8
Koochiching	8	4	.....	2	1	1	.....	.....	.....	.....	.....	.....	3	1	1	.....	2	19
Lac qui Parle	10	6	1	1	1	6	.....	2	.....	.....	.....	2	4	1	3	.....	4	32
Lake Lake of the Woods	3	4	2	1	1	1	.....	1	.....	.....	.....	1	3	5	2	.....	3	20
Le Sueur	1	1	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	4
Lincoln	10	3	6	1	1	1	.....	1	.....	.....	1	.....	4	.....	1	.....	3	25
Lyon	8	1	2	1	1	2	.....	6	.....	.....	1	1	3	.....	3	.....	1	29
McLeod	16	4	4	3	.....	5	.....	.....	.....	.....	.....	3	8	2	4	.....	3	46
Mahnomen	19	.....	10	.....	2	5	.....	7	1	1	2	3	6	1	2	.....	1	58
Marshall	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	4
Martin	2	2	1	1	2	2	.....	1	.....	.....	.....	.....	3	1	.....	1	2	14
Meeker	20	5	7	4	8	3	.....	3	.....	1	.....	1	9	2	2	.....	2	63
Mille Lacs	16	6	3	1	3	2	.....	2	.....	.....	1	.....	4	1	4	.....	2	41
Morrison	16	2	4	.....	.....	2	.....	1	.....	.....	.....	1	4	.....	.....	.....	.....	30
Mower	23	6	3	1	3	.....	.....	3	.....	.....	1	1	8	.....	5	.....	6	48
Murray	28	11	7	1	2	5	.....	3	.....	.....	2	.....	8	1	2	.....	4	66
Nicollet	3	1	.....	2	.....	1	.....	2	.....	.....	1	.....	3	.....	.....	.....	.....	13
Nobles	8	4	.....	1	4	.....	.....	1	.....	.....	.....	1	3	.....	1	.....	2	21
Norman	16	5	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	1	30
Olmsted	3	2	1	.....	2	1	.....	1	.....	.....	.....	.....	3	2	3	.....	.....	19
Otter Tail	21	8	4	3	8	3	.....	3	.....	.....	1	2	12	3	21	.....	5	84
Pennington	33	9	6	3	5	4	.....	2	.....	.....	1	2	8	1	4	1	2	77
Pine	8	2	6	.....	.....	1	.....	.....	.....	.....	.....	.....	2	.....	2	.....	.....	18
Pipestone	8	6	4	.....	2	2	.....	1	.....	.....	.....	.....	6	.....	4	.....	3	30
Polk	7	2	.....	.....	1	.....	.....	1	.....	.....	.....	2	2	2	2	.....	.....	19
Pope	9	3	5	1	4	2	.....	2	.....	.....	2	.....	6	.....	6	.....	1	39
Ramsey	10	7	3	.....	2	4	.....	.....	.....	.....	.....	.....	5	1	.....	.....	4	28
Red Lake	748	182	122	52	97	17	.....	56	9	7	25	34	224	41	200	2	87	1729
Redwood	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Renville	16	6	4	2	4	1	.....	2	.....	.....	1	.....	5	2	1	.....	3	41
Rice	21	5	9	1	9	6	.....	3	.....	2	1	.....	9	1	4	.....	5	66
Rock	12	7	7	2	10	4	.....	2	.....	.....	1	.....	8	1	6	1	4	57
Roseau	4	2	.....	.....	1	1	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	2	10
St. Louis	5	3	1	1	.....	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	12
St. Louis	166	78	33	26	36	19	.....	19	.....	2	8	7	88	17	15	1	36	480

TABLE X—Continued

	S., L., and A.	Engi- neering	Agricul- ture	Law	Medi- cal	Nurs- ing	Med. Tech- nicians	Den- tist- ry	Dental Nurses	Mines	Phar- macy	Chem- istry	Educa- tion	Busi- ness	Gradu- ate	War Spe- cials	Dupli- cates	Total
Scott .....	9	3	4	1	1	.....	.....	5	1	.....	1	.....	6	.....	1	.....	2	30
Sherburne .....	3	3	2	.....	.....	2	.....	.....	.....	.....	.....	1	3	3	4	.....	1	20
Sibley .....	6	5	.....	.....	3	3	.....	1	.....	.....	1	.....	2	.....	.....	.....	.....	21
Stearns .....	31	10	5	5	6	8	.....	4	.....	.....	2	1	29	2	7	.....	6	104
Steele .....	11	8	11	3	4	4	.....	1	.....	.....	2	1	4	2	4	.....	2	53
Stevens .....	8	2	2	.....	.....	1	.....	1	.....	.....	.....	1	1	.....	.....	.....	1	15
Swift .....	15	2	2	.....	1	2	1	5	1	1	.....	.....	6	1	1	.....	4	34
Todd .....	9	8	4	.....	2	1	.....	1	.....	.....	.....	3	4	.....	1	.....	.....	34
Traverse .....	6	1	1	.....	1	2	.....	.....	.....	.....	3	.....	2	.....	1	.....	2	15
Wabasha .....	11	4	3	2	5	2	.....	2	.....	.....	.....	.....	13	4	1	.....	3	44
Wadena .....	6	2	2	.....	3	.....	.....	.....	.....	.....	.....	.....	5	.....	2	.....	3	17
Waseca .....	16	4	6	.....	2	2	.....	2	.....	.....	.....	1	6	1	1	.....	4	37
Washington .....	23	14	6	1	5	3	.....	1	.....	3	1	2	14	2	7	1	2	81
Watowwan .....	8	4	6	.....	2	.....	.....	1	1	.....	1	.....	10	.....	3	.....	3	32
Wilkin .....	5	3	2	.....	.....	1	.....	1	.....	.....	.....	.....	2	.....	1	.....	.....	15
Winona .....	15	3	5	.....	3	2	.....	2	.....	1	1	2	13	2	4	.....	1	52
Wright .....	27	6	7	1	1	5	.....	.....	.....	.....	3	1	12	6	6	.....	2	73
Yellow Medicine .....	10	3	3	2	4	4	.....	1	.....	1	.....	1	2	1	2	.....	1	33
Totals .....	4048	1084	710	274	502	249	11	325	28	65	148	183	1616	257	736	32	539	9729
UNITED STATES:																		
Alabama .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	2
Arizona .....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2
Arkansas .....	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	4
California .....	6	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	16
Colorado .....	3	1	1	.....	1	1	.....	.....	.....	.....	.....	1	.....	.....	5	.....	1	12
Connecticut .....	3	1	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	9
Delaware .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Dist. of Columbia .....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	9
Florida .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Georgia .....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	6
Idaho .....	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	8	.....	.....	14
Illinois .....	14	2	3	1	2	.....	.....	.....	1	.....	1	2	6	1	26	.....	.....	59
Indiana .....	6	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....	2	.....	9	.....	.....	21
Iowa .....	92	20	8	7	11	18	.....	3	.....	.....	1	.....	35	15	10	.....	7	222
Kansas .....	4	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....	.....	14

TABLE X—Continued

	S., L., and A.	Engi- neer- ing	Agri- cul- ture	Law	Medi- cal	Nurs- ing	Med. Tech- nicians	Den- tist- ry	Dental Nurses	Mines	Phar- macy	Chem- istry	Edu- cation	Busi- ness	Gradu- ate	War Spe- cials	Dupli- cates	Total
Kentucky																		
Louisiana															4			4
Maine	1		1															4
Maryland	1					1							1		3		1	5
Massachusetts	2		1												2			4
Michigan	21	8	2		5	6					1	1	11		19		2	10
Mississippi					1										3			4
Missouri	7	4	2		1	2				2	1				8		1	26
Montana	34	8	1	2	5	5		4			2	1	9	2	7	2	1	81
Nebraska	10	5	1		3	1		1				2	3		8	1	3	32
Nevada																		
New Hampshire																		
New Jersey															3			3
New Mexico															3			3
New York	4	1	2	1	4	1		2					2		1			2
North Carolina					1										10		1	26
North Dakota	91	20	7	7	10	28	1	12		1	3	2	42	5	7		13	234
Ohio	6	1	1		1					1		1	1		17			29
Oklahoma	4														2			7
Oregon	2														1			8
Pennsylvania	3		1		3					2			1	1	22			33
Rhode Island															1			1
South Carolina	1														3			4
South Dakota	93	18	12	2	11	13		3	1		1	3	21	13	17		17	191
Tennessee										1					8			10
Texas	4	1											1		7			13
Utah					3			1							2			7
Vermont	1	1													10			12
Virginia					1													1
Washington	6	2	1		5			1					1	1	7		1	23
West Virginia																		
Wisconsin	104	25	17	4	18	23		16	2	1	5	3	66	12	22		15	303
Wyoming	2	2		1													1	4
Totals	533	124	62	26	89	101	1	46	4	9	16	16	209	51	326	3	64	1552

TABLE X—Continued

	S., L., and A.	Engi- neer- ing	Agri- cul- ture	Law	Medi- cal	Nurs- ing	Med. Tech- nicians	Dent- ist- ry	Dental Nurses	Mines	Phar- macy	Chem- istry	Edu- cation	Busi- ness	Gradu- ate	War Spe- cials	Dupli- cates	Total
FOREIGN																		
COUNTRIES:																		
Canada .....	9	6	1	....	5	....	1	2	....	1	....	....	2	2	38	....	....	67
Philippine Islands .....	8	5	2	....	1	....	....	....	....	1	....	....	2	....	6	....	....	25
India .....	1	1	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....	4
Korea .....	1	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	3
China .....	2	2	5	....	1	....	....	....	....	....	....	....	1	1	4	....	3	13
Japan .....	1	1	....	....	2	....	....	....	....	....	....	....	....	....	1	....	1	4
Cuba .....	....	2	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	2
Norway .....	1	....	1	....	....	....	....	3	....	....	....	....	....	....	....	....	....	5
Russia .....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Sweden .....	2	....	....	....	....	....	....	2	....	....	....	....	....	....	4	....	....	8
Denmark .....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Palestine .....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Hawaii .....	1	....	....	....	1	....	....	....	....	....	....	....	2	....	....	....	....	4
Argentina .....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Belgium .....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	2
Hungary .....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	2
Germany .....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	2	....	....	4
Poland .....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
New Zealand .....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	1
Mexico .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Austria .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
England .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
France .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Bulgaria .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	3
Ireland .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Scotland .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Serbia .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Switzerland .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	....	....	5
South Africa .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Wales .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals .....	28	18	10	....	16	....	1	7	....	3	....	....	8	5	75	....	5	166
Grand Totals	4609	1226	782	300	607	350	13	378	32	77	164	199	1833	313	1137	35	608	11447

## CONCLUSION

The unity of purpose of all those interested in the upbuilding of the University is essential for its progress. The year under review has been marked with many manifestations of mutual good will on the part of the faculties, the students, the public, and the administration. I am happy to express my own appreciation for the co-operation which has been shown on the part of all these groups. Particularly do I wish to express appreciation to the regents for the zeal which has characterized all their efforts for the upbuilding of the University.

Respectfully submitted,

L. D. COFFMAN, *president*

## THE COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

*To the President of the University:*

SIR: I have the honor to present the following report on the work of the College of Science, Literature, and the Arts for the year 1925-26.

During the year 1925-26 the growth in enrolment has again become more rapid. The increase over the year 1924-25 has been 8.4 per cent. The following table gives a summary of faculty, students, graduates, and the teaching load for each of the past five years. The figures show the total enrolment for the year and the number of faculty actually teaching in the fall quarter together with the teaching load for that quarter.

	1921-22	1922-23	1923-24	1924-25	1925-26
Faculty .....	193.5	199	199.8	202.33	207.35
Teaching load in student units	3,702	3,676	3,911	4,063	4,415
Enrolment .....	3,908	3,905	4,059	4,258	4,609
Men .....	2,296	2,249	2,288	2,455	2,749
Women .....	1,612	1,656	1,771	1,803	1,860
Graduates .....	312	341	359	376	332

The study of the factors which enter into the ability to do college work successfully and the possibility of recognizing this ability in advance, has been prosecuted during the year. During May and June, 31 high schools were visited and tests were given in them to almost 4,000 senior pupils. The teachers and principals of those schools co-operated cordially with us and furnished information from their records at the cost of very considerable effort. A full report on these studies will be made later.

*Student advising.*—This work has been developing along normal lines and some special reports have been made on it.

The study of curriculum problems resulted in the approval by the faculty at its May meeting of the following report presented by the Advisory Committee:

The Advisory Committee has given much time during the present year to the consideration of methods of improving the work of the college.

The Committee has received the impression that the sectioning of classes on the basis of ability which was approved by faculty action in November, 1921, is generally regarded as an appropriate procedure which may well be further extended.

The principle underlying this practice is the adaptation of the content and conditions of the educational program to the qualities and needs of the individual student. In a liberal arts college this should be the prevailing principle just as in a professional school the program of instruction is determined by the requirements of the practice of the profession.

Methods are being devised which enable the faculty to advise the student as to his fitness for particular lines of work. Some other institutions have made more use than we have of the so-called placement tests for these purposes. A noteworthy example of placement work in this college is the classification of freshmen in English during the last fifteen years. The large majority of students who have been placed in sub-freshman rhetoric have proved to be students of low performance in their other studies.

At the present time many students fail in mathematics and language where their college work is a continuation of work done in high schools. These failures become repeaters so that the fact of failure is a matter of importance to the University as well as to the student. In justice to the student it is our duty to discover whether the failure is due to lack of ability in the subject or to wrong placement. Examinations which would tell at what level the student is able to take up the subject would be an advantage to both student and department. It is our business to find out whether such examinations are available or can be devised to give reliable results. The same inquiry may properly be made in subjects other than those mentioned.

The effort to discover the capacities and aptitudes of students should be continued actively through the freshman and sophomore years in order that the work of the senior college may be adapted to the needs of different types of students.

The Committee submits the following proposals:

1. That the departments dealing with freshmen should develop and make use of placement tests or other devices which will enable them to classify their students as nearly as possible in accordance with their abilities and aptitudes; and that departments carefully consider the advisability of organizing sub-freshman courses in the interest of students who would be classified to their detriment in regular freshman courses.

2. That active efforts should be made by instructors and by organized departmental staffs to discover during the freshman and sophomore years the special interests and aptitudes of students, to distinguish between those who will be attracted by the opportunities and satisfactions of intellectual achievement and those whose satisfaction is found in other objectives, and to find the means of guiding each student into the kind of work best suited to him. Honor rolls based on intellectual achievement should be a means of encouraging capable students to enter on a scholarly career. A technique of selection at this stage may be developed by experimentation and observation.

3. That departments should consider carefully the possibility of conducting work by the honors course or conference method of instruction. A department with the approval of the dean may introduce such work for selected students. As such work proves successful in a department the faculty will welcome modifications in the usual methods of teaching favorable to the extension of this method of instruction to all students who would profit by it. For example, departments may wish to reduce the number of courses offered in the customary manner and to reorganize the lecture courses that are retained. These or other changes that may produce differentiated types of instruction for different types of students may at the same time help to meet the financial problems and the problems of instructional personnel involved in the introduction of honors work.

It is expected that departments and individual professors will proceed in accordance with this permissive legislation to try out various plans for the improvement of the work of instruction.

Respectfully submitted,

J. B. JOHNSTON, *Dean*

## THE COLLEGE OF ENGINEERING AND ARCHITECTURE

*To the President of the University:*

SIR: I beg to submit the following report for the College of Engineering and Architecture for the year 1925-26:

### FACULTY

*New appointments for 1925-26.*—Architecture: Herbert S. Wilson, instructor; Ivan Doseff, instructor in fine arts (spring quarter); Drawing and Descriptive Geometry: Fred T. Cruzen and Jarl E. Larson, instructors; Electrical Engineering: Elmer W. Johnson, assistant professor (transferred from Mathematics and Mechanics); George S. Liebeck, instructor; Ikel C. Benson, George F. Corcoran, and Henry R. Reed, teaching fellows; Engineering Experiment Station: Donald C. Nelson and Frank E. Nichol, research fellows in structural engineering; Charles E. Prichard, research fellow in highway engineering; Russell E. Backstrom, research fellow in mechanical engineering; Lester L. Johnson, research fellow in chemical engineering; Experimental Engineering Laboratories: Frank A. Morris, instructor and assistant director; Mathematics and Mechanics: Herman W. Skon, instructor; Mechanical Engineering: Everett B. Stevens, assistant in steam laboratory.

*Promotions effective in 1925-26.*—From associate professor to professor: Charles F. Shoop, Mechanical Engineering. From instructor to assistant professor: Leon Archibald, Drawing and Descriptive Geometry; George W. Swenson and John H. Kuhlman, Electrical Engineering; H. L. Smith and Elmer W. Johnson, Mathematics and Mechanics; John Flodin, Mechanical Engineering.

*Leaves of absence during 1925-26.*—George D. Shepardson, professor and head of the Department of Electrical Engineering, sabbatic furlough for academic year 1925-26, for study and travel around the world. Elmer E. Young, instructor in fine arts, for study in New York City.

*Resignations effective for 1925-26.*—Drawing and Descriptive Geometry: Walter C. Lawson and Everett H. Tollefson, instructors; Electrical Engineering: Edwin R. Martin, assistant professor; Otto B. Heidelberger, Clifford L. Sampson, and Rene A. Braden, teaching fellows; Mathematics and Mechanics: Oscar C. Lee, instructor; Mechanical Engineering: C. Robert Egry and R. D. Morrill, instructors; Arthur Kumm, assistant (spring quarter).

*Deaths.*—During the year 1925-26, the College of Engineering and Architecture has suffered very seriously from the loss of four members of its staff by death.

Harry Dixon, engineer and teaching assistant in the power plant laboratory of the Department of Mechanical Engineering, died October 24, 1925,

aged 56. He had given faithful and efficient service to the University for 35 years and his loss will be felt particularly keenly by the older alumni.

James H. Forsythe, associate professor of architecture, died November 1, 1925, at the age of 40. Professor Forsythe came to this University in 1915. He became a most useful and valued member of the University staff and community. As consulting architect of the University, his service in connection with the construction of buildings and the development of the campus has left a deep impression. As member and chairman of the Students' Work Committee of the College of Engineering and Architecture, he came in contact with many students and gave them the benefit of personal advice and guidance.

John J. Flather, professor and head of the Department of Mechanical Engineering, died May 14, 1926, at the age of 64. He came to the University of Minnesota from Purdue University in 1898 to take charge of the Mechanical Engineering Department and his leadership and active participation in university affairs were continuous from that time. He was a man of liberal culture and broad attainments. He was a powerful factor in the development of the College of Engineering and Architecture.

George D. Shephardson, professor and head of the Department of Electrical Engineering, died May 26, 1926, aged 61 years. He was traveling in Europe while on sabbatic furlough from the University, and his death occurred in Florence, Italy. Professor Shephardson's service at the University of Minnesota began in 1891, when the Department of Electrical Engineering was in its infancy. From its small beginning, he reared the department in accordance with the rapidly developing profession to which it is devoted, and through many vicissitudes, into the large and well-equipped department which he leaves as a monument to his work.

STUDENTS

ENROLMENT BY QUARTERS  
FALL QUARTER, 1925-26

	Freshmen	Sophomores	Juniors	Seniors	Un-classed	Total
Agricultural Engineering . . . . .	1	..	..	..	..	1
Architecture . . . . .	84	32	13	9	8	146
Architectural Engineering . . . . .	2	12	13	6	..	33
Civil Engineering . . . . .	64	66	53	56	..	239
Electrical Engineering . . . . .	151	110	85	78	..	424
Interior Decoration . . . . .	..	..	1	5	..	6
Mechanical Engineering . . . . .	62	48	41	29	..	180
Engineering Pre-Business . . . . .	5	11	..	..	..	16
Undetermined . . . . .	59	..	..	..	..	59
Total, 1925-26 . . . . .	428	279	206	183	8	1,104
Total, last year, 1924-25 . . . . .	371	266	194	189	2	1,022

## THE PRESIDENT'S REPORT

## WINTER QUARTER, 1925-26

	Fresh- men	Sopho- mores	Juniors	Seniors	Un- classified	Tota.
Agricultural Engineering ....	2	1	..	..	..	3
Architecture .....	62	37	15	9	6	129
Architectural Engineering ...	5	19	10	5	..	39
Civil Engineering .....	71	72	53	48	..	244
Electrical Engineering .....	140	103	89	73	..	405
Interior Decoration .....	..	..	..	4	..	4
Mechanical Engineering ....	55	49	42	27	..	173
Engineering Pre-Business ...	5	8	..	..	..	13
Undetermined .....	33	..	..	..	..	33
Total, 1925-26 .....	373	289	209	166	6	1,043
Total, last year, 1924-25.....	335	256	195	192	4	982

## SPRING QUARTER, 1925-26

	Fresh- men	Sopho- mores	Juniors	Seniors	Un- classified	Total
Agricultural Engineering ....	1	3	..	..	..	4
Architecture .....	54	32	15	8	4	113
Architectural Engineering ...	1	15	10	10	..	36
Civil Engineering .....	53	70	48	39	..	210
Electrical Engineering .....	128	65	83	73	..	349
Interior Decoration .....	..	..	1	2	..	3
Mechanical Engineering ....	56	44	43	29	..	172
Engineering Pre-Business ...	1	5	..	..	..	6
Undetermined .....	51	..	..	..	3	54
Total, 1925-26 .....	345	234	200	161	7	947
Total, last year, 1924-25.....	283	252	187	167	4	893

## DEGREES CONFERRED, 1925-26

	Summer 1925	Dec. 1925	March 1926	June 1926	Total
Bachelor of science in					
Architecture .....	1	1	..	5	7
Architectural engineering .....	2	..	..	2	4
Civil engineering .....	1	7	12	22	42
Interior decoration .....	..	1	..	3	4
Electrical engineering .....	3	3	..	70	76
Mechanical engineering .....	1	1	..	27	29
Total, 1925-26 .....	8	13	12	129	162
Total, last year, 1924-25.....	3	7	21	136	167

## AMOUNT OF INSTRUCTION

The total enrolment during the year was 1,231, as compared with 1,140 for last year. The amount of instruction given in this college was 43,048 student credits, that for the preceding year having been 41,831.

## GENERAL

*School of Architecture.*—The name of the Department of Architecture has been changed by the Board of Regents to School of Architecture. In view of the distinction between architecture and engineering, this change gives to this department added recognition and prestige, especially among other universities. The leading schools of architecture in this country are designated as schools or colleges, rather than as departments.

*Lecture course on concrete.*—In January, 1926, a series of eight lectures was held in co-operation with the Portland Cement Association, devoted to modern developments in the design and control of concrete mixtures. These lectures were open to the public without charge. Over four hundred persons attended one or more of the lectures, the maximum attendance at one session being 360.

*Minnesota Tax Commission.*—The appraisal of public utilities in the state of Minnesota, which is being carried on under the direction of this college for the Minnesota Tax Commission, has continued to the satisfaction of the commission. The principal work of the year was the appraisal of electric transmission lines of the state, amounting to about \$11,000,000. The valuation engineer, Mr. R. B. Sleight, has also given important service in connection with hearings before the commission regarding questions of taxation which involve companies whose property he has appraised. On the part of the College of Engineering and Architecture, this service continues under the direction of Professor W. T. Ryan, of the Department of Electrical Engineering.

*The Minnesota Techno-Log.*—This year has been one of marked success in the history of the *Techno-Log*, which is published monthly by the students of the College of Engineering and Architecture, the School of Chemistry, and the School of Mines. The quality of the journal has been maintained at an unusually high standard under the leadership of its managing editor for the year, Mr. Paul B. Nelson. In June, 1924, the *Techno-Log* published a directory of the alumni of these three colleges. Again, last year, an improved directory was published in June. At the end of the current year, the *Techno-Log* is publishing a separate supplement which combines the directories of the preceding years and brings them up to date in one issue, containing a list of graduates by classes and courses, an alphabetical list with addresses by colleges, and a geographical list. This directory is of value to the University, the three colleges, and their alumni, and its publication is a distinct credit to the *Techno-Log* staff.

The student body, at the end of last year, adopted a constitution for the management of the *Techno-Log* through a board, consisting of elected representatives of the various classes and colleges, together with the deans of these colleges. This constitution has been carried into effect during the past year. It is expected to result in a better organization and a greater interest on the part of the students in the publication.

*Engineers' Bookstore.*—During the past year, the Engineers' Bookstore has been operated under the direction of Mr. Harold D. Smith, '25, as the successor of Mr. Howard C. Jacobson, '20, who resigned at the close of last year. To Mr. Jacobson belongs the credit of the development of the bookstore from its beginning, and its management under the supervision

o. the Bookstore Board, composed of representatives of the faculty and student body. The official audit at the end of this year shows the affairs of the bookstore to be in excellent condition. It continues to render very valuable service to the college, as well as to reduce materially the cost of textbooks and supplies to our students. The bookstore contributes directly to the efficiency of instruction in the various departments of the College of Engineering and Architecture.

#### INVESTIGATION OF ENGINEERING EDUCATION

On October 31, 1923, the Carnegie Corporation voted an appropriation of \$108,000 for a study of engineering education by the Society for the Promotion of Engineering Education. With the co-operation of various national engineering societies, the U. S. Bureau of Education, the National Industrial Conference Board, and a special committee, an elaborate investigation has been conducted which, up to the present time, has consisted largely of the collection of information, including facts and opinions concerning existing conditions and practices.

At the annual meeting of the society in June, 1926, at the University of Iowa, the work accomplished in this fact-gathering stage of the investigation was summarized in a series of reports. A great amount of information has been compiled which will be of much value as a basis of study for many years. Undoubtedly, it will have a tremendous influence upon the development of engineering education in the future.

The studies relating to the past experiences and present practices of the colleges include the following projects: entering students; admissions and eliminations; students other than freshmen; graduates and former students; a special group of graduates in electrical engineering; teaching personnel; scope and field of work of engineering colleges; costs of engineering education; entrance and graduation requirements; engineering curricula; educational requirements and standards of other groups of professional schools; economics in the engineering curricula; modern foreign languages; engineering degrees; and co-operative engineering courses. Other projects deal with the relationship of engineering education to various industries, utilities, and transportation. Professional status in engineering and other professions, and engineering practice in the principal fields constitute a separate group of studies. In connection with educational psychology, the projects include vocational differentiation and guidance of secondary school students, educational objectives, experiments with placement examinations, and diagnostic studies of cases of impending failure. Finally, engineering education in European countries is being studied.

The remaining period of the investigation will be devoted to a consideration of the data which have been obtained, in order to make the results available in the most useful manner to the faculties of the engineering schools, and to assist them in interpreting the data for application to such policies as may be desirable to establish.

Respectfully submitted,  
O. M. LELAND, *Dean*

## THE DEPARTMENT OF AGRICULTURE

*To the President of the University:*

SIR: I submit herewith the annual report of the Department of Agriculture for the fiscal year ending June 30, 1926.

The past year has been an active and fruitful period for the Department of Agriculture. There has been a marked degree of stability and co-operation within the staff. Visitors from foreign countries, the federal department of agriculture, and other state experiment stations have commented favorably on the co-operation existing between divisions at University Farm and on the quality of the research being accomplished.

Interest on the part of the people of the state in the work of the department has never been so marked as during the past year. Many important organizations requested members of staff to attend their meetings for the purpose of discussing the organization, the program, and accomplishments of the department. The Minnesota Bankers' Association, with 600 attending, manifested unusual interest by spending a day at University Farm reviewing the work under way. The realtors of Minneapolis and representatives of the various Kiwanis clubs of the state also spent a day at the Farm.

Many farm and business groups visited the outlying schools, stations, and experimental soil fields. A record kept at the Crookston School and Station showed that more than four thousand visitors came to that institution in the course of the year.

In response to invitation from the University, the Twin Cities, and the co-operative farm marketing organizations of the state, the American Institute of Co-operation held its second annual meeting at University Farm. This was an event of considerable significance to the Department of Agriculture, for co-operative marketing as it relates to agriculture has received nation-wide consideration in recent years. Minnesota is more advanced than most states in the co-operative movement and it is felt that the sessions of the institute extending over four weeks were organized in such manner as to be of permanent benefit to the commodity co-operative organizations of the state. A regular program of instruction for students enrolled for the entire session was conducted, and, in addition, a number of short courses for those interested in marketing certain commodities and who could arrange to be in attendance for only a limited time. The short courses were attended by many in the state who are actively connected with co-operative marketing organizations. The total registration in the institute was 575, which considerably exceeded the registration of a year ago at the University of Pennsylvania. The management expressed gratification over the favorable conditions obtained in Minnesota for conducting the institute.

Another meeting of significance to University Farm was that of the American Home Economics Association. The headquarters for the meetings were in Minneapolis, but one day was spent at University Farm much to the benefit and credit of the Home Economics Division.

## THE COLLEGE, SCHOOLS, AND SHORT COURSES

There was a slight increase in enrolment over 1924-25 in the college which was due to increases in forestry and home economics. The enrolment in agriculture dropped from 254 in 1924-25 to 217 for the year under review. Undoubtedly this decline was in part due to the widespread belief that agriculture is such a depressed industry that it does not offer adequate opportunities for young men who are planning to spend four years in college. While there is abundant proof that this is a mistaken point of view, young men are not to be blamed for failing to attend agricultural colleges when their parents and friends speak discouragingly of the opportunities in agriculture. Another reason why more young men are not electing agriculture is, that in a number of cases, their parents seem unable to finance them so that they can enter college. A number of deserving young men who could not see a way to make a start in the University have been brought to our attention. They are the kind of young men who undoubtedly would manage to get through the University if they had some means of being financed for their first year. A number of scholarships were created from funds accruing from the Caleb Dorr bequest for young men and women who had done distinctive work in boys' and girls' clubs and who had also made good records in their high school course. These scholarships were eagerly sought and all of those who received them made commendable progress during their freshman year in college. Now that these young people are acquainted with the conditions surrounding the University it is felt that they will manage to finance themselves through the remaining years of their college course.

There was an increase in attendance at all the schools of agriculture, and the combined total enrolment in them was about as high as ever before in their history. The attendance at the Central School reached a low point in 1924-25 due to the fact that World War veterans were no longer in attendance, and also because of financial depression in agriculture in the area from which the school draws the larger percentage of its attendance. In that year the attendance was only 401, but in 1925-26 it rose to 601. Attendance at the West Central School was the largest in its history and it became necessary to house a number of the students in the town of Morris. A new dormitory for men, now in the course of erection, will make it possible to take care of the housing of practically all of the students on the campus unless there are further pronounced increases in enrolment.

Plans are under way for the opening of a school at the North Central Station. An administration and classroom building is already built, and a dormitory and dining hall with rooming capacity for 80 men is now being constructed. It is planned to open the new school in October, 1926.

All short courses held during the year were well attended, and the degree of interest manifested was very marked. It was very apparent that those in attendance were present to learn all they possibly could in the short time devoted to the work. At the suggestion of the Minnesota

Bankers' Association a short course was offered to bankers. It was felt that this course was a pronounced success as it brought to the bankers a much better conception of the importance of agricultural education in the business of farming. A request has been made that a similar course be offered again next year.

### THE EXTENSION SERVICE

There have been no important changes in the organization of the Extension Service during the past year. The value of thoro co-operation and greater unity from the administrative point of view has been emphasized, and distinct progress has been made in one line of work in this respect. In the boys' and girls' club work, it is now fully recognized that the state leader is the only administrative officer and those working out of the state office are now definitely recognized as state agents, working largely on organization problems along project lines with administrative policies and duties confined to the state leader's office.

Some progress has been made in bringing about closer relationships between the home demonstration office and the club office as regards the administration and operation of the home agent work in a number of the counties. The home agent is the title given to the second agent in the county working specifically on home projects and girls' club work, and thus there is brought into rather direct relations the supervision of the two sections of the Extension Service.

The relations of the Extension Service to the Experiment Station, the Agricultural College, the Schools of Agriculture, State Department of Agriculture, and other public agencies are quite satisfactory, and it is believed distinct progress has been made, especially in relationship between the State Department of Public Education and the Extension Service. This relates specifically to the Smith-Hughes teaching of agriculture in high schools, and in most instances quite satisfactory relations exist between the Smith-Hughes teachers and the local county agents.

*Publicity.*—Aside from the general correspondence conducted by each specialist and supervisor in connection with subject-matter publicity, the regular channels of the daily press, the county weeklies, and the farm journals are freely used, in addition to which large numbers of extension bulletins, circulars, and folders are distributed to those requesting information along subject-matter lines.

Extension bulletins and circulars were printed to the number of 236,000, while multigraph and mimeograph material ran to a total of over 21,000,000 pages.

The above does not include the *Farmers' Institute Annual*, a booklet of 160 pages, of which 25,000 were issued under the title of "Beef Cattle and Hogs."

*Radio.*—Previous to October first a program of miscellaneous farm talks was given over the WCCO broadcasting station on two evenings each week.

On October 1 a new plan of broadcasting agricultural subjects was started. Regular courses of six lessons each on important farm enterprises were announced and enrolment cards for the courses were issued through the county agents and through the general press in order to have on record a radio attendance for the various courses given. In order to induce enrolments, it was stated that a pamphlet would be issued giving a summary of the courses of study and answers to the questions that had been received from the radio listeners which would be distributed free to those that registered for any course before it started and while it was in progress.

Lessons were given in the evening twice a week and in all, ten subjects or sixty lesson periods were conducted on this plan. A total enrolment of over two thousand people was obtained and opportunity was afforded to follow up a number of the enrolments with Extension Service aside from that given over the radio.

On April 1 the Farm Flash Radio Service, which followed the plan of presenting the material in the form of questions and answers on timely farm subjects was inaugurated and continued to June 16.

*County agent work.*—The county agents of Minnesota in 1925 submitted the best record of achievement in the history of the service in Minnesota and the excellent reports for the year reflect the very high order of county agent work generally in progress throughout the state.

The combined record of the county agents shows the total number of contacts made by them to be 1,021,897, which is the highest yet recorded during any one year. There were 62 agents employed in the state for the year with excellent prospects for at least two more counties employing agents by the first of September.

In order to visualize more definitely the extent of the county agent service it may be worth noting that in those counties employing agents the average instances of service per farm was approximately nine, and ranged as high as fifteen in some counties. This is a pertinent argument for raising the question, in those counties without agents, as to the advisability of this service being denied because of the lack of organization and co-operation in offering local finances for the co-operative work.

Among the more important services rendered that deal with specific projects are those concerned with soils and crops, particularly the growing of legumes and soil treatment for the same; the better seed movement, including corn, grass, and grains; improvement of livestock in its various phases of breeding, feeding, and disease control; the elimination and control of plant and insect pests; the phases dealing with the more economic and efficient distribution of farm products, the farm management factors of increasing the farm income, the promotion and development of home projects from the standpoint of a more satisfying farm home life; and the active participation in the many boys' and girls' club projects.

In the prosecution of the above principal lines of work a significant expression of co-operation was emphasized by the fact that 925 communities assisted the county agents very definitely in the development of local

programs of work. There is recorded definitely 1,957 groups of both adults and juniors in development of community activities with the total enrolled membership of approximately 38,000 people.

Another way of illustrating the interest in the various lines of activities—in the institutes, short courses, local leader training school, demonstration meetings, and other gatherings—is that the total attendance was approximately one-half million individuals at all such meetings in the state.

*Public relations.*—One of the important, tho difficult, phases of county Extension Service, is that of the relationship of the agent and his many phases of work to various members of the public and to public organizations.

Herein lies a great opportunity, but also a distinct responsibility, for making the work not only effective to individuals but of distinct value to the prosecution of the common program which forms the basis of work for many closely allied organizations and institutions. This is illustrated by the relation of the county agent himself and the movement in general to educational institutions within the county and in the state at large, including secondary education, Smith-Hughes schools, county superintendents, and state educational officials. Another example is the relation to commercial clubs, fraternal organizations, and others of this nature. Still, another group is represented by farmers' organizations distinct from the farm bureau such as the Grange, Farmers' Union, Society of Equity, the Producers' Alliance. The agent is confronted with the program of working with people who are members of such organizations and who are apt to confuse organization matters with educational service.

Still another group in public relations deals with co-operative enterprises, principally in marketing, but in some instances dealing with co-operative buying, along with insurance and other allied endeavors.

Then there are the local business men representing lines of business closely related to the farm business such as dealers in feed, implements, minerals for livestock, fertilizers, medical supplies, and seed, and others who may be very important in specific instances in making the county agents' work either more permanent and more effective or less effective and often of a temporary nature.

*Home project work.*—While no important changes in the plan of organization have been made during the year in home project work there has been special effort employed to strengthen the interest in home projects and to extend further aid to counties particularly interested in adopting a definite program of home work. The following home projects were developed in a number of counties, given in each instance through the local leader method work: home management, 14; clothing, 37; nutrition, 15; poultry, 16. This makes a total of 82 counties, but inasmuch as part of the clothing and poultry projects were given as advanced courses in some of the counties that had received the first series of lessons there was actually a total of 52 separate counties receiving specialist help and adopting the local leader plan of procedure.

The reports through the local leaders of the home projects are valuable in indicating the adoption of improved practices in rural homes. For example, the clothing project was carried into 37 counties and the definite record of improved practices in the project totals almost 15,000 homes. In nutrition over 4,000 homes are on record in improved nutritional practices; in home management over 2,000; and in poultry approximately 4,700, thus indicating specific action following the extension work given by the specialists.

*Boys' and girls' club work.*—Another very satisfactory year of club work marks the conclusion of the club events in 1925 and also marks a higher point in enrolment and in percentage of juniors completing the year's work than in any previous period.

In the twenty lines of junior endeavor there were enrolled for the year 23,915 of which number 19,066 completed the entire year's work. This gives approximately a finishing percentage of 80, which is believed to be quite satisfactory.

The enrolment by counties ranged from 2,532 in St. Louis County, which employs two full time club agents, to the small number of 15 in a county that attempted in a small way to carry on the club work. However, there were 7 counties in which no attempt was made to organize clubs or to do any of the junior work. These were counties without county agents; but a few counties without county agents made a remarkable record in the junior work because of the interest of local leaders and school authorities.

*Work with club members of advanced age.*—One of the problems in junior club work has been to propose a type of project or a community activity that would attract the attention and occupy the time of young men and young women who have had considerable club work, but who have outgrown the age at which they are eligible and have not yet reached the age of assuming responsibility in the home or on the farm. This group would include several hundred between the ages of 18 and 25 in every county in the state and represents in a large measure those young people who are drifting outside of school without guidance, except that exercised by their parents. An experiment was tried in Redwood County with a group of this age, the majority of whom had had from two to five years of club work. Two groups, one of 37 young men and one of 33 young women, were organized and a series of discussions of farm and home problems was scheduled over a four-month period. As a conclusion of the group meetings a definite father and son partnership was adopted and recommended by the group as an advanced club project.

There is considerable doubt in the minds of those that were concerned with this project as to whether they have yet found the proper subject-matter or the method of interesting groups of this age with projects that will attract them into the farm business. It is planned to continue the experiment, however, with the hope that a contribution to the solution of this problem may be developed.

*Outlook for 1926-27.*—One of the outstanding developments of the last six months has been the interest manifested by business groups in the

work of the Department of Agriculture of the University with special emphasis laid upon the agricultural extension projects.

This interest developed into a rather definite idea of a state-wide plan for bringing to the attention of the people of the state the services being performed through the Department of Agriculture and the needs of the institution for the further improvement of agriculture and rural living.

The outstanding need of the Agricultural Extension Service is a larger appropriation by the state legislature in order to expand the county agent system into that third of the state which is not now co-operating in this movement and to make possible a wider dissemination of information that can be used by farmers and their families for their own advancement.

There is a needed expansion of the boys' and girls' club work, of the home projects in which so many farm women are interested, as well as of several lines of subject-matter not now represented by specialists. Budgets covering such additional requirements as actively to serve the best agricultural interests of the state have been prepared.

This increased interest, manifested so forcibly by business groups, has also been noticeable in the manner in which farm people have co-operated with county agents and specialists in making the year's work in Extension Service successful and gratifying to those engaged in it. It is becoming apparent that local politics are not playing as large a part in affecting the county appropriation for the Extension Service as they once did and it is believed the work is becoming more firmly and permanently established with a better understanding of its purposes and methods of work as it attempts to develop the best interests of agriculture in the state.

### THE EXPERIMENT STATION

The output from the experiment station for the year has been high both in quantity and quality. This is indicated in the number and quality of publications issued, and by the technical assistance given to the agricultural industry. Ten manuscripts have been published in the Technical Series and nine in the Experiment Station Series. In addition 75 manuscripts, written by members of the staff, have been accepted for publication in the various scientific research journals.

The staff has maintained a spirit of enthusiastic activity and has exhibited an attitude of helpful and hearty co-operation in much of the investigational work under way. So strongly developed is the spirit of co-operation and research among members of the experiment station staff that it has frequently been made an object of mention by visitors from other experiment stations and by the federal office of experiment stations. It is obvious that the hearty co-operative spirit existing is conducive to the more rapid and accurate development and accumulation of results from experiment station work.

As a result of the passage of the Purnell Act, \$20,000 additional from federal funds have been available for experiment station research work during the year. This has given a decided impetus to research, especially

in the fields of economics and sociology. It has made possible also the initiation of several research projects in home economics. Considerable progress has been made in developing investigational projects in marketing, price relations, and co-operative movements. A study of types of farming in Minnesota has also been undertaken under the auspices of the Purnell Act.

Marked progress has been made in the field of plant science. Studies of the genetic relationships existing in the various classes and varieties of crops are being made, the results of which promise rapid advancement in the science of plant breeding. Progress has been made also in the isolation of physiologic forms of black stem rust of wheat. As a result, it is believed that the development of varieties of wheat that will resist attacks of black stem rust is near at hand. One such variety has already been advanced to the increase plots with a view to wider distribution.

A new project in corn breeding has been undertaken under the provisions of the Purnell Act and in co-operation with a number of states in the corn belt. Special attention is being focused on the development of disease-free varieties and in the formation of heavy yielding, early maturing strains for the Northwest.

The work in fruit breeding is bearing results in the development of numerous commercial varieties. A bulletin describing these new varieties has been prepared during the year and is now available for distribution. Investigations of the factors affecting winter hardiness and disease resistance are being studied with a view to making still other varieties of fruit that are adapted to the soil and climate of the Northwest.

In certain sections of the state serious mineral deficiencies have been discovered in the forage crops usually fed to cattle. The Dairy Division, in co-operation with Agricultural Biochemistry, is making a specific study of the problems and has accumulated evidence which it is believed will be very helpful in remedying the deficiency.

Investigations of molds and bacterial growths as affecting the manufacture of dairy products have been undertaken which promise to lead to large savings in the manufacture and sale of dairy products. Studies in animal nutrition and in feeding rations for all classes of livestock have received consistent attention.

As the livestock population of the state becomes more dense, animal diseases become a serious menace. The Experiment Station maintains a constant watch for the outbreak of new diseases and has conducted investigations which indicate methods of control and prevention. During this year the demand has been heavy for assistance in controlling bacillary white diarrhea in chickens, in preventing the spread of tuberculosis, and in stopping the ravages of contagious abortion. This has given an opportunity for investigating the causes and methods of controlling these diseases.

Further studies of the soils of the state have shown the necessity for amendments in the form of calcium, particularly on the sandy soils of central Minnesota where alfalfa and sweet clover should be grown and on certain of the low-lime peat bogs. Valuable knowledge has been gained

also regarding the area upon which an application of phosphorus will profitably increase the returns.

Other phases of investigational work that are being prosecuted vigorously are studies of suitable rations for growing and fattening swine and for feeding chickens and turkeys and methods of control of crop damage from insects and in the protection of stored grain from insect injury. Definite progress has been made on the study of electrification of farms and in the drainage of farm lands, as well as in many of the minor phases of investigation relating to agricultural production.

One measure of the confidence in the research ability of the station staff is the rapidly increasing number of research fellowships provided from private sources for investigation in special subjects relating to agriculture. For the year under review no less than seven divisions received funds for research from such sources.

### SPECIAL STUDIES

For the purpose of more efficient administration several special studies are being made. One deals with the expenditures for teaching and research, respectively. This study presents its difficult phases because a good many activities of the department fall in between these major fields. An illustration is the demonstrations at the branch stations. Progress is being made with the study, however.

Another study has to do with the teaching loads in various divisions, and a third with the reorganization of the clerical work in the department.

Respectfully submitted,

W. C. COFFEY, *Dean*

## THE LAW SCHOOL

*To the President of the University:*

SIR: I hereby submit a report on the work of the Law School for the academic year 1925-26:

*Faculty.*—There were no losses of full time members of the faculty during the year. M. U. S. Kjørlaug, counsel of the Legal Aid Society and instructor in Practice, resigned and was succeeded by Maynard E. Pirsig, an honor graduate of the class of 1925. The school regrets the loss by death of Rome G. Brown, special lecturer on water rights. Professor R. Justin Miller has been granted a leave of absence for 1926-27. Ralph H. Dwan, B.A., LL.B., S.J.D., and Robert Kingsley, M.A., LL.B., were appointed instructors in law. Homer B. Dibell, associate justice of the supreme court of Minnesota, and Bert Fesler, district judge, gave valuable services without remuneration.

*Registration.*—The total registration was 301, an increase of 19 over the preceding year. The increase in the first year class was 4 and in the middle class 15. While the first year class has not increased rapidly, the upper classes are larger because of fewer failures in the first year. Of the entering class, 51 per cent had an academic degree or three years of college work compared with 44 per cent in the preceding year and 17 per cent five years ago. Of the entering class 71 took their pre-legal work in the University of Minnesota, 40 in other colleges, and 13 partly in the University and partly in other colleges. A larger proportion of those preparing at our own university take three years or more of academic work than of those from other schools.

*Admission to the bar.*—New rules for admission to the bar were made by the supreme court of Minnesota to apply to candidates entering upon the study of law after September 1, 1925. Candidates must now complete a four years' high school course or pass university entrance examinations; and part time law students must extend their course to four years. These requirements are not high but they place Minnesota in seventh place among the states.

The standards for admission to the bar throughout the United States are low and the profession is being crowded with the poorly prepared. In most states, three years of part time law study, with, and frequently without, a high school course, is all the preparation required for the bar. This should be compared with the seven-year period of study generally required for the practice of medicine. Persons seeking a profession are taking the easier way. In the twenty-five years, 1900 to 1925, the number of law schools in the United States increased from 102 to 167, and law school students from 12,500 to more than 40,000. At the same time, medical schools decreased from 163 to 79, and medical school students from 25,000 to less than 19,000. University law schools disregard law bar requirements and maintain reasonable standards of their own but two thirds of the law students are in schools which maintain no better standards than are required for admission to the bar. Bar examinations are the only check

on the influx. About 40 per cent of the candidates fail to pass the examinations in Minnesota. The graduates of our school are successful with but few exceptions.

*Scholarship.*—There has been a most gratifying improvement in scholarship during the past year. The honor point average of the first year class was raised from .83 in 1924-25 to 1.00 in 1925-26. Only 7 per cent of the class was dropped for low scholarship as compared with 12 per cent in the preceding year, and 69 per cent of the class passed all examinations compared with 55 per cent in the preceding year. A comparison of the record of the first year class with the class of ten years ago, shows a remarkable difference in scholarship, only 7 per cent of the class being dropped for low scholarship as compared with about 25 per cent, and 69 per cent of the class passing all examinations as compared with 34 per cent. The difference in result is attributable to the better quality and preparation of the students now entering the Law School and perhaps to greater effort on their part.

*Service to the state.*—Professor R. Justin Miller was executive secretary of the State Crime Commission for several months and was then succeeded by Professor Wilbur H. Cherry, who is now carrying on the work. The members of the faculty have co-operated with the state and local bar associations, District Judges Association, and other groups working for improvement in the administration of the law.

*Law library.*—During the year, 1,734 volumes were added to the library, making a total of 41,966. There were bound 1,529 at a cost of \$1,717.85. The cost of continuations of sets amounted to \$3,379.18. Continuations and rebinding together cost nearly \$5,100. Larger appropriations are greatly needed for additional collections and new texts.

*Minnesota Law Review.*—The *Law Review* subscription list increased almost 300 to a total of nearly 1,500. Of these, 833 are members of the State Bar Association. The contract with the State Bar Association has proved very satisfactory to both sides. The membership of the association has grown rapidly during the three years and dues have been paid promptly so that the association now has a large surplus where it formerly had a deficit. The surplus of the *Law Review* was approximately \$1,200 for the year.

One of the outstanding needs of the school is several scholarships available for the students who work on the *Law Review*. These students give from 2 to 5 hours a day during the school year to *Law Review* work. It is excellent training in research but the students are given no credit for it towards a degree. They are at the same time rendering a service to the school and to the state in preparing this matter for the lawyers of the state. Many of them are obliged to carry some outside employment for support during the year. Several scholarships for this purpose, \$150 to \$200, are highly desirable. They would improve scholarship throughout the school, enable the best students to make a better course, and to make greater contribution to the *Review*.

Respectfully submitted,  
EVERETT FRASER, *Dean*

## THE MEDICAL SCHOOL

*To the President of the University:*

SIR: The following report of the Medical School for the year 1925-26 is respectfully submitted:

*Additions to the faculty.*—During the year 1925-26 additions to the faculty have been made by the appointments of Dr. Hilding Berglund as professor of medicine and head of the Department of Medicine; Dr. Samuel E. Sweitzer as associate professor of dermatology and syphilis; Dr. Smiley Blanton as assistant professor of mental diseases; Dr. Clifton A. Boreen as instructor in dermatology and syphilis; Dr. Edith Boyd as instructor in pediatrics; Dr. Charles J. Hutchinson as instructor in nervous and mental diseases; Dr. Joseph T. King as instructor in physiology; Miss Helen C. Peck as instructor in public health nursing; Dr. Alice Rupp as instructor in physiology; Dr. Owen H. Wangensteen as instructor in surgery; Miss Eleanor Zuppann as instructor in public health nursing.

*Promotions.*—The following promotions have been made: from associate professor to professor, Dr. Arthur T. Henrici, Dr. Andrew T. Rasmussen; from assistant professor to associate professor, Dr. Benjamin J. Clawson, Dr. Robert G. Green, Dr. J. Charnley McKinley, and Dr. Henry E. Michelson; from instructor to assistant professor, Dr. Olga Hansen, Dorothy Kurtzman, Dr. Grace Medes, Dr. Joseph C. Michael, Dr. Harry Oerting, Orlena Ordahl, Dr. Thomas A. Peppard, Dr. F. H. K. Schaaf, Dr. Arthur A. Zierold; from assistant to instructor, Dr. Jacob A. Bendes, Dr. Harold Boquist, Dr. W. L. Colby, Dr. David Ellison, Dr. Myron O. Henry, Dr. Max H. Hoffmann, Dr. Erling S. Platou, Dr. Edward A. Regnier, Dr. George H. Ruhberg; from assistant to assistant professor, Dr. Maurice Visscher; from teaching fellow to instructor, Dr. Raymond N. Bieter, Dr. William W. Swanson.

*Resignations.*—Dr. S. Marx White as head of the Department of Medicine; Dr. George M. Olson as assistant professor of dermatology and syphilis; Mae E. Coloton as instructor in nursing; Robert D. Evans as instructor in bacteriology; Dr. Harold L. Goss as instructor in ophthalmology and oto-laryngology; Dr. Robert L. Starkey as instructor in bacteriology; Eleanor Zuppann as instructor in public health nursing.

*National Research Fellow.*—The school was honored by the appointment of Dr. Maurice Visscher as National Research Fellow in physiology. Dr. Visscher spent the year working with Dr. Starling at University College, London.

*Attendance.*—The Medical School has had more students than it could handle to the best advantage. The registrar's report gives the details of registration.

*Amendment to Medical School Organization.*—During the session of 1925-26 an amendment to the Medical School Organization was adopted by the Board of Regents. The effect of this action was to concentrate the

administration of detailed matters in an administrative committee of five members. At the same time the responsibility for educational policies was more widely distributed by adding to the former administrative board (now called executive faculty) all full time professors and associate professors and others in charge of large activities in the school. The plan is working well.

*Department of Medicine.*—An important event of the year was the placing of the Department of Medicine more nearly on a full time basis by the appointment of Dr. Hilding Berglund as head of the department. Dr. Berglund, a graduate of the medical school at Stockholm, came to this country in 1920 and worked with Professor Otto Folin at Harvard. At first he confined himself to problems in physiologic chemistry and later worked into the clinical field, being assistant professor of medicine at Harvard at the time of his appointment to the University of Minnesota. Dr. Berglund took up his duties on November 1, 1925. A new laboratory in the hospital for the study of chemical problems of disease has been fitted up for him, and the department has been otherwise strengthened in equipment and facilities.

Dr. S. Marx White, who resigned as head of this department on November 1, 1925, continues to hold his professorship and give clinical instruction. The school is proud to record the long and able service of Dr. White in numerous capacities and to hope that he will continue to serve for many years.

*Department of Surgery.*—Following the resignation of Dr. A. C. Strachauer as chief of the Department of Surgery, at the close of the session of 1924-25, search was made for a new head of this department on the full time basis. So far no appointment has been made. Dr. Strachauer continued in charge until December 31, 1925. Since that time the department has been in charge of the dean, aided by advice from members of the department. Each surgical clinic and major activity has been placed in charge of one member of the department who is responsible directly to the dean. In accord with this plan Dr. Strachauer is acting chief of the University Hospital clinic, Dr. Zierold is chief of the Minneapolis General Hospital university clinic, Dr. Colvin of the Ancker Hospital university clinic, Dr. Zierold is in charge of the animal surgery laboratory; and Dr. McKinney and Dr. Hayes, respectively, are in charge on alternate days of the out-patient surgical clinic. The lecture courses have been conducted by Dr. Law, Dr. Corbett, and Dr. Wagensteen.

It is the opinion of the dean and his advisers that the department is doing its teaching and clinical work satisfactorily, and that, while the search for a new head should be aggressively continued, there is no necessity for haste in making a decision in this important matter.

*Relation to Institute of Child Welfare.*—The Medical School through its departments of Anatomy and Pediatrics, and with the assistance of individual members of the faculty in other departments has co-operated during the year in the work of the Institute of Child Welfare supported at the University of Minnesota by the Laura Spelman Rockefeller Foundation. This is a promising research and service enterprise.

*New hospital units.*—During the year the Cancer Institute and Todd Memorial additions to the University Hospital were opened. Owing to difficulties in getting nurses and other causes the new additions have not been used to capacity. However, any new hospital fills up only gradually. It is believed that the School of Nursing will be larger and that the whole hospital will be used to full capacity in the fall.

The detailed reports of the School of Nursing and the University Hospital are appended.

Respectfully submitted,  
E. P. LYON, *Dean*

### THE SCHOOL OF NURSING

The following report is submitted by the School of Nursing for the year July 1, 1925, to June 30, 1926:

UNIVERSITY CENTRAL SCHOOL OF NURSING				
	First	Second	Third	Total
	Year	Year	Year	
Students in school June 30, 1925.....	82	57	79	218
Entered September, 1925 .....				138
Entered April, 1926 .....				25
Re-entered July 1, 1925 to July 1, 1926.....				3
Total registration during year July 1, 1925 to June 30, 1926 .....				385
Registrations cancelled .....				47
Students completing courses .....				74
Transferred to Science, Literature, and the Arts for last of five-year course.....				6
Total deductions .....				127
Present total June 30, 1926.....	135	65	58	258
AFFILIATING STUDENTS (FROM OTHER SCHOOLS)				
Students in school June 30, 1925.....				100
New students, July 1, 1925 to July 1, 1926.....				86
Total registration .....				186
Students finishing course .....			102	
Students cancelling .....			4	
Total deductions .....				106
Present total, June 30, 1926.....				80
FIVE-YEAR COURSE IN ARTS AND NURSING				
In College of Science, Literature, and the Arts.....				32
In School of Nursing.....				22
Total registration in course, June 30, 1926.....				54
Students graduated since June 15, 1925.....				5
Arts and Nursing students registered in College of Science, Literature, and the Arts or Education.....				32
University Central School of Nursing				
Regular students (including 22 students of Arts and Nursing)...				258
Affiliating students .....				80
Total registration June 30, 1926.....				370

During the past year a change of organization of the Medical School was effected which involved certain modifications in the administration of the School of Nursing, viz:—

A. The Executive Faculty is the body in charge of all educational questions which the Board of Regents delegates to faculties in the University. This body takes the place of the Administrative Board. The director of the School of Nursing is a member of the Executive Faculty.

B. The following committees in the Nursing School are provided for:

1. Administrative Committee (corresponding to a similar committee for medical studies) responsible to the dean and Executive Faculty for the administration of educational matters and the general conduct of the Nursing School.

2. A Students' Work Committee (corresponding to a similar committee for medical students). This is the same as the previously so-called "Minor Committee."

3. An Advisory Committee constituted in accordance with the agreement between the University and the allied hospitals. This is the same as the previously called "Major Committee."

The following have been appointed members of these committees for the period from this date to June 30, 1927. The dean is *ex officio* member of all committees.

#### ADMINISTRATIVE COMMITTEE

Marion L. Vannier, <i>chairman</i>	Miss Eula B. Butzerin
Dr. Esther M. Greisheimer	Dr. R. O. Beard, <i>secretary</i>
Mrs. Dorothy Kurtzman	

#### STUDENTS' WORK COMMITTEE

Marion L. Vannier, <i>chairman</i>	Miss Bessie Baker
Mrs. Dorothy Kurtzman	Miss Orlena Ordahl
Miss Katherine E. Dougherty	Dr. R. O. Beard, <i>secretary</i>

#### ADVISORY COMMITTEE

The Administrative Committee	Dr. Walter E. List
The Students' Work Committee	Dr. Donald C. Smelzer
Dr. L. B. Baldwin	Mr. H. B. Smith

The School of Nursing is progressing satisfactorily under the new arrangement.

There has been an increase in registration during the past year in both the three and five year courses, as shown by the above statistical report. There is a growing demand for women prepared for teaching and health supervision in colleges and secondary schools. College presidents are offering very attractive salaries to women qualified to become members of the faculty, prepared to teach personal hygiene, animal biology, or other allied subjects and in addition to act as resident nurse and have supervision of the health of students. The five-year course in Arts and Nursing and in Nursing and Education was revised during the year so that the first two years are now acceptable to the deans and faculties of both colleges. This is of great assistance in advising students and arranging programs. Copies of this curriculum have been sent to all the colleges in Minnesota and adjoining states.

The school has just been investigated by Miss Mary Beard of the Rockefeller Foundation. Her visit is too recent to have any formal report to offer but she expressed herself as being pleased with the soundness of the organization and the type of work being done.

Respectfully submitted,  
MARION L. VANNIER, *Director*

UNIVERSITY HOSPITALS  
(Statistical)

IN-PATIENT DEPARTMENT SUMMARIES

Patients in hospital at the beginning of the year	1924-25	1925 26
Pay patients (including oto-laryngology).....	22	22
Free patients .....	28	22
General Hospital (county) patients.....	104	100
Totals .....	154	144
Patients admitted during the year		
Private pay patients.....	0	15
Pay patients (including oto-laryngology).....	974	1,150
Free patients .....	739	595
General Hospital (county) patients.....	1,243	1,750
Totals .....	2,956	3,510
Patients treated during the year		
Private pay patients .....	0	15
Pay patients (including oto-laryngology).....	996	1,172
Free patients .....	767	617
General Hospital (county) patients.....	1,347	1,850
Totals .....	3,110	3,654
Total days hospital care		
Private pay patients .....	0	138
Pay patients (including oto-laryngology).....	7,186	9,564
Free patients .....	10,721	7,123
General Hospital (county) patients.....	39,636	49,288
Totals .....	57,543	66,113
Average days per patient		
Private pay patients .....	0	9.20
Pay patients (including oto-laryngology).....	7.21	8.16
Free patients .....	13.97	11.38
General Hospital (county) patients.....	29.42	26.64
Grand average .....	18.50	18.09
Highest daily census .....	179	227
Daily average number of patients		
Private pay patients .....	0	.38
Pay patients (including oto-laryngology).....	19.7	26.20
Free patients .....	29.4	19.51
General Hospital (county) patients.....	108.6	135.04
Totals .....	157.7	181.13

OUT-PATIENT DEPARTMENT SUMMARIES

New patients treated	1924-25	1925-26
Day clinics .....	15,997	13,704
Night clinics .....	237	218
Totals .....	15,334	13,922
Total patients' visits made		
Day clinics .....	55,392	59,583
Night clinics .....	7,371	8,326
Totals .....	62,763	67,909
Average visits per day		
Day clinics (306 days).....	235	242
Night clinics (102 nights).....	76	85
Total average per day (including day and night clinics) .....	259	270
Drug prescriptions filled—total.....	24,529	22,596
Optical prescriptions		
Gratis (allowed by option).....	15	19
Paid .....	728	528
Totals .....	743	547
X-ray requests		
Gratis .....	289	196
Paid .....	1,952	2,364
Totals .....	2,241	2,560
Operations—nose and throat department		
Gratis .....	5	3
Paid .....	524	424
Totals .....	529	427

(Financial)

IN-PATIENT DEPARTMENT

Income (actual and accrued)	1924-25	1925-26
Pay patients (actual)		
Hospital care .....	\$19,406.21	\$26,867.31
X-ray service .....	392.00	824.80
Radium service .....		100.00
Operating room service .....	1,627.50	2,537.25
Students' Health Service (actual)		
X-ray service .....	1,291.80	1,203.55
Hospital care .....		1,154.10
Miscellaneous receipts (actual)	1,291.80	2,357.65
Total actual receipts.....	\$22,773.46	\$33,492.57
General Hospital patients (county) (accrued)		
Hospital care .....	121,301.50	151,174.00
X-ray service .....	6,908.50	6,327.30
Radium service .....		160.00
Operating room service .....	3,652.70	9,578.10
Miscellaneous service (drugs) .....	426.65	408.80
Totals .....	132,289.35	167,648.20
Total income actual and accrued .....	\$155,062.81	\$201,144.77

*Costs of operation*

Total cost of operation (In- and Out-Patient Departments)...	\$230,234.12	\$264,169.04
Less: Out-Patient Department	24,366.54	28,827.14
Social Service Dept...	11,411.64	10,058.24
Capital expense items..	18,850.30	15,194.19
Salaries chargeable to non-hospital depts..	1,200.00	1,800.00
	<u>55,828.48</u>	<u>55,879.57</u>
Cost of In-Patient Department .....	\$174,405.64	\$208,289.47
Plus: Salaries charged to Out-Patient department but belonging to hospital (pharmacy) .....	1,050.00	1,050.00
Net cost of operation of hospital..	175,455.64	209,339.47
Clinical salaries as per budget—chargeable to In-Patient Department of hospital .....		13,500.00
Total In-Patient Department .....	<u>\$175,455.64</u>	<u>\$222,839.47</u>
Daily average cost per patient (exclusive of equipment replaced).....	\$2.94	\$3.16
Daily average cost per patient (inclusive of equipment replaced).....	3.15	3.26
Daily average cost per patient (including equipment-replaced and clinical salaries as per budget).....	....	3.36
Daily cost per capita for provisions for all persons supported.....	.374	.417

## DEPARTMENTAL ANALYSIS—PER CAPITA COSTS

	Per Cent	Per Capita	Per Cent	Per Capita
Administration .....	8.56	\$ .2697	8.55	\$ .2789
Professional care of patients.....	20.08	.6323	23.90	.7791
X-ray Department .....	4.60	.1451	4.92	.1602
Laboratory .....	4.32	.1361	3.64	.1189
Dietetic Department (1925-26 includes waitresses, accounts for increase)..	2.08	.0657	3.50	.1143
Housekeeping (1925-26 excludes waitresses, accounts for decrease).....	12.54	.3952	9.50	.3099
Kitchen .....	2.00	.0631	1.78	.0578
Laundry .....	3.72	.1168	3.24	.1056
Commissary .....	23.19	.7306	24.53	.7997
General house expense (increase on heating budget 1925-26) .....	12.82	.4035	13.01	.4238
Cancer Institute—physicist .....	....	....	.36	.0118
Reserve for depreciation of equipment—(capital, expense to cover replacement of equipment depreciated through use) .....	6.09	.1919	3.07	.1000
Totals .....	100	\$3.15	100	\$3.26

*Application:* Laboratory service costs .1189 per patient per day or equals 3.64 per cent of the total average cost per patient per day.

OUT-PATIENT DEPARTMENT

	1924-25	1925-26		
Daily average cost per patient's visit, exclusive of Social Service Department cost and Eye, Ear, Nose, and Throat Department income (net) (no clinical salaries) .....		\$.005	\$.04	\$.039
Daily average cost per patient's visit, exclusive of Social Service Department cost but deducting income from Nose and Throat Department (net) (no clinical salaries) balance	\$704.61		988.22	
Daily average cost per patient's visit (net) including cost of Social Service Department but not including income from Nose and Throat Department .....		.125		.161
Daily average cost per patient's visit (gross) (no income considered), exclusive of Social Service Department but not including equipment, replacements or costs (no clinical salaries) .....		.290		.316
Daily average cost per patient's visit (gross) same as above but including clinical salaries as per budget....		...		.499
Daily average cost per patient's visit (net) same as above but including income from Nose and Throat Department .....		.062		.1098

MEMORANDUM

Income (Out-Patient Department) (Actual)			
Registrations and prescriptions..	\$19,301.45		\$19,124.90
X-ray Department .....	3,119.00		3,743.00
*Nose and Throat Department....	5,240.00		4,240.00
	<u>\$27,660.45</u>		<u>\$27,107.90</u>
Costs of operation—payroll and supplies .....			
	\$24,366.54		\$27,669.68
Less: Payroll chargeable to other departments (500 to College of Pharmacy and 1,050 to hospital)	1,550.00		1,550.00
	<u>22,816.54</u>		<u>26,119.68</u>
Clinical salaries, as per budget.....			15,127.00
		<u>\$22,816.54</u>	<u>\$41,246.68</u>
Social Service Department cost (no income) .....		\$9,458.91	\$10,058.24

\* This department transferred to the hospital May 1, 1926.

## SOCIAL SERVICE DEPARTMENT SUMMARY

*Field of service.*—Clinics served this year have remained the same as last year, no expansion being possible with the present staff. These clinics include the diabetic, dermatology and syphilis, and obstetric and gynecology on an all-year basis. During part of the year it has been possible to assign a worker to pediatrics clinic and also to do some work for the men's genito-urinary clinic. The latter work served as a study of the clinic and possibilities of better control of gonorrheal cases which from a public health viewpoint is essential. A considerable number of cases from chest clinic have been followed and cases have been referred from every clinic in the dispensary and from the hospital. The total of these referred cases of various types is somewhat larger than that of the group of one average sized clinic.

*Students* have been registered for theoretical or practical work as follows:

Home Economics (Dietetics) .....	15
Preventive Medicine (Public Health Nurses).....	9
College of Education (Occupational Therapy).....	11
<b>Total</b> .....	<b>35</b>

The *courses* which were offered this year included Principles and Practice of Hospital Social Service, Special Field Work in Medical Social Work, Occupational Therapy and Hospitals and Hospital Economics. There were registrations for each course offered.

The increased teaching, the changes in personnel, greater emphasis on instruction of patients, and increased responsibility in administrative functions has decreased the total home work. We believe, however, that the quality of the output has been improved by more intensive work.

*Statistical*

Number of individual families with whom we worked.....	604
Number of additional instances of patients assisted without home visiting..	4,516
Number visits made .....	1,397
Number reports given to agencies .....	3,374
Number agencies co-operated with .....	344
Number of instances of such co-operation.....	4,929
Number of interviews with patients .....	4,582
Number of letters sent .....	5,216
Number pieces of literature distributed .....	3,756

*Co-operation.*—We have again been assisted by Miss Jessie McMahon of the Home Economics Division, who by virtue of the supervision of dietetic students and assistance to the social worker in diabetic clinic really becomes one of our staff. Her contribution has been greatly appreciated as personally and professionally she has commanded our high regard.

Our work has been greatly facilitated by the cordial co-operation of our medical and nursing staff and by the agencies outside the University with whom we have worked.

## SUMMARY

The past year marked an epoch in the expansion program of the Medical School and the University Hospitals in the opening of the Todd Memorial Hospital and the Cancer Institute. These additions to the Elliot Memorial Hospital, bring the total bed capacity of the combined institutions to 300 beds.

The foregoing statistical and financial reports set forth the activities of these various hospitals to June 30, 1926.

Attention is called to the increase in patients treated during the year altho the new hospitals have been opened only a relatively short period of time. The effects of a continued effort to develop the pay service and the application of the provisions of the Minnesota General Hospital Act is evidenced by a marked increase in the daily average number of these patients and a decrease in the so-called free cases. A decrease in the average days per patient in the hospital is also to be noted.

There continues to be a decrease in the new registrations in the Out-Patient Department due to careful determination of eligibility of prospective patients. Old patients returning show an increase, however, which has effected the average visits per day to a small degree on the plus side.

The report of the Social Service Department's activities is very complete and does not need any commendation here.

The income of the In-Patient Department and Out-Patient Department of the hospitals as well as their costs of operation is shown in detail. There is a marked increase in income through the pay service and county-state service. Income, actual and accrued, of the hospital proper, is almost equal to the total cost of operation.

The average daily cost per patient increased slightly due somewhat to higher food costs and also to the employment of additional staff necessitated by the opening of the two new hospitals, which is not immediately offset by an increase in the average number of patients per day, and which is demonstrated in the departmental analysis schedule above.

The gross average cost per patient's visit in the Out-Patient Department shows a slight gain but total receipts from all sources in this department exceed total cost of operation exclusive of clinical salaries.

Respectfully submitted,

L. B. BALDWIN, *Superintendent*

## THE COLLEGE OF DENTISTRY

*To the President of the University:*

SIR: I beg to submit herewith my report for the year 1925-26.

1. Minnesota has made a marked advance pedagogically the last year. The former Dental Faculties Association of American Universities (1908-24) at a special meeting in January, 1920, recommended that university dental schools require two years of pre-professional work in 1926. This was done in order to place the profession of dentistry on a level, as to pre-professional preparation, with medicine, of which dentistry is logically a branch. In the earlier years of this association it had urged, with other bodies and farsighted individuals, a survey of dental education, with a job analysis of dentistry, upon the Carnegie Foundation for the Advancement of Teaching. For the last five years this has been going on. In the nineteenth annual report of the president and treasurer of the foundation, definitive conclusions and recommendations were made public. The recommendations bearing on dental education were as follows:

a. Requirement of at least two years of suitable pre-professional work in an academic college, including several courses that would stimulate interest and develop ability in, or reveal inaptitudes for, the prospective practice of dentistry.

b. Reorganization of the undergraduate curriculum in dentistry into three academic years instead of four, each lengthened, if necessary, to make that curriculum particularly effective for intensive and adapted training in the medical sciences, dental technology, clinical dentistry, and oral medicine, in preparation for the safe initiation, by the graduate, of competent *general* practice of dentistry. In this curriculum, the courses should be equal in quality to, and as far as possible interchangeable with, those in the corresponding subjects in the undergraduate curriculum in medicine; the degree of B.S. to be awarded at the end of the second dental year, or B.A. to students who completed three years of work in an academic college before admission; and the professional degree, on graduation, to be that required for admission to the license examinations, which at present is D.D.S. or D.M.D.

c. Addition of *elective*, full-year, graduate curricula, based on the three-year undergraduate curriculum and conducted on a high plane of scholastic quality, for the systematic and intensive training of all types of dental specialists, teachers, and investigators, with award of commensurate degrees, including M.A. or M.S. after at least one year of successful advanced work; and Ph.D. after at least two more years of such study and attainment in research.

d. Establishment of combined dental and medical curricula, with suitable dispensary and hospital facilities, for united medical and dental training of specialists in oral surgery, public health service, medico-dental research, and other fields on the border lines between dentistry and medicine, with award of academic and professional degrees in accord with the types of study concluded and the achievement therein.

e. Provision of extension courses for practitioners, and curricula for the proper training of oral hygienists and dental technicians.

f. Active promotion of research, now almost non-existent in the schools of dentistry.

g. Development of adequate library facilities, now conspicuously absent from most dental schools.

h. Discontinuance of all independent dental schools or their conversion into schools for dental assistants, unless they should be sufficiently endowed, suitably affiliated, and properly equipped to promote satisfactorily the teaching of modern dentistry, which cannot now be claimed for them.

i. Creation of additional dental schools in close affiliation with or as departments of schools of medicine in universities.<sup>1</sup>

<sup>1</sup> The Status of Dental Education. The Carnegie Foundation for the Advancement of Teaching. *Nineteenth Annual Report of the President and of the Treasurer, 1924.*

In conformance with recommendations a, b, and c, the Board of Regents has recently voted to establish at Minnesota the 2-3 graduate curriculum, as the first step toward a possible ultimate placing of dentistry on a par with recognized specialties in medicine. It was brought out in various public discussions of the recommended plan that this action by the foundation might vitally affect the reorganization of medical education, now also in a state of flux, and that the future trend of dental education will depend somewhat on how expeditiously various adjustments are made in the medical curriculum. It was felt that the present step, which places the two professions on the same *preliminary* basis, without lengthening the course, was the obvious first step. A number of other university schools have adopted the plan.

2. The attendance is about the same as last year.

3. *Resignations.*—Assistant Professor Houghton Holliday resigned in the fall to accept a joint position with the Methodist Hospital of Peking, China, and Peking Union Medical College. Dr. Walter V. McGilvra, an instructor in gas anesthesia, resigned January 1, 1926.

4. *Extension work* in co-operation with local societies is becoming more and more popular. Requests for such work are coming from groups outside the state. It is planned to look out for the extension phase of the work with larger courses in the various phases of dentistry.

Respectfully submitted,

ALFRED OWRE, *Dean*

# THE SCHOOL OF MINES

To the President of the University:

SIR: I herewith submit my report for the University year 1925-26.

## SCHOOL OF MINES EXPERIMENT STATION

The work of the School of Mines Experiment Station was divided into two distinct lines; State Service Work, and Research and Experimental Work. During the year 1925-26 research and experimental work received considerable more attention than it has in the past, due to the fact that special appropriations were made by the last legislature. A technical staff was organized to carry on the work as required by these appropriations.

### STATE SERVICE WORK

*Personnel.*—No changes were made in last year's personnel.

*Newly acquired equipment.*—No special equipment fund was available during the year 1925-26. All expenditures for supplies and equipment were made out of the regular budget. Among the important items purchased were pressure blowers, motors, and other necessary electrical equipment. Firebrick and other refractories were purchased for furnace linings and repairs.

An exhibition cabinet for samples and a magazine cupboard were built for use in the offices. One magnetic separator and one roasting furnace were constructed.

*Activities.*—Due to the economic conditions confronting the iron ore operators during the past year, a smaller number of tests than in 1924-25 were made along the lines of beneficiation. The staff including mechanics not only worked on state service work but did considerable construction work in connection with research activities. The following tests were made on ores submitted by citizens of the state:

	No.	Gross Weight
a. Large scale tests ( $\frac{1}{2}$ ton or more).....	14	150 tons
b. Small scale tests (less than $\frac{1}{2}$ ton).....	16	500 lbs.
c. Samples submitted for assay and examination.....	387	
d. Samples referred to other departments ....	6	

*Assays.*—Total number of assays made in connection with all work done at the Mines Experiment Station during the year was 9,427.

*Publications.*—*Bulletin No. 10.* Ball Mill Crushing in Closed Circuit with Screens. August 27, 1925.

*Mining Directory of Minnesota for 1926.* May 1, 1926.

### RESEARCH AND EXPERIMENTAL WORK

*Appropriations.*—The sum of \$30,000 was appropriated by the legislature on two special budgets, as follows:

Direct process—beneficiation <sup>o</sup> of low grade ores.....	\$15,000
Beneficiation of manganiferous ores.....	15,000

The expenditures on these two budgets included salaries, equipment, materials, and supplies.

*Personnel.*—The main personnel was as follows: John J. Craig, assistant metallurgist (in charge); Edward P. Barrett, metallurgical engineer; Carl L. Wallfred, chemical engineer; Charles V. Firth, chemical engineer; Alexander Simonet, metallurgical engineer (working under the direction of the United States Bureau of Mines).

*Activities.*—The work of the year consisted in studying the available literature on metallization work carried on in the past; the purchase of new equipment; building various metallurgical furnaces and other equipment; conducting various tests along the lines of reduction of iron ores, sponge iron, briquetting, heat penetration; making of metal from sponge iron, insulating materials, high temperature alloys, retort walls, etc.

*Equipment purchased.*—A considerable number of special machines and equipment have been acquired, such as coal pulverizers and burners, pyrometers, ladles, a Bessemer converter, iron foundry cupola, etc.

There were constructed fourteen various types of furnaces. Two of these furnaces were each rebuilt four times, making a total of twenty-two furnaces. This is exclusive of auxiliary equipment built in connection with the furnaces and their alterations.

*Tests.*—The tests conducted covered a wide range, varying from tests of less than an hour in duration to tests running continuously for three days. They may be summarized as follows:

Tests approximately 1 hour or less in duration.....	310
Tests approximately 1 to 4 hours in duration.....	84
Tests approximately 4 to 8 hours in duration.....	105
Tests approximately 8 to 24 hours in duration.....	18
Tests approximately 48 hours in duration.....	5
Tests approximately 72 hours in duration.....	2
Density and volume determinations.....	75

Total ..... 599

*Assays.*—The total number of assays made in connection with the research and experimental work amounted to 3,180.

#### UNITED STATES BUREAU OF MINES

The co-operative agreement between the United States Bureau of Mines and the Mines Experiment Station of the University continued during the year. The major problems of the federal station were, (1) the utilization of manganiferous iron ores, (2) experimental blast furnace, and (3) reduction of ferrous oxides. The interest shown by the United States government and particularly the War Department in the supply of high grade manganese alloys and their bearing on the steel industry and our Cuyuna Range ores is well presented in the report received by me from Mr. T. L. Joseph, superintendent of the North Central Station of the United States Bureau of Mines, Department of Commerce, which follows:

(1) *Utilization of manganiferous iron ores.*—Manganese is of vital importance to the steel industry because of its extensive use to deoxidize, recarburize, and to add

appropriate quantities of manganese to the steel. From 1920 to 1924, inclusive, the average annual consumption of manganese alloyed as ferromanganese was 208,170 tons.<sup>1</sup> During this same period the average annual consumption of manganese alloyed as spiegeleisen was 19,704 tons. Approximately 87 per cent of the total manganese used in the manufacture of steel during this period was used in the form of ferromanganese. The relative importance of the two alloys can be seen from the foregoing figures.

Although domestic reserves of ore containing from 5 to 35% manganese are fairly adequate, the reserves of ore containing more than 35% manganese suitable for the production of ferro-manganese, are totally inadequate. It has been reported<sup>2</sup> by the Mining and Metallurgical Society of America Sub-committee on Manganese that the reasonable probable reserves of ferro-grade ores is 1,400,000 tons. Taking an average manganese content of 41.3%, this amount of ore will contain 578,000 tons of metallic manganese of which about 433,000 tons will be recovered, assuming melting loss of 25%. As previously pointed out, the average annual consumption of manganese as ferro, from 1920 to 1924, was 208,170 tons. If the Committee's estimate is correct, the domestic reserves of ferro ores would meet the requirements of the steel industry for about two years.

As previously pointed out, the reserves of special and high manganese pig ores are far more adequate, the total estimated tonnage of 5 to 35% ores being from 35 to 48 million tons. These ores contain between 2 and 3 million tons of metallic manganese for spiegel production and roughly the same amount for the production of high manganese-pig iron. From 26 to 35 million tons, out of the total of 35 to 48 million tons, occur in Minnesota. On the basis of tons of manganese for spiegel purposes, Minnesota deposits represent from 935,000 to 1,360,000 tons out of a total for the entire country of 2,114,290 to 3,064,700 tons. In the case of manganese for high manganese-pig iron, Minnesota has 2,050,000 to 2,700,000 out of a total of 2,147,500 to 2,858,750 tons. This information<sup>3</sup> may be summarized as follows:

	Tons ; to 35% ore	Tons Mn for spiegel	Tons Mn for high Mn pig iron
Minnesota	26,000,000 to 35,000,000	935,000 to 1,360,000	2,050,000 to 2,700,000
Total	35,208,000 to 48,116,000	2,114,290 to 3,064,700	2,147,500 to 2,858,750

It is admitted that there may be great discrepancies in such estimates. In this connection it is interesting to note the following taken from the report.

"In brief, the story of manganese clearly demonstrates that under natural conditions the United States has practically no commercial high-grade manganese ores; and our inquiry need go no further in this direction. There remains to be considered, however, how highly artificial conditions need to be in order to shift important quantities of manganese-bearing material across the border-line from waste to ore.

"This has been the subject of very careful and thorough inquiry by your Committee. It will be unnecessary here to go into the multitudinous details which underlie the results which have been reached. Suffice it to say that 1850 manganese deposits, alleged deposits, and prospects have been carefully reviewed, fresh information has been gathered and important camps have been visited; exhaustive studies have been made of past performance, with tabulations of geological features and associations in their relation to production; war records of production and costs and war claims for losses have been examined and tabulated in their bearing on the price necessary to bring out important quantities. In short, every available source of information has been made to contribute its quota, and your Committee feels justified in claiming due consideration for the results which will here be set forth in summarized form only."

Granting that there may be errors in estimates based on the best information available, the importance of Minnesota deposits is recognized at once.

<sup>1</sup> Figures taken from Manganese and Manganiferous Ores. *Mineral Resources of the United States*, 1924, Part I, pp. 89-103.

<sup>2</sup> Report of Mining and Metallurgical Society of America Sub-committee on Manganese. *Bulletin* 168, p. 75.

<sup>3</sup> *Loc. cit.*

## CHARACTER OF MINNESOTA DEPOSITS

In general there are two types of ore on the Cuyuna Range, the so-called black and brown ores. The former are low in silica but high in phosphorus, while the latter are high in phosphorous but relatively low in silica. Approximately  $\frac{7}{8}$  of the total deposits are made up of the brown ores. In view of this fact the program undertaken by the Bureau of Mines, in co-operation with the Minnesota School of Mines Experiment Station, centered around the treatment of brown high-phosphorus ores.

It was reported last year that a test had been made with an experimental blast furnace in which 134 tons of metal were produced from these ores. The ore used may be represented by the following analyses:

Moisture .....	17.00%
Ignition loss .....	10.00
Fe <sub>2</sub> O <sub>3</sub> .....	48.5 (Fe 34)
Mn <sub>2</sub> O <sub>3</sub> +MnO <sub>2</sub> .....	12.10 (Mn 8)
SiO <sub>2</sub> .....	6.6
Al <sub>2</sub> O <sub>3</sub> .....	5.8
Metal produced had the following composition:	
Mn .....	12.0%
Fe .....	82.0
P .....	0.6
Si .....	0.6
C .....	4.5

Metal of this composition is neither fish, fowl, nor beast, and was produced for further treatment.

The work for the past year has been devoted to ways and means of treating metal of the composition given above with two objectives in mind; one, to recover the iron in the ore as steel; and the other, to recover the manganese in some form which would make it suitable for the production of ferromanganese. Considerable time was spent in the design of apparatus, which has been purchased by the Minnesota School of Mines Experiment Station. Small scale tests have been made as a guide to experiments with larger equipment. Progress to date has been favorable. The experiments may be divided into two general classes; (1) those based on selective oxidation and (2) those based on selective reduction. Differential oxidation of manganese, as compared to iron, will be taken advantage of in the proposed treatment of the metal available from the blast furnace test.

(2) *Experimental blast furnace.*—The experimental blast furnace was developed to try out new raw materials, and to obtain fundamental information on iron melting. It is equipped with holes at various levels to study the reactions occurring in the interior of the furnace. Interesting data have been obtained on the relation between stock descent and localized combustion at the tuyeres. Lines of investigation which look promising on the experimental furnace are extended to commercial plants and the data obtained there are correlated with the information obtained from the experimental furnace.

During the year the experimental furnace was operated under a co-operative agreement between the U. S. Bureau of Mines, the Minnesota School of Mines Experiment station and the Aluminum Company of America. The test was financed by the Aluminum Company but the results will be made available to the public one year from the date of the experiment. Results satisfactory to the Aluminum Company were obtained. One of the original purposes of developing an experimental furnace was to try out new raw materials and modified methods of operation. Inasmuch as the test made last March is the first one conducted at the solicitation of an outside party, it establishes the experimental furnace as a serviceable piece of equipment in the field of industrial research.

A bulletin on the experimental blast furnace test, conducted last year, is about thirty per cent completed.

(3) *Reduction of ferrous oxides.*—The Bureau's work on the blast furnace may be divided as follows: (1) tests with experimental blast furnace, (2) laboratory studies of related problems, and (3) investigations at commercial furnaces. This problem comes under the second classification.

Although the equilibrium conditions have been fairly well worked out, very little is known about rates of iron ore reduction. Inasmuch as equilibrium conditions are never attained in the blast furnace, rates will have a more direct application. In the past considerable work has been done on direct processes. The lack of fundamental data on reaction rates has no doubt been an important factor in limiting the results of investigations in this field. The object of obtaining this fundamental data is to improve present processes and also to guide the development of direct processes.

Work on this problem to date has consisted in passing measured quantities of gases through vertical columns of iron ore particles of various sizes, held at known temperatures. More data is necessary to draw conclusions upon the relation between overall rate of reduction and such factors as follows; composition of gas, temperatures of gas and solid, size and structure of ore particle, velocity and pressure of gas, uniformity of particle size, effect of spacers when using fine ore, (coke performs this function in the blast furnace).

Personnel. The activities of the station were under the direction of T. L. Joseph, metallurgist and superintendent. Other members of the station staff were as follows: P. H. Royster, associate metallurgist; F. A. Hartgen, senior aid; W. F. Holbrook, assistant chemist; Carl E. Wood, assistant chemist; S. Olson, principal clerk; P. A. Johnson and J. A. T. Addison, skilled laborers. At intervals when special furnace tests were made it was necessary to employ approximately twenty-five laborers in addition to those regularly employed.

## MINNESOTA TAX COMMISSION

*Object.*—The School of Mines still continues its service to the State Tax Commission. The ore estimates, as checked and submitted, are used as a basis for the valuation of mineral properties in the state of Minnesota.

*Services.*—Owing to the fact that our report to the Tax Commission is made biennially, and as the statement for the biennial period 1925-26 is not due until September 1, 1926, no detailed account will appear herewith.

*Personnel.*—Mr. E. M. Lambert, assisted by Mr. A. J. Carlson, continues in charge of the work. The hearty co-operation of the officials of the various mining companies is evidence of the cordial relations existing. Many expressions of appreciation of this branch of service to the state come to us, both from the Tax Commission and the mining companies, and are a source of considerable gratification.

## EDUCATION

*Registration.*—The total registration during the year was 76, distributed as follows:

Seniors .....	15
Juniors .....	20
Sophomores .....	20
Freshmen .....	21
	—
Total .....	76

*Geographical distribution of students.*—The above students were registered from Minnesota counties as follows:

Becker .....	1	Hennepin .....	32
Bigstone .....	1	Itasca .....	1
Blue Earth .....	1	McLeod .....	1
Cass .....	1	Martin .....	1
Chippewa .....	1	Ramsey .....	7
Clearwater .....	1	Renville .....	1
Crow Wing .....	1	St. Louis .....	2
Dakota .....	1	Swift .....	1
Fillmore .....	1	Washington .....	3
Freeborn .....	1	Winona .....	1
Goodhue .....	1	Yellow Medicine .....	1

Students registered from outside the state as follows:

California .....	1	Ohio .....	1
Saskatchewan, Canada .....	1	Pennsylvania .....	2
India .....	1	Philippine Islands .....	1
Indiana .....	1	South Dakota .....	2
Missouri .....	2	Tennessee .....	1
		Wisconsin .....	1

*Withdrawals.*—During the year, 11 students withdrew. These students were distributed by classes as follows:

Seniors .....	1
Juniors .....	2
Sophomores .....	2
Freshmen .....	6

The reasons for these withdrawals were as follows:

Financial .....	2
Scholastic deficiency .....	4
Sickness .....	3
Transferred to other colleges .....	1
Received degrees in December .....	1

*Faculty.*—There have been no changes in the faculty during the past year. Two members of the staff have received tempting offers elsewhere, but, tho the change would have been financially to their advantage, loyalty to the institution and the opportunities offered here in their chosen field served to keep them with us.

The work of Mr. Carlson, who was on sabbatical leave for the first half year, was assumed by various members of the faculty, thus increasing materially their teaching load at a considerable sacrifice of time and energy.

*Curriculum.*—No changes were made in the curricula of the courses leading to either of the three degrees offered by the school.

*Attendance.*—In common with most of the other mining schools of the country, there was no increase in attendance over that of the previous year. Tho our graduates seem to have no difficulty in securing good positions, there does not seem to be sufficient activity in the mining industry to serve as an inducement for many young men to enter this field.

Respectfully submitted,

W. R. APPLEBY, *Dean*

## THE COLLEGE OF PHARMACY

*To the President of the University:*

SIR: I beg leave herewith to submit the College of Pharmacy report for the year 1925-26.

*Graduation.*—The college completed its thirty-fourth year on June 14, 1926, which was also the date of the thirty-third commencement of the college. A total of twenty-one students graduated, two of them took two degrees so that twenty-three diplomas were awarded. The names and respective degrees of the graduates are as follows:

### BACHELOR OF SCIENCE IN PHARMACY (B.S. in Pharm.)

Agnes Oss	Roy S. Popkin
Samuel R. Stephens	

### PHARMACEUTICAL CHEMISTS (Phm.C.)

Mercedes V. Anderson	Lois A. Martin
Kenneth J. Burke	George Munck
George B. Carroll	Agnes Oss
Philip David Clark	Benjamin Ransom
LaFayette Fields	Louis Rosenthal
Ben Genuth	Leslie Sains
James Keaveny	Samuel Stephens
Michael Keprios	Lloyd Thomes
Harold Landeen	Marvin Thompson
Rose J. Lovallo	Joseph Urdahl

*Registration.*—The registration reached a total of 148. The faculty gave instruction to an additional 111 medical students. During the year 17 students withdrew from the college for reasons which have been reported to the registrar and are on record in his office.

The names and the respective degrees of graduates who completed graduation requirements during the year are as follows:

Name	Degree	Date
Glenn E. Bohall,	Pharmaceutical chemist	July 30, 1925
Emmett Haskin	Pharmaceutical chemist	December 17, 1925
Rose Caroline Karroll	Pharmaceutical chemist	September 5, 1925
Rose Caroline Karroll	B.S. in Pharmacy	September 5, 1925
Robert Kemp	Pharmaceutical chemist	December 17, 1925

A total therefore of twenty-eight degrees in pharmacy was conferred during the year.

*Geographical sources of the freshmen.*—Compilation may be had from my office.

*Scholarship prizes.*—The third Lehn & Fink gold medal for the highest general standing at the end of the four-year course, was awarded to Miss Agnes Oss, of Lidgerwood, North Dakota.

Mr. Harry Brown, of Browns Valley, Minnesota, won the Minnesota State Pharmaceutical Association annual scholarship prize of \$105 for the

payment of next year's tuition. The prize is awarded annually for the highest general average in all subjects of the first and second years.

*Changes in curriculum.*—No formal or important changes were made during the year.

*Special lecturers.*—The college was more fortunate this year than last in the securing of special lecturers. The outstanding special lecturer of the year was Dr. H. V. Arny, professor of pharmaceutical chemistry, of Columbia University. Among the other special lecturers were Messrs. C. Reinold Noyes, Sewall D. Andrews, H. C. Kruckeberg, Charles H. Huhn, A. J. Kline, Dr. E. H. Ehler, Mrs. Josie Wanous Stuart, and the Misses Frances Greenwalt and Elizabeth Malerich.

*Changes in staff.*—Dr. E. L. Newcomb was granted leave of absence without pay from January 1, 1926 to July 1, 1926 and again from July 1, 1926 to January 1, 1927. This necessitated changes in the Department of Pharmacognosy and Mr. Earl B. Fischer was given temporary charge of the department with Mr. Charles E. Smythe as assistant with increased duties and Mr. Hubert Kroning as full time assistant. Mr. Ragnar Almin, who had been assisting in the college as successor to Instructor William Zwirn, who resigned last fall, was appointed on January 1, 1926, to the rank of instructor in pharmacy. Mr. Fred Sackett was appointed instructor in pharmacy January 1, 1926.

The following named students gave assistance during the year as student helpers, having been appointed last fall or later: Miss Margaret Mark, Messrs. Wilfred Bernston, Melvin Gustafson, and Irvin Brusletten.

*Pharmaceutical research.*—Somewhat more than the usual amount of research was carried on by the faculty and by graduate student Netz. Details concerning this work may be obtained from my office.

*Instruction.*—The faculty did not encounter the same instructional difficulties as last year because the enrolment had receded from last year's high peak. The instructional work of the college is fairly well standardized but is improved from year to year. No notable changes in the number or content of subcourses were made and the instructional program was carried out as usual with such improvement as the progress of the times demand.

*Building and equipment needs.*—The need of larger quarters and more equipment still exists but because it appears these needs cannot be met at this time, the college is doing the very best it can under the circumstances.

*The State Pharmaceutical Association.*—The cordial relations between the association and the college continued. The announcement that the regents have placed the College of Pharmacy upon a minimum four-year degree course basis, as requested by the faculty and the association, was hailed with great delight by the association officers and by the pharmacists of Minnesota and was regarded as a recognition by the University of the association's claim that pharmacists are medical specialists and should be held to higher educational and practical standards.

*The new minimum degree basis.*—The action taken by the Board of Regents placing the College of Pharmacy upon a four-year minimum degree course basis culminated studies and negotiations that were under way for

over seven years. The College of Pharmacy is now on a full collegiate basis since no degree is to be granted for less than four years of college work. The College of Pharmacy of the University of Ohio went definitely upon a four-year minimum basis last fall. According to the action of our regents, applicants for the three-year course degree will be accepted for the first quarter 1926-27 but not thereafter. It is significant that the forward step was taken in Ohio through the initiative of the university administration without special consultation or conference with the pharmacists of the state and that in Minnesota the pharmacists of the state joined the faculty in the request for the establishment of the higher standard. The pharmacists of Ohio are accepting the four-year course standard tho some pharmacists are protesting.

*Free dispensary.*—The usual instruction to the senior class in the free dispensary in the dispensing of physicians' prescriptions and the practical work involved, was continued. The dispensary drug room dispensed a total of around 22,388 prescriptions.

*Services to other university departments.*—The college carried on its usual service of supplying medical preparations of its own manufacture to the hospital, free dispensary, Health Service, Dental College and other university units, and continued supplying those pharmacists who had physicians' specifications for digitalis with small quantities of digitalis of our own cultivation.

*Medicinal plant garden.*—The Department of Pharmacognosy cultivated a somewhat larger area of ground in the University Avenue botanical garden. The college shared the occupation of the ground and buildings with the Department of Botany and with the College of Agriculture, the Department of Botany continuing as host.

Respectfully submitted,

FREDERICK J. WULLING, *Dean*

## THE SCHOOL OF CHEMISTRY

To the President of the University:

SIR: I beg to submit the following report for the School of Chemistry for the year 1925-26:

### FACULTY

The following changes in the instructing staff above the rank of assistant have been in effect during the year:

*New appointments.*—Nelson W. Taylor, Ph.D., assistant professor of physical chemistry, coming from the University of California.

*Promotions.*—Walter M. Lauer, Ph.D., from instructor to assistant professor of organic chemistry; Landon A. Sarver, Ph.D., from instructor to assistant professor of analytical chemistry.

*Absent on leave.*—Professor G. B. Frankforter, to teach at Stanford University for the year 1925-26.

*Retirement.*—Professor G. B. Frankforter retires at the close of this year after 40 years of teaching service. He came to Minnesota from the University of Nebraska in 1893 as professor of chemistry and was made director of the laboratory in 1895, and in 1902, when the School of Chemistry was organized as a separate college, he was made its dean. The growth of the School of Chemistry is due to his untiring energy and loyal devotion. His record of research and publication and his prominent part in national scientific affairs placed him among the leaders of his profession.

### STUDENTS

#### ENROLMENT BY QUARTERS, 1925-26

	FRESH- MEN	SOPHO- MORES	JUNIORS	SENIORS	UN- CLASSED	TOTAL
<b>FALL</b>						
Chemistry .....	21	13	4	4	1	43
Chemical engineering ...	53	48	19	16	1	137
<b>Total .....</b>	<b>74</b>	<b>61</b>	<b>23</b>	<b>20</b>	<b>2</b>	<b>180</b>
<b>Total, previous year</b>						<b>(168)</b>
<b>WINTER</b>						
Chemistry .....	16	13	6	4	..	39
Chemical engineering ...	44	43	22	15	2	126
<b>Total .....</b>	<b>60</b>	<b>56</b>	<b>28</b>	<b>19</b>	<b>2</b>	<b>165</b>
<b>Total, previous year</b>						<b>(153)</b>
<b>SPRING</b>						
Chemistry .....	12	11	7	4	..	34
Chemical engineering ...	41	40	21	17	2	121
<b>Total .....</b>	<b>53</b>	<b>51</b>	<b>28</b>	<b>21</b>	<b>2</b>	<b>155</b>
<b>Total, previous year</b>						<b>(139)</b>

## THE PRESIDENT'S REPORT

## DEGREES CONFERRED, 1925-26

	SUMMER 1925	FALL 1925	WINTER 1926	SPRING 1926	TOTAL
<b>BACHELOR OF SCIENCE IN</b>					
Chemistry .....	1	1	..	4	6
Chemical engineering .....	..	..	..	12	12
Total, 1925-26 .....	1	1	..	16	18
Total, previous year.....	..	..	(2)	(16)	(18)

## AMOUNT OF INSTRUCTION

The total amount of instruction for the year, including the previous Summer Session, has been 26,035 student quarter credits. The corresponding figure for the year 1924-25 was 22,632 student quarter credits. The total enrolment was 201 as compared with 182 of last year.

## SPECIAL LECTURES

The following program of lectures was carried out during the year under the auspices of the School of Chemistry.

- November 24. The Fixation of Nitrogen, by Dr. F. G. Cottrell, director of the Fixed Nitrogen Research Laboratory at Washington, D.C.
- December 1. The Rare Earths, by Professor James Kendall, of Columbia University.
- January 12. The Formation and Disintegration of Atoms, by Professor W. D. Harkins, of the University of Chicago.
- January 27. International Scientific Relations, by Professor W. D. Noyes, of the University of Illinois.
- February 16. The Amorphous State of Matter, by Professor W. K. Lewis, of the Massachusetts Institute of Technology.
- March 10. Chemical Action of Gaseous Ions Produced by Alpha Particles, by Dr. S. C. Lind, associate director of the Fixed Nitrogen Research Laboratory at Washington, D.C.
- April 13. The "Outsider" in Chemical Research, by Professor W. Lash Miller, of the University of Toronto.

## SUPPLY AND EQUIPMENT SERVICE

With the opening of the second quarter, the service groups in the school were brought together into one division or service of supply and equipment under the direction of Mr. H. H. Barber as superintendent. An instrument service was inaugurated with Mr. P. J. Riley in charge as curator. This division thus includes, (1) the stockroom service, for the procurement and dispensing of chemicals and supplies, (2) the instrument service, for the care, maintenance, adjustment, and issue of apparatus, (3) the shop, for the construction and repair of instruments and equipment, and (4) the lecture demonstration and preparation service. This new plan correlates these activities and increases the efficiency of the entire supply and equipment organization, upon which the effectiveness of the instruction and research work of the School of Chemistry in great measure depends.

Very respectfully,

O. M. LELAND, *Dean*

## THE COLLEGE OF EDUCATION

*To the President of the University:*

SIR: I have the honor to report as follows for the College of Education for the year 1925-26:

### STUDENT BODY

Three facts of importance are worthy of mention in connection with the registration figures for education students.

1. *Increased enrolments.*—The enrolment in education has continued to increase during the past year and considerably exceeds the prediction of enrolment for this year made in 1922. The total number of undergraduate students for the current year has been 1,833. Reducing part time students to full time status, the actual student load for the current year has been in the neighborhood of 1,200 full time students. This is an increase of more than 100 per cent in the five-year period just closed.

2. *Enrolment of men.*—There is a noticeable drift of undergraduate men toward education. For the six-year period 1913-19, the average percentage of undergraduate men in the University who were enrolled in education was 1.2 per cent. For the six years just closed, the average has been almost 3 per cent. An increasing number of able men students are preparing to be teachers and school administrators.

3. *Graduate enrolment.*—The percentage of the graduate students who were majoring in education for the six-year period ending in 1919 was 5 per cent. For the six-year period ending in 1925, it was 10 per cent. More than 400 graduate students definitely enrolled with education as a major for the year 1925-26.

### CURRICULA

The investigation of the content of specialized curricula in education has been continued during the past year. Mr. W. E. Peik's investigation of the undergraduate requirement in education is being completed and constitutes the most careful study made anywhere of professional courses in education. Mr. George Selke's study of the functions and activities of superintendents of schools, made with the purpose of modifying our training curriculum in that field, will be completed in the early part of the coming year. Miss Rewey Belle Inglis has completed a survey of English teaching in the state, and has prepared a manuscript which will be useful to the faculty in revising our program for teachers of English. A half-dozen other investigations of a similar nature are in progress. The initial steps have been taken to promote a study of curricula for training teachers in normal schools and teachers' colleges.

### PROBLEMS OF COLLEGE EDUCATION

The movement for the scientific study of educational problems began twenty-five years ago in the early grades of the elementary schools. Gradually the interest in such research has made its way into the high school

and more recently into the college field. College instructors and administrators now find it desirable to investigate the problems of college education. During the year there has been conducted a graduate course of lectures and conferences on problems of college education. This course was inaugurated with the co-operation of the deans of the other colleges of the University, and has been largely attended by the faculties of colleges other than the College of Education. The general program of the course is represented by the following division of topics:

*Fall quarter.*—Problems of student personnel.

*Winter quarter.*—Problems of college curricula and instruction.

*Spring quarter.*—Problems of university administration.

The meetings have been weekly for two hours on Monday evenings. Thus far the formal course character of the meetings has been kept at a minimum, altho a half-dozen graduate students have done work for credit. The conference phase has been magnified in order to bring together a wide range of college instructors and through conference to develop the problems that college instructors should study.

About forty members of the university faculty have participated formally in the conference programs, and probably eighty others have taken part in the discussions. The average attendance for the fall and winter quarters was about forty, and more than three hundred different persons have attended one or more meetings. An interesting phase of this attendance has been its representative character, coming, as it has, from almost every college in the university and including deans and other administrative officers, as well as instructors.

The apparent success of this course for the current year warrants its continuance. It is intended to formalize the course somewhat more than has been done during the current year and to shape it more distinctly for the needs of the younger members of the university faculty and for graduate students who are going into college teaching. The project carries the support of the deans of the colleges and of the Graduate School, and it is believed that it can be made widely useful.

### PSYCHOLOGICAL EXAMINATIONS

Psychological tests have been given to College of Education students at different times since 1917 when the Army Alpha examination was given to all students in the University of Minnesota. For the last several years, the examination has been a routine procedure in connection with registration. As a result of these tests it is now clear that prospective teachers at Minnesota are a selected intellectual group; that they are the equal in this respect to any student body on the campus and distinctly superior to some student groups.

There is, however, a wide range of ability among education students. In one specialized curriculum in education only 10 per cent of the students fall as low as the median intellectual level of the entire college group. In another curriculum, there is not a student who rises to this median level. Clearly the teaching problems in these two curricula are diverse.

Were we to enforce the same intellectual standards for the second curriculum as now prevails for the first we should simply eliminate that group of students from the University. Possibly this should be done but it is not certain that such procedure would be wise. We have not sufficient evidence yet to warrant any final judgment. What is apparent is the clear-cut differences in the intellectual capacities of the several groups and we can no longer proceed on the assumption of intellectual equality throughout the student body.

If we only knew how much intellect is required for a successful superintendent of schools, how much for a teacher of physics, how much for a teacher of music, a teacher of industrial arts, we could render better vocational advice than is now possible and it is to this end that such studies and analyses are being continued.

### SUMMER SCHOOL

Summer work constitutes for the College of Education a specialized problem that differs somewhat from that of any other unit of the University. The desire of teachers for further training crowds our classes with teachers of experience and previous training. During the first term of the current summer quarter, we have enrolled about 1,400 undergraduate students in education, and more than 300 graduate students. Less than 200 of this entire group have been present at Minnesota during the regular year. This means that the College of Education faculty are dealing with 1,500 new students whose advisement must be begun and whose instruction must be completed in the short period of six weeks. Although a portion of these students have been at Minnesota in previous summers or in previous academic years, they present a very large problem in advisement and counsel.

The burden of instruction presented by this large enrolment is practically double that of any quarter of the regular year. It is rendered more difficult by the presence of the large number of graduate students whose instruction is particularly laborious and time consuming. The instructional and counselling load of the major members of the faculty in terms of student credit hours is more than double that of the regular year. How to provide adequate instruction for the heavy summer school registration is a very real problem. It is difficult with our summer session salary schedule to attract to Minnesota from other institutions for summer work men of the same caliber as our regular faculty. So far, it has appeared to our faculty that the best source of supply for additional summer session teachers is the body of graduate students, men and women, who have already attained the Master's and Doctor's degrees at the University of Minnesota. We have engaged increasing numbers of such instructors in recent summers, and among them there have developed a number of capable college teachers. In general, however, they lack the maturity, experience, and reputation desirable in a university faculty. Thus far the strength of the Summer Session has rested primarily upon the willingness of our regular faculty to teach at Minnesota during one or both of the

summer terms. They do this yearly in the face of very attractive offers for summer session teaching in other institutions, a willingness for which they deserve the highest praise. With the best adjustments possible, however, it has not been easy to avoid exceedingly large classes and a crowded condition that threatens seriously the quality of university work.

#### GRADUATE WORK IN EDUCATION

Approximately 450 graduate students are now enrolled with majors in education. A small percentage of these are desirous of securing the degree of doctor of philosophy; the others are presumably candidates for the Master's degree. The proper teaching of this group of students is becoming an exceedingly difficult matter. The heavy thesis requirement involving original research and investigation under guidance imposes a teaching burden upon the faculty that is practically impossible to meet. Some modification of this curriculum is imperative, first, in order that these students may be adequately served, and secondly, that the energies of the faculty may be conserved for teaching and research.

#### THE PSYCHO-EDUCATIONAL CLINIC

The Psycho-Educational Clinic continues to function in co-operation with the Medical School. The psychological work is in charge of Assistant Professor Rockwell. Relations are maintained with the child guidance clinics of Minneapolis and St. Paul public schools, and with the infant welfare and pre-school clinics conducted under the Community Chest Fund in Minneapolis. Students preparing for clinical work are thus given rich opportunities for practical experience, and the number of such students is increasing, particularly in the Summer Session.

#### BUILDINGS

During the past year, there has become available to the College of Education the west half of the upper floor of the Old Library. This has served to provide office space for a number of the members of our faculty, and makes available one large recitation room. It has been possible thus to vacate the office space formerly used in the High School Building and to relieve somewhat the pressure on the recitation rooms of that building. Even with this relief, it is still not possible satisfactorily to schedule our classes. It is hoped that some consideration may be given the housing problem for this college in the near future. The increased enrolment of undergraduates required to do practice teaching in the high school classes has increased rather than alleviated our building situation. There seems no adequate outlook as yet for completely satisfactory provisions in this matter.

Respectfully submitted,  
M. E. HAGGERTY, *Dean*

## THE GRADUATE SCHOOL

*To the President of the University:*

SIR: I submit herewith the report of the Graduate School for the year 1925-26.

### REGISTRATION, 1925-26

Study	Master	Doctor	Engineer	Men	Women	Total
110	1,175	329	10	1,142	482	1,624

### DISTRIBUTION ACCORDING TO YEAR OF GRADUATE WORK

First Year	Second Year	Third Year	Fourth Year
1,307	195	84	38

### GRADUATE STUDENTS DOING FULL OR PART TIME WORK

	Full Time	Part Time	Total
Men .....	631	511	1,142
Women .....	166	316	482
Total .....	797	827	1,624

### MEMBERS OF STAFF REGISTERED IN GRADUATE SCHOOL

	Men	Women	Total
Instructors doing graduate work*.....	93	29	122
Assistants .....	94	39	133
Scholars .....	10	6	16
Teaching fellows .....	42	8	50
Fellows (on Mayo Foundation).....	212	14	226
Fellows .....	6	..	6
Total .....	457	96	553

\* Assistant professors, 18; associate professors, 3.

### EDUCATIONAL INSTITUTIONS REPRESENTED IN THE GRADUATE SCHOOL, 1925-26

Adelbert .....	1	Beloit .....	5
Agnes Scott .....	1	Bluffton .....	1
Alabama .....	1	Bonn, Germany .....	1
Alberta, Canada .....	4	Bowdoin .....	1
Albion .....	1	British Columbia .....	1
Allegheny .....	2	Bucknell .....	1
Amherst .....	1	Buffalo .....	1
Arizona .....	1	California .....	3
Arkansas .....	2	California Institute of Technology..	1
Augsburg .....	6	Calvin .....	1
Augustana .....	1	Campbell .....	1
Baker .....	1	Campion .....	1
Bates .....	1	Capitol .....	2
Belgium .....	1	Cape Town .....	1
Belgrade (Serbia) .....	1	Carleton .....	32

Carroll .....	1	Iowa State Teachers College.....	4
Carthage .....	1	Iowa University .....	8
Catholic University .....	6	Iowa Wesleyan .....	1
Charleston .....	2	James Millikin .....	1
Chicago .....	26	Jamestown .....	1
Chicago (Rush) .....	4	Jefferson .....	2
Cincinnati .....	3	Johns Hopkins .....	1
Coe .....	1	Kansas .....	5
Colgate .....	2	Kansas State .....	5
Colorado .....	5	Kansas State Teachers College....	2
Colorado Agricultural College.....	2	Kentucky .....	1
Colorado State .....	1	Kenyon .....	1
Columbia .....	18	Knox .....	2
Concordia .....	3	Lafa, ette .....	1
Connecticut Wesleyan .....	1	Laval .....	1
Copenhagen .....	1	Lawrence .....	6
Cornell College .....	4	Leland Stanford .....	6
Cornell University .....	6	Louisiana State .....	1
Cork, Ireland .....	1	Louisville .....	1
Cotner .....	1	Louvaine, France .....	1
Creighton .....	8	Lund, Sweden .....	1
Dakota Wesleyan .....	7	Luther .....	17
Dartmouth .....	6	Loyola .....	1
Davidson .....	1	McGill .....	4
Denver .....	2	McMinville .....	1
De Pauw .....	1	Macalester .....	34
Des Moines .....	2	Manchester, England .....	1
Detroit Medical .....	1	Manitoba .....	10
Dickinson .....	2	Maryland .....	2
Drake .....	4	Massachusetts Agricultural College..	3
Dublin, Ireland .....	1	Massachusetts Institute of Tech-	
Dubuque .....	1	nology .....	2
Durham, England .....	1	Miami .....	1
Edinburgh, Scotland .....	1	Michigan .....	19
Emory .....	1	Michigan Agricultural College.....	5
Fairmont .....	1	Milton .....	2
Fargo .....	4	Minnesota .....	685
Frankfort, Germany .....	1	Mississippi A. and M.....	2
Geneva .....	1	Montana .....	1
George Washington .....	4	Montreal .....	1
Georgetown .....	2	Muhlenberg .....	1
Georgia .....	1	National Teachers Normal.....	1
Glasgow, Scotland .....	1	New York College of Forestry....	1
Goucher .....	1	New York Homeopathic.....	1
Greenville .....	1	North Carolina .....	5
Grinnell .....	2	North Dakota .....	11
Grove City .....	1	North Dakota State Teachers.....	1
Gustavus Adolphus .....	27	North Georgia Normal.....	1
Gymnasium, Germany .....	2	Northern Normal and Industrial....	2
Hamline .....	52	Northwestern .....	10
Harvard .....	6	North-Western .....	4
Hope .....	3	Notre Dame .....	1
Huron .....	1	Oberlin .....	3
Idaho .....	1	Ohjo State College .....	3
Illinois .....	21	Ohio University .....	1
Indiana .....	5	Ohio Wesleyan .....	3
Indiana State Normal.....	2	Oklahoma .....	1
Iowa State College.....	15	Ontario Agricultural College.....	1

Oregon	3	Southern California	1
Oregon Agricultural College	4	Stanford	1
Ottawa	3	Swalof, Sweden	1
P. and S. College (California)	1	Syracuse	2
Park	1	Tabor	1
Parker	1	Tennessee	1
Parsons	1	Texas	4
Peking Teachers	1	Texas Christian College	1
Pennsylvania	6	Thiel	1
Pennsylvania State	10	Tokio Technical College	1
Philippines	2	Toronto	16
Pittsburgh	6	Trinity	2
Pomona	1	Tusculum	1
Potchefsoon, South Africa	1	Union	4
Prague	1	University of South	1
Princeton	2	Upper Iowa	6
Purdue	5	Upsala	1
Queen's University, Scotland	1	Utah Agricultural College	3
Radcliffe	6	Utah University	1
Randolph-Macon	1	Vanderbilt	3
Richmond	1	Vienna	2
Ripon	3	Virginia	8
Rockford	1	Wales	1
Rutgers	1	Wartburg	1
St. Benedict	6	Washington	6
St. Bonaventure	1	Washington and Jefferson	1
St. Catherine	27	Washington and Lee	1
St. Johns	3	Washington State	5
St. Louis	3	Wellesley	1
St. Olaf	48	West Virginia	1
St. Stephens	1	Western Reserve	3
St. Teresa	1	Westminster	1
St. Thomas	11	Whitman	3
Saskatchewan	4	Wisconsin	58
Simmons	2	Witwatersrand, South Africa	1
Simpson	1	Wooster	1
Smith	4	Worcester Polytechnic Institute	1
South Africa	1	Y. M. C. A.	1
South Carolina	1	Yale	6
South Dakota	6	Yankton	1
South Dakota State	10	Zurich, Switzerland	1

MASTERS, DOCTORS, AND ENGINEERING DEGREES GRANTED IN 1925-26,  
SHOWN BY DEPARTMENTS

DEPARTMENT	MINNESOTA		OTHER		TOTALS		GRAND TOTAL
	GRADUATES		COLLEGES				
	Men	Women	Men	Women	Men	Women	
Agricultural Biochemistry ..	3	..	5	1	8	1	9
Agricultural Economics ....	5	..	9	..	14	..	14
Agricultural Education ....	1	..	..	..	1	..	1
Agronomy .....	1	..	1	..	2	..	2
Anatomy .....	1	..	..	..	1	..	1
Animal Husbandry .....	..	..	1	..	1	..	1
Bacteriology .....	1	..	..	..	1	..	1
Botany .....	1	1	3	..	4	1	5
Chemical Engineering .....	2	..	1	..	3	..	3
Chemistry .....	..	..	7	..	7	..	7
Civil Engineering .....	2	..	..	..	2	..	2
Comparative Philology ....	..	..	..	1	..	1	1
Dairy Husbandry .....	4	..	6	..	10	..	10
Dermatology .....	..	..	1	..	1	..	1
Economics .....	..	..	1	..	1	..	1
Education .....	..	2	1	..	1	2	3
Educational Administration	3	..	6	1	9	1	10
Educational Psychology ....	2	3	1	1	3	4	7
Electrical Engineering .....	..	..	1	..	1	..	1
English .....	..	2	1	3	1	5	6
Entomology .....	..	..	3	..	3	..	3
Forestry .....	1	..	..	..	1	..	1
Geology .....	2	..	3	..	5	..	5
German .....	2	..	1	..	1	2	3
History .....	3	2	1	..	4	2	6
Home Economics .....	..	3	..	1	..	4	4
Horticulture .....	..	..	2	..	2	..	2
Latin .....	..	..	2	1	2	1	3
Mathematics .....	..	..	2	1	2	1	3
Mechanical Engineering ...	1	..	..	..	1	..	1
Medicine .....	..	..	1	..	1	..	1
Metallography .....	1	..	..	..	1	..	1
Metallurgy .....	1	..	..	..	1	..	1
Mineralogy .....	..	..	1	..	1	..	1
Neurology .....	..	..	2	..	2	..	2
Obstetrics and Gynecology..	1	..	..	..	1	..	1
Ophthalmology and Oto-							
Laryngology .....	..	..	1	..	1	..	1
Orthopedic Surgery .....	..	..	1	..	1	..	1
Pathology .....	2	..	..	..	2	..	2
Physics .....	..	1	4	..	1	4	5
Physiology and Physiologic							
Chemistry .....	1	..	..	..	1	..	1
Plant Breeding .....	..	..	3	..	3	..	3
Plant Pathology .....	2	..	2	..	4	..	4
Plant Physiology .....	..	..	1	..	1	..	1
Preventive Medicine .....	1	..	..	..	1	..	1
Psychology .....	..	1	..	..	..	1	1
Romance .....	..	2	2	2	2	4	6
Scandinavian .....	1	..	..	..	1	..	1
Sociology .....	..	1	1	..	1	1	2
Soils .....	1	..	1	..	2	..	2
Surgery .....	..	..	12	..	..	..	12
Urology .....	..	..	2	..	1	..	2
Totals .....	46	18	93	12	129	35	169

Total number of M.A. degrees .....	56
Total number of M.S. degrees .....	71
Total number of Ph.D. degrees .....	40
Total number of C.E. degrees .....	2
Grand total .....	169
Foreign institutions represented .....	33
Total number of colleges represented.....	226
Total registration from the University of Minnesota.....	685
Total registrations from other institutions.....	939
Grand total .....	1,624

GRADUATE STUDENTS MAJORING IN THE VARIOUS DEPARTMENTS,  
1925-26

Departments	Men	Women	Total
Agricultural Biochemistry .....	22	3	25
Agricultural Economics .....	50	1	51
Agricultural Education .....	15	..	15
Agronomy .....	14	..	14
Anatomy .....	21	..	21
Animal Biology .....	16	4	20
Animal Husbandry .....	2	..	2
Anthropology .....	2	1	3
Astronomy .....	2	1	3
Bacteriology .....	11	4	15
Botany .....	14	10	24
Chemical Engineering .....	12	..	12
Chemistry .....	47	16	63
Civil Engineering .....	6	..	6
Comparative Literature .....	1	2	3
Comparative Philology .....	1	..	1
Dairy Husbandry .....	12	..	12
Dermatology .....	6	..	6
Economics .....	36	5	41
Education .....	69	84	153
Educational Administration .....	143	55	198
Educational Psychology .....	15	37	52
Electrical Engineering .....	10	..	10
English .....	52	87	139
Entomology .....	15	3	18
Forestry .....	5	..	5
Geography .....	1	..	1
Geology .....	9	1	10
German .....	..	5	5
Greek .....	1	1	2
History .....	58	41	99
Home Economics .....	..	40	40
Horticulture .....	7	..	7
Latin .....	7	9	16
Mathematics .....	20	4	24
Mechanical Engineering .....	12	..	12
Medicine .....	70	1	71
Metallography .....	2	..	2
Metallurgy .....	2	..	2

Departments	Men	Women	Total
Neurology .....	4	..	4
Obstetrics and Gynecology.....	7	..	7
Ophthalmology and Oto-Laryngology.....	20	..	20
Orthopedic Surgery .....	4	..	4
Pathology .....	13	..	13
Pediatrics .....	16	..	16
Pharmacology .....	5	..	5
Philosophy .....	3	2	5
Physics .....	25	1	26
Physiology and Physiologic Chemistry.....	22	..	5
Plant Breeding .....	17	..	17
Plant Pathology .....	16	1	17
Plant Physiology .....	1	..	1
Political Science .....	17	3	20
Preventive Medicine .....	1	3	4
Psychology .....	13	22	35
Radiology .....	3	..	3
Rhetoric .....	..	1	1
Roentgenology .....	1	..	1
Romance .....	16	21	37
Scandinavian .....	7	1	8
Sociology .....	41	12	53
Soils .....	3	..	3
Structural Engineering .....	2	..	2
Surgery .....	90	..	90
Urology .....	6	..	6
Veterinary Medicine .....	1	..	1
Total .....	1,142	482	1,624

## DOCTORS OF PHILOSOPHY

- Hervey Hubbard Barber, B.A. '18, Cincinnati. Major, inorganic chemistry; minor, organic chemistry. Thesis: *Separation of the Copper-Arsenic Group with Especial Reference to the Degree of Solubility of Certain Sulfides*. Major adviser, M. C. Sneed.
- Samuel Irvin Bechdel, B.S. '11, M.S. '16, Pennsylvania State College. Major, dairy husbandry; minor, agricultural biochemistry. Thesis: *The Vitamin B Requirement of the Calf*. Major adviser, C. H. Eckles.
- Raymond Brown Becker, B.S. '16, M.S. '20, Iowa State College. Major, dairy husbandry; minor, agricultural biochemistry. Thesis: *A Mineral Deficiency in the Rations of Cattle*. Major adviser, C. H. Eckles.
- John Emlin Bohan, B.S. '23, M.S. '24, Minnesota. Major, educational psychology; minor, educational administration. Thesis: *Students' Marks in University Courses*. Major adviser, W. S. Miller.
- Harvey Edgar Brewbaker, B.S. '21, Illinois, M.S. '23, Minnesota. Major, plant breeding; minor, botany. Thesis: *Studies of Self-Fertilization in Rye*. Major adviser, H. K. Hayes.
- James William Broxon, B.A. '19, Wabash, M.A. '20, Minnesota. Major, physics; minor, mathematics. Thesis: *Natural Ionization in Gases*. Major adviser, H. A. Erikson.

- Walter Page Covell, B.S. '22, M.S. '23, Oregon Agricultural College. Major, anatomy; minor, animal biology. Thesis: *Quantitative Studies of the Human Hypophysis*. Major adviser, A. T. Rasmussen.
- Forrest Ramon Davison, B.A. '19, M.A. '23, Minnesota. Major, biochemistry; minor, plant physiology and physiologic chemistry. Thesis: *The Pectic Enzymes*. Major adviser, J. J. Willaman.
- Sherman Dickinson, B.S. '13, Iowa State College, M.A. '20, Minnesota. Major, education; minor, agricultural education. Thesis: *Determination of the Content of the Curriculum in Dairy Husbandry in the Secondary School*. Major adviser, M. E. Haggerty.
- Hjalmer William Distad, B.S. '23, M.A. '24, Minnesota. Major, educational administration; minor, educational psychology. Thesis: *A Study of the Reading Performance of Pupils under Different Conditions on Different Types of Material*. Major adviser, L. J. Brueckner.
- Frank J. Dobrovoly, B.A. '20, Dakota Wesleyan, M.S. '24, Minnesota. Major, organic chemistry; minor, physical chemistry. Thesis: *The Action of Sodium Malonic Ester on Duroquinone*. Major adviser, L. I. Smith.
- Ralph Lewis Dowdell, Met.E. '18, M.S. '21, Minnesota. Major, metallurgy; minor, industrial chemistry and geology. Thesis: *Study of the Decomposition of the Austenitic Structure in Hardened Steels*. Major adviser, Oscar E. Harder.
- Frank Morris Eaton, B.S. '23, M.S. '24, Minnesota. Major, botany; minor, biochemistry. Thesis: *The Water Requirement and Cell Sap Concentration of Australian Saltbush, Wheat and Cotton*. Major adviser, R. B. Harvey.
- Louise Grace Frary, B.A. '13, M.A. '14, Oberlin. Major, comparative philology; minor, German. Thesis: *Studies in the Syntax of the Passive in the Old Germanic Dialects with Special Reference to the Use of "Wesan" and "Wcordan" in Old English*. Major adviser, Frederick Klaeber.
- Emily Helene Grewe, B.A. '17, M.A. '18, Nebraska. Major, biochemistry; minor, home economics. Thesis: *Glutenin in Its Relations to Flow Strength*. Major adviser, C. H. Bailey.
- J. Roy Haag, B.S. '18, M.S. '23, Pennsylvania State College. Major, biochemistry; minor, plant physiology. Thesis: *The Antagonism of Mineral Ions in Animal Nutrition*. Major adviser, L. S. Palmer.
- Elwin E. Harris, B.S. '21, Hamline, M.S. '22, Minnesota. Major, organic chemistry; minor, physical and inorganic chemistry. Thesis: *Chloral and Bromal with Phenolic Ethers in the Presence of Aluminum Chloride*. Major adviser, G. B. Frankforter.
- Aubrey Clare Hildreth, B.S. '17, West Virginia. Major, horticulture; minor, botany. Thesis: *Determination of Hardiness in Apple Varieties and the Relation of Some Factors to Cold Resistance*. Major adviser, W. H. Alderman.
- Idwal Ralph Jones, B.S. '20, Pennsylvania State College, M.S. '21, Rutgers College. Major, dairy husbandry; minor, biochemistry. Thesis: *The*

- Rôle of Vitamin A in the Nutrition of Calves.* Major adviser, C. H. Eckles.
- John Kierzek, B.A. '13, Carleton College, M.A. '17, Minnesota. Major, English; minor, rhetoric. Thesis: *The American Historical Novel Since the Civil War.* Major adviser, C. A. Moore.
- Raymond Jackson Leonard, B.S. '23, Oregon State Agricultural College. Major, mineralogy; minor, paleontology and geology. Thesis: *The Hydrothermal Alteration of Certain Silicate Minerals.* Major adviser, Frank F. Grout.
- John Holmes Martin, B.S. '14, Oregon State Agricultural College, M.S. '21, University of Maryland. Major, biochemistry; minor, plant breeding and plant pathology. Thesis: *Comparative Studies of Hardiness in Wheat.* Major adviser, R. A. Gortner.
- Hutzel Metzger, B.S. '20, M.S. '23, North Dakota Agricultural College. Major, agricultural economics; minor, farm management. Thesis: *The Economic Aspect of Local Elevator Organizations.* Major adviser, John D. Black.
- Vlon Neilan Morris, B.S. in Ch.E. '22, M.S. '24, Purdue University. Major, physical chemistry; minor, organic chemistry. Thesis: *The Catalytic Activity of Metallized Silica Gels I. Hydrogenation Reactions.* Major adviser, H. L. Reyerson.
- Walter McKinley Nielson, B.S. in E.E. '22, Minnesota. major, physics; minor, mathematics. Thesis: *The Negative Ions of Mercury Vapor.* Major adviser, John T. Tate.
- Willard Clifford Olson, B.A. '20, M.A. '24, Minnesota. Major, educational psychology; minor, educational administration. Thesis: *The Measurement and Incidence of Behavior Problems and Problem Tendencies in Children.* Major adviser, M. E. Haggerty.
- William Thomas Peyton, B.S. '16, M.B. '18, M.D. '19, M.A. '24, Minnesota. Major, anatomy; minor, pathology. Thesis: *Developmental Topographical Anatomy of the Head and Neck of the Fetus, the Newborn, the Child and the Adult as Determined by the Orthoscopic Method.* Major adviser, Richard E. Scammon.
- Emil Rauchenstein, B.S. '11, Wisconsin, M.S. '23, Illinois. Major, agricultural economics; minor, economics. Thesis: *Factors Affecting the Milk Supply in the Twin Cities Area.* Major adviser, John D. Black.
- William Robinson, B.S.A. '18, Toronto, M.S. '24, Kansas. Major, entomology; minor, animal biology. Thesis: *Low Temperature and Moisture as Factors in the Ecology of the Rice Weevil Sitophilus Oryza L. and the Granary Weevil Sitophilus Granarius L.* Major adviser, Royal N. Chapman.
- Harrison Ashley Schmitt, B.A. '21, M.S. '22, Minnesota. Major, geology; minor, petrology. Thesis: *Contributions to the Geology and Ore Deposits of Southern Chihuahua and Northern Durango.* Major adviser, W. H. Emmons.
- Gordon Hatler Scott, B.A. '22, Southwestern College, M.S. '25, Minnesota. Major, anatomy; minor, bacteriology. Thesis: *A Quantitative Study*

- of the Growth Changes of the Parts of the Human Fetal Stomach Wall.* Major adviser, R. E. Scammon.
- Philip John Shenon, B.S. '22, California, M.S. '24, Idaho. Major, geology; minor, petrology and metallurgy. Thesis: *The Geology and Ore Deposits of the Bannack District, Montana.* Major adviser, W. H. Emmons.
- Homer John Smith, Ph.B. '15, Wisconsin, M.A. '22, Minnesota. Major, educational administration; minor, educational psychology. Thesis: *The Administration and Supervision of Vocational Education in Cities with Particular Reference to Industrial Education.* Major adviser, L. V. Koos.
- Ferdinand Henry Steinmetz, B.S. '15, Illinois, M.S. '21, Minnesota. Major, plant physiology; minor, plant pathology. Thesis: *Winter Hardiness in Alfalfa Varieties.* Major adviser, R. B. Harvey.
- Lloyd Edward Swearingen, B.S. '20, M.S. '21, Oklahoma. Major, physical chemistry; minor, metallography. Thesis: *The Adsorptive Properties of Metallized Silica Gels and Their Catalytic Activity in Some Simple, Oxidation Reactions.* Major adviser, L. H. Reyerson.
- Louis Arthur Tohill, B.A. '12, M.A. '14, Illinois. Major, history; minor, education. Thesis: *Robert Dickson, British Fur Trader on the Upper Mississippi; a Story of Trade, War, and Diplomacy.* Major adviser, S. J. Buck.
- Oliver Leonard Troxel, B.S. '14, Northwestern, M.A. '22, Minnesota. Major, educational administration; minor, educational psychology. Thesis: *A Study of Certain Phases of State Control of Secondary Education.* Major adviser, L. V. Koos.
- Carl George Vinson, B.S. '16, Missouri, M.S. '21, Cornell. Major, biochemistry; minor, organic chemistry. Thesis: *Some Nitrogenous Constituents of Corn Pollen.* Major adviser, R. A. Gortner.
- George Byron Watts, B.A. '13, Dartmouth, M.A. '15, Harvard. Major, romance (French); minor, German. Thesis: *The Life, Literary Quarrels and Works of François Gacon.* Major adviser, F. B. Barton.

#### DOCTOR OF PHILOSOPHY IN OBSTETRICS AND GYNECOLOGY

- Roy Edwin Swanson, B.S. '15, M.D. '16, Minnesota. Major, obstetrics and gynecology; minor, anatomy. Thesis: *The Growth of the Human Female Pelvis from Birth to Maturity; a Graphic and Quantitative Study.* Major adviser, J. C. Litzenberg.

#### PUBLICATIONS

Since the last report the following publications from the Graduate School have appeared:

##### *Bibliographical Series*

Frank J. Walter, *Union Check List of Biological Periodicals.*

*Studies in Language and Literature*

Martin B. Ruud, *Thomas Chaucer.*

*Current Problems*

Clarence M. Jackson, *Report of Research in Progress at the University of Minnesota during the Year 1924-25.*

The following publications are in press:

*Studies in the Biological Sciences*

Leroy A. Calkins and Richard E. Scammon, *The Development and Growth of the External Dimensions of the Human Body in the Fetal Period. Minnesota Studies in Plant Science: Continuation of Minnesota Botanical Studies.* Papers by members of the Plant Science Group.

## LECTURES ON THE GRADUATE SCHOOL

## LECTURESHIP FUND, 1925-26

- Dr. Robert A. Millikan, California Institute of Technology, Pasadena, California. "Theories Underlying Colloid Phenomena."  
 Dr. Robert Chambers, Cornell Medical College, New York City. "Physical Properties of Protoplasm."  
 Professor Martin H. Fischer, University of Cincinnati, Cincinnati, Ohio. "Colloid Chemistry in Biology and Medicine."  
 Professor E. F. Burton, University of Toronto, Canada, "The Physics of the Ultra-Microscope."  
 Dr. William T. Bovie, Harvard Medical School, Cambridge, Massachusetts. "Physiologic Action of Light."  
 Dr. R. A. Gortner, University of Minnesota. "Adsorption and Vital Phenomena."

## APPROPRIATIONS FOR RESEARCH, 1925-26

## RESEARCH GRANTS

Bell, E. T., assistant for studies on experimental glomerulonephritis.....	\$400.00
Buck, Solon J., assistant in compiling bibliography of Minnesota newspapers and inventory of files.....	200.00
Emmons, W. H., assistant for study of the ore deposits of the world, particularly with respect to their relation to igneous rocks.....	400.00
Erikson, H. A., assistant and supplies for studies on the nature of gaseous ions.....	600.00
Folwell, W. W., assistant in completion of history of Minnesota.....	500.00
Grout, F. F., research assistant to make chemical analyses of Minnesota rocks	300.00
Harris, J. A., assistant and supplies for continuation of work in statistical biology.....	500.00
Henrici, A. T., half time technical assistant in study of phylogenetic relationships of bacteria and determinations of rate of growth, death, and rejuvenescence of cultures of bacteria.....	600.00
Koos, L. V., assistant and printing. Study of the curriculum of English literature in high schools.....	300.00
Landis, C., supplies for work on facial expression during emotional disturbances in insane patients.....	50.00
Lashley, K. S., assistant and supplies for work on the relation of functional mass of brain substance to learning capacity.....	250.00

McClendon, J. F., assistant electrical conductivity of living tissues to currents of high frequency and (2) hydrogen ion concentration of the blood.....	600.00
Minnich, D. E., Apparatus and materials for study of sensory physiology and behavior of insects .....	75.00
Myers, J. A., assistant for research work on tuberculosis in infancy and childhood .....	600.00
Oestlund, O. W., assistant for research work in phylogeny of the Aphididae..	300.00
Scammon, R. E., half time assistant for statistical studies on growth.....	600.00
Scott, F. H., supplies for research on fluid interchange between blood and tissue, with special reference to the liver.....	400.00
Stakman, E. C., expenses in connection with editorship of <i>Phytopathology</i> ....	350.00
Tilden, Josephine, assistant and supplies for research on Pacific algae.....	100.00

A separate report for the Mayo Foundation is appended hereto.

Respectfully submitted,

GUY STANTON FORD, *Dean*

### THE MAYO FOUNDATION

Herewith is presented a brief summary of the finances and work in medical education and research of the Mayo Foundation from July 1, 1925, to June 30, 1926.

*Financial.*—On July 1, 1925, the balance in the foundation fund was \$22,179.73. During the year there has been added \$92,949.60, gross income from the fund. The total expenses for the year, including investment costs, were \$417,046.27, of which \$101,104.01 was paid from the foundation fund and \$315,942.26 from the Mayo Clinic. The balance in the foundation fund on June 30, 1926, was \$14,025.32.

*Faculty.*—The number of members of the faculty in the Mayo Foundation is shown in the following table:

	Professors	Associate Professors	Assistant Professors	Instructors
Number on duty July 1, 1925....	22	18	18	44
Promotions during the year.....	..	..	4	..
New appointments .....	1	1	..	6
Deceased .....	1	..	..	..
Number on duty, June 30, 1926..	22	19	22	46

*Applications for fellowships.*—During the year inquiries regarding graduate work were received from 1,135 individuals. Some of these were ineligible and advised to go elsewhere for training. It is to be noted, however, that the number of ineligible candidates decreases each year. From the 1,135 inquiries there were received 297 applications for Mayo Foundation fellowships. Of these, 245 applications were considered by the Mayo Foundation section of the Medical Graduate Committee. Fifty-two were for service beginning at subsequent dates and will be considered later.

Of the 245 applicants who were considered, 94 were accepted and 151 rejected. Twelve of those accepted found it impossible to come and asked to have their applications withdrawn.

*Fellows.*—An analysis of the fields in which fellows in the Mayo Foundation are majoring, is shown in the following table:

Fields	Number Here July 1, 1925	Left During Year	Came During Year	Number Here June 30, 1926
Medicine .....	58	8	15	65
Neurology .....	5	1	1	5
Pediatrics .....	7	3	4	8
Dermatology .....	4	1	2	5
Surgery .....	82	20	19	81
Urology .....	5	1	2	6
Orthopedics .....	3	1	1	3
Oto-Laryngology .....	10	2	1	9
Ophthalmology .....	5	2	2	5
Obstetrics .....	1	..	..	1
Dental .....	5	3	2	4
Radiology .....	2	1	..	1
Pathology .....	3	1	3	5
Chemistry .....	3	..	2	5
<b>Total</b> .....	<b>193</b>	<b>44</b>	<b>54</b>	<b>203</b>

*Students from other organizations.*—In addition to the number of fellows indicated in the preceding table, students from the following other organizations have been registered in the foundation:

Rockefeller Foundation .....	5
United States Army .....	3
United States Navy .....	1
C. R. B. Foundation .....	1
University of Oregon .....	1
University of Minnesota .....	1
University of Königsburg .....	1
State College of Iowa .....	1
Personal volunteer .....	1

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*Graduates.*—Seventeen students were presented for degrees during the year. The fields in which the degrees were granted are as follows:

Surgery .....	9
Urology .....	2
Neurology .....	2
Medicine .....	1
Dermatology .....	1
Orthopedic surgery .....	1
Ophthalmology .....	1

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*Lectures.*—Besides the lectures by members of the staff on three evenings per week from October until May, fifteen lecturers accepted invitations of the foundation to give one or more lectures. Several of these were arranged in co-operation with the local chapter of Sigma Xi and were given also at the Graduate School in Minneapolis, the State University of Iowa, Washington University, and the Des Moines Academy of Medicine. The list follows:

## MAYO FOUNDATION LECTURES DURING 1925-26

- November 11. R. A. Millikan, director Norman Bridge Laboratory of Physics, California Institute of Technology, Pasadena, California. Principles Underlying Colloid Phenomena.
- November 17. V. Putti, professor of orthopedics, University of Bologna, Italy. Arthroplasty.
- December 7. M. H. Fischer, professor of physiology, University of Cincinnati, Ohio. Lyophilic Colloids and Protoplasmic Behavior.
- Dec. 22, 23. J. E. Forestier, Paris, France. X-ray Examinations of Organic Cavities by Means of Injections of Iodized Oil.
- January 18. R. Chambers, assistant professor of anatomy, Cornell University, New York. The Physical Properties of Protoplasm.
- Feb. 11, 12. C. W. Hopkins, chief surgeon, C. N. W. R. R. Company, Chicago, Illinois. Skull Fractures with Methods of Treatment and Diagnosis. Multiple Fractures of the Pelvis Complicated by Dislocation of the Head of the Femur.
- March 25. R. A. Gortner, professor of agricultural biochemistry, University of Minnesota. Adsorption and Vital Phenomena.
- April 2, 3, 5. H. J. Prentiss, professor of anatomy, State University of Iowa. Anatomy of the Neck, the Nasal Wall, and the Temporal Bone.
- April 5. W. C. Campbell, professor of orthopedic surgery, University of Tennessee, Memphis, Tennessee. Arthroplasty and Multiple Ankylosis.
- April 15. E. F. Burton, professor of physics, University of Toronto, Ontario, Canada. The Physics of the Ultramicroscope, Its Structure and Use, and the Optical Qualities of Suspended Particles and Colloidal Cells.
- April 29. W. T. Bovie, assistant professor of biophysics, Harvard University. The Physiologic Action of Light.
- May 4, 6. A. Schüller, University of Vienna, Austria. The Roentgenography of the Skull.
- May 13. B. Brouwer, professor of neuropathology, University of Amsterdam, Holland. The Projection of the Retina on the Brain.
- May 24. F. K. Richtmyer, professor of physics, Cornell University, Ithaca, New York (former president of Sigma Xi). Seeing with X-Rays.
- July 14. F. L. Hoffman, third vice-president, Prudential Life Insurance Company, Newark, New Jersey. Some Cancer Facts and Fallacies Based Largely upon My Recent Investigations in San Francisco, Chicago, Boston, New Orleans, and so forth.

*Publications.*—The following tables give analyses of the publications of members of the faculty, research assistants and fellows, and special students during the year. The detailed statement of the publications of members of the faculty appears elsewhere in the report.

## THE PRESIDENT'S REPORT

ANALYSIS OF THE PUBLICATIONS BY RESEARCH ASSISTANTS IN THE  
MAYO FOUNDATION DURING THE YEAR FROM JULY,  
1925, TO JULY, 1926

	Number of Contributors (duplicates omitted)	Number of Contributions
Orthopedic Surgery .....	1	5
Medicine .....	3	3
Pathology .....	2	6
Physics .....	1	1
Chemistry .....	2	4
	9	19

ANALYSIS OF THE PUBLICATIONS BY FELLOWS AND SPECIAL STU-  
DENTS IN THE MAYO FOUNDATION DURING THE YEAR  
FROM JULY, 1925, TO JULY, 1926

	Number of Contributors (duplicates omitted)	Number of Contributions
Surgery .....	29	40
Orthopedic Surgery .....	3	5
Urology .....	2	3
Oto-Laryngology .....	1	1
Ophthalmology .....	1	1
Dental Surgery .....	1	1
Obstetrics .....	1	3
Medicine .....	10	17
Dermatology .....	5	7
Neurology .....	1	2
Pediatrics .....	3	8
Radiology .....	2	6
Pathology .....	4	7
Chemistry .....	1	2
	64	103

ANALYSIS OF THE PUBLICATIONS BY MEMBERS OF THE FACULTY OF  
THE MAYO FOUNDATION DURING THE YEAR FROM  
JULY, 1925, TO JULY, 1926

	Number of Contributors (duplicates omitted)	Number of Contributions
Surgery .....	12	59
Orthopedic Surgery .....	3	9
Urology .....	3	11
Oto-Laryngology .....	3	7
Ophthalmology .....	3	6
Dental Surgery .....	1	2
Obstetrics .....	1	3
Medicine .....	28	63
Dermatology .....	2	4
Neurology .....	4	7
Pediatrics .....	2	11
Radiology .....	5	19
Pathology .....	8	29
Bacteriology .....	2	4
Chemistry .....	2	7
Physics .....	2	17
	<hr/> 81	<hr/> 258

Respectfully submitted,  
LOUIS B. WILSON, *Director*

## THE SCHOOL OF BUSINESS

*To the President of the University:*

SIR: I beg leave to submit the following report on the School of Business for the academic year 1925-26.

The registration for the fall and winter quarters showed a marked increase over any preceding period, reaching a total of 255. So many members of the senior class were able to graduate one quarter earlier, because of "quality credits" earned, that the spring quarter registration dropped to 220. A detailed study of the registration figures reveals two interesting trends, viz.: an increase in the proportion of women students and an increase in the proportion of registrants who have obtained their junior college, or pre-business, training in other institutions. A comparison of figures of prominent middle western commerce schools shows that whereas, the average percentage of transferred students is about 10, at Minnesota this figure is 30 per cent.

No changes occurred in the upper ranks of the faculty, save that Professor Bruce D. Mudgett was absent in Europe on sabbatical furlough. His courses in statistics were given by Mrs. Dorothea Davis Kittredge, formerly statistician with the United States Bureau of Labor Statistics.

During the summer of 1925, extensive alterations were made in the School of Business Building. The one-story additions on the east and south were razed and the ground floor, vacated by the Department of Buildings and Grounds and the post-office, was completely remodeled. As a result, commodious study and locker rooms and additional office and classroom space were obtained.

The effectiveness of instruction was considerably increased by drawing more fully upon the facilities afforded by our location in a great business center. Series of lectures and demonstrations by experts in various fields, particularly in advertising and merchandising, together with actual assignments in business establishments, have done much to supplement the more conventional work of the classroom. Students have shown such decided deficiency in the preparation and presentation of theses and reports that a required course on report writing has been inaugurated.

In spite of the fact that only a negligible amount of money was available for research, the Committee on Business Research sponsored worthwhile studies in the drug and hardware fields. The state could make no more worth-while contribution to the teaching of business or to the improvement of business practice than by placing business research at the University upon an organized and properly financed basis.

Respectfully submitted,

GEORGE W. DOWRIE, *Dean*

## THE DEAN OF WOMEN

To the President of the University:

SIR: The dean of women herewith submits the following report for the year 1925-26.

### REGISTRATION OF WOMEN

Academic .....	1,860
Engineering and Architecture.....	21
Agriculture, Forestry, and Home Economics.....	398
Law .....	11
Medicine .....	37
Nursing .....	350
Dentistry .....	3
Dental Nurses .....	32
Pharmacy .....	28
Chemistry .....	12
Education .....	1,504
Business .....	42
Graduate .....	309
Medical Technicians .....	12
Total (excluding duplicates).....	4,326
During Summer Session 1925.....	2,347
Total for year (less duplicates).....	6,171

The distribution as to residence (figures based on the census cards supplied by the registrar's office, and by private information obtained by this office) during the regular session of 1925-26, is as follows:

At home, or with relatives and friends.....	3,038
In approved houses .....	323
In dormitories .....	296
In co-operative cottages .....	59
In home management houses .....	16
(Group changes each quarter)	
Nurses, in homes and hospitals.....	350
In sorority houses .....	194
Working for room and board.....	50
Total .....	4,326
Wholly self-supporting .....	526
Partially self-supporting .....	590
Wholly dependent .....	1,807
No reply .....	978

*Discipline.*—The dean of women has worked in co-operation with Dean Nicholson, Dean Shumway, Dean Freeman, and Dean Haggerty. She has served on the Students' Work Committee of the College of Science, Literature, and the Arts, the College of Education, and the College of Agriculture, Forestry, and Home Economics, on all cases of women students on probation because of poor scholastic work. She has also served on the General Disciplinary Committee of the University in hearing cases

which have come before the committee. She has also dealt with all individual cases of delinquency of women students from other causes coming to the attention of university officials. Considering the great number of students enrolled, and the location of the University in the midst of two large cities, the number of such cases has been encouragingly small.

*Domestic employment.*—All domestic work for students, that is, the **care of children or general housework**, is handled by this office. Permanent work has been found for about 50 students, and occasional work for about 40. Only girls having had experience in domestic work, and who are strong physically, should attempt to work for room and board. Otherwise, such work is done at too great expense to health and scholarship. It is hardly advisable for students working for room and board to carry a full academic program.

*Absences.*—Excuses for absences, excepting for cases of sickness, have been written by the dean of women. The number has been gratifyingly diminishing since the inauguration of a stricter policy in 1925. The figures are as follows: fall quarter, 134; winter quarter, 127; and spring quarter, 122, making a total of 383, as against 754 for 1924-25, and 889 for 1923-24.

## HOUSING

*Sanford Hall.*—With the changes made in Sanford Hall during the preceding summer, it was possible to house a good many more students this year than we have in any past year. Since we have taken over the Annex permanently for our regular students, we can fill it through the year, instead of having student nurses in it for the fall quarter only, and then having to fill it as best we might in the winter and spring quarters. The results have been decidedly good.

The basement in West Sanford Hall was remodeled a year ago to house the maids. This increased the capacity of the Hall, including the Annex, to 248. The total enrolment during the year ranged from 238 in the fall quarter to 234 in the spring. The enrolment by classes during the spring quarter was as follows:

Graduate students .....	3
Seniors .....	34
Juniors .....	57
Sophomores .....	49
Freshmen .....	86
Unclassed .....	5

Of the 86 freshmen, 12 were students in the nurses' training course, who were taken care of at Sanford Hall to reduce the number of vacancies there, and to avoid the necessity of turning out the regular students who were housed during the winter at Powell Cottage No. 2.

We have carried ten to fourteen vacancies at Sanford Hall during the year. This has been due to the following causes:

Twelve girls reserved rooms for the fall quarter, but did not appear to claim them and sent us no notice.

Four students reserved rooms but cancelled them after registration because of failure to pass their physical examination.

Five students cancelled from the University during the fall quarter because of illness or some other reason.

Fifteen students cancelled during the remainder of the year because of illness, failure to make grades, or transfer to another school.

The general behavior of the students has been most commendable. Forty-four of the entire enrolment during the whole year have been guilty of coming in after the closing hour. In many cases the lapse was for five or ten minutes only, and in most cases the offense was not repeated.

There has been an effort on the part of the students to observe the social amenities most closely. At their request, the social director conducted a series of talks on various problems of etiquette. These talks were quite well attended, and there was a good deal of discussion of these problems among the girls later.

Quiet hours have not been observed as strictly as we should like. This is due to the reluctance on the part of the residents to proctor each other. We have had a number of general discussions on this problem, and have spent much effort in educating the students to the necessity and desirability of self-government. We are instituting a hopeful reorganization next year, and are confident of greater success in the observance of quiet hours.

In their extra-curricular activities and their social life, the students show an increasing willingness to do for others, as well as to provide for their own entertainment. Several of the students have been doing settlement work during the past year, and many are actively connected with the Young Women's Christian Association. Several of the girls are active in athletics. A number take part in dramatics and musical programs, and some are doing work for the *Daily* and the *Gopher*.

As much time as was considered feasible has been given over to social affairs. These have taken one of two forms: entertainments for the girls themselves, and affairs to which others were invited.

Among the latter, the following are outstanding:

Annual open house on Homecoming Day.

Luncheon for visiting fathers on Dad's Day.

Dinner in the fall to which all the pastors of southeast churches, and their wives were invited.

Christmas party to which 80 children suggested by the Family Welfare Bureau were invited. A Christmas tree was provided, and the girls bought gifts for all the children.

Dinners during the year to which various members of the faculty were invited.

Five dances during the year, financed entirely by the girls, and to which they invited their friends.

Spring tea, to which women members of the faculty were invited.

Luncheon for visiting mothers on Mother's Day.

The following entertainments were for the girls only:

Formal initiation in the fall, followed by special dinner.

Tea for the new girls in the social director's room, during registration week in the fall, and another in the winter.

Party in the fall for the new girls. This was planned by the old girls, and took up an hour after dinner one evening. The dining room was cleared and special music for dancing was provided.

Series of spreads at ten o'clock, each for fifteen girls. These were planned by the house president and the social chairman, and included all the girls at some time or other.

Special dinner for the basket-ball team in West Sanford, at the beginning of the season, to arouse interest in the team.

Special dinner during the spring at which East Sanford Hall girls were the hostesses, and West Sanford girls the guests.

Special dinner for seniors during the first week in June.

During the examination periods, Mrs. Gayle provides a light lunch every evening at ten.

Unless specially indicated, all of the social activities included East and West Sanford and the Annex. There is a much stronger feeling of friendship and co-operation between the three parts of Sanford Hall than I have observed during either of the two previous years.

A spirit of fellowship and an atmosphere of cordiality and hospitality are being developed at Sanford Hall. I should like to make two recommendations which I feel would help to foster these.

First, the appointment of a board of patronesses chosen from among the faculty wives, to act as guide, philosopher, and friend to the social director and the girls in all social affairs.

Second, a special budget allotment for entertaining, so that more could be done for the girls, thus increasing their contentment and making Sanford Hall a more popular place of residence.

*Co-operative cottages.*—Several decided changes were made in the cottages during the past year. Loring Cottage is the only one which has remained in the old location at 201 State Street. There were sixteen girls, as usual, and Miss Jean Alexander acted as chaperone.

Early in July, 1925, Northrop Cottage at 113 Church street was moved to the rear of 119 Union Street, and turned over to the School of Nursing. The double house at 501-503 Washington Avenue, which had just been purchased by the University was given to us in lieu of the old Northrop Cottage. A number of changes had to be made, the most important being the installation of a third bathroom, and finishing off the third floor. Seventeen girls can be accommodated in this building. Miss Gertrude Ross is the chaperone. We feel that this house is a real acquisition to our group, as it is well constructed and comparatively new.

Both Winchell cottages, the main house at 209 and the Annex at 113 State Street, were lost to us. The former was turned over to the Health Service nurses, and the latter was sold and moved off the campus.

Three houses on Beacon Street were turned over to us in place of the old ones. The house at 511, now called Winchell Annex, is a good house in good condition. It cares for eight girls and a chaperone. Miss Mae Shannon acted in the latter capacity during the past year.

The two houses at 500 and 504 Beacon Street are old and were in bad shape. Many repairs had to be made to them before they were fit for use. We have room for twelve girls and a chaperone at 500. Miss Gina Wangness filled that capacity and will return next year.

A second bathroom was installed in this house, that being the major improvement.

No. 504 Beacon, being the central house, the lower floor is used entirely for living room, dining rooms, and kitchen. Mrs. Elisabeth Bowman acted in the manifold capacity of housekeeper, cook, and chaperone. Only six girls can be accommodated in this house. We have room for a total of 26 in the three houses.

During the fall quarter, the second floor at 500 Beacon was given over to the School of Nursing as the two Powell cottages were inadequate to care for the large class.

The greatest difficulty during the past year was in trying to heat the newly acquired houses, but with the installation of university heat, we look forward to the coming year with pleasure, and are confident that all the houses will be filled.

Northrop Cottage is no longer reserved for medical students.

Last year the rental for the cottages was raised from \$22.50 to \$30 per quarter.

*Home management houses.*—Since the new home management houses are used only as a laboratory for the course in home management, the report belongs properly to the Home Economics Department.

*Home Economics dormitory.*—The Division of Home Economics first housed its women students in the farm dormitory in the fall of 1922-23. Thirty-six women were cared for on the ground floor of the old dormitory. In the fall of 1923-24, the entire dormitory was available, and accommodated fifty women students. These students take their meals at the farm cafeteria, so the dormitory furnishes housing only. Miss Laura Matson is the chaperone. We are so well satisfied with the experiment that we hope to continue it, and gradually to improve the living conditions and furnishings there. The anomalous condition of this housing plan lies in the fact that the building belongs to, and is controlled by, the Farm School, tho the students in it are university women living under university rules. During the time that the farm school students are in the adjoining dormitory the proximity of the two groups living under such very different regulations creates difficulties for both. This dormitory is already filled for 1926-27.

*Rooming and boarding houses.*—All houses where students live are inspected and graded according to their desirability by the director of the Housing Bureau, Mrs. Mary E. Staples, and her assistant, Miss Lila Hainer. We are constantly raising the standard of our rooming and boarding houses. Only houses that can be graded A and B are listed in our approved directory. The monthly meetings of the householders' organization, composed of the women in charge of rooming and boarding houses, have continued throughout the year. Attendance at these meetings is compulsory for all women wishing to keep their names on the approved list.

#### SUMMER SCHOOL

No printed lists of rooming houses were sent out. Arrangements for rooms were again made through the Housing Bureau. This has proved to be very satisfactory. Shevlin Hall was open for the social activities of

women. All the co-operative cottages were open for the first Summer Session, Northrop and Winchell Annex for the second session. Sanford Hall was open for both sessions.

### WOMEN'S ORGANIZATIONS

*Women's Self-Government Association.*—The Women's Self-Government Association has again carried out a splendid program throughout the year. The work with the freshmen was under the charge of Barbara Harris, chairman of the Senior Advisory Committee. Through the Senior Advisory Board, consisting of nineteen members, and their senior advisers working under them, practically every freshman and transfer student was reached in her first week of university life. Much was done for them socially in the way of small teas and larger parties. They were also advised on their class work, and helped in regard to their scholastic difficulties. The work went very well this year, and I feel that it is one of the big helps in adjusting the freshmen to university life. With the inauguration of the Freshman Week next fall, the senior advisers plan to work in even closer co-operation with the faculty in this task of adjustment.

The Women's Self-Government Association appointed the vice-president to act as chairman of the point system to check on all women holding offices, to see, first, that they did not take on more than they could carry, and second, that their scholastic average was "C" at the time of taking the office, and maintained as "C" during office. This is putting a very helpful emphasis on the need of scholarship in order to indulge in extra-curricular activities with safety to the individual. This year the association has given twelve scholarships of \$100 each to needy women students, and has voted to increase the number to sixteen for next year.

The House Council under the Women's Self-Government Association has been working conscientiously to see that the women students' social activities do not interfere with their rightful study time, and also to see that the girl who does not have an adequate social life on her own initiative, is given opportunities to make social contacts and to win friendships that will mean much to her.

The Vocational Committee in conjunction with Miss Rosenstiel entered on a program of intimate round tables at which outside speakers presented various types of activities into which college women can go on graduation. In addition to this the number of individual conferences which Miss Rosenstiel held with students was greatly increased because of the co-operation with the Faculty Advisory Committee which now sends students to her through our office when she has her conferences on the campus.

The Bookstore showed a profit this year of \$1,032. Nine hundred dollars of this amount was given to the Women's Self-Government Association for scholarships.

The rest rooms on both campuses, with the exception of the Shevlin Hall rest rooms, have been furnished, supervised, and maintained by the Women's Self-Government Association, and magazines and sewing supplies have been provided in Shevlin Hall.

The Social Committee of the Women's Self-Government Association has been very active in promoting the better acquaintance of the women students through social hours, Sunlites, a Thanksgiving supper for out-of-town girls in which they were assisted by the Students' Section of the Faculty Women's Club, a Christmas party held on both campuses, a series of small senior adviser parties, and the promotion of the Hestian Club, which is an organization for out-of-town women.

The class in social dancing met every week, and was extremely successful, and in addition a series of noon-time social hours was inaugurated at which the women students have an opportunity of meeting each other and enjoying dancing. This was sponsored by the Women's Self-Government Association.

*Women's Athletic Association.*—The Women's Athletic Association has conducted tournaments in field hockey, tennis, volley ball, basket-ball, swimming, ice hockey, baseball, archery, and track. It has also fostered horse-back riding and hiking, and has given points to those who passed certain tests in dancing and apparatus work.

Among its new interests these three stand out. The project for building a cabin on the bank of some stream within reasonable distance of the city, which may be used for week-end outings by all university women, has received a good deal of attention by its members. Sketches have been drawn, estimates of cost procured, and plans have been discussed for financing the building.

The association showed its belief in the platform and policies of the Women's Division of the National Amateur Athletic Federation by taking out an organization membership, with the usual dues of \$5.

In the spring it was decided to try two telegraphic track meets, one in archery with Michigan and one in track with Iowa. Telegraphic meets are recognized by the Department of Physical Education for Women of this University, by the conference of American College Women, and by the Women's Division of the National Amateur Athletic Federation as being unobjectionable since they do not subject the student to unusual nervous strain either at the time of competition or through the fatigue of travel and they do not involve undesirable publicity or paying audiences. The interest in these meets was keen. The idea will probably be tried again.

*The Young Women's Christian Association.*—During the year 1925-26, the Young Women's Christian Association of the University of Minnesota took as its central aim the national objective: "We unite in the determination to live unreservedly Jesus' Law of Love in every relationship of life, and so to know God." First, through study of the Bible and discussion groups it has sought to understand and live this objective. During the fall and winter quarters freshman discussion groups were conducted to aid in the orientation of large numbers of the freshmen and to direct their religious thinking. During the fall quarter fifty of the women students attended a three-day state conference held at Northfield, Minnesota, under able leadership where thought was centered on the development of Christian

personality. Through co-operation with the Young Men's Christian Association and the university churches J. Stitt Wilson conducted a series of talks on the campus open to all students. Through co-operation in the Student Friendship Fund, through inter-racial commissions, through Christian work education, and through student industrial commissions an emphasis has been placed on an understanding between racial, national, and industrial groups. Through a social service committee system a wide program of social service work throughout Minneapolis and St. Paul has been carried on during the entire year including the summer. A social committee has attempted to establish a real democracy in the Young Women's Christian Association by opening up to all girls on the campus social opportunities and friendships. Finally, through co-operation with the national movement of which the local association is but a small part, girls were sent to Bible study conferences, into industrial projects, and a number will attend the Geneva summer conference.

*Sororities.*—There are at the present time twenty national sororities on the campus, our last local having been admitted to a new national organization in March of this year. There is one sorority (national) for colored women, and a local sorority for Jewish women.

Pre-school rushing was used again this year. Invitations were given out through this office. A general meeting was held at the beginning of the rushing season in which explicit directions were given to the rushees as to modes of procedure, and the meanings of the various terms used. The dean of women gave a great deal of her time during the first two weeks of school to talking with freshmen on sorority problems, and giving personal advice to them. The eligibility of all pledges for initiation has been certified to Panhellenic through this office. All of the sororities are maintaining houses with the exception of the colored and the Jewish sororities.

The chaperones of all houses are approved through this office, and a monthly meeting of the chaperones is held by the dean of women and the head of the Housing Bureau for the discussion of their common problems.

This year, again, the sorority average was lower than the general average of all women in the University. The general average for all women was 1.297. The general sorority average was 1.266, and the general average for all students, men and women, in the University was 1.195. No sorority fell below a "C" average for the year 1925-26, and the rank in general was higher than the preceding year, the highest rank, the median, and the lowest rank all being higher than the corresponding figures for the year 1924-25. When the figures are compiled which show the scholarship for 1925-26, a real gain should be indicated, since no freshmen were used on any drives or selling campaigns during their first quarter, and since all of the sororities made a very definite effort to keep their pledges' scholarship high, and to work with the students who were falling below the "C" average.

A confidential report of scholarship ratings has been sent to each sorority, and to the alumni representative at the close of each quarter. This has been confidential between the dean of women and the sororities, and has not been given any publicity whatever. It has, however, helped the sororities to know how they were working from time to time, rather than having to wait for a whole year for the results. They have acceded to the Women's Self-Government Association ruling that their presidents must have and maintain a "C" average, and where they have elected to office a girl who did not have a "C" average, they have accepted the Women's Self-Government Association remonstrance, and have asked her resignation and put in an eligible president.

The question of second quarter rushing came up again for discussion, especially in connection with Freshman Week. The administration urged that the sororities seriously consider adopting second quarter rushing. However, after a letter from National Panhellenic urging that no change be made, and after the Twin City Panhellenic decided not to go on record as favoring a change, the matter of second quarter rushing was again voted down. There are two definite reasons for this. The first is that of fear for financial loss if the sororities are not able to take freshmen into their houses during the first two quarters. They cannot see, apparently, that this difficulty would extend over one year only, or at most, over two. The second great obstacle is the sororities' fear of each other. They feel that they cannot trust each other to maintain a real quarter of neutrality, and that, therefore, the older sororities would gain a decided advantage over the newer and weaker ones which have not as great social prestige. The vote was 16 to 4 in rejection.

*Shevlin Hall.*—Shevlin Hall is in constant use, especially for the various organized groups of women. Its social rooms are hardly large enough for the number of group activities that have to be conducted in them. The rest rooms are also in continuous service. The students express a good deal of dissatisfaction with the cafeteria arrangement, and we are now trying to work out some means whereby the dishwashing room will be moved from its present location, and the cafeteria itself be made more attractive in appearance.

*Chaperonage.*—The chaperonage of all campus parties is under the supervision of the dean of women. The effort to confine parties to Friday and Saturday evenings has been increasingly successful. The meetings of the rooming house chaperones and those of the sorority house chaperones have enabled the dean of women and the head of the Housing Bureau to keep in close touch with the phase of chaperonage.

#### FINANCIAL AID TO STUDENTS

*Loan funds.*—The following loan funds are administered through the office of the dean of women:

- Faculty Women's Club loan fund
- The Jessie Ladd loan fund (formerly the Minneapolis Alumnae Club loan fund)
- The St. Paul Alumnae Club loan fund
- The Minneapolis College Club loan fund
- The Pathfinders Club loan fund.

From the Faculty Women's Club loan fund, April, 1925, to April, 1926, 35 students borrowed a total of \$2,744.50; 47 students paid back a total of \$2,722.05. We also have the interest from \$2,000 invested in bonds to add to the loan fund.

Small amounts have been given out as short time loans from the two Alumnae Club loan funds, the College Club, the Pathfinders Club, and the Cosmopolitan Club loan funds—a total of \$1,549.54 in loans given out, and \$1,487.92 in loans repaid.

Interest on the Edward M. and Effie R. Johnson Foundation gift of \$5,000 is used for loans to women students. These loans are administered through the office of the dean of women. Ten students have received the sum of \$381.

*Scholarships.*—Thirty-nine scholarships, totaling \$4,100, have been awarded to women through this office.

Mrs. Elbert L. Carpenter scholarship.....	\$ 100.00
Mrs. George C. Christian scholarship.....	100.00
College Women's Club of Minneapolis scholarship.....	200.00
College Women's Club of St. Paul scholarships.....	1,075.00
Mrs. George P. Douglas scholarship.....	100.00
Everywoman Progressive Council scholarship.....	50.00
Faculty Women's Club, student section, scholarship.....	150.00
George H. Partridge scholarships.....	500.00
P. E. O. scholarship.....	100.00
Woman's Club of Minneapolis scholarship.....	300.00
Minneapolis Council of Jewish Women—Nina Morais Cohen scholarship .....	125.00
Women's Self-Government Association scholarships.....	1,300.00

Respectfully submitted,

ANNE DUDLEY BLITZ, *Dean*

## THE DEAN OF STUDENT AFFAIRS

*To the President of the University:*

SIR: I herewith submit my report, as dean of student affairs, for the year 1925-26:

The year 1925-26 just closed shows a continuation and steady growth of the spirit of good will, understanding, and mutual helpfulness among and between students and faculties of the University.

Each year is showing a steadily increasing number of students who take their responsibilities as citizens of the university community seriously, who actually give thought, time, and energy, looking to the constructive solution of the many problems always facing such a community. In other words, the group of constructive leaders is growing in number year by year.

In this office the new assistant dean of student affairs, Mr. Vernon Williams, who reported for duty the middle of last October, has been giving the major portion of his time to expanding the work with freshmen—both from the standpoint of the individual and the group. In addition to working with the upper class advisers of freshmen, assisting them with their general problems and with individuals as they were brought in by the advisers, there was selected a group of freshmen whose scholastic work was clearly unsatisfactory. Special contact was made with these individuals for study, advice, and guidance. Some of these cases were lacking in college ability, some were badly warped in their sense of relative values as between campus activities and scholastic work, some had selected the wrong college, some had suffered a complete loss in self-confidence resulting in a feeling of helplessness and lack of effort. This latter group presented the most serious problem. Efforts were made in these cases first to gain their confidence and friendship followed by such guidance and assistance as each case seemed to need. Some of these left the University, but I hope and believe with a recovered self-respect and a better viewpoint as to the standards of the University and the purpose of higher education. Most of the individuals of these various groups made some improvement scholastically, a few made great improvement. The results this year amply justify the time and effort of not only this office but of those upper classmen who worked quietly and unostentatiously with no other reward than that of the pleasure and satisfaction which comes to those who give in the spirit of kindness and helpfulness.

### STUDENT ACTIVITIES

*Student councils.*—With the re-establishment of the council in the School of Medicine this spring, there is a council functioning in each of our colleges. Most of these councils are doing efficient work. The weakest one is that of the College of Science, Literature, and the Arts. This is due largely to the lack of common interest in this student body, the various groups thinking of themselves not as College of Art students, but as pre-medics, pre-business, pre-law, pre-education, and pre-dental.

The All-University Student Council has had another very successful year. It has given freely and enthusiastically of its time and energy to every constructive movement looking to the furtherance of the best interests of the student body and the University. The spirit of co-operative government, as opposed to strictly student government which has developed here within the last few years, is now showing clearly in the general relation of student groups and student body and faculty.

*Student publications.*—There have been no new student publications established this year. One application for a new publication was made, but after a full discussion of the field, opportunities, and possibilities for success, the application was withdrawn. Of the established publications, the *Minnesota Daily*, the *Gopher*, the *Law Review*, the *Minnesota Quarterly*, and the *Gopher Countryman*, all had a successful year and have shown financial soundness. The *Ski-U-Mah* will, I hope, show only a small deficit when all outstanding accounts are in. The *Gopher Business News* will show a small deficit. Of the *Techno-Log* I have no accurate report at present.

*Dramatic organizations.*—The Masquers, an organization composed of three of the old groups, has had a successful year and is serving the student body successfully. The two other organizations, the Garrick Club and the Arabs, have had a hard struggle. At present there is some talk of combining them into one organization.

*Fraternities.*—The detailed reports covering the two groups, women's social sororities and men's social fraternities, will be submitted to you by Dean Anne Blitz and Dr. Holman. Of the professional groups there need not much be said. They consistently maintain good scholastic averages. As groups they seldom call for any special attention due to their membership being selected from among those who are here working towards a selected professional objective.

The regulation adopted in 1924-25, requiring fraternities and similar organizations to maintain a "C" average, has now been in force for nearly two years. I have been very much pleased with the attitude of practically all of the fraternities in regard to this rule. There has been apparent this year a real desire to meet this requirement, both on the part of the active groups and the alumni. Most of the chapters in the danger zone have conferred with me frequently and have asked for help and advice both as to the group and as to individuals. A number of chapters have suspended individuals who showed no willingness to co-operate.

At the beginning of the year 1925-26 the following groups were placed on probation for this year:

Phi Kappa Psi Fraternity	Psi Upsilon Fraternity
Beta Sigma Epsilon Fraternity	Delta Chi Fraternity
Sigma Nu Fraternity	Phi Sigma Kappa Fraternity
Kappa Sigma Fraternity	Sigma Chi Fraternity
Sigma Phi Epsilon Fraternity	Phi Kappa Sigma Fraternity
Sigma Alpha Epsilon Fraternity	Alpha Phi Alpha Fraternity
Sigma Alpha Mu Fraternity	Delta Kappa Epsilon Fraternity
Pi Kappa Alpha Fraternity	Omega Psi Phi Fraternity
Delta Tau Delta Fraternity	Tau Kappa Epsilon Fraternity
Theta Xi Fraternity	Alpha Delta Phi Fraternity

PROFESSIONAL FRATERNITIES

Alpha Omega Fraternity (Dentistry)      Phi Delta Chi Fraternity (Pharmacy)  
 Alpha Rho Chi Fraternity (Engineering)

SORORITIES

Alpha Kappa Alpha Sorority  
 Alpha Kappa Gamma Sorority (Dental Nurses)

Of this group I am certain that a number will at least show such an improvement as to warrant the removal of the probation.

A significant step has been taken by the National Interfraternity Conference this year. They have formed subcommittees of their Executive Committee, in charge of districts covering the country. These subcommittees are to establish contact with each institution in their district and inform themselves fully as to conditions and relations at each institution, that full information may be had for the national conferences and that discussions may be held leading to constructive work. This district comprises the colleges and universities of Montana, North and South Dakota, Iowa, and Minnesota. The chairman of this committee will be the representative from Minnesota.

*General organizations.*—There have been only two or three new organizations formed this year, leaving the total number of recognized organizations on the campus practically the same as the year before. The spirit and morale of these groups have been good.

*Finances.*—Of the publications the *Daily*, the *Gopher*, the *Law Review*, the *Minnesota Quarterly*, and the *Gopher Countryman* are in a sound condition. The *Ski-U-Mah*, the *Techno-Log*, and the *Gopher Business News* are having some difficulty in financing themselves properly.

The Student Board of Publications, in control of the All-University publications, the *Daily*, *Gopher*, and *Ski-U-Mah*, recommended this spring that this office obtain the part time services of one of the instructors in accounting, such officer to have direct supervision of the financial accounting of these publications, insuring complete and accurate monthly financial statements. The Board of Regents approved of the recommendation and arrangements have been completed for such services. In addition to the publications named, all others will be subject to his supervision, as will all other organizations handling considerable sums of money. His services and advice will be offered to all organizations, each organization paying into a fund a percentage from which the salary will be met. This officer will meet with publication business managers the first thing in the fall for a short course of instruction in methods and reasons.

*Self-supporting students.*—The following tabulation gives a fair approximation of the number of students engaged in self-supporting work:

FALL QUARTER, 1925-26				
	Wholly	Partly	Dependent	No Answer
Men .....	1,229	2,487	932	447
Women .....	526	590	1,807	425







*Loan funds.*—Loans have been made to students this year from the university trust funds, from funds in the possession of Dean Blitz and Dean Nicholson, and from an alumni fund in charge of the Law School. In addition to these there is a fund of about \$700 in the Engineering College created by the Engineers' Co-operative Bookstore. No loans have been made from this fund this year I believe.

This year, about December 20, the funds available from the regular university trust funds were exhausted and it became necessary to go outside and raise money for this purpose, if a comparatively large group of students were to have the privilege of continuing their school work the winter quarter.

The Minneapolis Rotary Club, the Scottish Rite Masons, and a group of business men, gotten together through the efforts of the Midland National Bank, responded liberally and made it possible to meet the absolute needs of all applicants.

The above tabulations will show the loan totals by colleges, by classes, from university funds, and from the special funds in this office and the office of Dean Blitz.

In addition to these funds the Rotary clubs of Ely and Eveleth each placed \$50 in my hands to loan. Three students were cared for with these funds. A member of the St. Paul Rotary Club (an alumnus) has guaranteed to care for one of our men through his medical course to the extent of \$1,000.

It is clear that the need for funds which may be loaned to students is growing and must be met. As a rule this group comprises the strongest and most promising men and women of our student body. These funds should be university funds from which loans may run for a considerable period of time. The loans from special funds should be for special needs and should be considered as short time loans, not to exceed a year.

*Veterans' Bureau trainees.*—The training of ex-service men stopped this last June. Congress has recently enacted legislation permitting a continuation of training to those men who are now in process, this extension not to exceed two years. We will have no new trainees, but will have a small number who are completing work for a degree. My work with these men and women has been highly interesting, pleasant, and educative to me and I believe of great value to the University.

Respectfully submitted,

EDWARD E. NICHOLSON, *Dean of Student Affairs*

## THE GENERAL EXTENSION DIVISION

*To the President of the University:*

SIR: Herewith is submitted the report of the General Extension Division for the academic year beginning July 1, 1925, and ending June 30, 1926. There are included within this report the activities of the Department of Extension Classes under which are embraced all short courses, the Department of Correspondence Instruction, the Department of Community Service, and the Municipal Reference Bureau. The Department of Community Service includes the work of the University Lecture and Lyceum System, the Bureau of Visual Instruction, and the Drama Service. There is also added a short report of the work of the University Radio Service, and the activities of the University Broadcasting station. Moreover, a brief review is included of the second state-wide music contest which was organized, supervised, and directed by Mr. Irving W. Jones of this division. Statistical matter and comparative statements of these activities have been set aside in the Appendix, where the data may be consulted in tabulated form.

It is my painful duty to record the death, on January 28, 1926, of Mr. William Compton Smiley, assistant professor of business law and head of the Correspondence Study Department of this division. Mr. Smiley had been a teacher in this division since 1915, the second year of the present organization, and had been head of the Correspondence Study Department since 1922. He was absent from his duties with the division only during the period of the war when he was on staff duty in Washington. Mr. Smiley was an able and enthusiastic teacher, and had a large personal following among extension students. He was well poised, sagacious in counsel, and gifted with a keen sense of humor. He was loyal to the best traditions of the extension movement, and a strong advocate of the principle and idea of adult education. His loss will be severely felt among his colleagues of the Extension Division.

At the close of the year under review, we received the resignation of Mr. C. L. Conley, the head of our St. Paul office, and an instructor in advertising, salesmanship, and business English. Mr. Conley resigned to enter business pursuits. He will be succeeded by Mr. C. H. Dow, of St. Paul. At the close of the year also, Mrs. Jean Lees Selvage, instructor in English in this division, resigned for the purpose of retiring to domestic life. This vacancy has not been filled at the time of this report. Mr. L. J. Seymour, head of the Department of Community Service, resigned, effective September 1, 1926. Mr. Seymour came to this position in 1921 from an instructorship in the university Department of Public Speaking. He has rendered efficient service during his incumbency of the position. His retirement is for the purpose of accepting a position with the Gold Medal Radio Station in Minneapolis. He will be succeeded by Mr. Haldor B. Gislason, who, because of ill health, retired from a position in the De-

partment of Public Speaking of the University some five or six years ago.

On another page will be found a report from the state high school music contest. This is a new organization, which has become effective within the past two years.

The university radio has been operated under the direction of a university committee of which the director of University Extension was chairman. The director of programs was Mr. L. J. Seymour, the head of our Community Service Department.

The report concerning the activities of the Municipal Reference Bureau will show a considerable expansion in the services rendered by this very active bureau. Through this bureau comes the University's most direct and effective contact with the municipal life and activities of this state. On the part of city officers, the Municipal Reference Bureau has become a recognized channel through which the service of the University is sought.

The short course has come to be recognized as a most effective form through which the University may render service to those who are in the active practice of the several arts and sciences in the social life of the commonwealth. The short course as a medium of instruction or review is flexible, and may be easily adapted to the needs of the several inquiring groups.

The year 1925-26 has been the most successful and the most serviceable year in the history of the division. This will be clearly indicated in the statistical matter shown in tabulated form in the Appendix.

### EXTENSION CLASSES

During the year under review, late afternoon and evening extension classes were conducted in Minneapolis, St. Paul, Duluth, Chisholm, Eveleth, Hibbing, Two Harbors, Virginia, South St. Paul, Rochester, St. Cloud, Faribault, and Red Wing. The total number of such semester classes conducted during the year was 550, as compared with 449 the year before, and 268 in 1921-22. The total number of student semester registrations in academic or collegiate subjects for the year was 5,132; in business subjects, 2,749; in engineering subjects, 1,341; making the total number of student semester registrations for the year, 9,222. This compares with 8,315 the preceding year, and 7,237 in 1923-24. The total number of individuals taking extension class work during the year was 5,318, as compared with 4,599 the year before. These classes were taught by 10 members of the Extension Division staff, and 139 instructors from outside the Extension Division staff. In the number of courses offered, in the number of instructors used, in the number of semester registrations, in the number of individuals reached, and in the total amount of fees collected, this has been the biggest year in the history of the Extension Division. The total amount of tuition fees for extension classes collected during the year was for collegiate subjects, \$52,972.80; for business subjects, \$27,810.25; for engineering subjects, \$12,256.75; or a total of \$93,039.80. The records show a gain over the preceding year of 1924-25 in semester registrations of 907; in

individual students, 719; in tuition fees collected, \$5,505.49. These figures are very creditable in view of the fact that the preceding year up to that time had been the most noteworthy one in the history of the division.

### SHORT COURSES

During the year under review, 20 short courses in various subjects were conducted, these courses lasting from three days to twelve weeks. The total number of registrations for these short courses was 415, and the receipts in tuition fees were \$5,110.68.

In the Appendix may be found a tabulated list of extension classes for each of the two semesters of the year, with the names of the instructors, the number of students registered in each class, and the amount of fees paid by these students. There will also be found certain tables of comparison with previous years, and a certain amount of other miscellaneous information touching these extension classes. In the same place will also be found similar statistical tabulations and details for all of the short courses conducted during the year.

### CORRESPONDENCE STUDY DEPARTMENT

The increase in enrolments in correspondence study courses during the past year has been consistent with that of recent years, about the amount that might properly be expected. There were in force at the beginning of the year 1,195 registrations; during the year 1,459 new registrations were received, making a total of 2,654 registrations handled during the year. This is an increase of 166, or 6.6 per cent, over the previous year—a slightly larger increase than was made last year.

The most notable improvement has been in the activity of students (the amount of work turned in) and in the number that have completed their courses. Of the 2,654 registrations which were carried, 2,066 were active during the year—about 77 per cent. Last year only 63 per cent of the registrations were active. Similarly the number of courses completed has increased from 684 to 769, or 12.4 per cent, which is nearly twice the percentage of increase in registrations handled. These increases are more significant than mere increases in numbers; for they represent the consummation of educational desires, and indicate that the correspondence method has proven successful in rendering the service demanded.

As at present organized, and in its offerings listed, the department serves primarily those whose main business is either study or its correlate, teaching. The number of registrants who are either students (temporarily out of residence) or teachers is a very large percentage of the total enrolment. This may be the prime purpose of a university department. But it cannot be denied that there is an equally large and desirable field of instruction that is barely touched—that which has come to be known as the field of adult education. In this field should be reached an additional number of persons, of various occupations and social position, who are interested in study as a pleasure, as a sort of avocation, or may be of recreation. To accomplish this the department must offer many more

courses, in various subjects, not primarily for any sort of credit—perhaps preferably not for credit; and in addition must carry on some sort of propaganda for the development of the study interest on the part of the persons who might secure pleasure and satisfaction from its pursuit. It is the hope and plan of the department to follow some such program during the coming year.

The Maternal Hygiene Course offered in co-operation with the State Board of Health and the Federal Children's Bureau has apparently not appealed to as large a number of mothers, or prospective mothers, during the year. Just what may be the causes for this is not apparent. Only 1,246 new registrations were received, in comparison with 2,056 during the previous year; and the total of registrations handled was 2,260, compared to 3,396 during the previous year. It is interesting to note, however, that 319 were given certificates for the completion of the course, compared to 198 in the previous year. Again attention must be called to a greater activity and more successful work.

Tables summarizing the work of the department and comparing this with previous years' activity will be found in the Appendix. It may be of interest to note that whereas in the year 1920-21 the department handled 8,306 correspondence lessons, in the year 1925-26 it handled 19,700.

### COMMUNITY SERVICE

The Department of Community Service embraces the University Lecture and Lyceum Service, the Bureau of Visual Instruction, and the Drama Service. During the year under review, fewer towns availed themselves of Lyceum Service, but the number of engagements filled was increased, as was also the total amount of receipts derived from these courses. There was a very large increase in the number of towns having single lectures or lectures in series. The number of towns thus served in 1924-25 was 12, and in 1925-26, 198. The number of engagements filled rose from 19 the preceding year to 233. In the Visual Instruction Service, which is a service of educational slides and films, there was also a falling off in the number of communities served. This service is in its nature fluctuating. The Drama Service has been increasingly popular. The number of plays sent out increased from 1,775 in 1924-25 to 1,855 in 1925-26.

Tabulated details of the service rendered and comparisons with the previous year with reference to the Lyceum, the Visual Instruction, and the Drama Service will be found in the Appendix of this report.

### STATE HIGH SCHOOL MUSIC CONTEST

The second year of the contest in music among the high schools of the state has been carried on under much the same arrangement as that under which it was begun. The co-operation of the music section of the Minnesota Education Association has been continued, with an enlarged state committee. The issue of the bulletin of the contest and other details of organization and administration have been cared for through the

General Extension Division. Committees selected under this co-operative arrangement have managed the district contest, and the entire scheme of carrying on the project has functioned satisfactorily.

The contest itself has practically doubled in point of number participating, and has demonstrated a great and healthy interest on the part of schools throughout the state. The number of districts was increased from 9 to 11, and highly successful meets were held in each of them. The total number of entries received was 560. Of these 273 were for ensembles such as choruses, orchestras, and the like, and 287 were for soloists, vocal and instrumental. This more than doubles the entries of last year, which were about 200. The entries came from 123 different schools, representing 104 cities and towns. This again is a large increase, compared with the 90 schools and about 60 cities represented last year. The total number of pupils actually taking part in the district contests can only be estimated, but is probably not far from 7,000. An interesting point in this increase is the fact that it represents the entry of a large number of the smaller schools, who feel the need of the stimulus of the contest to give life and purpose to their music work.

The winners in each of the classes of the contest were eligible to enter the final contest, held on the University campus on May 13 and 14. A surprisingly large percentage of these were able to make the trip—some of them very long journeys. Perhaps the greatest effort was made by the girls' glee club of Baudette, which drove in motor cars the entire distance to Minneapolis, about 400 miles. (It must have been gratifying when they took first place in their class.) The total number of pupils participating in the final contest was about 1,600, coming from 64 schools, in 54 different cities. Every district was represented, and each of the 21 classes and subdivisions of the contest was sufficiently filled to be carried on the program. The widespread participation may be noted from the fact that some form of prize award, first, second, or third place, went to 37 different schools, representing every corner of the state.

Of greater significance than the increase in numbers is the fact that everywhere along the line, in district and in final contests, there was noted a great improvement in the quality of performance, both of individual soloists and ensemble organizations. And this, of course, is the prime object of the contest. To have made this beginning towards a higher standard of music in the high schools of the state is sufficient justification for the project.

#### MUNICIPAL REFERENCE BUREAU

*Information service.*—Inquiries requiring special reports numbered 724 as against 415 for the previous year. The growth of this service is suggested by the following experience covering a five-year period:

#### INQUIRIES ANSWERED DURING THE YEAR

1921-22 .....	173	1924-25 .....	415
1922-23 .....	271	1925-26 .....	724
1923-24 .....	356		

Inquiries for the year 1925-26 are classified by subject as follows:

Municipal government .....	46	Taxation .....	22
State government .....	14	Insurance .....	20
Ordinances .....	150	Forms and contracts.....	8
Licensing .....	20	Health and sanitation .....	20
Elections .....	47	Welfare .....	28
Public works .....	55	Zoning .....	10
Highways .....	10	Parks and recreation.....	19
Utilities .....	80	Miscellaneous .....	68
Public safety .....	40		
Finance .....	61	Total .....	724

*Municipal reference library.*—The rapid expansion of the library has necessitated the placing of new shelves. Through co-operative arrangements with the Bureau for Research in Government all material has been carefully classified and cataloged, and cards indicating subjects upon which material may be found have been placed in the catalog of the university library. More than five hundred books and pamphlets have been lent during the year. The reading room is open to students. Municipal officials and other individuals not officially connected with the University are making use of the library with increased frequency.

*Publications.*—Beginning December 1, 1925, *Minnesota Municipalities*, the official magazine of the League of Minnesota Municipalities, financed by the league and edited by the bureau staff, has been published monthly instead of bimonthly. The issues have been expanded to contain 64 pages and cover. The June issue contained 72 pages and cover. The circulation of this magazine has increased from 2,000 to 3,500. This includes approximately 2,500 mayors, clerks, councilmen, attorneys, health officers, superintendents of plants, and fire chiefs; 80 civic secretaries, libraries, and reference bureaus; 55 state officials; and 435 county officials.

Four new booklets have been prepared and published by the bureau and league staffs. These are: (1) *Minnesota Electric Rates*; (2) *Tax Rates in Minnesota—1926*; (3) *A Model Milk Ordinance*;<sup>1</sup> and (4) *The Regulation and Control of Tourist Camps*.

By referring to the information service it will be noted that 150 inquiries were received for special ordinances. Approximately one third of these required the drafting of an ordinance. This work has been in charge of Mr. Harvey Walker, of the league staff. Ordinances for the village of Edina were completely revised subsequent to a survey requiring three months' work. The staff is now retained for ordinance revision for the villages of St. Louis Park and Robbinsdale. Model ordinances have been published on snow removal, licensing of dogs, and tourist camp regulation. Ordinances ready for publication include subjects of insurance, building codes, fireworks, storage and handling of dangerous liquids, explosives, stockyards, dump grounds, garbage collection and disposal, licensing of offensive trades, organization of fire department, local board of health,

<sup>1</sup> This ordinance resulted from a series of conferences among representatives of the State Board of Health, the Live Stock Sanitary Board, the Dairy and Food Commission, and the Department of Husbandry of the University.

burning of trash, sanitary inspection, grade crossings, and dance halls. A revision of the model ordinance on the licensing of transient merchants and peddlers has also been made.

*Conferences.*—The Municipal Reference Bureau and the League of Minnesota Municipalities co-operated with the Minnesota Tax Conference in conducting a two-day session at the University, February 18 and 19, to consider problems of taxation and public finance. The bureau was represented at the annual meeting of the American Municipal Association in Chicago in December. The usual large number of formal and informal committee conferences of the league have been held.

The thirteenth annual convention of the league, arranged by the Municipal Reference Bureau, was held at Virginia, Minnesota, June 22, 23, and 24. Four hundred eighty-two municipal officials and other interested citizens were present to discuss problems of municipal government.

*Personnel.*—On March 1, Miss Esther Crandall, librarian of the Municipal Reference Bureau, resigned after four years of loyal and efficient service to accept a position on the staff of the Municipal Reference Library of the city of Milwaukee. Miss Von Jenkins has been placed in charge of the recording, filing, and supervision of the clerical and stenographic work and appointed associate editor of *Minnesota Municipalities*. Miss Muriel Wentworth has been employed as stenographer since March 1.

## CONCLUSION

It has been observed that the establishment of a certificate in certain business and engineering courses conducted through extension classes has resulted in the adoption of a more consistent and coherent program by extension students. A definite goal to be aimed at—such as a certificate, is likely to lead to the selection of sequential courses. This is a policy much superior to that of heterogeneous or hit-and-miss selection. For this reason, the staff of the Extension Division believes that it would be wise to establish a system of sequential courses leading to a certificate in the liberal arts division of these extension classes. The policy now advocated is that of establishing a certificate to be issued upon the completion of 90 credits of freshman and sophomore work, which would be the equivalent of the completion of the junior college work. The course leading to this certificate could be so prescribed as to meet the present group requirements of the College of Science, Literature, and the Arts. Such a certificate would be more valuable if it were accepted as a credit for entrance to the Senior College of the University. All of the requirements can be met through courses offered by the Extension Division except the requirements in physical training and military training. These requirements can either be waived for these students, or the certificate can state that they have not been met.

A careful consideration of the merits of this plan of issuing a junior college certificate is recommended to the university administration.

Respectfully submitted,

RICHARD R. PRICE, *Director of University Extension*

Following are the essential statistics for the year:

## APPENDIX

## EXTENSION CLASSES, SUMMARY FOR THE YEAR 1925-26

## NUMBER OF STUDENT REGISTRATIONS

	First Semester	Second Semester	Year
<b>COLLEGIATE</b>			
Minneapolis .....	1,721	1,267	2,988
St. Paul .....	544	444	988
Duluth .....	422	323	745
Chisholm .....	15	13	28
Eveleth .....	..	11	11
Hibbing .....	63	44	107
Two Harbors .....	19	2	21
Virginia .....	77	62	139
South St. Paul.....	20	..	20
Rochester .....	25	8	33
St. Cloud .....	25	..	25
Faribault .....	..	27	27
Total .....	2,931	2,201	5,132
<b>BUSINESS</b>			
Minneapolis .....	905	732	1,637
St. Paul .....	419	292	711
Duluth .....	147	112	259
Two Harbors .....	24	12	36
Virginia .....	17	17	34
Faribault .....	35	9	44
Red Wing .....	28	..	28
Total .....	1,575	1,174	2,749
<b>ENGINEERING</b>			
Minneapolis .....	508	411	919
St. Paul .....	68	73	141
Duluth .....	155	126	281
Total .....	731	610	1,341
Totals .....	5,237	3,985	9,222

## THE PRESIDENT'S REPORT

SUMMARY FOR THE YEAR 1925-26  
NUMBER OF EXTENSION CLASSES

	First Semester	Second Semester	Year
<b>COLLEGIATE</b>			
Minneapolis .....	67	66	133
St. Paul .....	26	25	51
Duluth .....	24	21	45
Chisholm .....	1	1	2
Eveleth .....	..	1	1
Hibbing .....	6	3	9
Two Harbors .....	2	1	3
Virginia .....	7	3	10
South St. Paul.....	1	..	1
Rochester .....	1	1	2
St. Cloud .....	1	..	1
<b>Total</b> .....	<b>136</b>	<b>122</b>	<b>258</b>
<b>BUSINESS</b>			
Minneapolis .....	37	39	76
St. Paul .....	21	20	41
Duluth .....	8	12	20
Two Harbors .....	1	1	2
Virginia .....	1	1	2
Faribault .....	3	1	4
Red Wing .....	1	..	1
<b>Total</b> .....	<b>72</b>	<b>74</b>	<b>146</b>
<b>ENGINEERING</b>			
Minneapolis .....	54	47	101
St. Paul .....	12	18	30
Duluth .....	8	7	15
<b>Total</b> .....	<b>74</b>	<b>72</b>	<b>146</b>
<b>Totals</b> .....	<b>282</b>	<b>268</b>	<b>550</b>

GRAND SUMMARY FOR THE YEAR 1925-26  
NUMBER OF STUDENT SEMESTER REGISTRATIONS

	First Semester	Second Semester	Year
Total collegiate .....	2,931*	2,201*	5,132*
Total business .....	1,575*	1,174*	2,749*
Total engineering .....	731*	610*	1,341*
<b>Totals</b> .....	<b>5,237*</b>	<b>3,985*</b>	<b>9,222*</b>

Total number of registrations (student) for the year 1925-26 was..... 9,222  
Total number of individuals taking work, 1925-26 was..... 5,318

## FEES

	First Semester	Second Semester	Year
Total collegiate .....	\$30,863.15	\$22,109.65	\$52,972.80
Total business .....	15,744.25	12,066.00	27,810.25
Total engineering .....	7,971.75	5,185.00	12,256.75
<b>Totals</b> .....	<b>\$53,679.15</b>	<b>\$39,360.65</b>	<b>\$93,039.80</b>

\* This is the total number of student semester registrations for sixteen weeks each.

COMPARISON OF THE ENROLMENT OF EXTENSION CLASSES FOR THE YEAR 1924-25 AND THE YEAR 1925-26

SUMMARY OF STUDENT REGISTRATIONS

	1924-25	1925-26	Loss	Gain
Total collegiate .....	4,553	5,132	....	579
Total business .....	2,394	2,749	....	355
Total engineering .....	1,368	1,341	27	...
Totals .....	8,315	9,222	27	934
Net gain 1925-26=907.				
Total number of individuals ...	4,599	5,318	....	719

SUMMARY OF FEES

	1924-25	1925-26	Loss	Gain
Total collegiate .....	\$46,068.40	\$52,972.80	.....	\$6,904.40
Total business .....	26,190.57	27,810.25	.....	1,619.68
Total engineering .....	15,275.34	12,256.75	\$3,018.59	.....
Totals .....	\$87,534.31	\$93,039.80	\$3,018.59	\$8,524.08
Net gain 1925-26=\$5,505.49.				

COMPARATIVE STATEMENT OF EXTENSION CLASSES, 1921-26

COLLEGIATE COURSES

	1921-22	1922-23	1923-24	1924-25	1925-26
Number of classes.....	118	181	191	235	258
Number of instructors from Extension Division ....	1*	4	4	5*	4
Number of instructors from outside Extension Div...	53	70	60	72	76
Number of semester registrations .....	4,027	3,443	3,522	4,553	5,132
Fees received from registrations .....	\$24,622.00	\$36,664.59	\$34,906.11	\$46,068.40	\$52,972.80
Salaries paid to instructors in Extension Division..	\$200.00	\$9,850.00	\$9,650.00	\$8,000.00	\$8,650.00
Fees paid to instructors not on extension staff .....	\$29,227.26	\$27,298.82	\$22,578.48	\$31,807.24	\$35,648.08

\* Full time for two instructors, part time for three.

BUSINESS COURSES

	1921-22	1922-23	1923-24	1924-25	1925-26
Number of classes.....	106	122	123	113	146
Number of instructors from Extension Division ....	3*	4	6†	4	4†
Number of instructors from outside Extension Div...	42	35	30	32	34
Number of semester registrations .....	2,916	2,793	2,471	2,394	2,749
Fees received from registrations .....	\$22,289.50	\$28,124.33	\$22,643.15	\$26,190.57	\$27,810.25
Salaries paid to instructors in Extension Division..	\$7,180.00	\$11,600.00	\$11,830.00	\$9,950.00	\$10,650.00
Fees paid to instructors not on extension staff.....	\$22,087.50	\$17,528.04	\$17,180.00	\$16,950.00	\$20,240.81

\* Full time for two instructors, part time for one.

† Full time for four instructors, part time for two.

## THE PRESIDENT'S REPORT

	ENGINEERING COURSES				
	1921-22	1922-23	1923-24	1924-25	1925-26
Number of classes.....	44	67	81	101	146
Number of instructors from Extension Division.....	1	2	2	2	2
Number of instructors from outside Extension Division	16	19	23	24	29
Number of semester regis- trations .....	859	1,033	1,244	1,368	1,341
Fees received from regis- trations .....	\$5,997.50	\$10,022.43	\$13,058.70	\$15,275.34	\$12,256.75
Salaries paid to instructors in Extension Division..	\$2,750.00	\$6,250.00	\$6,250.00	\$6,250.00	\$6,250.00
Fees paid to instructors not on extension staff.....	\$7,687.50	\$6,222.00	\$8,951.00	\$8,410.00	\$10,355.00
	ALL COURSES				
	1921-22	1922-23	1923-24	1924-25	1925-26
Number of courses.....	268	370	395	449	550
Number of instructors from Extension Division.....	4	10	12	11	10
Number of instructors from outside Extension Div...	111	124	123	128	139
Number of semester regis- trations .....	7,802	7,269	7,237	8,315	9,222
Fees received from regis- trations .....	\$52,949.50	\$74,811.35	\$70,607.96	\$87,534.31	\$93,039.80
Salaries paid to instructors in Extension Division ..	\$10,130.00	\$27,700.00	\$27,730.00	\$24,200.00	\$25,550.00
Fees paid to instructors not on extension staff.....	\$59,002.26	\$51,048.86	\$48,709.48	\$57,167.40	\$66,243.89

## SHORT COURSES, 1925-26

SHORT COURSES FOR ELECTRIC METERMEN  
September 21-25, 1925

Receipts		
35 registrations at \$5.....		\$175.00
2 registrations at \$10.....		20.00
		<hr/>
		\$195.00
Expenditures		
Printing and postage.....	\$ 36.36	
Fees for instructors, lantern man.....	107.00	
	<hr/>	
Total expenditures .....		\$143.36
Balance .....		<hr/>
		\$51.64

SHORT COURSE IN EMBALMING  
January 4 to March 26, 1926

Receipts		
46 registrations at \$47.....		\$2,162.00
1 registration at \$25.....		25.00
		<hr/>
		\$2,187.00
Expenditures		
Printing, advertising, postage.....	\$191.17	
Fees for instructors.....	748.75	
	<hr/>	
Total expenditures .....		\$938.92
Balance .....		<hr/>
		\$1,248.08

SHORT COURSES FOR DENTISTS

1. Miscellaneous (2 weeks period)—		
Crown and Bridge—Receipts, 1 registration at \$25.00.....		\$ 25.00
Operative Dentistry—Receipts, 6 registrations at \$25.00....		150.00
Mechanical Dentistry—Receipts, 2 registrations at \$60.00....		120.00
Prosthetic Dentistry—Receipts, 2 registrations at \$25.00....		50.00
Periodontia—Receipts, 1 registration at \$25.00.....		25.00
2. Partial Impressions—November 10 to December 11, 1925—		
Receipts, 26 registrations at \$16.00.....		\$416.00
Expenditures, instructors .....	\$397.50	
3. Oral Diagnosis—January 19 to February 19, 1926—		
Receipts, 10 registrations at \$16.00.....		\$160.00
Expenditures, instructors .....	160.00	
4. Gas Anesthesia—		
Receipts, 16 registrations at \$16.00.....		\$256.00
Expenditures, instructors .....	207.50	
5. Monson Principles—February 23 to March 26, 1926—		
Receipts—17 registrations at \$16.00.....		\$272.00
Expenditures, instructors .....	250.00	
6. Traveling Dental Short Course at Superior, Wisconsin, January 29 to February 26, 1926—		
Receipts, 10 registrations at \$25.00.....		\$250.00
Expenditures, instructor and traveling expense, 4 trips....	209.71	

SUMMARY OF SHORT COURSES FOR DENTISTS

Course No.	Registrations	Receipts	Expenditures
1 .....	12	\$ 370.00	.....
2 .....	26	416.00	\$397.50
3 .....	10	160.00	160.00
4 .....	16	256.00	207.50
5 .....	17	272.00	250.00
6 .....	10	250.00	209.71
Total .....	91	\$1,724.00	\$1,223.71

SHORT COURSES FOR GENERAL PRACTITIONERS

1. Traveling Medical Short Course at Fergus Falls and Moorhead, June 1, 1925, to August 30, 1925—		
Receipts as reported in the 1924-25 annual report.....		\$975.00
Expenditures as reported up to July 1, 1925, in the 1924-25 annual report .....	\$337.80	
Expenditures additional and paid after July 1, 1925— instructors .....	611.00	
Total expenditures for the course.....		\$948.80
Balance .....		\$26.20
2. Pediatrics, Obstetrics, Laboratory Diagnosis, September 21 to 26, October 5 to 10, 1925—		
Receipts		
11 registrations at \$15.00.....		\$165.00
12 registrations at \$25.00.....		300.00
Expenditures		\$465.00
Advertising, printing, postage .....	\$293.99	
Fees to instructors, secretary, lantern man.....	308.75	
Total expenditures .....		\$602.74
Overdraft .....		\$137.74

## THE PRESIDENT'S REPORT

3. Traveling Medical Short Course at Marshall and Tracy, April 13 to June 22, 1926—		
Receipts—Marshall .....		\$200.00
Receipts—Tracy .....		200.00
		<hr/>
Expenditures—10 meetings, 20 instructors.....		\$400.00
		<hr/>
Balance .....		\$354.83
		<hr/>
4. Traveling Medical Short Course at Albert Lea and Austin, May 12 to July 8, 1926—		
Receipts—Albert Lea .....		\$87.50
Receipts—Austin .....		87.50
		<hr/>
Expenditures—8 meetings, 8 instructors .....		\$175.00
		<hr/>
Balance .....		134.00
		<hr/>
5. Lungs, June 7 to 9, 1926—		
Receipts—12 registrations at \$12.50.....		\$150.00
Receipts— 3 registrations at \$15.00.....		45.00
6. Heart, June 10 to 12, 1926—		
Receipts—12 registrations at \$12.50.....		\$150.00
Receipts— 1 registration at \$15.00.....		15.00
7. Thyroid, June 14 to 16, 1926—		
Receipts—16 registrations at \$15.00.....		\$120.00
8. Tumor Pathology, June 17 to 19, 1926—		
Cancelled because of insufficient number of registrations.		
		<hr/>
		\$480.00
Expenditures for four short courses held June 7 to 19, 1926 (Nos. 5, 6, 7, 8)—		
Printing and advertising .....	\$180.77	
Fee for instructors and refund of one registration fee (\$10.00) .....	120.00	
		<hr/>
		\$300.77
		<hr/>
Balance .....		\$179.23
9. Nurses' Institute in Tuberculosis, June 14 to 19, 1926—		
Receipts		
39 registrations at \$3.00.....		\$117.00
Group tickets at \$5.00.....		42.50
Single admissions at 50 cents.....		21.00
		<hr/>
Expenditures		\$180.50
Printing and advertising.....	\$71.17	
Fees for lectures, secretary.....	66.66	
		<hr/>
		\$137.83
		<hr/>
Balance .....		\$42.67
10. Tuberculosis for Practitioners, June 28 to July 3, 1926—		
Receipts—cancelled because of insufficient number of registrations.		
Expenditures—Printing and advertising.....	\$187.72	

SUMMARY OF SHORT COURSES FOR GENERAL PRACTITIONERS			
Course No.	Registrations	Receipts	Expenditures
1*	.....	\$975.00	\$948.80
2	..... 23	55.00	602.74
3	.....	400.00	354.83
4	.....	175.00	134.00
5	..... 15	195.00	} 300.77
6	..... 13	165.00	
7	..... 16	120.00	
8	.....	.....	
9	..... 39	180.50	137.83
10	.....	.....	187.72
Total	.....106	\$2,675.50	\$2,666.69

\* Course started June 1, 1925, continued through July and August.

SHORT COURSE FOR SCOUT LEADERS

December 3, 1925, to March 10, 1926—		
Receipts—98 registrations at \$1.00.....		\$98.00
Expenditures—Printing, certificates.....		48.00
Balance.....		\$50.00

LAUNDRYMEN'S SHORT COURSE IN TEXTILES

Minneapolis—Knit Fabrics, January 14 to February 11, 1926—		
Receipts—18 registrations at \$3.50.....		\$63.00
Expenditures—fee for instructor.....	\$50.00	
St. Paul—Textiles, February 2 to 23, 1926—		
Receipts—18 registrations at \$3.00.....		\$54.00
Expenditures—fee for instructor.....	\$40.00	
Balance.....		\$27.00

SUMMARY OF ALL SHORT COURSES

Courses for	Registrations	Receipts	Expenditures
Electric metermen.....	37	\$ 185.00	\$ 143.36
Embalmers.....	47	2,187.00	938.92
Dentists.....	91	1,724.00	1,223.71
General practitioners.....	106	2,675.50	2,666.69
Scout leaders.....	98	98.00	48.00
Laundrymen in textiles.....	36	117.00	90.00
Total.....	415	\$6,986.50	\$5,110.68

CORRESPONDENCE STUDY DEPARTMENT  
REGULAR COURSES

Registrations in force July 1, 1925.....	1,195
New registrations during year.....	1,459
Total registrations in force during year.....	2,654
Deduct:	
Expirations.....	811
Reinstatements.....	296
Net expirations.....	515
Cancellations.....	137
Completions.....	769
Registrations in force July 1, 1926.....	1,421
	1,233

## THE PRESIDENT'S REPORT

SPECIAL COURSE IN HYGIENE  
(Maternity and Infancy)

Registrations in force July 1, 1925.....	1,014
New registrations during year.....	1,246
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Total registrations in force during year.....	2,260
Deduct:	
Completions without certificates .....	1,466
Reinstatements .....	25
<hr/>	
Net completions without certificate.....	1,441
Certificates issued .....	319
Cancellations .....	69
<hr/>	
	1,829
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Registrations in force July 1, 1926.....	431

## SUMMARY OF ALL COURSES

Registrations in force July 1, 1925.....	2,209
New registrations during year.....	2,705
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Total registration in force during year.....	4,914
Registrations in force July 1, 1926.....	1,664

INDIVIDUALS ENROLLED  
(Distinguished from course registrations)

Regular courses .....	1,298
Special course in hygiene.....	1,246
<hr/>	
Total enrolments during year.....	2,544

## NEW REGISTRATIONS BY COURSES

Anthropology .....	5	Journalism .....	15
Astronomy .....	4	Latin .....	42
Business .....	73	Mathematics .....	76
Economics .....	47	Music .....	8
Education .....	150	Physics .....	15
Engineering .....	7	Political Science .....	33
English .....	277	Psychology .....	88
Football .....	1	Romance Languages .....	95
German .....	85	Scandinavian .....	41
Greek .....	7	Sociology .....	60
History .....	106	Preparatory courses .....	209
Interior Decorating .....	15		

## GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Minnesota .....	967	Out of state .....	331
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## ACTIVITY OF STUDENTS IN REGULAR COURSES

Active during year .....	2,124*	Inactive during year .....	588
Four or more reports .....	1,657	Expired or cancelled.....	210
Less than four reports.....	469	Unexpired .....	378

\* Includes sixty reinstated registrations that had expired before July 1, 1925.

COMPARISON OF ANNUAL REPORTS FOR FIVE YEARS, 1921-26  
REGULAR COURSES

	1921-22	1922-23	1923-24	1924-25	1925-26
Registrations in force at first of fiscal year	869	843	1,058	1,102	1,195
Registrations during year.....	880	1,149	1,302	1,386	1,459
Total registrations in force during year	1,757	1,992	2,360	2,488	2,654
Expirations .....	614	562	688	701	811
Reinstatements .....	111	194	216	225	296
Net expirations .....	503	368	472	476	515
Cancellations .....	15	121	204	133	137
Completions .....	396	445	582	684	769
Total registrations terminating.....	914	934	1,258	1,293	1,421
Registrations in force at end of fiscal year	843	1,058	1,102	1,195	1,233
Enrolment of individuals as distinguished from registrations for courses.....	779	1,012	1,146	1,235	1,298
Number of courses offered.....	147	187	188	192	193
Number of instructors .....	51	51	54	52	55

DEPARTMENT OF COMMUNITY SERVICE, 1925-26  
LYCEUM BRANCH

Number of different attractions used.....	23
Number of towns having courses .....	121
Number of engagements filled .....	395
Total attendance at entertainments and lectures.....	118,500
Total receipts from courses.....	\$27,397.61
Amount outstanding .....	

Amounts outstanding are as follows:

Town	Attraction	Amount
Cass Lake, Minnesota*.....	Royal Welsh Quartet.....	\$115.00
Roseau, Minnesota* .....	Tamburitza Serenaders .....	90.00
Roseau, Minnesota* .....	Chicago Concert Company.....	135.00
Remer, Minnesota* .....	Brownie Trio .....	50.00
Olivia, Minnesota† .....	Roy L. Smith .....	8.37
Fessenden, North Dakota†... ..	Grace La Mar .....	80.00
Cooperstown, North Dakota† ..	Brownie Trio .....	60.00
Marion, North Dakota†.....	Ceora B. Lanham .....	35.00
Marion, North Dakota†.....	M. W. Chase .....	35.00

\$608.37

\* The above towns have written us they will remit as soon as they have the money.

† The University of North Dakota is taking care of the collections from the North Dakota towns listed above.

LECTURE SERVICE

Number of people available for lectures.....	32
Number of communities served by single lectures.....	198
Total number of engagements filled.....	233
Total attendance at lectures .....	23,000
Total receipts from lectures .....	\$609.25

## THE PRESIDENT'S REPORT

## COMMENCEMENT ENGAGEMENTS

Number of people available for commencement addresses.....	29
Number of communities served by addresses.....	39
Number of persons actually filling engagements.....	23

COMPARATIVE STATEMENTS  
COURSES

	1916-17	1917-18	1918-19	1919-20	1920-21
Number of towns having courses .....	136	180	176	178	208
Number of engagements filled .....	654	905	780	837	909
Total receipts from courses	\$34,692.00	\$38,814.50	\$33,078.50	\$43,692.20	\$48,359.55
	1921-22	1922-23	1923-24	1924-25	1925-26
Number of towns having courses .....	190	146	149	136	121
Number of engagements filled .....	782	545	568	351	395
Total receipts from courses	\$47,028.75	\$32,978.09	\$29,392.94	\$19,199.35	\$27,397.61

## LECTURES—SINGLE AND IN SERIES

	1916-17	1917-18	1918-19	1919-20	1920-21
Number of towns having lectures .....	14	12	16	48	25
Number of engagements filled .....	27	14	21	74	51
Total receipts from lectures	\$560.00	\$280.00	\$275.00	\$880.00	\$330.00
	1921-22	1922-23	1923-24	1924-25	1925-26
Number of towns having lectures .....	14	32	16	12	198
Number of engagements filled .....	31	57	38	19	233
Total receipts from lectures	\$430.00	\$1,070.00	\$430.00	\$355.00	\$609.25

VISUAL INSTRUCTION SERVICE, 1925-26  
IN MINNESOTA

Number of communities served .....	122
Number of visual programs furnished.....	517
Number of visual programs shown (not number of reels).....	832
Attendance at showing of programs.....	179,760
Service fees received, for films and slides.....	\$388.88
Rental fees received for films.....	\$1,372.70
Receipts received from rental and service fees.....	\$1,761.58
Total commission on Yale film bookings.....	\$53.00
Total receipts including Yale commissions.....	\$1,814.58
Number of reels recalled from service because of poor physical condition .....	28
Number of reels returned to owners.....	6
Number of reels lost .....	0

OUTSIDE MINNESOTA

Number of states served.....	5
Number of communities served.....	20
Yale bookings outside of state.....	2
Number of visual programs sent out.....	32
Service fees received from films and slides.....	\$12.00
Rental fees received from films.....	\$83.00
Total receipts from rentals and fees.....	\$95.00

Outstanding accounts amount to \$63.75 which should be received during the month of July.

COMPARATIVE STATEMENT  
IN MINNESOTA

	1922-23	1923-24	1924-25	1925-26
Number of communities served.. ....	268	235	217	122
Number of film and slide programs furnished .....	1,175	685	623	517
Attendance at film and slide programs.	183,313	214,371	187,860	179,760
Gross receipts .....	\$2,190.25	\$2,005.09	\$2,125.56	\$1,814.58

OUTSIDE OF MINNESOTA

	1922-23	1923-24	1924-25	1925-26
Number of communities served.....	15	22	22	20
Number of film and slide programs furnished .....	56	54	46	32
Gross receipts .....	\$88.00	\$253.37	\$216.97	\$95.00

DRAMA BRANCH, 1925-26

Total number of plays in the library.....	1,855
Number of requests filled .....	902
Number of copies sent out .....	5,607
Number of plays added to the library.....	80
Number of plays selected for use.....	189
Number of plays lost during the year (two were paid for).....	5
Number of plays discarded .....	0

COMPARATIVE STATEMENT

	1922-23	1923-24	1924-25	1925-26
Number of plays .....	1,301	1,427	1,775	1,855
Requests filled .....	397	713	796	902
Copies mailed .....	1,540	4,194	4,247	5,607
Selections made .....	91	212	178	189

## THE SUMMER SESSION

To the President of the University:

SIR: I herewith submit the report of the Summer Session of 1926.

*Administrative policies.*—Only two things need be mentioned that are of particular interest:

1. The schools of Medicine, Engineering, and Chemistry, and the departments of Botany and Mathematics, voted to go on the four-quarter system. In these schools and departments provision was made for having certain members of the faculty teach during the summer as a part of their regular nine months' appointment, and at the same rate of pay as obtained for those individuals throughout the regular year. The proposal for incorporating the summer session budget into a regular twelve months' budget seems to be growing in favor, and it is hoped that practically all the University will be upon that basis before the summer of 1927.

2. The second administrative policy which deserves attention has to do with advertising the Summer Session. As long as so large a share of the support of the Summer Session is derived from fees of students, it is to the advantage of the Summer Session to increase enrolments in most of the departments and schools. A very vigorous campaign of advertising, therefore, was carried out last year and it may be that the significant increase in our attendance over previous years may be attributed, at least in part, to that campaign. Summer session attendance throughout the country at large has not been increasing greatly from year to year during the last half dozen years. Minnesota is among the institutions where increase has been most marked. It is necessary for the University to be on guard against depending upon the continued rapid increase in summer session attendance. Its increase from this time on must be with corresponding decreases in attendance at summer sessions surrounding us. Only by virtue of superior environment and superior instruction can the University of Minnesota expect to maintain any considerable growth in subsequent summers.

*Attendance.*—During the first term there were registered 1,867 men and 2,115 women, a total of 3,982; during the second term, 912 men and 488 women, a total of 1,400. This made a total of 5,382 different registrations. Of this number there were 889 men and 328 women, a total of 1,217, who continued through both terms; while there were 183 new students who were registered for the second term only. There was, therefore, a net enrolment of 4,165 different students, engaged in the regular work of the Summer Session. In addition there were 204 men and 8 women, graduate members of the Mayo Foundation at Rochester; 104 men and 6 women, internes in service in various hospitals; and 270 women, members of the Training Course for Nurses, in service in the University Hospital. Their numbers make a total of 5,874 registrations, and a total of 4,757 different students served by the summer work of the University.

Some comparison between the attendance figures for 1925 and those for 1926 may be had from the following table:

COMPARATIVE ATTENDANCE

	1925	1926	Gain	Loss
First term registrations.....	3,588	3,982	394	....
Second term registrations.....	1,404	1,400	....	4
Total registration .....	4,992	5,382	390	....
Students attending both terms.....	981	1,217	236	....
New students, second term.....	423	183	....	240
Total different students.....	4,011	4,165	154	....
Nurses in hospital service.....	157	270	113	....
Internes in hospital service.....	97	110	13	....
Members Mayo Foundation.....	187	212	25	....
Total students served.....	4,454	4,757	305	....

The striking thing indicated by these figures is the large increase in the number of students who continued their work through both terms of the Summer Session, from 981 in 1925 to 1,217, the present year. The percentage of the attendance in the second term represented by this group of students rose from 69.8 in 1925 to 86.9 in 1926. If this could be considered a stable growth, or a tendency which would continue from year to year, it would be quite in line with the theory that the Summer Session should be an increasingly integral part of an all the year round university program, in which students participated with lessening recognition of the long summer vacation. Whether it can be so interpreted is not now apparent.

There was a considerable falling off in the number of new students who entered for the second term only, offsetting the gain in continuing students, so that the total for the second term did not quite hold its membership of last year. Again one may conjecture as to whether this indicates a decreasing demand for the second term, or whether it is merely an unexplained fluctuation. Only subsequent years' figures can determine this point. It may be sufficient to note now that the Summer Session as a whole continues to serve a few more students each year, perhaps as much of an increase as there is justification for.

*Previously matriculated students.*—Of the enrolment for the first term, 2,116 (53 per cent) were students who had previously matriculated in this University; in the second term 941 (67 per cent), a total of 3,057, or 56.5 per cent of the total registration. These figures are a trifle smaller than for 1925, when the percentages were 57.7, 68, and 60.6. The fluctuation is probably not significant, however, for the averages of the percentages for the past three years are 52.5 for the first term, 67.7 for the second, and 56.6 for the whole session. It is apparent that something like this average percentage of previously matriculated students may be expected each summer, the remainder being new students who are attracted to this University for one reason or another.

Of these previously matriculated students 159 registered in the first term for some delinquencies—being 4 per cent of the total registration,

and 7.5 per cent of the previously matriculated students; in the second term there were 138 such registrations—9.9 per cent of the total registration, and 14.6 per cent of the previously matriculated students. The total for the whole session is 297, 5.5 per cent of the whole registration, and 9.7 per cent of the previously matriculated students. These figures, as compared in the table below, show a continuation of the decline noted last year in both the numbers and the percentage of students who make use of the Summer Session for making up their delinquencies. The figures for this year are only about one-half those of 1924. The second term continues to show a higher percentage of these repeaters.

## PREVIOUSLY MATRICULATED STUDENTS

	Number			Per Cent of Total Registration			Av.
	1924	1925	1926	1924	1925	1926	
First term .....	1,604	2,071	2,116	46.9	57.7	53.	52.5
Second term .....	924	956	941	68.3	68.	67.	67.7
Both terms .....	2,528	3,027	3,057	52.0	60.6	56.5	56.6

## REGISTERED FOR SOME DELINQUENCIES

	Number			Per Cent of Total Registration			Per Cent Previously Matriculated Students		
	1924	1925	1926	1924	1925	1926	1924	1925	1926
First term ....	253	243	159	7.4	6.8	4.	15.7	11.7	7.5
Second term ..	215	162	138	15.9	11.5	9.9	23.2	17.	14.6
Both terms ....	468	405	297	9.8	8.1	5.5	18.6	13.3	9.7

*Graduate School.*—The Graduate School has continued its growth, noted particularly last year. In the first term there were 685 registrations in this school (17.2 per cent of the total registration); in the second term 148 (10.6 per cent), a total of 833 (15.4 per cent) for the whole session. The table below shows the comparison for the past three years.

REGISTRATIONS IN THE GRADUATE SCHOOL  
(With percentage of total registration)

	1924 Per Cent		1925 Per Cent		1926 Per Cent	
First term .....	460	(13.4)	593	(16.5)	685	(17.2)
Second term .....	99	(7.3)	151	(10.7)	148	(10.6)
Both terms .....	558	(11.6)	744	(14.9)	833	(15.4)

*Geographical distribution.*—A study of the home residences given by summer students reveals the fact that 42 of the states in the Union are represented, only Maine, New Hampshire, Delaware, West Virginia, Nevada, and New Mexico failing to furnish at least one student. Foreign countries, including dependencies of the United States, to the number of 20, were also represented. The students from the 41 states outside of Minnesota numbered 952, 22.8 per cent of the total number of summer students; they contributed 1,291 registrations, 24 per cent of the total

registrations. Residents of foreign states numbered 75, 1.8 per cent of the total number of students, and they contributed 118 registrations, 2.2 per cent of the total. Students from outside the state of Minnesota, therefore, numbered 1,027, 24.6 per cent of the total number of students, and they contributed 1,409 registrations, 26.2 per cent of the total. The natural tendency for those coming from remote points to register for both terms raises the percentage of total second term registrations contributed by non-residents of Minnesota to 32. Wisconsin contributed 237, the largest number of non-residents coming from any state; Canada, 31, the largest foreign representation.

## ENROLMENT AND COURSE REGISTRATION BY COLLEGES

	Enrolments	Courses Registration	Student Credit Hours
Science, Literature, and the Arts.....	1,167	4,110	13,812
Engineering and Architecture.....	261	453	1,645
Agriculture, Forestry, and Home Economics.	212	590	1,757
Law School .....	77	204	408
Medicine .....	574	2,897	10,758
School of Nursing.....	134	0	0
Dentistry .....	202	118	693
Dental Nursing .....	3	0	0
Mines .....	4	0	0
Pharmacy .....	18	0	0
Chemistry .....	80	328	1,192
Education .....	1,750	3,888	10,075
Business .....	80	470	1,410
Graduate .....	833	0	0
Physical Education			
Men .....	0	237	370
Women .....	0	492	235
Total .....		729	605
Institute of Child Welfare.....	0	25	57
Library Training .....	0	129	333

The above table indicates the manner in which the total number of registrants (including duplicates) were distributed as to membership in the various colleges and schools; and also the amount of instruction actually given by the different colleges and schools. (It is not expected that there will be a parity between these figures, owing to the varying amounts of instruction given by different units for students who are enrolled in other units.)

It is interesting to note that the average student takes a little over two and one-half courses of three credits each, a total of a little less than eight credit hours, in a summer term.

*Recreation.*—The recreational program, financed by the allotment of one dollar for each student term fee, for the sixth year gave a continuance of its past satisfaction. In view of the sentiment frequently expressed by students it seems fair to state that this program is an important factor in the growth and success of the Summer Session.

During the summer the following events were scheduled: 44 lectures, 22 given by 15 speakers from outside the University, and 22 by as many members of the summer faculty (the latter included four book review hours, an innovation on these programs); 18 performances of drama, given by the University Masquers to large and delighted audiences; 10 musical recitals; 8 recitals of dramatic literature; 18 presentations of motion pictures; 8 social gatherings, 7 of them devoted primarily to dancing, and one to games and entertainment for non-dancers; 21 excursions to points of historic, educational, or industrial interest; a total of 127 different events.

Increased attention was given to physical recreation, and for the first time the entire time of a director was devoted to this work during the first term, and three-fourths time during the second term. An especial effort was made to interest men in exercise games, as a desirable change from the sedentary work of study, and individuals and teams were organized into tournaments in tennis, golf, horse-shoes, volley ball, handball, and diamond ball. All apparatus necessary was supplied, except personal requirements for tennis and golf, and prizes were awarded to winners in each tournament. More than eight hundred men, and a large number of women students, availed themselves of the opportunities afforded.

Respectfully submitted,

F. J. KELLY, *Director*

## DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

*To the President of the University:*

SIR: I submit herewith a report for the Department of Physical Education and Athletics for the academic year 1925-26.

### REQUIRED PHYSICAL EDUCATION

During the fall the required work for freshmen in introductory physical education was carried on among squads in competitive team games such as speed ball, touch football, soccer, and cage ball. Classes were conducted out of doors as far as possible. During the winter quarter graded calisthenics were introduced to supplement indoor games. In the spring quarter the work was again transferred outside as soon as possible and consisted of activities in connection with the junior events of the Sigma Delta Psi honorary athletic fraternity. The work indoors is still considerably handicapped by large classes and limited exercising space. Our outdoor program, however, was carried out much better, because of the enlargement of Northrop Field. In order to put this basic course on the best footing, we should have more extensive indoor facilities such as would be provided by a new gymnasium free from conflict with the Military Department and other university functions.

The men who are physically qualified were allowed to substitute freshman athletic team activities as a part of their physical education requirement in the sports which were offered in the different seasons of the year. In such cases, accurate attendance records were kept and those who were not in regular attendance dropped from the squad and transferred back to the regular physical education classes. The following table may be of interest because it shows the total number of registrations, the number who were given permission to substitute participation on athletic squads and the activities which were offered during the different quarters of the year.

	No. registered for P. E.	Baseball	Basket-ball	Cross Country	Boxing	Football	Gymnastics	Hockey	Swimming	Tennis	Track	Wrestling
Fall ...	1,064	2	60	34	..	95	4	16	324	..	9	7
Winter .	971	2	78	..	42	..	3	30	147	..	75	28
Spring ..	808	56	10	..	..	20	2	..	145	61	78	11

From the above table it will be seen that a large number of men elected swimming as a part of their physical education requirement.<sup>1</sup> Aquatic physical education, as may be offered in swimming pools, is particularly suited to the needs of undergraduates while in college and particularly for later life. It is also especially fitting for citizens of the state of Minne-

<sup>1</sup> NOTE—Swimming enrolment also largely due to required tests.

sota, our numerous lakes offering abundant opportunities for outdoor aquatic activities. Most of the physical education activities which are conducted on land have been worked out in parallel form for the water. Because of this, as well as its lifelong utility and its availability indoors during all seasons of the year at comparatively low cost, this form of physical education is highly desirable and needs more encouragement. A large new swimming pool would be a worth-while investment which would contribute in large measure to increased health and physical efficiency of students and faculty.

An analysis of Mr. Thorpe's report for the year indicates that 1,159 students were given the swimming test during the year. Of this number 325 were unable to pass this test of swimming two lengths of the pool at the beginning of the year and were consequently registered for elementary instruction in swimming. Of those who were registered for elementary swimming 35 failed to pass the course because of irregular attendance, 19 cancelled out of the classes and only five others (who had entered college during the spring quarter) failed to pass the test. In the spring quarter 369 other men registered for advanced work, bringing the total of those who received instruction during the year to 817.

For the coming year it is planned to have some additional part time assistants in required physical education in order to reduce the size of classes. The exercising uniform also is being changed. The gray knickers have not proved very satisfactory because of the expense necessary to secure material which would stand up under the strain of athletic activities. We have planned a uniform comprising white track suits and brown sweat clothes which we believe will be well suited to all seasons of the year and easily kept clean.

Orthopedic physical education was given a decided forward impetus by the construction and equipment of a splendid orthopedic gymnasium, 120 feet long by 30 feet wide on the second floor of the space under the Stadium. This new equipment was completed in time to accommodate the work for the winter and spring quarters. It is now possible to provide ample individual and group remedial activities for this very considerable body of handicapped students who most of all are in need of all the help that physical education can provide. Mr. Emil Iverson, who has made an excellent record in this work since his coming to Minnesota, is enthusiastic about the new equipment and reports a like enthusiasm on the part of the undergraduates who are taking the work. A total of 216 students were required to register for this work, their distribution for the year being 105 in the fall quarter, 106 in the winter, and 215 in the spring. Besides specific exercises for the special needs of the individuals, a certain amount of class work was given in the form of group calisthenics and a considerable more in recreative games. In the fall and spring the recreative games are played largely out of doors. The assignment this year of nine advanced leaders for practice teaching to assist Mr. Iverson made it possible to extend individual supervision much more widely. The orthopedic physical education program is without doubt a most valuable part of the work of the department. Some idea of the range of cases treated may be had from the following table:

DEFECTS	NO. OF CASES
Appendicitis .....	2
Flat and weak feet.....	69
Defective hearts .....	25
Hernias .....	7
High blood pressure.....	3
Defective vision .....	4
Defective hearing .....	4
Deformities from infantile paralysis.....	10
Arrested T. B.....	2
Duodenal ulcers .....	2
Chronic bronchitis .....	2
Albuminuria .....	2
Asthma .....	1
Epilepsy .....	2
Varicose veins .....	2
Poor development .....	5
Recent operation .....	1
Postural defects .....	6
Scoliosis .....	4
Pleurisy (recurrent attacks) .....	1
Defective knees .....	20
Defective ankles .....	6
Defective elbows .....	1
Defective hands .....	7
Defective arms .....	7
Defective shoulders .....	3
Defective neck .....	3
Defective hip .....	10
Arrested growth .....	1
Unclassified .....	7
Total .....	219

All physical and medical examinations were again made at the Student Health Service, Dr. Cooke and other members of our staff representing the interests of our department. Duplicate records of all examinations were then filed in this office for our use. While this arrangement of joint examinations is still open to further improvement, it is less expensive in time both to the students and the University in that a single examination serves the purpose of both the Student Health Service and this department. All athletic team candidates were likewise examined at the Health Service.

Instruction in personal hygiene was again given by Dr. L. J. Cooke who has taught it for twenty-eight years. As was done last year, this course, a quarter of which is required of all entering freshmen in the Science, Literature, and the Arts, Education, Dentistry, and Medical colleges, was again offered during the three quarters of the regular academic year. This made it possible to reduce the size of classes. A total of 1,429 took this work. Of these, 598 registered for the fall, 394 for the winter, and 537 for the spring. This course, as usual, comprised a brief consideration of anatomy and physiology and a more complete consideration of nutrition, general exercise, corrective exercise, the selection of a living and sleeping room, hygiene of the eyes, first aid, including rescue work, and precautions to be observed concerning infectious diseases. A special lecture

on dental hygiene was given by R. A. Johnson and a special lecture on sex hygiene by Dr. J. C. Litzenberg, of the School of Medicine. Altho this course is of fundamental importance to all students and altho the University has seen fit to require it of entering men in certain colleges, it is unfortunate that it is still given without academic credit.

A two-hour course in personal hygiene for credit which is given in the Department of Health and Preventive Medicine, is open to students who desire to substitute it for the non-credit course. Instruction in this course is given by Dr. Diehl. His work is highly satisfactory and the registration is growing.

### INTRAMURAL ATHLETICS

Intramural athletics has had the most successful year since the appointment of Mr. Smith as a full time director. The Annual Conference of Intramural Directors at which Minnesota was represented has been productive in pooling the best ideas of the various conference institutions. Two new sports, squash racquets and wrestling, were added this year, bringing the total of intramural sports fostered to sixteen. Mr. Smith has worked out a careful system of forms and records which are time-saving and productive of improvements in administration. Of the various campus groups the fraternities have been most active in intramural athletics, a total of 1,510 different individuals being recorded as having participated in athletic sports, quite a number of them in several sports. Basket-ball is the most intensively developed, 106 teams having participated in a total of 307 games. In order to carry out this basket-ball schedule, it was necessary to use the Armory daily, excepting Friday, Saturday, and Sunday, until nearly midnight. The new system of tennis supervision, with moderate fees for players which was instituted this year proved very successful. Nine hundred eighty-four different students took out these memberships, 440 being women. The Intramural Committee which the president appointed a year ago has continued to function on all sports in which there is a need for a joint use of playing facilities. A special detailed report of the work of this committee is in process of preparation. While marked progress has been made in intramural athletics there is great room for further development in this line as soon as additional playing areas, both indoors and outdoors, are added. The new field house should greatly improve the indoor playing conditions. A new gymnasium, however, and added play space as outlined in the biennial budget is needed to enable the entire student body and faculty to have the advantages of keeping themselves physically fit by wholesome recreational activities. At present the playing facilities are being made to yield a maximum return in most instances. This year also for the first time Mr. Smith has been engaged to conduct an extensive intramural athletic program for the students and faculty of the summer sessions. Regular schedules were played in diamond ball, volley ball, baseball, tennis, golf, handball, and horseshoes. A total of eight hundred different individuals participated during the first term alone. The following statistical table gives summarized information of the scope and content of this work with the exception of freshman sports which tho intramural in character are elsewhere reported.

INTRAMURAL PARTICIPATION TABLE

Sports	Fraternity Teams	Non-Fraternity Teams	Total No. Teams	Total No. of Individuals (Fraternity)	Total No. of Individuals (Non-Frat.)	No. Entered in Other Tournaments	Fraternity Winners	Non-Fraternity Winners	All-University Winner
Baseball .....	32	6	38	386	80	..	Psi Omega	Engineers	Psi Omega
Basket-ball .....	53	51	104	485	370	..	Pi Kappa Alpha	Ind. Trojans Mil. Signal Corp. Fresh. Freshmen (C)	Pi Kappa Alpha
Basket-ball free throw .....	8	..	8	135	..	..	Delta Kappa Epsilon		
Bowling .....	39	..	39	267	..	..	Psi Omega		
Bowling (Western Conference) ...	6	..	6	30	..	..			
Boxing .....	..	..	..	..	..	175			
Diamond ball ....	36	32	68	489	415	..	Sigma Nu	Plant Path. (farm) Freshmen No. 1 (Eng.)	Sigma Nu
Golf .....	43 (fall) 47 (spring)	..	90	63 (fall) 85 (spring)	75	89	Phi Kappa Psi (fall) Theta Delta Chi (spring)		P. W. Manson
Handball .....	66 (fall) 78 (winter)	..	144	85 (fall) 94 (winter)	..	36	Sig. Alpha Mu Phi Beta Pi (fall) Delta Sigma Pi Phi Beta Pi (winter)		R. J. Christgau

INTRAMURAL PARTICIPATION TABLE—Continued.

Sports	Fraternity Teams	Non-Fraternity Teams	Total No. Teams	Total No. of Individuals (Fraternity)	Total No. of Individuals (Non-Frat.)	No. Entered in Other Tournaments	Fraternity Winners	Non-Fraternity Winners	All-University Winner
Hockey .....	34	1	35	255	7	..	Beta Theta Pi		T. Arlander Montgomery
Horseshoes .....	28	..	28	61	..	79	Psi Omega		
Squash racquets...	15	..	15	15	..	60	Phi Beta Pi		
Swimming .....	15	..	15	216	..	..	Delta Kappa Epsilon		
Tennis .....	42 (fall) 42 (spring)	..	84	96 (fall) 92 (spring)	..	323	Alpha Chi Sigma Psi Omega (fall) Alpha Chi Sigma (spring)		G. Nathanson
Tennis tickets ...	..	..	..	..	..	984*			
Track .....	21 (indoor) 21 (outdoor)	..	42	355 (indoor) 128 (outdoor)	..	..	Alpha Gamma Rho (indoor) Phi Chi (outdoor) Theta Chi		
Volley ball .....	36	10	46	235	135	..			
Wrestling .....	..	..	..	..	..	50			
Winner of participation point contest .....									Psi Omega 701.52 points
Totals .....	662	100	762	3,571	1,082	812			

Total number of players .....

5,465

Total number without duplication .....

1,510

(Fraternity men only)

\* Not included in total.

## INTERCOLLEGIATE ATHLETICS

Football is clearly the most prominent sport in which we have intercollegiate relations. In its prominence during the season of competition, its interest among players, students, faculty, alumni, and general public, and the revenue derived, it surpasses all other sports combined. Likewise its problems of eligibility, migrations, and publicity, generally overshadow the combined problems of all the other sports. It is the judgment, however, of members of the Department of Physical Education and Athletics, and of the members of the Senate Committee on Intercollegiate Athletics that no radical change in the present rules and regulations are justified and that the problems of this and other intercollegiate sports can be gradually solved in a satisfactory manner by keeping the objectives of the game and other attendant circumstances constantly lined up with the objectives of education in general. It is noteworthy in this connection that conference athletic officials this year have decided to limit practice periods to two hours per day and are making an effort to reduce student migrations in connection with intercollegiate games. Careful studies are also being made of the problems of intercollegiate athletics both locally and in conjunction with the officials of other conference institutions with a view to reducing objectionable tendencies and utilizing more widely the character building values which abound in athletic sports if educational ideals dominate.

About a year ago a change was made in our football coaching staff. The head coach, Mr. Spaulding, having received an attractive invitation from the University of California, Southern Branch, presented his resignation to the Senate Committee on Intercollegiate Athletics. This body decided it was best to secure a new coach immediately if possible, and after an extended consideration of available candidates, selected Dr. Clarence W. Spears as the new head coach. The assistant coaches with one exception were retained. One additional new man was also added to the staff.

The names of about seventy-five men were submitted to Dr. Spears in August, 1925, as candidates for the varsity team. Only forty-five of this number were able to attain the high eligibility standards which the conference of which we are a member requires. Most of those who were ineligible had deficiencies in their scholastic standing, such as conditions and failures which they were unable to remove before the season opened. The inability of football men to carry the required full scholastic load is somewhat accentuated by the fact that most of Minnesota's male students work all or part of their way through college. The athletes do not seem to be an exception. As a result, students in addition to carrying what is laid down by the University as full work are also trying to carry the added load of earning a part or all of their way. This is frequently disastrous to their scholarship and discouraging for their success in athletics. At present the number of men who try for football is much too small when compared with our large male enrolment or the number of candidates which report at some of the other leading conference institutions. Besides this, the quality of our human football material is probably also rather lower than the best in the conference. This is partly due to the fact that most

of the high schools in the state of Minnesota which play football are small and with a few exceptions their teams are coached by men who have had more limited training as players or as teachers than is usually the case in the larger cities in other states of the conference territory. Unfortunately, too, for various reasons some of the leading high school players of Minnesota have been attending other universities as well as the state colleges.

Attempts are being made to correct some of these adverse conditions by:

1. Our major and minor in Physical Education, through which we try to train better coaches and teachers for the various positions in the state, as well as our coaching courses during the summer.

2. Our Annual Coaches Conference, by which we are annually increasing our contacts over the state and helping high school coaches with their teaching problems.

3. Constant efforts on the part of the coaches to encourage athletes to improve their scholarship and to devise a more satisfactory system of keeping the athletes and coaches informed of the scholastic and other eligibility requirements.

4. Limiting practice periods not exceeding two hours per day, thereby reducing the strain on the individual's energy and keeping this part of his program within reasonable limits.

5. Various other means of building up good will for the University over the state.

The facilities for football practice have been greatly improved by the extension of Northrop Field. Two football fields were added last fall, thereby making it possible from the standpoint of space to give football instruction simultaneously to all candidates of varsity and freshman teams who presented themselves for this work. In fact, it is possible now to take care of many more candidates. The woven wire fences surrounding the enlarged field are generally more suitable barriers than the brick wall of the old field. The prominence of the game as an intercollegiate sport with the interest it arouses among spectators makes it desirable to have a part of most practice periods carried on behind closed doors. While this is perhaps somewhat objectionable in an educational institution, it is in other respects just as appropriate to limit attendance to those who are taking the course in football as it is to do likewise in any other form of class instruction in the University in order to remove distracting influences and interferences by spectators and visitors. This also reduces the required time for practice since players can make more rapid progress. A certain amount of open practice is also helpfully stimulating to the morale of the team and student body.

While our facilities for outdoor practice are now excellent in most respects, we are still badly handicapped for a place to work during the inclement weather of the fall and for indoor practice during the late winter and early spring. The advent of the new field house should correct this difficulty.

The record of the past season was a decided improvement over that of its predecessors. The coaching staff was handicapped by being insufficiently acquainted with each other as well as with the larger number of

new players. The team was composed largely of sophomore players, the remaining players of the year before comprising only fair material. A splendid showing was made in most of the home games, fully as good as could normally be expected from a squad made up largely of young players. The team reached the peak of its performance in the homecoming game with Iowa in a game that was splendidly played in all respects. Their disappointing showing in the last game of the season was largely due to the fact that the University of Michigan was represented with a team which is generally regarded as having been the best they have ever had.

Freshman football instruction was again under the general direction of Coach Finger, who was assisted by Coaches Lidberg, Dunnigan, and Keller. One hundred fifty candidates reported for the opening practice on October 1. The enlargement of Northrop Field enabled the coaches to provide practice space for the regular freshman practice period of about one and one-half hours a day, five days each week, without cutting down the squad. This also made it possible to give a good many men a chance to show their ability after first getting into good physical condition. An important change was made this year in segregating the ineligible, migrants, and some upper classmen into a reserve squad which, under the tutelage of Coach Harris, was expected to simulate the attack and defense of the teams which Minnesota was to meet in intercollegiate competition. For various reasons the reserve squad dwindled so in numbers following the Notre Dame game that it soon devolved upon the freshmen to take up a part of this work of demonstrating styles of offense and defense. Instead of devoting most of their time to the development of fundamentals in football, including the style of play taught by Dr. Spears, it was necessary to modify the program somewhat in order to provide for the varsity the desired instruction on styles of attack for Wisconsin, Iowa, and Michigan. It is hoped that in another year the reserves will be strong enough and maintain sufficient interest to take most of the responsibility for putting on these scouting reports. It is, however, generally desirable for the freshman squad to get familiar with the offense and defense attack of one or two of our conference opponents.

Altho the coaches made no cut in the number of candidates, minor injuries, pressure of academic work, and other influences soon reduced the squad to about ninety men who reported for practice during the entire season. As a result of their showing, this group was finally graded into a first group of thirty-six, twenty-four of which were recommended for numerals. In addition to this group, forty-two additional names are recommended for further education in spring practice and for report for the varsity squad next fall. In his summarized report for the season, Coach Finger lists all of these men by name with other statistical data on their attainments and experience beginning with their high school days and continuing through the past season. He suggested the need of additional help in the way of coaches, either from professional training students, alumni, or members of the faculty who have had experience in football.

The prospects for the coming season give promise of some improvement. Changes have been made in the staff of assistant coaches which should make for more efficient coaching. Problems of eligibility of players, however, are again present and we have a schedule which is rather heavier than desirable, and unsatisfactory in some other respects. As indicated above the freshman material of last fall presented only a very few men of outstanding promise. Spring practice, which was held for about six weeks, tho not impressively large in numbers of players, proved to be the most interesting and valuable spring practice we have had in several years. While it helped to develop the players who reported in preparation for the coming season, no distinguished new material was discovered. The squad for 1926 while probably not much stronger than that of 1925 should at least be more experienced.

Further detailed statistical material appears in the tables given below. A complete detailed report by Dr. Spears on file in this office is also open for further information.

Varsity basket-ball practice was begun on October 16 with 40 men reporting four days each week until the close of the football season. Thereafter, practice was maintained daily. All early practices were conducted at the University Armory. Later practices were conducted largely at Kenwood Armory. The schedule consisted of 5 preliminary games and 12 conference games of which 7 home games were played at the Kenwood Armory, thereby making it possible to accommodate student ticket holders and a goodly number of others. Because of more ample room the attendance at games rose to the average of 4,800 per game. Several contests taxed the Armory to capacity. A new field house with more ample seating capacity would bring the basket-ball games back to the campus again and provide a new source of increased revenue. The team was badly handicapped by the loss of the regular center for three of the conference games due to illness at home and the absence of the captain for a part of the time on account of a fractured bone in one hand. Because of this and the fact that the early part of the schedules was unfortunately arranged, the team made a disappointing showing during the first half of the season. The last half of the season, however, marked a decided improvement with the team surpassing nearly all opponents and finishing in third place. The teams of the conference were usually evenly matched this year. The outlook for the coming season is good especially because of new material which is coming on.

Mr. Keller, who is in charge of freshman basket-ball, reports that 160 men reported for practice. After a preliminary practice of six weeks this squad was cut to 50 players and uniforms issued to all. These 50 were given instruction on fundamentals of basket-ball and practice in simulating future opponents for the remainder of the season. At the end of this period, Mr. Keller classified these men into three groups: (1) those recommended for numerals, (2) those given honorable mention, and (3) the remainder of the material. He pronounces the material on the whole excellent and better than that of a year ago.

All things considered, the gymnastic team made an excellent showing this year. Dr. Foster, who has coached the team for several years, winning the championship a year ago, was again in charge. Several of our best players were lost by graduation. Dr. Foster, however, is a master teacher in this field and succeeded in developing an entirely new squad which lost one meet by a narrow margin, won another by a wide margin, and placed third in the All-Conference meet. As a result of the progress made with this year's varsity, and the quality of the freshman candidates, he predicts a strong team for the coming season.

Intercollegiate hockey experienced the most successful season since the introduction of the sport several years ago. The following are the leading characteristics of the season. (1) The Northern Intercollegiate Hockey Association was established on the initiative of the University of Minnesota with sixteen teams, from colleges and universities of the Middle West, comprising the membership. (2) Altho a number of the best men of last year's team were lost through graduation, Coach Iverson developed a well-balanced and well-instructed team which did not lose a single college game throughout the season. Three games resulted in a tie score and the remainder in victories. (3) All home games were played at the Minneapolis arena, making it possible to place hockey on the regular student ticket and increasing the attendance greatly. A composite total attendance of 18,000 is reported by the ticket office for the season.

The outlook for the coming season is rather uncertain. Several of our leading players have completed their years of participation. Mr. Iverson, who also coached the freshman team, however, reports an excellent freshman squad which, he states, has made good progress.

The varsity swimming season for the present year was in many respects the most successful Minnesota has ever had. It was distinguished by the following: (1) With two exceptions, all candidates for the team were scholastically and otherwise eligible to compete. (2) No member of the squad was disqualified for the team during the season on account of illness. (3) The team won all of its dual meets, took first place in the conference championship, and of the two men who were entered in the National Collegiate Swimming Meet at Annapolis, one placed first in his event and the other second. (4) Two new conference records and two new national collegiate records were established by the team. The outlook for the coming year is excellent. Only two of this year's squad are lost by graduation. In addition to this, Mr. Thorpe reports some splendid freshmen for the coming season.

Wrestling as an intramural and intercollegiate sport showed marked progress during the year. Mr. McKusick, who again taught this work, and the undergraduates who participated received great inspiration and help from the new wrestling and boxing room which was constructed under the Stadium. This room, 120 feet long by 30 feet wide, and well equipped with rings, mats, chest weights, stall bars, punching bags, dummies, platforms, etc., we believe is not surpassed in any educational institution. Instead of our former poor facilities even for a few candidates in the University Armory, we are now prepared with equipment to take care of

all who have been interested so far. The number who have reported for instruction has more than doubled during the past year and promises to be even larger for the coming year. This added space also made it possible to begin practice earlier and work at the most suitable time of day and to teach all who desired instruction. As a result of this, the quality of work done in intercollegiate and intramural competition was distinctively better. Conditions of competition in the conference have also undergone an improvement. In place of the old Western Intercollegiate Wrestling, Gymnastics, and Fencing Association, an organization including members from the Missouri Valley and the Big Ten conferences, it was decided for the first time to include this sport as a regular part of our conference program limiting participation in the regular schedule only to members of our conference. To insure a good schedule the conference was divided into two groups, each group playing a round robin series of meets, the respective winners meeting the corresponding team of either group in the conference dual meets of the season. This arrangement proved another desirable step in the direction of uniform round robin athletic schedules in the conference. Minnesota won second place in her group in the dual meets. We tied with Purdue, the corresponding team in the other division, our team being somewhat handicapped because some of our players did not make the trip since it fell close to the examinations for the quarter. In the All-Conference meet which followed, Minnesota was represented with only three men, one of whom placed first in the conference in his weight and the other two placing near the top.

Varsity baseball this year completed its fifth year since the resumption of baseball. This year also marks the conclusion of a four-year period as coach by Major Watrous, he having been transferred for military duty to the canal zone. His work has been distinguished by (1) good teaching and (2) willingness to do his best under handicaps such as very limited indoor facilities for practice and a small financial budget.

The success of the present season was on the whole only fair after such indoor preparation as could be made with our crowded conditions during the winter months. The team was again taken on a southern trip. While other southern trips have been quite successful, this year's training trip was unsuccessful, because of unusually cold weather in the south at that time and the low financial returns from guarantees, chiefly due to cancellation of games on account of the weather.

Forty-nine candidates reported for the varsity team. The eligibility records and scholastic standings of these men is reported as having been good. A schedule comprising fifteen non-conference games and twelve conference games was arranged. Of this number two of the practice games were cancelled because of inclement weather, likewise one of the conference games. Through the courtesy of Ohio State and Indiana universities, three conference games were advanced into next year. According to the original schedule, they either fell close to or within the examination period, thereby endangering the scholastic work of the contestants.

Ninety-six men reported for the freshman baseball team which was coached by Mr. Louis Keller. Lack of adequate equipment made it neces-

sary to cut the squad to thirty after the first three weeks. Fundamentals in batting, fielding, throwing, base running, etc. were taught and a good deal of attention given to the question of discovering players who might develop into varsity caliber within the next three years.

Both the varsity and freshman baseball teams should be greatly benefited by the coming of the proposed new field house which would provide for opportunities for indoor practice during the late winter and early spring. We should also have one or two additional practice diamonds, as at present our freshman work is restricted to temporary diamonds without adequate backstops. Mr. Keller has done as much as could be expected in the way of teaching baseball fundamentals and discovering players with promising ability under present conditions. Even tho baseball facilities are not what we would like to have them, we feel that the game is nevertheless worth while as a valuable form of physical education for college men.

Dr. H. S. Diehl gave a good deal of time to the coaching of varsity tennis candidates this spring. His teaching was given without pay, he thereby being able to retain his amateur standing. Thirty students tried for the team. Practice was started indoors shortly before the close of the winter quarter, in the orthopedic room under the Stadium where a court, half size in width, but of full length, was marked off. Handball courts were also used for practice. During the spring vacation a full sized court was laid out on the floor of the Armory. Later the squad practiced on the concrete courts belonging to the Park Board of the city of Minneapolis. The squad was handicapped in this by difficulty in getting transportation to and from the courts. Owing to a late spring, it was not until about the second week in April that the courts on Northrop Field could be put in condition.

A modest schedule of four dual conference matches was played with four men comprising the team and in addition a full team was sent to the conference singles and doubles tournament in Chicago. The conference schedule was preceded by other informal matches with Twin City tennis clubs.

Altho we are still handicapped by lack of adequate indoor facilities for this game, which has much value as a form of physical education for later life, the varsity team this year made a showing that was quite encouraging. Several matches were lost, but these were by close scores and by teams of greater experience.

Fifty-eight men tried out for the freshman tennis team. They were tested out thoroly by means of a peg tournament to determine their comparative rating as players. The standard of play among the freshman candidates was higher than usual this year due to the fact that several team mates from prominent high school teams of the state entered the University during the year. This gives promise of a higher standard of varsity play for the coming year.

Dr. Diehl recommends that (1) two more conference games be added to the schedule, (2) that more courts be made available for intercollegiate competition, and (3) that the University construct cement courts which, besides placing our varsity teams on a more equal footing with other

institutions, would also very materially lengthen the tennis season in the spring and fall for the general student body. Cement tennis courts would result, too, in almost a total elimination of cost of operation, there being no need for daily sprinkling, rolling, and marking.

Competition in track is conducted chiefly during the winter and spring quarters. Mr. Finger was again in charge as head coach and was assisted during part of the time by Mr. Iverson and Dr. Spears. Mr. Finger reports that 250 men reported for track for the winter quarter and 240 for the spring quarter. These were fairly equally divided between freshmen and upper classmen. Altho one of our oldest sports here at Minnesota, because of lack of adequate indoor playing facilities, our showing in track and field athletics has been far from satisfactory. Conditions were greatly improved this year, however, with the excellent provision for both track and field events in the north half of the ground floor of the Stadium. This installation, however, came a little too late to be of much service for the past season. It did, however, greatly relieve the indoor congestion which has heretofore been common in the Armory and it gave the track men an opportunity of competing on a cinder track throughout most of the indoor season. The graduation of some of our best players of the past year and the discouraging ineligibility of some others of our most promising track men greatly reduced the comparative showing of the team. After a fair indoor season and a fair outdoor season the team showed splendid form in the conference meet by winning a total of 13½ points, our best showing in several years. A most significant fact, however, was the distinctive record of the freshman team which easily surpassed the varsity in the quality of performance and measured up well with the best freshman teams in the conference. This, together with our improved playing conditions, makes the year of 1927 look very promising.

It was found necessary to reduce the enrolment for cross country this year due to shortage of lockers and equipment. Fifty-five upper classmen and forty-four first year men were given instruction throughout the season. With this reduced number it was, however, possible to give more intensive attention to those who reported. As a result we believe the quality of individual attainment was rather higher than in preceding years. Intramural or intercollegiate competition was provided for all men. The cross country headquarters having been transferred to the Stadium, a modification of the five-mile course was made. A fine trophy having been offered by the Cross Country Club, comprising Minnesota men who have engaged in this sport in the past, the department conducted an all-Minnesota high school cross country run over a two and one-half mile course on November 7, 1925. Nine high school teams competed, Roosevelt High School of Minneapolis coming out the winner. This meet was so successful both in interest displayed and in the quality of work done by the high school athletes and the effect on the high school players that we feel it should be continued as an annual event. Cross country running, if properly graded and not overdone, is a good fundamental form of all-around exercise, well suited to the physiological needs of vigorous boys of late high school and college age.

Golf should again be resumed as an intercollegiate sport for the coming year. It is one of the best sports we have because of its life-long recreative utility. It is also no longer a rich man's game. As an intramural sport both in tournaments and as an informal play activity, it has a wide following among undergraduates. The recent distinguished showing made by Lester Bolstad, A '29, in winning the national public links championship and by Robert Peplaw, A '28, in winning the state consolation prize are the most noteworthy achievements, and will undoubtedly stimulate great enthusiasm among the undergraduates for an intercollegiate team.

The following summarized table gives condensed information in comparable form regarding the various intercollegiate sports. Other additional information on any specific sport may also be secured by consulting the individual reports which the various coaches have filed in this office.

STATISTICAL TABLE OF INTERCOLLEGIATE ATHLETICS

Sport	Total No. of Games	No. Conference Games	No. Non-Conference Games	Total No. Received Athletic Instruction Including Freshmen	No. Varsity Candidates	No. Freshman Candidates	No. with Intercollegiate Competition	No. "M's" Awarded	No. Numerals Awarded	No. Games Won
Football .....	8	3	5	225	75	150	33	25	24	5 1*
Baseball .....	21	8	13	146	50	96	12	11	18	5
Basket-ball .....	17	12	5	207	40	167	13	9	15	7
Cross country ..	4	3	1	99	55	44	13	6	8	1
Gymnastics .....	3	3	0	25	25	0	8	4	0	1†
Hockey .....	17	8	9	115	55	60	15	11	12	15 2*
Swimming .....	10	5	5	50	25	25	15	12	15	10
Tennis .....	5	5	0	65	25	40	5	4	4	1 1*
Track .....	4	4	0	280	120	160	21	15	18	1
Wrestling .....	7	6	1	140	50	90	8	6	10	2 1*
Totals .....	96	57	39	1,145	520	822	143	103	124	48 5*

\* Tied.

† Third in conference.

The general supervision of ticket sales was again under the direction of the ticket committee comprising a subcommittee of the Senate Committee on Intercollegiate Athletics. The personnel of this committee was: Dr. H. S. Diehl, chairman; W. T. Middlebrook, and the director of the department. The detailed work of the ticket management was again under the supervision of Dr. L. J. Cooke, assisted by Mr. Kenneth Wells and others.

The activities in this office extended over nearly the entire year. With the coming of the new Stadium, our attendance in football has more than doubled. The introduction of a general student ticket for all sports except swimming has greatly multiplied our student and faculty attendance at all athletic contests throughout the year. This is particularly noticeable with respect to basket-ball and hockey, both of which were included in the general student ticket for the first time this year. Swimming could not be included because of our extremely limited capacity for spectators, admission to swimming events being by invitation only. In order to prepare properly our ticket office for its work a representative has been sent annually to the meeting of Conference Ticket Managers. At these meetings the method of handling tickets with respect to forms, priority, publicity, closing dates, accounting, reports, and settlements with other institutions, were all uniformly standardized and the best methods which were developed at local institutions exchanged for the common benefits for all. Minnesota has in this way gained a good deal of valuable information as well as contributed some which others received with appreciation.

The volume of business for the ticket office undergoes great fluctuations during the year. During the past year the ticket office opened on June 15, work being started in preparation for mailing application blanks to Stadium subscribers and former students. These blanks for each game, together with ticket information for the season, were mailed to ten thousand people on August 15, 1925. Following this, mail orders from all excepting students and faculty began to come in. Our sale to students and faculty comprised two groups of orders: (a) season tickets for the football games; (b) orders for individual games. The plan of public season tickets adopted three years ago has shown remarkable growth. In 1923, in old Northrop Field, there were about 350 season tickets sold; in 1924, the number was 2,399; in 1925, 3,247 were sold; and at least 5,000 should be sold during the coming season.

As soon as college opened in the latter part of September the student season tickets were placed on sale. This system, devised by the ticket committee and approved by the Senate Committee on Intercollegiate Athletics, worked exceptionally well, altho it is quite a problem to sell season tickets to the student body since the first game is to be played within one week of the opening of the University.

The identification of individual ticket holders requires careful handling and was worked out much better than in the preceding years. A coupon system was also introduced, thereby distributing sales over several days and saving the time of students who would otherwise be in line trying to improve their location by priority purchase. Over 5,000 coupons were sold in one day and the question of priority was handled by lot, groups of individuals who desired to sit together being, however, accommodated. The number of student books sold was 6,484. This was 216 less than last year, but when it is recalled that the price had been raised because of the fact that all sports for the year were included the total was, in fact, a considerable increase.

In addition to mail orders and sale of student tickets, there was conducted a public sale of tickets during the week preceding each game. These tickets were sold at five different places: two on the campus, two elsewhere in Minneapolis, and one in St. Paul. The load of these public sales varied greatly and seemed to be difficult to gauge in advance. In addition to this, provision was made for ample elastic sales at the Stadium on the day of each home game. The volume of these sales at the game established a new record of 5,500 for the North Dakota game and nearly 6,000 for the Homecoming Iowa game. On the dates of games, provision was also made for selling tickets at reduced rates to children. All high school football teams desiring to come with their coaches were admitted free to the North Dakota game. A twenty-five cent rate for such teams and children who wished to come was made for all other non-conference games, and the rate of fifty cents for games of conference class.

Following the student sales came the fluctuations from game to game with the peak loads for the Notre Dame and the Homecoming game. The volume of business summarized at the close of the football season was as follows: (1) total football attendance, 241,065; (2) gross receipts, \$359,324.94. From this the combined guarantee to visiting teams of \$138,978.87 was deducted. Following each game in the football season the ticket office made a settlement with visiting institutions within a period of two weeks. There was also a daily report of all sales filed with the ticket manager. All cash receipts and checks were deposited with the university bursar within twenty-four hours after having been received.

With the completion of the work of handling ticket sales for football, the largest part of the ticket office work is completed. For the balance of the year there remains only a fairly even and a much lighter load comprising ticket sale reports and settlements for the intercollegiate contests of other sports of the year.

The ticket administration for the year showed the following improvement along various lines: (1) A larger load was carried more efficiently and less expensively than in any preceding year. This was due in a large measure to improvement of organization. (2) By a system of coupons, and by a revised system of giving student priority, there was effected a great saving of time in marketing tickets for students and faculty. (3) A more suitable ticket office and more experienced personnel were provided. (4) Identification of season ticket holders was made more effective. (5) Publicity was improved by means of an attractive football poster containing schedule and prices of the games distributed over the state, and by means of better publicity of ticket sales in the daily papers and radio broadcasting of announcements. (6) A greater volume of business was transacted in public and advance ticket sales. (7) There was less transferring of student tickets to outsiders and other ticket abuses.

For the coming year it is planned to retain the same personnel for the ticket office. This together with a lighter home schedule should make ticket administration easier, more efficient, and less expensive.

Mr. Poucher was again in charge of all ticket takers, checkers, and ushers for the year. During the football season, arrangements were again

made to have the ushering at football games done by a large group of first class scouts of Minneapolis. This is the second year in which we have used Boy Scouts for this purpose and their work was done excellently. The Boy Scouts are preferred as ushers because (1) they wear a distinctive uniform; (2) they are supervised by scout leaders, each of whom knows every boy under his command; (3) they are organized; (4) they serve under an honor code contained in the scout law.

### PROFESSIONAL TRAINING COURSES

The important work of training teachers for physical education is showing gratifying improvement. Enrolment for the year for those who elected the major in physical education was forty-one. Of this number seventeen were freshmen; eleven, sophomores; five, juniors; seven, seniors; one, unclassified. In addition to this an increasing number of men are taking some of the courses as electives. The foreign language requirement was dropped from the curriculum during the year and a two-credit course in personal hygiene substituted for the former non-credit course in the same subject. Mr. Keller, who supervises this work, reports it as in better shape than a year ago, both as to the quality of teaching and the interest and work of the students. An important development during the year was a modification of the regulations of the conference faculty representatives which made it possible for candidates in intercollegiate athletic teams to register for this work on the same basis with other students. The intercollegiate athletic experience, since it affords intensive education in the major sports and acquaintance with the problems of intercollegiate athletics, is highly worth while for those who seek to fit themselves for teaching positions in physical education. The old rule of the conference, passed a few years ago, sought to exclude athletes from the professional training courses, thereby greatly handicapping the work of training teachers.

### SPECIAL SERVICES TO THE STATE

Since we are located in the state University, members of our department feel that we have a wide obligation to the people of this commonwealth. In addition to our regular work therefore with the members of the University, we have tried in various ways to conduct a form of Physical Education Extension Service along the following lines:

1. The Fifth Annual Spring Athletic Conference was conducted during the spring recess, and consisted of a three-day period of intensive courses for coaches and other physical educators of the state. These courses were again well attended. Chief values of the conference were:

- a. Acquainting the members of our staff with the high school coaches of the state and their teaching needs and problems.

- b. Thereby enabling our staff members to help the state representatives wherever help was needed.

- c. Making for a better mutual acquaintance among physical education leaders in the state.

2. The Seventeenth Annual Interscholastic Track and Field Meet was again conducted by our department for the Minnesota State High School Athletic Association. There were 11 institutions in Class A group and 35 in Class B, with a grand total of 530 individuals entered in the meet.

3. The fifth annual Northwest Interscholastic Swimming Meet was held for the high school teams of the state. The following table shows the growth of this sport as indicated by the attendance we have had in the successive years since this meet was established:

Year	No. of Schools Entered	No. of Contestants
1922	7	48
1923	8	56
1924	10	72
1925	11	84
1926	16	128

4. First Annual Interscholastic Cross Country Run, with the results as indicated elsewhere in this report.

5. Under the direction of Mr. Smith, of this department, an Officials' Service Bureau was conducted, consisting of meetings for interpretations of rules for high school and other coaches of the state, and assignment of officials to a large number of interscholastic and intercollegiate athletic contests of the state.

6. A large number of educational talks on athletic subjects were given in high schools and other community centers all over the state. Dr. Spears, Dr. Cooke, Mr. Finger, Mr. Smith, and the director participated most widely in these. Other members of the staff, however, also filled some of these engagements.

7. In the interests of promoting physical education needs outside of the University, our athletic equipment was made available as follows:

A. The Stadium

1. State high school track and field meet
2. Minneapolis grade school track meet
3. Twin City high school track meet
4. Minneapolis Settlement House track meet
5. City Y. M. C. A. track meet

B. The Armory

1. Northwest gymnastic championship meet
2. Boy Scouts training classes
3. Twin City championship basket-ball game

C. Swimming Pool

1. Northwest interscholastic swimming meet
2. Opportunities for practice for Twin City high school swimmers
3. Opportunities for practice for Southeast Y. M. C. A. boys' group.

Respectfully submitted,  
 F. W. LUEHRING, *Director*

## THE DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

*To the President of the University:*

SIR: I beg to submit my report on the work of the Department of Physical Education for Women for the year 1925-26.

*Faculty changes.*—Miss Else H. Bockstruck and Miss Mary Starr Conger were appointed as instructors to fill vacancies. Miss Pauline L. Lane was appointed instructor as an addition to the staff. Miss Helen W. Hazelton was promoted from the rank of instructor to that of assistant professor. Assistant Professor May S. Kissock was granted a sabbatical furlough for 1926-27 and Miss Irene Evans was appointed an instructor for certain classes during Miss Kissock's absence.

Following are the outstanding developments of the year.

*Freshman classes.*—In my report of last year I mentioned the compilation by the department staff of a set of widely varying activities from which to choose exercises which could be treated as gymnastic material. These had for their purpose the development of neuro-muscular skills necessary to good posture, seasonal sports, and control of the body in apparatus work, and many of them were capable of being used in testing and measuring. The department continued to work this year in the direction of setting up certain minimum standards of accomplishment based on these types of activities and to use methods of testing and grading which would be intelligible to the students. At the end of the winter quarter, in order to get an idea of the students' reaction to the program, the freshmen were asked to answer anonymously a short questionnaire. Approximately 500 answers were returned.

The questions were as follows:

1. Arrange the four activities which you have had (gymnastics, folk dancing, games, and apparatus) according to your enjoyment or interest.
2. Arrange the same activities according to your ideas of their value to you.
3. What improvement, if any, have you noticed?
4. What changes would you suggest for another year?

One of the seniors majoring in physical education took the answers for a problem and discovered the following facts:

1. *Ranked by enjoyment.*—(1) Folk dancing, 176; (2) apparatus, 166; (3) gymnastics, 101; (4) games, 68.
2. *Ranked by value.*—(1) Gymnastics, 355; (2) apparatus, 129; (3) folk dancing, 18; (4) games, 9.
3. *Improvement.*—The outstanding comment concerned posture. Muscle development, control and co-ordination, and health came next in order.
4. *Changes.*—As to changes, 115 wanted gymnastics stressed more, 77 wanted more apparatus, 36 wanted more difficult folk dancing, and 30 wanted more difficult games.

Certain conclusions that may be drawn from these answers are that enjoyment of rhythm and social contact are high in girls at this age, that they have a real interest in the development of health, and that the improvement in physical fitness which can be gauged by self-testing in gymnastics and apparatus exercises appeals to them as valuable. Their lack of appreciation of games was a surprise. It may have had a relation to the fact that they had had a six-week program of outdoor games in the fall and that they were ready to attack an indoor program that seemed to have a more serious purpose. In addition to this the space indoors is not sufficient to permit the sectioning of the classes into the small groups that are desirable for games. On the other hand, undoubtedly the values of gymnastics and apparatus were recognized to a greater extent than by former classes.

Next year's program will be modified somewhat as a result of these findings and we shall pursue a similar inquiry at the end of the winter again.

*Women's Athletic Association.*—The organization has met monthly and has functioned smoothly. Through its Board of Control, it has managed the student side of the program of athletics efficiently. The weekly meetings of this board have had a highly satisfactory attendance and much work has been transacted at them.

The sentiment has been growing in the Women's Athletic Association for acquiring a cabin at some convenient distance from Minneapolis which will be available for members and also for the general university body of women for week end outings. Sites have been investigated with the consensus of opinion in favor of a site either on the bluffs of the Rum River at Anoka or in the valley of the Minnesota River. Sketches have been drawn and estimates secured. At the winter basket-ball banquet of the organization the plans were detailed as far as progress permitted.

The idea of this cabin is in harmony with the interest in outdoor recreation and wholesome social contacts which the Women's Athletic Association does much to promote and the Department of Physical Education for Women is glad to endorse it heartily.

The Women's Athletic Association has expressed its confidence in the platform and policies of the Women's Division of the National Amateur Athletic Federation by joining it on the basis of the regular \$5 membership. In April when a Minneapolis district group of the Women's Division was organized, the W. A. A. was represented by two members.

In accordance with the ideals of the Women's Division of the National Amateur Athletic Federation and of this department and to enlarge social contacts while avoiding intercollegiate games, the Women's Athletic Association invited students from Macalester and Hamline colleges and from the high school athletic associations of Minneapolis, St. Paul, and Stillwater, to participate in open games and events in the Spring Carnival and to be present at the spring banquet which followed in the evening. Several visiting groups were present and the spirit was one of good comradeship. The idea of "playing with us" instead of "playing against us" dominated

the carnival. In the open games each team was made up of representatives of several institutions and while each side strove to win, the fun of the game was the main interest.

The Women's Athletic Association held its first "telegraphic meet" this spring. The track events were run off on the day of the Spring Carnival in competition with the Women's Athletic Association of Ohio State University and the archery shooting was in competition with the Women's Athletic Association of the University of Michigan. The lack of the presence of the competitors, of publicity, of a paying audience, and of travel seem to protect the telegraphic meet from the elements which make other intercollegiate competition for women undesirable. Interest was keen to receive the records from the competing universities, but the spirit of the events was much the same as in our regular spring carnivals.

The Women's Athletic Association has conducted tournaments in field hockey, tennis, volley ball, basket-ball, swimming, ice hockey, baseball, archery, and track. It has also fostered horseback riding and hiking, and has given points to those who passed certain tests in dancing and apparatus work.

*Professional training course.*—Methods for evaluating and criticizing practice teaching.

Gratifying progress has been made in our project for working out criticism forms in all the branches in which we require practice teaching of the seniors majoring in physical education. Forms for gymnastics, orthopedic gymnastics, interpretative dancing, swimming, and basket-ball have been used. Each critic teacher worked independently at the problem this year and all reported the value of this method in its tending to greater completeness of criticism, greater objectivity, and fuller satisfaction to the student. Next year an effort will be made by the head of the department to standardize the forms, wherever desirable for the purpose of better interpretation, for recommendations for teaching positions.

We have continued to strive for a record of observing and criticizing the practice teachers in 50 per cent of their teaching periods, with a large degree of success. This entails a heavy program of visitation of classes in grade schools in southeast Minneapolis and of the high schools in various parts of the city. Practice teaching is so helpful a part of the curriculum in the estimation of students that it seems worth while to make every effort to have it of maximum value.

*Health education.*—The teacher of physical education in small towns may be asked to help in, or even to take charge of, the health teaching in her school or in the system. In larger towns and cities, on the other hand, she may be given no opportunity for handling anything except the physical activities program. While we are probably not justified in treating the situation as if every graduate would be called on for a large amount of health teaching, a certain minimum amount of preparation should be given to all in the technique of presenting the subject and correlating it by projects with the physical activities program and other subjects in the curriculum. Miss Bockstruck, who has had the course in Personal and

School Hygiene this year (a senior course), has required a teaching project from each student. We were fortunate in being able to use a neighboring grade school for the grade work and obtained worth while and interesting results in health campaigns lasting from one to three weeks.

*Dance program.*—It is estimated that 1,000 people attended the dance program on the knoll. This program is the last lesson of the season for all the dancing classes. It does not entail extra practice on the part of the students, except for an ensemble rehearsal. It does, however, entail extra teaching hours on the part of the instructor since she splits the class into groups which meet for practice at various periods.

This year the loud speaker apparatus belonging to the University was installed in order to overcome difficulties which had existed before in hearing the music. The result was all that could be desired in magnifying and distributing the music produced by a piano, one wind instrument, and three stringed instruments.

*University High School.*—The athletic organization called Acme went out of existence this year. It was formed eight years ago to foster athletic accomplishments, high scholastic ability, and the development of desirable social and civic qualities. It did pioneer work in stimulating interest in a program of recreational activity and health interest. Its membership included the most outstanding girls of the school.

Other devices have now been developed for giving social recognition to high scholarship and the "U" Club has developed to such an extent that it can take full charge of the athletic and health point system. Acme, therefore, has ceased to have a reason for continuance.

The scheduled work went on as usual, all classes receiving instruction three times a week in physical activities while two periods a week were conducted as play hour for the girls who chose to participate. A required course in hygiene running through two quarters was held for seniors.

Interclass competition in all activities was held at the end of the indoor season, and participation in the University High School field day closed the year.

*Acknowledgments.*—By the courtesy of the Department of Physical Education and Athletics Mr. Iverson taught fancy skating on the women's skating rink to regularly registered classes of girls.

The rink was built by employees of the Department of Intramural Sports for which service a reimbursement was made from the budget of this department. The rink was kept in excellent condition during the skating season.

*Summer Session.*—A gratifying response in registration followed a moderate expansion in summer session offerings. Four full time and three part time staff members were employed in the first term. A course in community recreation and recreational courses in tennis and golf were added, and a methods course in highly organized games was divided into two courses, one in basket-ball and one in baseball, soccer, and volley ball. The registration figures are shown under the statistical data.

By co-operation with the Minneapolis Park Board the playground in Van Cleve Park was used as a laboratory for the course in Play and

Playground with such satisfaction that we hope to continue the arrangement.

As before, we have tried to fit the professional courses in the Summer Session to the needs of Minnesota teachers in carrying out the plans of the state supervisor of physical and health education.

*Committee on Intramural Sports.*—The Committee on Intramural Sports, consisting of Mr. Luehring, Mr. W. R. Smith, Dr. Diehl, Miss Kissock, and myself has held several meetings during the year for the discussion of problems of joint facilities. The subjects of consideration have fallen into three groups: first, the administration of the Washington Avenue tennis courts, for the routine business of which Mr. Smith and Miss Kissock have acted as a subcommittee; second, a study of the status and use of the existing facilities for physical education in the University, both outdoors and indoors, showing the ratio of student hours per week to available space; and third, a study of the most desirable lines along which the further development of physical education facilities may extend in the future.

The committee is agreed that this University is far below others of the same class in its provision of outdoor space for physical education and that the need for further provision is urgent.

For a full statement of the committee's studies I would refer you to a report which is undergoing preparation.

*Need of space.*—Required classes for freshmen and sophomores are crowded to the point of inconvenience and loss of productivity in health giving results. The required classes, together with the classes of students majoring in physical education, occupy the existing facilities to such an extent that it is impossible to give more than a very small amount of service to upper class students or faculty in recreational activities during the day. The opening of the gymnasium for practice and tournaments in basket-ball from seven to nine four evenings a week, with faculty supervision, has helped decidedly, but soon the increasing numbers will catch up with this increased opportunity. It seems undesirable to extend the time to a later hour than nine o'clock in the evening.

In view of the prospective vacating of the Law Building at a comparatively early date a study has been made of the possibilities presented for providing relief from the present congestion. The added space might be sufficient to help the indoor situation measurably. This building with comparatively small change seems unusually well adapted for such temporary use. A request for the adaptation of portions of it has been made in my biennial estimate for 1926-27.

The Committee on Intramural Sports presents a survey of the present situation in regard to available space, indoors and outdoors, for men and women, which is an argument in itself for acquisition of more land for outdoor activities as soon as possible.

ENROLMENT

The total enrolment in exercise groups during the fall quarter exclusive of those in extension classes and those participating in general swimming was 1,915.

ENROLMENT OF NON-PROFESSIONAL STUDENTS

Freshman requirement		
Hygiene .....		945
Elementary physical training (fall quarter).....		785
Sophomore requirement (fall quarter)		
Physical training .....	81	
Swimming .....	407	
Interpretive dancing .....	97	
Games and folk dancing.....	58	
Hockey .....	55	
Tennis .....	47	
Orthopedic gymnastics .....	31	
	<hr/>	
Total sophomores .....		776
Distribution of freshmen among sports (spring quarter)		
Tennis .....	195	
Track .....	173	
Archery .....	141	
Baseball .....	261	
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		770
Enrolment for major sports		
Field hockey		
Sophomores to fulfill requirement.....	55	
Other classes, elective .....	110	
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		165
Ice hockey, elective.....		34
Basket-ball		
Sophomores to fulfill requirement.....	72	
Elective classes, main campus (100, afternoon, 100, evening)	200	
Elective classes, farm campus .....	10	
	<hr/>	
		282
Baseball		
Freshmen, to fulfill requirement.....	261	
Sophomores, to fulfill requirement.....	83	
Elective, main campus .....	100	
Elective, farm campus .....	25	
	<hr/>	
		469
Swimming, elective, number of swims.....		2,026

PROFESSIONAL COLLEGE STUDENTS

Seniors .....	19
Juniors .....	21
Sophomores .....	34
Freshmen .....	35
Minorng in physical education.....	10
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## THE PRESIDENT'S REPORT

## UNIVERSITY HIGH SCHOOL GIRLS

Freshmen .....	25
Sophomores .....	35
Juniors .....	25
Seniors .....	23
Orthopedic class (all classes) .....	18
	<hr/>

126

## EXTENSION CLASSES

Swimming, both semesters .....	238
Swimming, Summer Session .....	18
Interpretive dancing .....	15
Gymnastics .....	21
Orthopedics .....	28
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320

## SUMMER SESSION

Teachers course in play .....	19
Teachers course in schoolroom gymnastics.....	20
Teachers course in basket-ball .....	25
Teachers course in soccer, baseball, and volley ball.....	23
Teachers course in swimming .....	16
Interpretive dancing .....	36
Swimming .....	173
Tennis .....	70
Golf .....	60
Community recreation .....	13
Girls' athletic associations .....	13
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468

## PHYSICAL EXAMINATIONS

Entrance examinations	
Fall .....	1,157
Winter .....	73
Spring .....	43
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1,273

A second posture examination was given in the spring to all freshmen, and a second physical and medical examination to all sophomores and upper class students completing the physical education requirements.

A follow-up program of health was carried through for all newly entering students, all of whom had one consultation with their instructor, and a large proportion of whom had additional consultation with Dr. Tolg or Miss Denny. Dr. Tolg also conducted health conferences with upper class students as in other years. Students numbering 1,082 were summoned for these consultations.

STUDENT HOURS PER WEEK DURING FALL QUARTER

	Students	Hours	Student Hours
Hygiene .....	686	1	686
Elementary physical training .....	785	3	2,355
Sophomore physical training .....	81	2	162
Sophomore swimming .....	407	2	814
Sophomore interpretive dancing.....	97	2	194
Sophomore games and folk dancing.....	58	2	116
Sophomore orthopedic gymnastics.....	31	2	62
Sophomore hockey .....	55	2	110
Sophomore tennis .....	47	2	94
Elective field hockey .....	125	2	250
Elective swimming .....	15	5	75
Senior professional students .....	19	13	247
Junior professional students.....	21	12	252
Sophomore professional students.....	34	7	238
Freshman professional students .....	35	2	70
University High School .....	126	2-3	354
University High School hygiene.....	25	1	25
Extension classes .....	182	1	182
Total .....			6,286

REPORT OF TOURNAMENTS AND DEMONSTRATIONS

Annual demonstration .....	March 11
Dance program .....	May 27
Penny carnival .....	March 5
<b>Interclass tournaments</b>	
Field hockey .....	November 12-16
Ice hockey .....	February 11-16
Basket-ball .....	March 3-10
Volley ball .....	November 10-15
Tennis .....	May 25-June 1
Interclass swimming meet .....	March 4
Spring carnival and field day.....	June 1
University High School	
Interclass gymnastics contest.....	April 23
Swimming meet .....	May 21
Field day .....	June 4

Respectfully submitted,

J. ANNA NORRIS, *Director*

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

*To the President of the University:*

SIR: I have the honor to submit the following report of the Department of Military Science and Tactics for the year 1925-26.

I am glad to be able to report a very satisfactory year's work. The morale of the Cadet Corps has been very high throughout the year. The fine spirit with which the students entered into the work was especially in evidence during the War Department inspection on May 20 and 21. While the results of the inspection have not yet been announced, the showing made by the Cadet Corps was far better than that of the preceding year. In fact the efficiency of the work displayed by the Cadet Corps during inspection exceeded the fondest expectations of all the officers and non-commissioned officers on duty in the Military Department.

Our cadet rifle team won the Hearst National Trophy for the third consecutive time and this trophy now remains permanently with the University of Minnesota. With about one hundred teams competing in this event annually, the success of our rifle team in scoring three successive victories is most remarkable.

The co-operation from administrative officers and college faculties has as heretofore, been most gratifying.

Respectfully submitted,

**BERNARD LENTZ**, *Major Infantry, P. M. S. & T.*

## THE GEOLOGICAL SURVEY

*To the President of the University:*

SIR: I submit herewith my report as director of the Minnesota Geological Survey for the period from July 1, 1925, to July 1, 1926.

The survey was allotted \$16,000 for the biennial period begun July 1, 1924. The work was carried on in accordance with plans outlined in earlier reports to the president of the University, and published in the annual reports of the president. At the end of the fiscal year there were under way or completed the following investigations:

1. A report by Dr. F. F. Grout on the geology of northern St. Louis County was completed in 1925 and issued as *Minnesota Geological Survey Bulletin 21*, pp. 1-220. This report treats the geology and mineral deposits of a large area in northern St. Louis County extending northward to the Canadian boundary. It lies south of the Rainy Lake area of Canada. Because the area joins the world's greatest iron-producing district it has been the subject of much interest to explorers and prospectors seeking new deposits of iron ore and parts of the area have been surveyed by the United States Geological Survey and the earlier Minnesota surveys. Much of the area, however, had not been surveyed in detail.

The area for the most part is heavily forested or cut over timber land and much of it is not provided with roadways. The work was done as far as practicable near canoe routes and many camps were necessary at places where supplies had to be carried by men in pack sacks. Under these conditions it is not surprising that certain parts of the area were little known. One who has not traveled the brush area of the north woods can hardly appreciate the amount of labor involved in mapping such an area in detail.

The report includes a general map of the area, several detailed maps of small areas of economic interest, and 88 township plats. These township plats are essentially outcrop maps and cover the entire area, approximately 2,200 square miles. The chief scientific results of the survey are a study of the intrusives related to the great granitic batholiths that invaded the schists and greenstones of the area. These granites and their differentiation products are the central features of the district, and altho the ores connected with them, so far as they are discovered, seem to be relatively unimportant, the district offers one of the most attractive fields for petrographic study.

The chief economic resources of the area are the sedimentary iron ores of the Vermilion Iron Range. Other deposits include the iron-bearing pegmatites which are widespread in and near the roofs of the batholiths. Still other mineral resources include the quarries for greenstone or slate that is used for surfacing tarred felt roofing. There are also small deposits of mica and asbestos.

The completion of this work has required several field seasons. All of the field parties have been in charge of Dr. F. F. Grout, who has

received efficient assistance from Mr. Stanwood Johnston, Mr. Francis Pettijohn, Mr. G. R. Downs, and Mr. C. W. Sanders.

2. Investigations of Paleozoic formations in southeastern Minnesota were made by Dr. C. R. Stauffer. These detailed paleontological and stratigraphic studies are necessary for the completion of the geologic map of Minnesota which is in preparation.

3. Geological surveys of the ancient volcanic area in Lake and Cook counties, northeastern Minnesota, were made by Dr. F. F. Grout and Dr. G. M. Schwartz. This area joins the silver-bearing district near Port Arthur, Canada, and has similar geological features.

4. A study of the mineralization and alteration connected with certain intrusive porphyries north of the Mesabi Range was made by Dr. John W. Gruner.

5. A study of the iron ores and manganiferous iron ores of the Cuyuna Iron Range was continued in 1925 by Dr. George A. Thiel, with particular reference to the area between the Cuyuna Iron Range and the west end of the Mesabi Range.

6. A study of the marl used for fertilizer and for mineral feed was made by Dr. George A. Thiel, assisted by Mr. L. C. Armstrong in 1926.

7. During the summer of 1925 the investigation of the water resources of western Minnesota by Dr. I. S. Allison was continued. Dr. R. J. Leonard was employed as chemist in the laboratory.

In addition to the more comprehensive investigations outlined above, many inquiries are received in the offices of the survey concerning the geological structure at various places, by those who contemplate drilling for water or for ore. Many requests are received for information concerning deposits of peat, stone, clay, shale, and other rocks for artificial shingles, mineral paints, fluxes, refractories, etc. These inquiries are given careful attention, and when practicable, samples of material are forwarded in order that it may be tried out. Many samples of rocks and ores are forwarded from different localities in the state to be examined to determine their availability for various economic purposes. This service, which is free of charge, is steadily increasing.

Respectfully submitted,

W. H. EMMONS, *Director*

## THE ZOOLOGICAL MUSEUM AND SURVEY

*To the President of the University:*

SIR: I have the honor to present the following report of the condition and activities of the Zoological Museum for the year ending June 30, 1926.

The museum has continued to develop satisfactorily during the past year. The daily attendance has been greater than ever before but there is no way of determining even approximately the number of visitors except on special occasions when the building is not otherwise in use. The two or three entrances to the building, open from morning to night on week days, and the large numbers of students coming and going constantly make impracticable the installing of any registration device. The requests for lectures have increased considerably and during the spring months especially large groups of school children have been at the museum every available day. More detailed information in regard to the scope and character of this important work of the museum will be found farther on in this report.

A sixth large habitat group was completed and opened to the public in December. It shows a family of black bears, two adults and three cubs, displayed in characteristic attitudes and surroundings in a rocky gorge on the north shore of Lake Superior. This group is another gift from Mr. James Ford Bell. It was constructed by Mr. Jenness Richardson and his wife according to a general plan proposed by Mr. Bell. The background was painted by Mr. R. Bruce Horsfall of Washington.

No small groups were built during the past year as the entire time of the taxidermist and his wife was devoted to the completion of the bear group and the beginning of another large bird group which is to show the characteristic fauna and flora of the coteau region of western Minnesota. The model and some of the plant reproductions for the latter were completed when on April 15, Mr. Richardson resigned as taxidermist of the museum. The museum was without a taxidermist from April 15 to June 12. On the latter date Mr. Walter J. Breckenridge, a recent graduate of the University of Iowa and with two years' experience under Dr. Homer R. Dill in the Zoological Museum of that institution, came to fill the position. He was appointed as museum preparator, his regular term of service to begin July 1, 1926.

Reference was made in the last report to an expedition to East Africa by Mr. and Mrs. E. L. King of Winona, Minnesota, who proposed securing specimens for the museum. A half dozen large bird skins were received from them last fall but they were in such condition that our taxidermist felt it inadvisable to attempt to mount them and they were returned to Mr. King.

*Exhibits.*—As previously stated no additional small groups have been built during the past year but there is on hand material for the construction of ten or twelve such exhibits as soon as opportunity presents itself for taking up this work again. Twelve new cases of this type were made in the university cabinet shop the past year and are immediately available.

A more detailed description of the black bear group, the major addition to the museum during the past three years, may be of interest here. The group was proposed, planned, and financed by Mr. James Ford Bell, whose gift of \$5,000 for the purpose made possible its construction. It is of about the same size as the other large groups in the museum ( $20\frac{1}{2} \times 9\frac{1}{2} \times 9$  feet) and stands next to the beaver group in the upper hall. It is lighted by inside, direct electric lights inclosed in a separate compartment according to the plan that has been found so satisfactory in the Heron Lake group. The time of year chosen is late summer, when the wild berries of which bears are so fond are at their best. The locality selected is on the north shore of Lake Superior and the scene is an adaptation from conditions found at Beaver River, near Beaver Bay, and well represents the rugged character of that region. The background painted by Horsfall spans the upper end of a rock-walled gorge, in which the chief action is placed, and provides a beautiful outlook upon the wild and varied country beyond with the "Saw-tooth Mountains" in the distance. A rapid, foam-flecked stream, broken by numerous tiny falls, flows from a spruce swamp in the picture down into the foreground, encircling the base of one of the perpendicular cliffs. In this deep gorge, so characteristic of the streams of the north shore just before they enter Lake Superior, are displayed the main features of the group. Of the two old bears, one is sitting quietly watching the antics of two of her cubs while the second is standing beside the stream holding a large trout, recently caught, under his wet foot, with a third cub perched on a projecting rock above peering curiously down at the performance. One of the old bears and one of the cubs are dark brown in color while the others are all pure black, thus showing the two color phases of our black bear. The three cubs, two black and one brown, were collected together by Mr. Richardson and presumably belonged to the same family which is an added interest to the grouping. Rising through the foreground are the lower portions of the trunks of a large white pine and two white cedars (*Arbor vitae*). The season being August, most of the shrubs and plants shown are in fruit. These include two species of raspberry, the blueberry, bearberry, red-osier dogwood, bunchberry, swamp fly honeysuckle, clintonia, and strawberry. Besides these are polypody ferns in the crevices of the rocks, *Linnaea* vines on the ground, willows along the stream, and various other minor plants scattered about with an exquisite cluster of harebells in full bloom on one of the close-by rocky ledges. All these plants and shrubs are wax reproductions beautifully and accurately made by Mrs. Richardson. A thick bed of reindeer "moss" or lichen provides an interesting playground mat for the two wrestling cubs. This group has attracted much attention and is one of the most striking and instructive exhibits in the museum. It is entirely the work of Mr. and Mrs. Jenness Richardson who not only constructed the group but collected all the specimens and accessories and made the necessary studies and photographs in northern Minnesota. It is a really fine group and quite the equal, if not the superior, of any similar group in other museums.

It has been for some time a wish of the director to build another large bird group as a companion piece to the Heron Lake or marsh group. On presenting the plan to Mr. Bell, he, with his usual generosity, readily agreed to finance the project and so on completion of the bear group the preliminary detail work was begun. It is to present an association of bird and plant life characteristic of that elevated prairie region in southwestern Minnesota called by Nicollet when he explored that country in 1838, "The Coteaux." Such a group will permit showing birds and plants found normally only in the western part of our state. In point of time the group is to represent conditions some one hundred or more years ago so as to allow introducing features that have disappeared since the permanent advent of man. The exact locality selected for reproduction is the Pipestone quarry in Pipestone County, famous in history, legend, and poetry for its association with the Indian tribes of the past who resorted to this place to obtain the red stone "Catlinite" of which they made their peace pipes. Longfellow has made the place known to every school child of today by introducing a description of it in his poem *Hiawatha* and both Catlin and Nicollet visited it and wrote lengthy accounts of its physical features and legendary lore. With all these facts and traditions as a special appeal it seems a fitting subject for the background of this prairie group as it lies on the very edge of the particular region to be depicted. So last fall, early in October, Mr. R. Bruce Horsfall came from Washington and with the director went to Pipestone and spent four days making studies and sketches for the proposed background picture. On returning Mr. Horsfall completed a painting some thirty-three feet wide and nearly twelve feet high which shows the valley where the pipestone was dug by the Indians and the red, rocky cliff overhanging it on the east with the wide prairie stretching away in the distance. A herd of buffalo is streaming down through a break in the cliff to drink at a small lake which is continued into the foreground. It is a beautiful and interesting picture and is in itself alone a valuable and attractive addition to the museum. It is mounted in the completed framework of the case, awaiting the installation of the foreground. In June and July of the past year Mr. and Mrs. Richardson were sent to Turtle Lake in North Dakota to secure the birds required for this group as some of the species are now very rare or extinct in Minnesota. They brought back most of the birds and some of the plants needed. The remaining species have been, or will be, obtained in the state. Work on the group was suspended for a time after the resignation of Mr. Richardson in April but on the coming of Mr. Breckenridge in June it was resumed and will be carried along as speedily as possible. The undertaking as planned is a very considerable one and it will require at the best many months for its completion.

The museum now contains a total of 62 groups, distributed according to size as follows: large habitat group, 6; medium sized group with transparent backgrounds, 8; small portable groups, 41; miscellaneous, including the passenger pigeon and cormorant groups, 7. In addition to these there are on display several cases of mounted Minnesota birds.

The new bird group under construction fills the last space for large exhibits. A considerable number of small portable groups can still be accommodated on the walls of the upper and basement floors and nearly all such available space has recently been prepared for hanging and lighting groups as completed. All groups in the museum are now adequately lighted, which adds much to their value and attractiveness. With the moving of the Department of Botany to their new building during the coming year we have been promised by Dr. Riley a large room on the second floor which will provide space for expansion so far as medium sized and small groups are concerned for some time to come. This is all very well under the circumstances but, as you will see, it scatters the museum throughout the building in a way that is not at all desirable for various evident reasons. The completion of the present building and the allotment therein of adequate space would be the next best thing to a special museum building.

*Complete lecture schedule.*—The full number of lectures that have been given under the auspices of the museum during the past year is 114, with a total attendance of 11,923. This compares very favorably with 76 lectures and an attendance of 8,090 the year before.

All but 16 of the lectures were given at the museum: 52 of them to groups of public school children, 46 from Minneapolis schools and 6 from St. Paul schools. Thirty-six Minneapolis schools were represented and 4 St. Paul schools, some of the schools sending two or more groups at different times. Included in this list of school lectures are four illustrated lectures given to Parents and Teachers Associations at as many different schools. Other requests of the same kind could not be complied with as the schools were not equipped with suitable projecting apparatus and the school board has very wisely prohibited the use of inflammable films in portable projectors in the school buildings. This objection will be overcome in the future as we had duplicate copies of some of our films made on non-inflammable stock.

Four lectures were given to Boy Scout groups, one to a Y. M. C. A. group, and one to a group of Campfire Girls.

At the request of Miss Jennie Hall, supervisor of nature study in the Minneapolis public schools, illustrated evening lectures at the museum were given to her university extension course for teachers on three occasions.

On March 11, Dr. Robert Cushman Murphy of the American Museum of Natural History, New York City, who was in the city for a lecture before the Dinner Club, kindly consented to show some of his remarkable films and give a talk on the bird life of the west coast of South America to a large group of school children who had assembled at the museum for a lecture by the director.

All these lectures to groups at the museum were illustrated with motion pictures as lantern slides have largely lost their interest to such gatherings. Following the initial illustrated talk, the groups, if numbering over twenty-five, are divided into two sections and Mr. Kilgore taking one section and

the director the other they are piloted through the museum and a brief explanatory lecture given before each exhibit with some account of the life history of the animals and birds shown, allowing also an opportunity for questions which, in case of the younger children especially, are not few in number. Thus Mr. Kilgore, besides putting on the films, takes an active part in nearly all this lecture work tho not given specific credit in the schedule below.

*Sunday afternoon lectures.*—The sixth annual course of Sunday afternoon lectures was given as usual during January, February, and March at the museum with a total attendance of 3,400. As there were 13 Sundays, this means an average attendance of about 260. The actual number varied from 135 to 405, depending largely upon the weather as the museum is at a considerable distance from the homes of most of those attending. The usual attendance was much in excess of the seating capacity of the two lecture rooms combined but the museum has now reached a stage of development where it provides sufficient attraction to newcomers aside from the lectures. The museum is open on these days from 2 to 5 p.m. The lectures are at 3:30 p.m., occupying usually about an hour.

An additional course of regularly scheduled lectures was given this year for the first time in the lower room, beginning at the same time as the more formal lectures upstairs which are designed primarily for adults. These lectures in the basement room were given by Miss Mary Tillisch of Miss Wood's Kindergarten Teachers School and were intended for the younger children, but it turned out that many adults, when they found the upper room filled, came downstairs and joined the children with apparent interest and profit. Both series of lectures were well illustrated with slides and motion pictures.

Three of the lectures in the regular series were given by persons not connected with the University—Miss Jennie Hall, supervisor of nature study in the Minneapolis public schools; Mrs. Grace Wiley, curator of the Minnesota Academy of Sciences; and Mr. Frank M. Warren of Minneapolis. Mr. Warren illustrated his lecture with slides and motion pictures taken by himself at Isle Royal. Special thanks are due these lecturers for their kind and generous participation. The remainder of the program was filled by members of the university faculty, all of whom have taken part before and their continued interest and self-sacrificing loyalty to the museum is much appreciated by those who are entrusted with its immediate care.

*The study collections.*—There have been added to the study collections the past year 112 bird skins and 3 mammal skins. Of the 140 bird skins, 23 nests, and 116 eggs collected in North Dakota for the prairie bird group, a considerable number will be added to the study collection after those to be mounted in the group have been selected. Among the mammal skins there is a fine, large mountain lion pelt collected some years ago in Washington and presented by Mr. Nathan Butler of Minneapolis and a wildcat taken recently in northern Minnesota and presented by Mr. P. O. Fryklund of Roseau. Both of these can be mounted for exhibition sometime in the future.

There has been in the possession of the museum for many years a miscellaneous lot of discarded material obtained from the Menage scientific expedition to the Philippines of long ago. Most of the mammal material is beyond reclaiming but at various times during the last two years a few skins, including 5 water buffalos, 14 monkeys, and 2 small deer, have been selected, cleaned, and tanned, and placed in the mammal storage case. They have not been cataloged as the exact data have been lost but they may be of use some day and it seemed best to save them in as good condition as possible.

### ACCESSIONS TO THE MUSEUM

The following list will show the nature and some of the gift material accessions of the museum during the past year.

#### BY GIFT

Mr. Lester R. Badger, Minneapolis.....	1	ruddy turnstone (in flesh)
Mr. C. H. Bennett, Pipestone.....	1	buffalo skull
Mr. Bernard Bailey, Elk River.....	1	Cooper's hawk (skin)
Mr. H. L. Bond, Lakefield.....	1	grasshopper sparrow and 1 Savannah sparrow (in flesh)
Mr. Nathan Butler, Minneapolis.....	1	mountain lion (skin)
Mr. F. M. Crosby, Jr., Minneapolis.....	1	set (4 vol.) Phillip's <i>Natural History of Ducks</i>
Miss Elizabeth Foss, Minneapolis.....	1	pair of small deer horns
Mr. P. O. Fryklund, Roseau.....	1	golden eagle, 2 great horned owls, and 1 wildcat (all in flesh)
Mrs. J. L. Gleason, Minneapolis.....	1	parrakeet (in flesh)
Mr. E. J. Grimes, Minneapolis.....	1	albino scaup duck (in flesh)
Mrs. Roy Hodson, Anoka.....	Several	owl pellets
Mr. N. L. Huff, Minneapolis.....	3	photographs and 1 big brown bat
Mr. Clarence S. Jung, Chicago.....	1	scaup duck (in flesh)
Dr. G. H. Leudtke, Fairmont.....	1	albino house sparrow (alive)
Mr. B. R. Lewis, Stillwater.....	1	cardinal (in flesh)
Minnesota Game and Fish Department....	Large number of	fish of various species for aquarium
Mr. D. E. Minnich, Minneapolis.....	3	Blanding's turtles (alive)
Mr. C. E. Peterson, Jr., Madison.....	2	photographs
Mr. George Ranerhoril, Fulda.....	1	partial albino bronzed grackle (in flesh)
Dr. Thomas S. Roberts, Minneapolis.....	2	starlings (skins)
Mr. Burton W. Thayer, St. Paul.....	2	goshawks (skins)

#### BY MUSEUM FIELD WORK

Mr. Jenness Richardson, collector.....	140	bird skins, 23 nests, 116 eggs, photographs, color studies, moulds, and accessories for groups
Dr. Roberts, Mr. Kilgore, Mr. Breckenridge, collectors.....	6	bird skins, 2 eggs, photographs, motion pictures, and accessories for groups

#### BY PURCHASE

Museum Donation Fund.....	91	bird skins from Mr. Bernard Bailey and 29 feet of positive motion picture film of pelicans from Mr. William L. Finley.
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*Co-operation.*—The museum has continued its policy of loaning its material and rendering assistance in various ways to the extent of its resources and ability both at home and abroad.

The long list of lectures provided for the children of the public schools and other educational institutions will speak for its service in that direction.

There have been loaned during the year 19 sets of slides, 32 reels of motion pictures, and 4 sets of bird skins. A number of these have been supplied to former students of the ornithology class who are teaching in rural high schools and combining nature study with general science and biology courses.

The Minnesota Forestry Service and the United States Forestry Service have each been supplied with a few negatives for making lantern slides.

Mr. W. L. Finley of Portland, Oregon, was permitted to have made a print from some of the museum's motion picture negative and in exchange the museum received a print from certain negative of his which was wanted for lecture purposes.

Mr. Kilgore, the museum curator, has continued his connection with the Boy Scouts and during the year has examined 55 boys for bird study merit badges. He has also been recently appointed bird study examiner for the Girl Scouts and has examined 5 applicants.

Mr. Kilgore was elected president of the Minneapolis Audubon Society during the year and has been serving in that capacity, which is a well-deserved honor.

Motion pictures have been run for other departments of the University 34 times (57 reels) and slides shown once by Mr. Kilgore.

Four radio talks over WCCO in the University Radio Service were given by the director during the late winter and spring months on subjects dealing with the bird life of Minnesota.

The museum material was loaned extensively during the year.

*Photography.*—There have been added during the year in this department 471 lantern slides, 138 negatives, 301 prints, and 10 enlargements, the latter to be used as backgrounds for small groups. New motion picture negative to the extent of 302 feet has been taken and developed and 3,695 feet of positive print made, mostly from old negative, with 601 feet of positive title. This large amount of reprinting is due to the fact that we have had made two duplicate prints of each of the two reels that are most in demand so that we can loan them without robbing ourselves during the spring months when they are in almost constant use at the museum.

For about a month during the winter, Miss Mabel Densmore of Red Wing was employed at the museum labeling and cataloging negatives, slides, and prints to keep the collections up to date and make them readily accessible for immediate use.

*Publication.*—The regular bimonthly seasonal report of nature happenings in Minnesota was prepared from the museum files by the director and forwarded to each issue of *Bird-Lore*, the official publication of the National Association of Audubon Societies.

Two delayed museum reports, illustrated with halftones of groups, were published during the year, one for the year ending June 30, 1923, and the

other for the year ending June 30, 1924. These were widely circulated among the museums of the world and individuals interested in the work of our museum. They bring returns by way of exchange from a number of museums even as far distant as Australia. The issue of the first report for the year ending June 30, 1920, is now practically exhausted, only a half dozen or so copies remaining.

Five thousand copies of a three-leaved folder containing one page of text and five illustrations of museum exhibits were printed in February, primarily for distribution at the Isaac Walton League convention but they have been circulated since in much of the museum correspondence.

*Correspondence.*—The usual correspondence, numbering many hundreds of letters, has been kept up during the year answering inquiries on a great variety of subjects as well as securing in this way much information for our files in regard to the natural history of the state. It falls to the lot of the director personally to write all these letters.

*Publicity.*—No special attempt has been made to advertise the museum in the daily press for reasons given in the last report. However, from time to time brief notices and illustrated articles have appeared in the papers of the Twin Cities, usually without previous knowledge of the museum authorities. The university publications have very kindly followed the activities of the museum and given them adequate notice whenever occasion arose.

From February 6 to 13, inclusive, the Minneapolis Chapter of the Isaac Walton League held a convention with various exhibits in connection with the Automobile Show in the Overland Building in the Midway district. The league offered a booth to the museum, and in association with the Minneapolis Audubon Society the offer was accepted and the booth occupied during the week. The museum displayed five of its small portable groups and about four thousand copies of a three-leaved folder giving information about the museum and containing illustrations of five of our major groups were distributed from the booth. This was done because it seemed a good opportunity to spread a knowledge of the museum outside of the Twin Cities. Thanks are due to the members of the Audubon Society who took charge of the booth and looked after the interests of the museum as well as those of the society.

*Out-of-town visitors to the museum.*—During the year the following visitors of special interest have inspected the museum: Mr. William Beebe of the New York Zoological Society; Dr. Robert Cushman Murphy of the American Museum of Natural History, New York City; Mr. Vernon Bailey of the Biological Survey, Washington; Mr. W. L. Finley of Portland, Oregon; Mr. F. A. Jaques of the American Museum of Natural History, New York City; Mr. J. Friesser and Mr. H. C. Holling of the Field Museum, Chicago; Mr. A. M. Collins, hunter-naturalist, of Philadelphia; and Mr. R. Bruce Horsfall, artist of *Nature Magazine*, Washington, D. C.

*Course in ornithology.*—For the eleventh consecutive year the course in ornithology offered by the Department of Animal Biology was given by the director with the assistance of Mr. Kilgore. The class during the

winter quarter contained eleven students and ten in the spring quarter, which is the limit registration allowed. The students who have taken these courses in the past are loyal friends of the museum and have rendered assistance in various ways and in return we supply them with illustrative material to be used in connection with their work as teachers.

Thanks are due Miss Mary Tillisch and Mrs. Frances S. Davidson for faithful assistance in transporting the class afield during the spring quarter which is devoted to outside work.

*Aquarium.*—Last fall Dr. W. A. Riley, head of the Department of Animal Biology, transferred the care and upkeep of the aquarium to the museum. It was in rather poor condition and the fish that had been placed in it from time to time had for various reasons not done well. So it was entirely cleaned out, disinfected, the old gravel replaced by new, and an iron frame work with metal mesh covers placed over the entire series of tanks. The latter addition was necessary to prevent the fish from jumping out, which had been one source of trouble in the past. Through the kindness of Mr. James F. Gould and Mr. Thaddeus Surber of the State Game and Fish Commission the tanks were stocked in September with a large assortment of native fish. Mr. Eugene Surber, son of Mr. Thaddeus Surber and a student in the University, was engaged to care for the aquarium throughout the winter and spring months. Even after all the preparation that had been made, considerable difficulty was encountered in keeping the fish alive and healthy. But by restocking occasionally and treating the water (from the city mains) with chemicals to counteract the injurious effect of the chlorine, the tanks were maintained in fair condition during the period when the greatest number of people come to the museum. We wish to acknowledge much help in solving some of our difficulties kindly rendered by the personnel of the State Health Department laboratory located on the campus.

The aquarium furnishes an exhibit of special appeal to almost everyone, young and old, and so long as we can have the co-operation of the State Game and Fish Commission it seems worth while to make an effort to maintain it.

#### FIELD WORK

Mr. and Mrs. Richardson returned July 12 from a collecting trip to the Turtle Lake region in North Dakota where they had gone June 4 to secure material for the coteaux bird group which is now under construction. A summary of the specimens obtained is given in the list of accessions to the museum.

On July 7, 1925, the director and Mr. Kilgore went to Burntside Lake in St. Louis County and spent the two weeks that Mr. Kilgore remained in making a survey of bird conditions in the vicinity.

June 17 to 28, 1926, inclusive, the director, Mr. Kilgore, and Mr. J. W. Breckenridge, the new museum preparator, made a trip to Pipestone and vicinity in the interests of the new bird group. A re-examination of the locality, the securing of additional photographs and specimens were the chief results of the trip, supplemented however with the usual general survey of the natural history conditions of the region.

## FINANCES

*University museum budget.*—The allowance for maintenance and equipment from the University for the past year was \$2,500. The principal items for which this was expended were as follows: printing 2 museum reports, 5,000 illustrated folders, lecture programs, index cards, motion picture title cards, etc.; constructing 12 museum cases; racks and wiring for hanging and lighting small groups; iron frame and covers for aquarium; platform and seat in front of bear group; making lantern slides, prints, negatives, and enlargements; developing and printing motion pictures; and field work. The expense of the field work in North Dakota was not charged to the university budget.

*Museum aid budget.*—This was \$300 but had to be increased during the year by transferring to it \$150 from the regular budget as the original amount was not sufficient to cover the expense of caring for the aquarium and employing the extra assistance that was needed from time to time in the museum.

*Mrs. George Chase Christian small group fund.*—As no small groups were constructed during the year this fund was not drawn upon. There remained a balance on June 30, 1926, of \$307.93 in the Minneapolis Trust Company.

*General museum subscription fund.*—Mr. James Ford Bell has continued his monthly contribution of \$75.

## STATEMENT OF MONEY RECEIVED

Mr. James Ford Bell, monthly check of \$75.....	\$900.00
Mr. James Ford Bell, for new bird group.....	500.00
Mr. James Ford Bell, for new bird group.....	1,500.00
Rent of films, Sioux City Academy of Sciences and Letters.....	15.00
	<hr/>
	\$2,915.00

Balance in First National Bank of Minneapolis to credit of Thomas S. Roberts on June 30, 1926, \$296.78.

Respectfully submitted,

THOMAS S. ROBERTS, *Director*

## THE UNIVERSITY LIBRARY

*To the President of the University:*

SIR: I submit herewith a summary report of the various library activities of the University for the academic year 1925-26.

No novel features of striking importance are to be recorded. The removal into the new Library Building was attended by many new problems and adjustments. The solution of as many of these as possible and the further development of an efficient and economical library policy has entirely occupied our attention during the past year. Altho much remains to be done, some really substantial progress toward satisfactory service has been made. Many details will be found in the summarized departmental reports given below.

A very gratifying feature of the year's record was the granting of a special appropriation of \$20,000 for the purchase of books of permanent value in research. The University of Minnesota is much younger than most of the other state or endowed universities of corresponding size and reputation. This means that the period during which the library has developed is much shorter. Much of the most useful material which other universities have acquired as current material must here be purchased as out of print material in a highly competitive market. The growing cost of American made books and similar increases in the cost of books bought abroad, both new and secondhand, have greatly diminished the purchasing power of the book funds. The geographical position of Minnesota—almost as remote from Wisconsin, its nearest large university neighbor, as Boston is from Baltimore—imposes on it the necessity of greater library resources of its own than is necessary in the eastern universities. To some extent this is overcome by the excellent co-operation of the libraries of St. Paul and Minneapolis. Nevertheless, especially in the case of undergraduate work and in the preparation of Masters' theses, it is forced to provide for itself and only incidentally to depend on inter-library loans. The entire special appropriation was spent for material of use in original research or in the preparation of theses and for the use of the faculty in preparing or developing courses in the undergraduate college curricula.

Practically every college, school, or major department in the University has benefited. Approximately 4,500 volumes of periodicals and proceedings and transactions of learned societies were obtained. Many of these are new titles. Others have filled gaps in partial files we already had. Chief among the departments for which noteworthy material was purchased from these special funds were: Architecture, Biology, Botany, English, German, History, Political Science, Romance Languages, and Sociology. The collection of bibliographics, a basic subject for all others, was considerably increased. The foundations of excellent working collections on Canada and China and the Far East had already been laid, but many additions were made to both.

The value of the additions is not adequately measured by the number of volumes added, for many very scarce and expensive items, needed for years, are among them. The intrinsic value of the material is high, for practically all of it was purchased on the direct recommendation of competent specialists on the faculty. The experience of the year clearly demonstrates that an increase in book funds, the continued interest of the faculty, and a little more time are all that are needed to make Minnesota take the place which her size and development in other directions indicate she should take in library facilities as well. Some very cordial expressions of satisfaction from temporary faculty members and research scholars and equally cordial expressions from Minnesota instructors who have had temporary appointments elsewhere indicate that we are growing not only in size, but in the reference value of our collections.

The order and catalog departments deserve commendation because of their excellent co-operation in putting through the large increase in the number of book orders and in making them available when obtained. Space will not permit even a mention of all the items of major importance obtained, but the following list will indicate the variety and value of the additions.

Asiatic Society of Bengal Journal, 1832-1922 (about 100 vols.); Academie de Medicine (Paris) Journal, 1872-1910 (61 v.); Gesellschaft Deutscher Naturforscher. Verhandlungen, 1885-1923 (28 v.); Ryzyszewski. Codex Diplomaticus Poloniae, 1847-87 (4 v.); Castelnau. Expedition dans les Parties de l'Amerique du Sud, 1850-61 (15 v.); Quellen u. Forschungen aus Italien. Archiven u. Bibliotheken, 1898-1914 (16 v.); Russkoe Istoricheskoe Obshchestvo, Sbornik, 1867- (60 v.); Acta Eruditorum, 1683-1743 (about 100 v.); Panzer. Annales Typographici, 1793-1803 (11 v.); Utrecht Hoogeschool. Physiologisch Laboratorium, 1867-1923 (43 v.); Geneeskundig Tijdschrift voor Nederlandsch-Indie, 1852-1922 (50 v.); Revue d'Histoire Ecclesiastique, 1900-1914 (27 v.); Litterarischer Verein Stuttgart, Bibliothek, 1842-1907 (125 v.); Finkel, Bibliografia Historij Polskiej, 1906-10 (3 v.); Hooker, Fauna Arctica, 1900-1910 (5 v.); L'Artiste, 1831-1876 (98 v.); Janus, Archives pour l'Histoire de la Medicine, 1896-1925 (29 v.); Hübner Geschichte Europaischer Schmetterlinge, 1790-1841 (5 v.); Flora Danica, 1764-1838 (13 v.); Pennsylvania Archives (72 v.); Chinese Recorder and Missionary Journal, 1870-1919 (50 v.); Zeitschrift für Vergleichende Rechtswissenschaft, 1878-1920 (38 v.); Gesellschaft für Theatergeschichte, 1902-1925 (33 v.); Nation (Toronto), 1874-1876 (3 v.); Archiv für Naturgeschichte, 1835-1921 (about 100 v.); Mansi, Giovanni Domenico: Sacrorum Conciliorum Nova et Amplissima Collectio, 1901-1926 (57 v.).

In common with most of the leading libraries of the country, the library, through the catalog department, has assisted in checking the *International Union List of Serials*, available in the libraries of the United States and Canada. The provisional edition, now well under way, shows that the University of Minnesota is rapidly acquiring a collection of serials of all countries and periods that is an excellent introduction to nearly all the subjects in the university curriculum.

The organization of the periodical and exchange service has assisted greatly in this. The entire exchange list has been revised. Many institutions, well able to purchase our university publications or whose publications were of little use, have been stricken from the list. In many other cases much greater returns have been received from institutions with which

exchange relations had been established. The library, in return for the exchange material it receives, is still acting as distributing agent for the University Press.

The Library Building continues to be one of the chief points of interest on the campus. Many college and university presidents, deans, and other administrators as well as numerous college and reference librarians have visited it during the past year and have examined it with relation to their own building programs. The methods adopted to make it of maximum efficiency have also received considerable attention. In the forthcoming *Library Survey* conducted by the American Library Association for the Carnegie Corporation, considerable space is given, in the comparative summaries to our methods and the reasons for them. The Arthur Upson Room has served as an inspiration for at least two other similar proposed rooms in other universities.

A gratifying feature of the past year has been the relatively large number of gifts received. Altho the figures do not fully show this (due to the generous gifts of about four thousand volumes from one donor for the Arthur Upson Room in 1924-25), the number of donors is steadily increasing.

A survey of university and large college libraries, recommended by the Commonwealth Foundation and financed by the Carnegie Corporation is in progress. About twenty typical libraries, among them that of the University of Minnesota, have been carefully studied through personal visits by Chancellor S. C. Capen, of the University of Buffalo, and Dr. George A. Works, head of the Department of Education of Cornell University. Dr. Works paid two visits to the library during the year. It is hoped that the results will be published in the near future and that they will serve as a basis for more uniform terminology and method in reports as well as a better knowledge of the university library as an administrative unit of a modern university. With the survival of the old idea of a library as a retreat for undisturbed study and meditation, the complex and inevitable problems of finance and organization which face every university librarian today are sometimes forgotten. University communities should come to realize that the library has a traffic problem of daily caring for thousands of students with almost innumerable variations of needs. To do this, rules and the subordination of individual action to community necessity are as unavoidable in practice as they are often regrettable in theory. Special service means financial expenditure. Undue expense means a budget deficit; and budget deficits, under present political and financial conditions, are not things lightly to be incurred.

*Library training.*—A grant of several million dollars (the ultimate amount is not yet definitely determined) has been made by the Carnegie Corporation to promote library service throughout the country. Some of this has gone to support existing library schools. A grant equivalent to a million dollars to establish a graduate library school has been made to the University of Chicago. The library school curricula have been standardized and a greater recognition of the need of better library service is becoming generally apparent.

For the past four years classes in the use of books and libraries, primarily for freshmen and sophomores, have been conducted each quarter at the University of Minnesota. This year (1925-26) a bibliographic seminar carrying senior and graduate credit was conducted. A special course in Hospital Library Work has been offered for two years. The absence of adequate preliminary courses in general library work has so far prevented its actually being given.

Three times in the past four years, courses in Library Methods have been given in the first part of the Summer Session, under the direction of the College of Science, Literature, and the Arts and of the College of Education. This year the six separate courses offered had on June 30 a total of 94 different students with 194 registrations in the six courses. These courses have primarily been given for the benefit of the small libraries of the state. As far as possible the requirements of the State Education Department for teacher librarians and school librarians have been met. The needs of the public libraries of the state have also constantly been considered. There seems to be enough evidence to show that the increasing demands for the introduction of library methods courses into the regular curriculum is justified by the actual need. The Minnesota Library Association has formally expressed its willingness to assist in any possible way. There are excellent possible quarters in the Library Building, Minneapolis and St. Paul afford adequate and varied opportunities for observation, student practice, and research. The one thing lacking is money for a faculty to conduct the courses and to provide for the supplies and other overhead. The present library staff is very properly entirely occupied in administering the library. Such time as three of the staff members are now giving to instructional work is done in addition to full time regular work. This is not fair to either student or teacher. Whenever the opportunity comes to provide the needed funds, the introduction of such courses, at least for the minimum requirements of the State Department of Education, should be seriously considered.

*Staff.*—Very few changes in staff have occurred in comparison with other neighboring universities. Changes among the minor assistants, seminar attendants, and pages are rather too common, but no more than can be expected when the qualifications required and the low salaries in these positions are considered. One cataloger has resigned to take a position in Paris. There have been no changes among departmental heads during my five years as university librarian. Much of the rapidity with which the transition has been made from an old building with emergency methods to adequate quarters in which procedure could be deliberately planned is due to the experience and good team work of the more responsible part of the staff. How much longer the staff can be held together depends in large part on our ability to meet in terms of salary as well as pleasant working conditions the offers made by other libraries.

*Statistics.*—In order to give the greatest practicable amount of freedom in the use of the library by groups of differing needs and abilities, many minor variations of practice are necessary. This is especially the case in the use of reading rooms and in loaning books. The greater the freedom of

access to bookshelves, the lower will be the recorded use. In a large reading room statistics of use are usually of little use as the same student might be recorded several times during the same day. Better organized lists of assigned reading may diminish the number of books used. Better use of the catalog will reduce the number of books called for and drawn out at random. For these and other reasons, the following statistics must consequently be interpreted as indications of library use and not as final data on which to base comparisons with other institutions.

*Department reports.*—The reports of the department heads, very much condensed, are given below.

Circulation: (Helen M. Smith, head). There has been an increase of 34,466 in the books issued in 1925-26 over the number for the previous year. There has been an increase in the number of books used in the reading room and an increase in the number of overnight and reserve books issued. There is a slight decrease in the number of two-week books issued. This shift in circulation is undoubtedly due to a difference in assignments by the professors. The increased use of the graduate seminars, with open-shelf collections, also tends to limit the increase in recorded circulation. Statistics follow:

<b>General Library</b>	
Books used in reading rooms .....	100,799
Two-week books .....	58,697
Overnight books .....	20,337
Reserve books .....	293,897
Extension loans .....	394
	474,124
Total circulation, 1925-26.....	474,124
Total circulation, 1924-25.....	440,658
Increase .....	33,466
<b>Summer School—first session:</b>	
Total circulation 1924.....	50,796
Total circulation 1925.....	49,740
Increase .....	1,056
<b>Summer School—second session:</b>	
Total circulation 1925.....	13,752
Total circulation 1924.....	11,103
Increase .....	2,649
Total number library cards issued.....	7,079
Total number of books placed on reserve.....	12,362
<b>Circulation of college and departmental libraries (as reported)</b>	
Biological-Medical .....	12,539
Chemistry .....	6,000
Engineering .....	3,528
Mines .....	7,716
Periodical room .....	73,352
University High School .....	2,417
Agriculture .....	22,512
Northwest School, Crookston .....	1,156
Interlibrary loans .....	246
Total .....	129,666
Grand total of recorded circulation.....	667,282

A disconcerting situation is seen in the fact that the total number of cards issued for the home use of books is considerably less than half the number of faculty and students. It seems evident that, for an unduly large part of the university community, reading is confined to that which is required and unavoidable.

Reference: (Ina Ten Eyck Firkins, head). Early in the fall of 1925, a decided increase in the attendance in the reference rooms over that of previous years was observed. This increase has been maintained throughout the year and has brought with it a proportionate increase in the demand from students for attention from the reference assistants. The work has been more closely organized by making each staff member of the department primarily responsible for some special branch of the work. More than enough bibliographical work to fill any lull in the personal reference work is always on hand. From June 1, 1925, to June 1, 1926, 246 works were lent on interlibrary loan and 196 borrowed. The amount of work involved in this service is out of all proportion to the number of volumes sent and received. It is justified because of its great benefit to faculty members. During the year 236 requests which could not be filled were sent to other libraries. During the regular academic year, from September 8, 1925, to June 1, 1926, 58,959 books and pamphlets were issued from the periodical room. During the Summer Session of 1925, 14,593 were issued, making a grand total of 73,552 to the opening of the Summer Session of 1925. Only two changes in the staff to fill vacancies caused by resignations, have been made. This continuity of service is a distinct aid to efficiency in the department.

Catalog: (Edna L. Goss, head). With very few changes or absences in the department this past year, the results have been much better in quantity than the year before. But the catalog department has not expanded in proportion to the growth of the library and the University. It is altogether inadequate in size to handle the amount of incoming material. The linguistic and scholastic requirements for cataloging are so high that it is difficult to keep the positions filled. The supply of well-trained catalogers is still unequal to the demand and almost every year we lose valuable people who are offered positions elsewhere. With the exception of one typist, we have been fortunate in keeping the staff together until near the end of the year, when Miss Helen Ranson accepted a very attractive position in the catalog department of the American Library of Paris.

Volumes numbering 18,231 were cataloged during the year. This includes many sets of periodicals, society publications, continuations, and documents. Several sections of the *International Union List of Serials* were checked by the order and catalog departments. Tho this takes some time, it is more than justified by the greater amount of time saved by the information included in the list.

Delays in printing and distributing Library of Congress catalog cards have caused delays in getting books through the catalog department. These delays are practically unavoidable since neither time nor money are avail-

able either for making full entries or temporary cards for books for which the printed cards will probably be available later.

Order and binding department: (Harold Russell, head). The past year has been a very busy one. An increase in the book fund, the concentration in the order department of functions formerly exercised elsewhere, and further development of exchange work have been the chief contributing factors. The year 1925-26 completes a period of five years' service in the department for the present head. A very brief review of the development and expansion of the work follows:

On February 1, 1921, when the present head took charge there were five full time assistants and a total fund (for books, periodicals, and bindery) of \$25,000. At the present time, the staff numbers nine and the funds for the same purposes total about \$50,000.

The actual growth of the work is not shown adequately in the growth of the budget. In 1921, the order department handled the purchase of books and periodicals for the general and departmental libraries and nominally supervised orders and expenditures for the Agriculture and Law libraries. This supervision still continues, but to it has been added the purchase of all books for the University High School and the schools and stations at Crookston, Grand Rapids, and Morris, and books, maps, etc. bought from department funds "for administrative purposes" (e.g. for the Child Welfare Department). This, which involves much extra work and the handling of more than a score of additional accounts was formerly done for the most part in the purchasing department.

At the end of last year the purchasing department delegated to this department the letting of contracts for periodical subscriptions for the General Library, for all departments of the University and for the stations at Crookston, Grand Rapids, and Morris. Reliability of service, extra expense involved in correspondence, change of records and other factors, as well as the nominal totals of bids submitted, must be taken into account in the decisions.

In 1922 a library bindery was established. This does work not only for the library, but for many other departments of the University as well as more or less general supervision of all binding sent to outside binders. The checking, pricing, invoicing, and delivery of this binding has added a considerable amount of work to the order department.

In 1924 an exchange section was established. Nominally, exchange work has always been done. The lack of staff had, however, made it impossible to do more than accept whatever exchanges and gifts came along and to send out university publications to whatever institutions appeared on the mailing lists. No attempt could be made to evaluate our exchange relations. Under Miss Bertha M. Hanson, who is in direct charge of the work, splendid results have been achieved. The mailing lists have been materially reduced by the elimination of non-contributing institutions. A steady stream of publications of learned societies, university theses, etc., is now pouring in. These not only add to the resources of the library, but they materially lessen the strain on the book fund. Tho this work has taken a large part of the time of two of the assistants and a considerable

part of the time of a third, it has been the most satisfactory development of the past five years.

*Statistics.*—The number of accessioned books in the library on June 15, was approximately 472,148. Between July 1, 1925, and June 14, 1926, a total of 21,694 volumes was added. The number of volumes in the various branches appear in the summary reports of these branches.

The total expenditures for books, periodicals, and binding follow: Of the total for the General Library, \$40,000 represents the direct appropriation; \$20,000 represents an extra special appropriation; and \$320.42 is cash received from sales of duplicates and fines for lost books. The amount of \$1,235.68 included in binding cost, represents money appropriated the previous year, but unpaid until this.

	Books	Periodicals	Binding
General Library .....	\$47,348.85	\$11,735.89	\$12,835.68
Agriculture .....	2,490.96	2,257.07	755.35
Law .....	5,689.59	572.69	3,379.18
University High School .....	433.16	109.35	80.10
Crookston .....	630.01	120.81	45.94

*Binding.*—During the year 5,305 volumes were bound for the General Library. The bindery department bound 1,242 volumes for other departments of the University and 4,252 for the General Library. The increase in the numbers of new periodicals taken has made it practically out of the question to make much headway on the many volumes in arrears from earlier years. Many of these are too valuable to send to outside binders where most of the work is now being done on a standardized machine basis which takes little or no account of folded plates, narrow inner margins, and the other features which make the binding of old books a matter which cannot satisfactorily be solved by factory production processes. We are fortunate in having a bindery staff which not only binds books, but considers the best methods for doing it. Tho this, like any skilled work, sometimes means somewhat higher initial cost, the ultimate result, in long wear and undamaged contents, more than justifies the slight difference in expense. If one may judge from the comments of several visiting bookbinders and a comparison of outside binding schedules we are getting a superior product at an average cost little or any higher than that which a dependable binder would charge on a contract basis.

*Gifts.*—More than the usual number of gifts (other than those received on regular mailing lists or exchange basis) have been received. Ten thousand four hundred forty-two have been individually acknowledged and 2,102 of these are already accessioned and added to the library.

Among those of more than usual interest and value are: *Folia Urologica* (12 v.) from Dr. William Lerche; current historical works (8 v.) from C. L. Hosking; 89 biological magazines from Professor M. L. Huff; 27 volumes of romance literature from Miss Ruth S. Phelps; a set of *Pêche et Pisciculture* from Dr. W. A. Riley; 200 volumes on biology from Dr. H. F. Nachtrieb; 50 miscellaneous volumes from Miss Frances Morehouse, and many valuable pamphlets and books on sociology from Professor Edwin L. Clarke.

*Periodicals.*—The cost of periodicals tends to increase. Current subscriptions for the past year amounted to \$11,735.89. This is an increase of roughly 10 per cent for the year and a total of more than 29 per cent of the entire regular appropriation for books and periodicals. It is quite likely that periodical subscription cost will increase for some years to come in spite of the careful scrutiny given by the Library Committee to all requests for additions to the list. We now receive 1,853 periodicals on paid subscription and 1,300 as gifts on exchange, a total of 3,153 regularly checked and distributed by the order department.

Except in two or three departments of the University the tendency to purchase fewer duplicate copies of books still continues. Probably fewer have been purchased in 1925-26 than in any similar period since 1921.

*Departmental libraries.*—Summaries of departmental library statistics and activities follow. Fuller information regarding the Agriculture, University High School, and Law libraries is included in the reports of the librarians to their respective deans.

*Agriculture:* (Harriet W. Sewall, librarian). On June 30, 1926, the library contained 37,500 volumes, 1,358 having been added during the year. The recorded circulation of 22,512 does not fully represent the library work, as no reading room changes are included in these figures. The library regularly receives 604 periodicals. The scientific activity of the library's users is indicated in the fact that 450 volumes were borrowed on interlibrary loan for faculty use, 107 being from libraries outside St. Paul and Minneapolis. The library quarters are badly crowded, but some relief is in sight through the assignment of additional rooms on the floor above the present library rooms.

*Law:* (Arthur C. Pulling, librarian). The number of volumes, June 30, 1926, is 41,966. Of the total expenditures of \$6,262.35 for books and periodicals, continuations and periodicals cost \$3,379.18 and the binding costs for 1,529 volumes were \$1,717.85 additional. One hundred forty periodicals are regularly taken and 1,734 volumes were added to the library during the year. Two notable accessions of the year were *Howard: Les reports des cases in Camera Stellata*, 1593-1609, edited by William Paley Baildon (the editor's own copy with additional ms. notes) and *Cases of Practice in the Courts of King's Bench*, 1778. Not more than two or three libraries in this country have a copy of the latter.

*University High School library:* (Alma Penrose, librarian). The library contains 2,121 volumes. More titles as well as more duplicates are needed. Thirty-one periodicals are taken and much use is made of the magazine files. A dictionary card catalog is in the making. The library is used for classroom work, special themes, debates, etc., arising in the work of the University High School. The librarian gives instruction to the high school students in the use of reference books and debate material. Much individual work, intended to cultivate a taste for good reading, is done with the students. Formal courses aggregating nine quarter credits, in school library administration and book selection are offered to College of Education students.

Chemistry: (Katherine E. Crowley, librarian). There are 7,085 volumes in the library, 5,526 of them bound periodicals. During the year 270 volumes were added. Seventy-four periodicals are regularly received, 8 having been added the past year. During the year 168 volumes, all but 10 being periodicals, were bound.

Engineering: (Gertrude Veblen, librarian). The collections, including Architecture, number 19,710 volumes. During the year 730 volumes were added. Aside from government publications, 325 periodicals are regularly received. Of these 30 are exchanges given by the *Minnesota Techno-Log* and 12 are donated by Dean Leland. Many gifts of books have been received from the faculty and others. The seating capacity in the three reading rooms has been increased to 229.

Mines: (Elizabeth B. Henderson, librarian). The library contains 7,887 volumes. Sixty-seven periodicals are regularly received. For the 193 volumes added, \$590 was expended. In addition, 94 volumes were bound.

Respectfully submitted,

FRANK K. WALTER, *University Librarian*

## THE INTERFRATERNITY COUNCIL

To the President of the University:

SIR: I herewith submit my report as president of the Interfraternity Council for the year ending June 30, 1926.

*Membership.*—There are now thirty-one academic fraternities represented in the council, Theta Kappa Nu, a national fraternity, having been admitted last fall.

*Scholarship.*—The following table, compiled by the dean of student affairs, gives the relative scholastic standing of the fraternities in the council for the year 1924-25:

Chi Delta Xi.....	1.319	Phi Kappa Psi.....	0.9739
Chi Sigma Phi.....	1.265	Sigma Nu .....	0.968
Acacia .....	1.263	Sigma Alpha Epsilon.....	0.963
Phi Delta Theta.....	1.253	Sigma Phi Epsilon.....	0.958
Theta Kappa Nu.....	1.207	Theta Xi .....	0.9345
Delta Upsilon .....	1.142	Pi Kappa Alpha.....	0.916
Theta Chi .....	1.1182	Psi Upsilon .....	0.894
Phi Gamma Delta.....	1.118	Delta Chi .....	0.891
Lambda Chi Alpha (Sphinx)....	1.1009	Delta Tau Delta.....	0.883
Zeta Psi .....	1.085	Sigma Chi .....	0.867
Beta Theta Pi.....	1.052	Phi Kappa Sigma.....	0.833
Alpha Tau Omega.....	1.042	Alpha Delta Phi.....	0.8185
Theta Delta Chi.....	0.9914	Phi Sigma Kappa.....	0.8183
Kappa Sigma .....	0.9911	Delta Kappa Epsilon.....	0.758
Chi Psi .....	0.9814	Tau Kappa Epsilon.....	0.752
Alpha Sigma Phi.....	0.9805		

The average scholastic standing of the fraternity men (in the council) was 1.045. That of all the men in the University was 1.143.

*Scholarship of pledgemen.*—The following table which I compiled gives the relative scholastic standing of the men pledged by the fraternities for the fall and winter quarters, 1925-26. The fall quarter grades were made before the men were rushed or pledged by the fraternities.

	Winter Quarter Grades	Fall Quarter Grades
Lambda Chi Alpha.....	1.466	1.398
Beta Theta Pi.....	1.398	1.60
Sigma Phi Epsilon.....	1.337	1.009
Sigma Alpha Epsilon.....	1.330	1.132
Phi Delta Theta.....	1.250	1.243
Phi Kappa Sigma.....	1.204	1.407
Psi Upsilon .....	1.187	1.382
Sigma Nu .....	1.142	1.227
Theta Chi .....	1.127	1.030
Acacia .....	1.124	1.403
Phi Kappa Psi.....	1.093	1.139
Theta Xi .....	1.060	1.038
Chi Psi .....	1.043	0.950
Chi Delta Xi.....	0.995	1.201
Delta Upsilon .....	0.992	0.951

Tau Kappa Epsilon.....	0.989	1.024
Sigma Chi .....	0.982	0.873
Alpha Tau Omega .....	0.900	0.854
Delta Kappa Epsilon.....	0.879	0.620
Chi Sigma Phi.....	0.865	1.515
Zeta Psi .....	0.851	1.100
Delta Tau Delta.....	0.826	0.631
Kappa Sigma .....	0.811	0.812
Alpha Delta Phi.....	0.756	0.947
Phi Gamma Delta.....	0.755	0.883
Theta Delta Chi.....	0.725	0.695
Phi Sigma Kappa.....	0.706	0.982
Pi Kappa Alpha.....	0.690	1.022
Alpha Sigma Phi.....	0.686	0.737
Theta Kappa Nu.....	0.684	0.727
Delta Chi .....	0.573	0.560
General average .....	0.980	1.015

This is, I believe, the first year that the fraternities have pledged only men who have averaged above a C.

This table shows that it is very difficult to bring a group of pledgees from below a C average to above that average—only one fraternity having accomplished it. It also indicates that even tho a fraternity may have pledged a group who have made a good record scholastically during the first quarter the fraternity must see to it that their pledgemen study or they are very apt to fall considerably.

*Changes in the by-laws.*—There has been no desire on the part of the fraternities to abolish the deferred rushing rule as its good effects are too evident.

There was considerable dissatisfaction, however, with the rules which governed during the past year; so the following were adopted to take effect in September, 1926:

No Rushing Period, Article III, sec. 1, paragraph (b) was changed to read as follows:

No first quarter student shall be allowed to enter any fraternity house or attend any fraternity function on the campus or off the campus. Fraternity men are prohibited from taking or accompanying first quarter students to meals, theaters, or to any other form of entertainment on the campus or off the campus.

The following new paragraph was added:

Paragraph (c). No invitation, written or oral, for rushing dates shall be extended before 5:20 p.m. of the last day of school of the student's first quarter in residence at the University.

Rushing Period and Pledging, sec. 2, paragraph (b) was changed to read as follows:

No fraternity man shall be with a rushee after 8:30 p.m. except on Friday and Saturday nights or the night before a holiday.

Paragraph (c) was changed to read as follows:

No fraternity man shall be with a rushee off the campus. The campus includes all University properties, or properties rented by the University, the University Y. M. C. A. and the fraternity houses.

Respectfully submitted,  
W. F. HOLMAN, *President*

## FIELD SECRETARY AND GENERAL ALUMNI ASSOCIATION

*To the President of the University:*

SIR: I submit herewith the report of the field secretary and the secretary of the General Alumni Association in one statement inasmuch as the functions of these two officers overlap at many points.

*Alumni Directory.*—Miss Potter, editor of the directory, reports that barring unforeseen accidents the publication will appear this year. It has been a long, arduous task, made more difficult because of lack of adequate staff. Miss Potter has been obliged to do practically all of the work alone. It is hoped that in the near future permanent assistance may be secured.

*Change in leadership.*—Mr. C. G. Ireys, who had been president of the Alumni Association for four years, also chairman of the executive committee of the Greater University Corporation, felt that he ought to be relieved and under protest the board of directors finally accepted the resignation. At the January meeting Mr. Edgar Zelle, '13, was unanimously elected to succeed Mr. Ireys. Mr. Zelle already has taken hold of the tiller and is steering the good ship, "Alumni," with optimism on her course.

*Auditorium plans.*—The building committee has been definitely instructed to proceed as rapidly as possible with plans for the structure. A faculty committee has been appointed to co-operate with the architects in working out these plans to meet adequately the needs to which the building will be put. Delinquent subscriptions have been turned over to a high class collection agency. The total amount available at this time is approximately \$566,000. Student subscriptions are 38 per cent paid, faculty 80 per cent, alumni 84 per cent. On the present basis of collection it would seem likely that the building will be started in 1927.

*Alumni and commencement.*—Last year (1925) for the first time in many, many years alumni were invited back to commencement exercises held in the Stadium. They not only responded in large numbers, but had an actual part in the ceremonies. The classes in order of seniority marched in the procession, headed by the class of 1875, which was represented by all of its living members. No accurate count was made of the number present, but approximately 1,000 marched in the procession and more than 600 attended the annual alumni dinner and meeting later that same day in the ballroom of the Minnesota Union. The fifty-year class (1875) was the center of interest. Their nearest competitors were those of 1900, the quarter-century class. The group pledged the sum of \$2,000 as a class memorial in the form of a scholarship to be awarded as a cash prize accompanied by a gold medal to that senior at the University who has shown ability and initiative as a student and at the same time has rendered the highest degree of unselfish service to his Alma Mater in those fields known as extra-curricular activities. This is a significant thing and it is hoped that each class on its twenty-fifth anniversary will see fit to follow the splendid precedent set by 1900.

*Alumni units.*—Only one new association has been formed this year, namely, the one at Buffalo, New York, the officers being Edwin T. Dahlberg, president, and Frances Crooker, secretary. However, the alumni at Minot, North Dakota, are becoming interested in the establishment of a local unit and we may hear of their organization before another year has passed. Your secretary found it possible to meet with some of these associations the past year. The visits included Milwaukee, Ann Arbor, Buffalo, Schenectady, New York City, Washington, and Chicago. He also attended as alumni secretary gatherings at Wesley Foundation, Minneapolis, Faribault, Riverside Commercial Club of St. Paul, Johnson High School, Mechanic Arts High School, Austin, Buhl, Chisholm, Blue Earth, Fairfax, Henderson, Hibbing, Eveleth, Morgan, Mountain Iron, Rochester, and Virginia. The spirit of the alumni is splendid throughout the land. Perhaps it increases in direct ratio to the distance from the University.

However, the association nearest home has rendered a splendid bit of service. The University of Minnesota Club of Minneapolis has undertaken at its own expense to have "Hail, Minnesota!" and our new fight songs put in sheet music form and made available at all music stores and bookstores. The unit has voted to expend upwards of \$400 in bringing this about. The Minnesota Union is offering two prizes of \$25 each for the cover designs for this sheet music. The alumni of the College of Pharmacy have provided a memorial tablet in honor of their service men and presented the tablet with appropriate exercises on June 10 in the Pharmacy Building. Many other alumni associations have held meetings during the year. The M Club has held meetings and entertained university athletes on different occasions during the year.

*Alumni gift fund.*—Many universities and colleges of the country have alumni funds. The board of directors, feeling that some constructive program to enable the association to function more effectively should be formulated, has studied various plans. The Yale plan of securing annual gifts seemed to fit the Minnesota situation better than any other. This plan was tentatively adopted last year with the understanding that it would not become operative until the expiration of the time of alumni payments toward the stadium-auditorium fund. The date was January, 1926. Hence this spring was the beginning of the annual gift plan. The secretary was instructed to draft a letter to be sent out to the alumni this June. A copy of the letter follows:

Our alumni association has justified its existence beyond dispute. But it isn't giving the kind of service that you and I would like to see—and it can't—under present conditions.

Why? Because its revenue is too limited and too uncertain.

The Board of Directors which you have elected believes that you want the association to function in a capable and business-like way and therefore proposes that instead of crawling along from day to day we stand upon our feet and walk, expand our lungs a bit, get some fresh air, and widen our horizon.

To make this possible the Board has established the Alumni Gift Plan which means that each year every alumnus will be asked to give something to the Alumni Fund. The Board of Directors will expend this money and report regularly to you the uses they have made of it.

The first task will be to put the association on a sound financial footing. The next purpose will be to undertake services which can not be accomplished by university funds. The needs are many.

The Board doesn't want to launch campaigns for projects, but it does have faith in your willingness to do something each year. The first opportunity is *now*. What will you give this year?

The amount is for you alone to determine; make it what you will, make it as large as you can, but make it something, and send it in now.

Furthermore, the Board of Directors would like to have your opinion on this whole matter, so with your check send a word of comment on the idea itself.

Make all checks or drafts payable to the Alumni Gift Fund and use the accompanying envelope for mailing.

If this plan meets with general approval and response, the association will face a new era of usefulness and helpfulness. The idea has the unanimous indorsement of the board, the direct representatives of the entire alumni body, and should commend itself to every graduate and former student.

*New alumni members.*—Each spring the secretary presents to members of the senior class the plans and purposes of the association and urges them to become life members of the association and life subscribers to the *Weekly*. Their acceptance involves a subscription of \$50 each, payable within a period of four years. The response is not what it should be, but the explanation is a natural one. Practically all of these seniors have obligations to the stadium-auditorium fund which are still to be met. Many made these subscriptions on the assumption that they would have the opportunity of liquidating the indebtedness after graduation. They therefore shrink from assuming further financial obligations until the first one is fully met.

The last class so obligated is the class of 1927. There will not be a general response to the alumni membership proposal until June, 1928. Nevertheless more than three hundred members of the class of 1926 have subscribed to the \$50 plan and the number will be increased somewhat after those who are now hesitant become earners. The leaders throughout the colleges have evidenced a fine spirit and the whole outlook is very encouraging.

Respectfully submitted,

E. B. PIERCE, *Field Secretary of the University and  
Secretary of the General Alumni Association*

## THE UNIVERSITY HEALTH SERVICE

*To the President of the University:*

SIR: I have the honor to submit herewith the following report of the activities of the Students' Health Service for the year 1925-26.

*General statement.*—The Students' Health Service of the University of Minnesota was organized in 1917, primarily to render medical service to students enrolled in the Reserve Officers' Training Corps. However, the advantages of this service were so evident that very promptly its scope was expanded to include all students of the University. The purpose of the service is to promote the general health and physical fitness of the students by reducing to the minimum their illness and physical disabilities, by discovering and assisting them with the correction of any physical defects which they may have, and by instructing them by means of practical demonstrations as to what can be accomplished in the field of health conservation and disease prevention.

During the earlier years of the department, it was possible only to care for the acutely ill but we have been able gradually to give more and more attention to the prevention of disease and the promotion of positive health. A complete physical examination is required of every student who enters the University and of certain groups during their college courses; a dental examination also is given at the time of matriculation and at such subsequent periods as students may desire; preventive vaccinations and inoculations may be obtained at any time; medical consultation and advice are available at all hours of the day; appointments may be made with a psychiatrist who will consult with students about their personal problems and worries; a certificate of physical fitness is required of students before they are allowed to participate in strenuous athletics; the food handlers in the university cafeterias are examined in order to be certain that they are not infected with diseases that can be transmitted to others; the water of the swimming pools is analyzed frequently, and the general sanitation of the campus is supervised.

*Health instruction.*—Students, like most other people, when they are well listen only passively to discussions regarding health, but when they become ill, they are most actively interested not only in recovering but also in maintaining good health. In the university community the Students' Health Service has a unique opportunity for much informal health instruction at the opportune time, and as much attention as possible is given to this phase of the work. When more adequate quarters and a larger staff can be provided much greater advantage can be taken of these opportunities.

*Professional staff.*—As the work of the Health Service has increased the staff has been enlarged and strengthened until during the past year it consisted of twenty-one physicians, seven dentists, ten nurses, one laboratory and X-ray technician, one pharmacist, and three dental assistants. Of the physicians one gave full time to the work of the Health Service, five devoted at least half their time to the Health Service, and the remain-

der to teaching in the University; and the other fifteen—for most part specialists in various phases of medical practice—devoted part of their time to the Health Service and the rest to private practice. This part time group consisted of specialists in surgery, orthopedics, genito-urinary diseases, dermatology, diseases of the chest, diseases of the eye, ear, nose, and throat, mental and nervous diseases, physiotherapy, gynecology, and corrective exercises and gymnastics. All of the dentists were devoting about half time to the Health Service and about half time to private practice. The rest of the staff was on a full time basis. This was a larger and more competent staff than we ever had before and one which was able to render the type of service that we as parents would wish for our children attending college away from home.

On various occasions during the year it was felt desirable to have the advice and consultation of members of the staff of the Medical School and University Hospital. Whenever requested, such advice and consultation was given promptly and the administration of the Students' Health Service wishes to acknowledge this service and to express appreciation of the help which was rendered.

*Physical examinations.*—To every student who enters the University the Health Service gives a complete, thoro physical examination. Subsequent examinations are required of medical students, members of the Reserve Officers' Training Corps, and candidates for athletic teams. The medical and dental staffs in co-operation with the departments of Physical Education for Men and for Women perform these examinations.

Upon completion of these examinations each student is advised of any physical defects which were discovered and later in the year those students who were found to have more serious defects are re-examined to determine whether or not these defects have been corrected. Much good is accomplished by this program but we will always fall far short of realizing the maximum benefits from physical examinations until every student in the University can have a health consultation and physical examination each year. With more adequate quarters and a larger staff this will be possible.

*Medical service.*—The services of the physicians and nurses are available at all times at the several health service dispensaries and hospitals. To these institutions any student may come for medical advice or care. The staff also will make calls upon students at their rooms when necessary.

Table I shows the number of services rendered during the past year at the four stations of the University.

TABLE I. SERVICES RENDERED TO STUDENTS

Location	Entrance Physical Examinations	Dental Services	Dispen- sary Visits*	House Calls	Hospi- tal Cases	Total Services	Hospital Days' Care
Main campus . . . . .	3,592	9,036	38,593	413	675	52,319	2,400
Agricultural . . . . .	396	115	16,253	13	259	17,046	2,552
Morris . . . . .	245	..	5,198	..	151	5,594	786
Crookston . . . . .	353	12	2,899	58	113	3,435	798
Total . . . . .	4,586	9,163	62,943	484	1,198	78,394	6,536

\* Dental not included.

*Dispensaries.*—Medical dispensaries exclusively for students are located on the main campus, on the agricultural campus, at Morris, and at Crookston. These are made as homelike as possible and the physicians and nurses try to take a personal interest in each and every student who comes for attention. The dispensary on the main campus has one or more physicians in attendance at all hours of the day. On the agricultural campus a physician is in attendance several hours each day, while at Crookston and at Morris a nurse is in attendance at all times and a physician is called when necessary. In connection with these dispensaries clinical laboratory is done, treatments are given, and prescriptions filled. At the pharmacy on the main campus over 10,000 prescriptions were filled during the year at an average cost to the students of about thirteen cents.

The work done in these medical dispensaries is most important in our attempt to prevent disease among the student body; for when students come here upon the first appearance of symptoms the possibilities of preventing the development of serious illnesses as well as of checking the spread of communicable diseases are greatly increased. For this reason it is important to build up in the minds of the students a confidence in, and respect for, the service, and we believe that by rendering conscientious and efficient service the department is each year rising in the esteem of the students. A better location and more suitable building will assist greatly in this regard.

*Hospitals.*—Infirmaries for the care of students are maintained in close connection with the dispensaries. This arrangement seems essential for the efficient administration of a students' health service, for when a patient who should go to bed is seen in the dispensary it should be easy to put him there. Early hospitalization minimizes the danger of communicable disease spreading throughout the University and frequently prevents the development in the individual of serious complications from relatively insignificant primary infections. In order that this may always be practiced there is a standing rule of the Health Service that any student with a temperature of 100° F. or more shall be put to bed. If such a student lives in Minneapolis or St. Paul he usually wishes to go home, but if he lives in a rooming house or dormitory, he is admitted to the students' infirmary.

Table II shows the number of students hospitalized during the past year.

TABLE II. HOSPITAL PATIENTS

Hospital	Boys	Girls	Total
Main campus .....	509	166	675
Agricultural campus .....	221	38	259
Morris, Minnesota .....	127	24	151
Crookston, Minnesota .....	72	41	113
Total .....	929	269	1,198

*Diseases treated.*—The patients who were cared for at the various dispensaries and hospitals presented a large variety of diseases, injuries, and abnormalities, but acute infections, mostly respiratory, caused much more

illness among the students than any other group of conditions or diseases. Some of the more frequent and the more serious diagnoses made at the Health Service stations in Minneapolis and St. Paul are shown in the following table.

TABLE III. SOME OF THE DISEASES CARED FOR BY THE HEALTH SERVICE ON THE MAIN AND AGRICULTURAL CAMPUSES

Acute respiratory infections		Diphtheria .....	1
Dispensary .....	1,992	Scarlet fever .....	57
Hospital .....	103	Measles .....	2
Pneumonia .....	9	German measles .....	11
Fractures		Chicken pox .....	9
Ankle .....	6	Infantile paralysis .....	1
Wrist .....	10	Erysipelas .....	3
Finger .....	21	Acute tonsillitis	
Toes .....	4	Dispensary .....	210
Nose .....	5	Hospital .....	82
Rib .....	1	Tuberculosis .....	26
Shoulder .....	3	Mumps .....	37
Vertebrae .....	2	Appendicitis—acute .....	10
	—	Appendicitis—recurrent .....	15
Total .....	52	Hernia—strangulated .....	1
		Mastoiditis—acute .....	5
		Tonsillectomies .....	215
		Submucous resections .....	34

*Contagious diseases.*—The prevention and control of contagious diseases always has been one of the important functions of health services in schools and colleges. In fact, the establishment of a health service in many institutions followed a serious epidemic of some contagious disease. In our University a decrease in the epidemics of contagious diseases has been notable, but whenever a large group of young people are brought together, particularly into a large urban center, numerous isolated cases and small outbreaks of contagious disease must be expected. During the past year there have been extensive epidemics of scarlet fever and measles throughout the state, and there were some cases of both of these diseases among university students. Measles did not spread, but the scarlet fever which was of a very mild type, affected a considerable number of students, particularly in the School of Agriculture in St. Paul. Altho there were numerous isolated cases among students of collegiate rank, in no instance was the disease spread to more than one or two persons.

During the year one death occurred in the students' hospital. This patient was a freshman boy who refused to go to bed when he first became ill with a bad "cold." After about a week of this illness he developed scarlet fever which, when it became complicated by an extensive pneumonia, resulted in his death.

*Vaccination.*—Inasmuch as compulsory vaccination is not permitted in the state of Minnesota, it is not possible to give to the entire student body the maximum protection against smallpox, diphtheria, and typhoid fever. However, during the year, 4,096 students were vaccinated against smallpox; 4,780 received Schick tests to determine whether they were susceptible or immune to diphtheria; 791 were given toxin-antitoxin inoculations

to produce a lasting immunity to diphtheria; 1,259 received Dick tests to determine immunity to scarlet fever; 417 who were shown to be susceptible were given inoculations of scarlet fever toxin in order that they might develop an immunity; and 293 were vaccinated against typhoid fever.

*Excuses for illness.*—A student who has been absent from classes on account of illness can obtain an excuse only by applying to a physician at the Health Service. This makes it possible to examine all students who have been ill and to exclude those who might be a source of danger to others, or who for their own good should not be attending school. The excuses issued by Health Service during the past year were for a total of 10,790 days. During the previous academic year they were for a total of 11,303 days.

*Mental hygiene.*—The mental hygiene work begun several years ago was continued by Dr. A. W. Morrison, Dr. George Stevenson, and Dr. Theodora Wheeler. None of these physicians received any compensation from the Health Service, but each devoted one or two half days a week to interviewing students in regard to their personal problems and worries. In this work close contact is maintained with the various deans and special advisers of students. It is hoped that it will be possible gradually to expand this work so as to reach more students who need the assistance of an expert in "finding themselves" and in making proper adjustments to the university life.

*Dental department.*—The dental service which was established four years ago on a self-supporting basis has had a most successful year. Only one change was made in the very competent personnel of the staff, which fact makes for a stabilized and uniformly high grade service. As part of the entrance physical examination every student is given a careful dental examination by this department, and throughout their courses students may come to the department for subsequent examinations. One dental hygienist is occupied full time with prophylaxis, and seven dentists on part time are engaged in treatment and restorative work.

The advantages which this department offers to students are: a high class dental service on a cost basis; a saving of time because of work rapidly done and without the necessity of trips down town; appointments made to suit the students' schedules; and a service of easy accessibility.

The use which the students have been making of this department has been most encouraging. During the year 8,772 visits were made to the department for examination or treatment, other than the entrance dental examination. The financial basis of the department has been more clearly presented to the students and the collection of bills has been more satisfactory than ever before, and by the end of the present fiscal year the assets of the department will more than offset its liabilities.

*Laboratory and X-ray work.*—The laboratory work performed at the Health Service consists of chemical, pathological, and bacteriological tests and examinations required for medical diagnosis and treatment. The following is a summary of the examinations made during the year.

With the small Roentgen ray outfit belonging to the Health Service, X-ray pictures were taken of 804 dental patients and of 509 medical and surgical patients. The work which required a large machine was referred to the University Hospital, 288 cases being sent there for diagnosis or treatment.

	Boys	Girls	
Urinalyses .....	4,139	1,693	
Blood cell counts .....	395	343	
Hemoglobin determinations .....	141	1,408	
Nose and throat cultures (for diphtheria).....	152	133	
Widal tests (for typhoid).....	6	63	
Sputum examinations .....	27	11	
Bleeding and clotting time determinations.....	205	68	
Wasserman tests .....	38	101	
Feces examinations .....	26	14	
Gastric contents analyses .....	33	16	
Blood chemistry determinations .....	24	10	
Basal metabolism determinations.....	21	24	
Nose, throat, and urethral smears.....	211	128	
Miscellaneous .....	25	15	
	5,463	4,027	9,490

*Sanitation of swimming pools.*—The swimming pools have been examined regularly as to their bacterial content. At first, while the chlorine was being regulated, this was done twice a week; during the rest of the year, once a week.

*Summary.*—During the past year the Health Service has been able to continue the high grade of medical, nursing, and dental service for which we have been constantly striving. The calls which students voluntarily have made at the medical dispensaries have averaged over 250 per day. Most calls have been on account of minor illnesses but it is by giving prompt and proper attention to these that many of the more serious illnesses can be prevented. To the student infirmaries and hospitals, 929 boys and 269 girls were admitted as patients, and made an average stay of 5.5 days. Since in this number there were many patients who had prolonged illness from scarlet fever, measles, pneumonia, etc., most of the students admitted to the infirmaries remained as patients only two or three days. The dental department has had a most satisfactory year, both from the point of view of services rendered and of bills collected. The unique opportunities which the Health Service has for educating students in regard to disease prevention and healthful living cannot be fully realized until it is possible for the department to have quarters and facilities sufficiently adequate to give every student in the University a physical examination and health consultation every year.

Respectfully submitted,

H. S. DIEHL, M.D., *Director*

## THE BUREAU FOR RESEARCH IN GOVERNMENT

*To the President of the University:*

SIR: I herewith submit a report of the Bureau for Research in Government for 1925-26.

During the year 1925-26 the bureau issued no new publications, but as this report is being written we have practically ready for the press a study of county government in Minnesota, and we expect to have another dealing with village government in Minnesota ready for the printers within six weeks. These two monographs will considerably advance our series of survey studies of local government in Minnesota. This series, which we have found to be almost an indispensable prerequisite to more intensive studies, we hope and expect to complete within a few years.

We have also been fortunate during the past year in that we have been able very greatly to improve our special library and to make it more available for faculty and students. We were able to make several very fortunate additions to our collection, we brought our cataloging entirely up to date, and we prepared in addition a series of duplicate cards of subject-matter for the catalog of the General Library of the University. In this process of improvement our system of classification was brought to a higher state of usefulness, and it is already coming to the attention of other similar bureaus throughout the country.

Working in co-operation with the Municipal Reference Bureau of the General Extension Division, this bureau has been able to establish a center for information and research which has steadily increased in usefulness to our own students. Altho we have during the past year had a number of inquiries and personal visits from persons in other states who have desired information concerning our work, we have considered the services to our own students, and to the state of Minnesota, our most important contribution.

Respectfully submitted,  
WILLIAM ANDERSON, *Director*

## THE EMPLOYMENT BUREAU

*To the President of the University:*

SIR: From July 1, 1925, to July 1, 1926, the University of Minnesota Employment Bureau has been responsible for the placement of 1,768 persons in positions of either a temporary or a permanent nature. We have estimated that the total earnings on these have or will soon amount to at least \$118,070.87, as compared to our report of the preceding year which included 1,277 placements with a total of \$123,670.87 earned, but of which \$11,952.10 was earned after July 1 while in the present report such earnings are to be held over for 1927-28, therefore the present year shows a gain over the past of \$7,419.65. It has been our purpose to make this estimate as conservative as possible, and we feel certain that, were it possible to secure the actual amount earned on each placement, we should be able to report an even higher total earned.

In preparing this estimate we have computed the amount in accordance with the statement of each employer at the time when he called us unless we have later received more accurate reports either from the employer or the person whom we sent out. We might mention the fact that employers usually underestimate the length of time required to do work and also new work often turns up. Quite frequently a student who gives satisfaction on a temporary job is retained by the same employer either permanently or for other temporary work.

While a more thoro and detailed check on our placements would result in a more accurate and complete report, it would be of little use in our real business of placing students.

This report does not include a number of "indirect placements." It has been our policy to keep in touch to some extent with some of the down town employers who often use certain types of student or graduate help. Often on receiving applications from people of these types we have suggested that they call on some employer to whose needs we felt they were suited. Quite frequently this has resulted in the applicant's employment either immediately or in the near future.

There are several factors besides the increase in the number of placements which have influenced the increase in the amount earned this year. Notable among these is the fact that more of our "full time permanent" placements were positions for graduates and consequently were more remunerative than the ordinary run of full time positions for younger people.

At this time, we also wish to call attention to the fact that this report does not include either facts or estimates relative to the earnings of a large number of students who are spending their summer canvassing or selling. Many of these positions we filled ourselves and on a great many more we aided the representatives of various reliable companies in their efforts to secure student salesmen. Because of the great variation in the amounts earned by different individuals in this type of work, and the extreme difficulty of securing complete or even semi-accurate information relative to the same, we have not attempted to include canvassing or sales work in our report.

Most of the positions in domestic work are filled through the office of the dean of women. However, this year we successfully furnished matrons and cooks for several fraternities and also put several girls in touch with families who wanted someone to watch the children while the mistress was away on shopping tours.

As has always been the case, we have not been able to find work for a number of the girl students who have applied at this office. On the average they are, even more than the men, untrained and inexperienced in any form of work which we might be able to find for them.

Gradually through our own efforts and the results of satisfactory placements the University Employment Bureau is becoming more widely known in the Twin Cities. Probably the greatest factor in this has been, through what we might almost call a side line, our placements of graduates and students permanently of our school. In many instances we have received summer vacation and part time positions for students which we would never have obtained except for connections established through our placement of graduates.

Originally we were primarily interested in aiding students to finish school. However, we have found that as employers become accustomed to calling upon us for one kind of help they soon expect to obtain almost any variety through this office. As a result each year we receive more and more calls for graduates which we must fill if we hope to retain the "trade" of the employer calling.

As in previous years the need is still strongly felt for a greater centralization of placement work involving the co-operation of the various departments and colleges operating through the central office. The results obtainable through such a system would be additional prestige for this "central" office, increased advertising facilities, and more extensive connections with employers including more efficient employment service generally.

Below are given the more important statistical data :

#### APPLICATIONS

##### MEN

General—part time .....	945
Summer vacation .....	98
Summer session .....	95
Full time—mostly graduates.....	150
Total .....	1,288

##### WOMEN

General—part time .....	165
Stenographers .....	78
Summer vacation .....	110
Full time—clerical etc. ....	92
Full time—mostly university graduates.....	88
Stenographers—full time .....	176
Total .....	715
Grand total .....	2,003

## GENERAL SUMMARY OF PLACEMENTS

MEN		
No. of Positions	Types	Amount Earned
422	Odd jobs	\$ 2,514.15
25	Furnace and janitor	1,500.00
171	Working for board	19,480.55
40	Store clerks	1,711.25
17	Clerical	925.40
11	Boys' club work, Settlement House	3,960.00
14	Tutors	753.40
12	Musicians	595.00
6	Working in undertaking parlor for room	360.00
12	Typists	131.00
6	Elevator operators and hospital orderlies	1,052.50
11	Theater ushers	1,080.25
7	Switchboard operators	825.50
17	Soda fountain clerks	995.00
653	Ticket takers and guards	2,028.50
14	Library pages	770.82
12	Chauffeurs	590.10
7	Stenographers	2,186.20
32	Full time—permanent	41,000.00
21	Summer vacation (excluding canvassers and salesman)	6,300.00
1,510	Total	\$88,759.62
WOMEN		
No. of Positions	Types	Amount Earned
7	Typists and clerical—permanent	\$ 5,915.50
19	Stenographers—permanent	9,210.00
135	Clerical—part time	4,208.25
60	Typists—part time	419.00
17	Tutors—part time	482.00
2	Cashiers	543.00
11	Domestic help—part time and full time	3,511.00
2	Pianists	40.00
5	Graduates placed	5,582.50
258	Total	\$29,911.25
1,768	Grand total	\$118,670.87

In addition to this there were around sixty salesmen and canvassers placed and one barber but inasmuch as these placements were on commission basis they were not included in the report.

Respectfully submitted,  
J. C. POUCHER, *Director*

## THE MINNESOTA UNION

*To the President of the University:*

SIR: I submit herewith the report of the manager of the Minnesota Union for the year 1925-26.

You will note by reference to the paragraph entitled "Activities and Use of Building" that the activities of the board have not been confined entirely to the care and upkeep of the building.

Since the constituency of the Union includes all male students of the University, the board has done everything within its scope to interest itself in any project involving the welfare of the men students of the University which is not now being cared for adequately by any existing organization.

It has been the plan of the Board of Governors for several years past in determining the policy and operation of the building to segregate wherever possible various departments such as recreation rooms, study rooms, and service counters, in order to allow the functions of one to continue without disturbing the efficiency or usefulness of another. This transferring of departments was made possible only during the past year when considerable space was added by the removal of the Little Theater and the rearrangement of that part of the building. At present the following rooms are found in the locations indicated:

*Distribution of space.*—The cafeteria with the double serving line and seating capacity of 750 persons, the Campus Club dining rooms with accommodations for 200, the kitchens, pantries, and storerooms altogether occupy well over half of the ground floor, while the billiard room and the candy and cigar counter take up the remaining space on this floor at the east end of the building. On the main, or first floor, there is a large study room used by hundreds of students daily, the committee rooms which are occupied both during the day and early evening, reading rooms, soda fountain, lunch room, trophy room, game room, art room, barber shop, stadium-auditorium office and other offices. On this floor in the Campus Club are found the library, recreation rooms, and fireplace lounging room. On the second floor, commonly known as the banquet floor, the space is largely occupied by the ballroom, which, beside being used as a ballroom is almost daily converted into a banquet hall seating gatherings as large as 1,200 persons. Further in connection with the ballroom is an elaborately furnished reception room which is in constant demand by administrative, faculty, and student organizations. Besides the cafeteria service, there are available several small dining rooms located on the banquet floor, which are used for committee meetings, meals being provided for by special reservation. On the corresponding floor in the Campus Club addition are lodging quarters accommodating approximately 15 persons. The third floor of the building is arranged for the bakeshop, laundry, and storerooms.

*Activities and use of building, year 1925-26.*—For the greater part, the activities and use of the building is not a result of special effort and preparation by the committees of the Board of Governors, but rather the

incidental use which comes from the co-operation of the Minnesota Union with other organizations on the campus in carrying out the University's entire program of activities for the year. It has been necessary for the board during the past year to curtail its program of activities somewhat due to lack of funds which were, in a sense, mortgaged by reason of the building of the Campus Club addition. However, those projects of all-university interest which are mentioned below have been given consideration by the board during the year:

1. Establishing the "M" room in the Stadium for the convenience of members of that organization.
2. Financing project of making phonograph records of Minnesota's songs.
3. Continuation of the fight song contest with the hope that more suitable fight songs might be found.
4. Installation of athletic picture room showing Minnesota athletic history.
5. Entertainment and sharing of expense for convention of the Minnesota State High School Press Association.
6. Purchase of several items of equipment for the Campus Club.
7. Establishing a permanent agricultural branch of the Minnesota Union providing reading and recreation rooms in the Old Dairy Hall.
8. Co-operation and assistance in carrying out of the University Homecoming program, Dad's and Mother's Day receptions, Common Peepul's Ball.
9. Tendering farewell dinner to midyear graduating classes at end of fall and winter quarters.
10. Establishing an organization for carrying out the freshman convocation plans.
11. Authorizing the erection of the light standards at the front entrance of the building as a part of the entire University's program in improvement of the campus lighting system.
12. Continuation of the meeting of visiting athletic teams at station.
13. Accommodations for several city, state, and national organizations for conventions.

It would undoubtedly be possible to continue this list of activities performed by the Minnesota Union during the past year, but those mentioned above undoubtedly serve as a fair cross section of the work which is done beside maintaining and operating the building on a business-like basis. The following statistics show the number of persons using the building on special occasions during the normal year:

Committee meetings and conventions.....	20,000
Dances .....	20,000 to 25,000
Musical concerts and entertainments.....	50,000
Meals .....	500,000

These figures indicate that a great deal of use is made of this building even tho it is not new and up-to-date, and it is the hope of the Board of Governors that the building and its organization will continue to serve the greatest needs of the student body in providing a proper eating place, study and recreation rooms, and that the Union may, through its activities, help to broaden the vision of the student, develop his personality, and help him to become a better citizen in his community.

Respectfully submitted,

E. B. PIERCE, *President,*

*Board of Governors of the Minnesota Union*

## THE INSTITUTE OF CHILD WELFARE

*To the President of the University:*

SIR: I herewith submit my report for the year 1925-26.

The Institute of Child Welfare was organized at the University of Minnesota in July, 1925, with the aid of a grant from the Laura Spelman Rockefeller Memorial of New York City. Its purpose is to make scientific studies of the development of the young child and to bring to parents and others interested, through an extension program, the information accumulated in its own and other research centers. Co-operating with the institute in its program are a number of university departments: Anatomy, Education, Home Economics, Pediatrics, Nervous and Mental Diseases, Psychology, Public Health Nursing, Sociology, the General Extension Division, and the Agricultural Extension Division.

The early part of the year was spent in securing the staff for the institute, in remodeling the Publications Building for institute use, and in securing the initial equipment and apparatus by means of which the work of the institute could be carried on.

*Staff.*—The Nursery School staff consisted of: Miss Margaret G. Wood, principal; Miss Marjorie J. Walker and Miss Adelia Boynton, teachers; Miss Catherine Thompson, teaching assistant; and Miss Marie Johnson, nurse.

The research staff consisted of: Dr. Florence L. Goodenough, research assistant professor; Dr. Michael G. Mulinos, research assistant in pediatrics; Dr. Joseph T. Cohen, research assistant in anatomy and dentistry; Miss Ruth Atkins and Miss Emily Payetta, research assistants in educational psychology; Mr. Sanford R. Winston and Miss Ruth Pearson, research assistants in sociology; Miss Mildred Buffington, research assistant in psychology; Mr. Donovan Lawrence, technical assistant in anatomy; and Miss Myrtle Larsen, technical assistant in pediatrics.

The extension staff consisted of: Miss Edith Dixon, assistant professor in charge of the extension service, and Mrs. Marion L. Faegre, extension worker. Dr. Josephine C. Foster assisted the extension service for part of the year.

*The Nursery School.*—In November the Nursery School was opened. It consisted of twenty-eight children, selected from one hundred eleven applicants by the following criteria: good physical condition as determined by medical examination; the intelligence quotients as determined by test in order to secure a normal distribution; the occupation of the father in order to secure a representative cross section of the population; the cooperativeness of the parents as rated by a social worker; age, in order to secure two homogenous groups, one averaging about two years, three months, and the other about three years, nine months; and accessibility, in order to simplify the problem of transportation. Save for academic vacations, the Nursery School continued throughout the year, the children being in attendance from nine in the morning until four in the afternoon, five days a week. For the first term of the 1926 Summer School, a nursery

school of thirty children was conducted, the children being present from nine in the morning until one in the afternoon.

The Nursery School fulfills a triple function in our work with the young child. It is, first of all, a place in which children receive excellent care and informal instruction of a type suited to their stage of development. Its success is revealed by the large number of applications received for places in the school and by the fact that the children are interested. In the second place, the Nursery School provides opportunity for a considerable number of varied researches on a small group of children under ideal conditions. These studies can be extended later to larger numbers of children in the community. In the third place, the Nursery School as a demonstration center for good technique in handling young children, for staff, students, and visitors, vitalizes the work of the entire institute.

In addition to the children of the nursery school group, the institute, through its various investigations, has studied some five hundred children of pre-school age out in the community.

*Research.*—In spite of the fact that this is the first year of the institute and that equipment, apparatus, staff, and organization had to be perfected, the research program of the institute is well advanced. An organization such as the institute, seeking to co-ordinate the activities of various departments upon a common group of problems relating to young children, carries on many different types of research. Some investigations are necessary at this stage of our knowledge in order to develop the tools or methods by which other problems are attacked. For instance, a number of our anatomical and psychological investigations are concerned with the development of the basic measurement devices which may enable us later to solve more immediately practical problems. Other investigations are direct attacks upon such problems with methods already developed. In a few years, the detailed records of the children, which include many points not necessary to our present researches, will make it possible for investigators to correlate and co-ordinate data from several scientific fields. Much time and energy has been spent in planning and developing records.

During the past year, forty-nine major or minor research projects have been started, some of which have already been concluded whereas others require several years for completion.

Two of these projects have resulted in publication. Several more are in press and during the next year a number of papers are expected to be published. Each succeeding year should see a larger number of scientific publications issuing from the institute, as records are accumulated and projects are completed. The list of projects, for the year 1925-26, loosely classified by fields, follows:

#### RESEARCH PROJECTS, INSTITUTE OF CHILD WELFARE,

1925-26

##### ANATOMICAL

1. The dimensional and ponderal growth of pre-school children. (E. Boyd and L. Richdorf)
2. The determination of the surface area of the infant and young child. (E. Boyd and R. E. Scammon)

3. An analysis of 25,000 records on the ponderal and dimensional growth of infants of the first year. (L. Richdorf and R. E. Scammon)
4. A quantitative analysis of the literature on the growth and physical development of young children. (R. E. Scammon)
5. The normal involution of the fontanelles in infancy. (R. E. Scammon and F. L. Adair)
6. Development of a method for determining irregular areas in connection with studies of the physical development of children. (R. E. Scammon and G. H. Scott)
7. A study of posture in young children. (R. E. Scammon and R. Dittrich)
8. Mathematical studies on growth in infancy and childhood. (R. E. Scammon assisted by Marie M. Ness)
9. The growth of the jaws and face in the pre-school period. (J. T. Cohen with the co-operation of L. Richdorf)
10. Development of the mouth and teeth as revealed by casts. (J. T. Cohen)
11. The growth of the eye in infants and young children. (C. Hymes)

#### PHYSIOLOGICAL (PEDIATRICS)

1. Choline as hormone for the gastro-intestinal tract. (M. G. Mulinos)
2. The effect of artificially induced hyperglycemia on the gastric hunger contractions. (M. G. Mulinos)
3. The effect of hypertonic salt solution on the gastric hunger contractions. (M. G. Mulinos)
4. The effect of intravenously administered glucose on the gastric hunger contractions following excessive doses of insulin. (M. G. Mulinos)
5. Character of the gastric hunger contractions in infants and factors influencing them. (M. G. Mulinos)
6. Complete bibliography of studies in physiology and biochemistry as applied to or concerning infancy and childhood. (F. W. Schlutz, W. W. Swanson, M. G. Mulinos, Theo. Popovich, E. Boyd, M. Ziegler, M. Warden)
7. Compilation of data on the "accomplishments" of infants from the second month to the twelfth, inclusive. (L. Richdorf and J. E. Anderson)

#### PSYCHOLOGICAL

1. An empirical study of the reliability of the Kuhlman-Binet tests for two, three, and four year old children. (Florence L. Goodenough and Mildred Buffington)
2. A study of sex differences in the Binet test performances of young children. (Florence L. Goodenough)
3. An experimental study of different methods of scoring the three and four year Porteus mazes. (Florence L. Goodenough)
4. A study of the relationship between education of parents and intelligence of offspring in the case of pre-school age children. (Florence L. Goodenough)
5. The environmental factor in the Binet test performances of young children. (Florence L. Goodenough)
6. A study of the relationship between birth order and (1) score on intelligence tests and (2) behavior during intelligence tests. (Florence L. Goodenough)
7. Re-standardization of the Wallin peg board series. (Florence L. Goodenough and Mildred Buffington)
8. A preliminary study of the effect of nursery school training upon the IQ ratings of young children. (Florence L. Goodenough and Mildred Buffington)
9. A study of the relationship between infant nutrition and subsequent intellectual growth. (Florence L. Goodenough)
10. A study of the effect of radical changes in environment upon mental test ratings. (Florence L. Goodenough)
11. A study of the ideational factor in the motor learning of young children. (Florence L. Goodenough)
12. A study of social interaction in young children. (Marjorie Walker, Florence L. Goodenough and J. E. Anderson)

13. A study of speech development in young children with special reference to changes in sentence construction. (Dorothea McCarthy, J. E. Anderson, and Florence L. Goodenough)
14. A study of the sleep of nursery school children. (J. E. Anderson and Adelia Boynton)
15. Problem solving in children and adults. (Edna F. Heidbreder)

## EDUCATIONAL

1. Genetic study of perception in young children. (John G. Rockwell and Ruth Atkins)
2. The emotionality of young children—observational. (John G. Rockwell and Emily Payetta)
3. The emotionality of young children—experimental. (Herbert Woodrow and Emily Payetta)
4. Study of the methods of handling everyday behavior. (Emily Payetta)
5. Personality ratings of pre-school children. (Willard C. Olson)
6. Factors affecting the attendance of nursery school children. (J. E. Anderson)

## SOCIOLOGICAL

1. Block survey of neighborhoods from which nursery school children come. (Monica K. Doyle, S. R. Winston, and Ruth Pearson)
2. Studies of the physical and social environment of pre-school children. (Monica K. Doyle, S. R. Winston, and Ruth Pearson)
3. Scale for rating homes of children. (S. R. Winston)
4. The effects of the nursery school upon children's behavior. (Ruth Pearson and J. E. Anderson)

## HOME ECONOMICS

1. The nutrition of nursery school children. (Margaret Chaney)
2. The eating habits of young children. (Margaret Chaney and J. E. Anderson)
3. The food intake of twenty nursery school children. (Margaret Chaney)
4. Survey of the clothing of nursery school children. (Iva Sell)
5. Study of the relation between the type of clothing and learning to dress, self-care, and activity of young children. (Iva Sell)

## GENERAL

1. A case history study of 100 pre-school children. (Josephine C. Foster and John E. Anderson with the co-operation of the Child Guidance Clinic of Minneapolis, the Child Guidance of St. Paul, and the Infant Welfare Society of Minneapolis)

*Instruction.*—Instruction within the University in the scientific and practical fields associated with the institute's program, constitutes a second function of the institute. The institute took over the course in Home Economics Education 40, Child Training, under the auspices of the College of Education and modified it by including opportunities for the observation of children in the Nursery School. During the year, including the 1926 Summer School, 152 persons completed this course.

Plans were made for the teaching program of the institute for the year 1926-27. Eight courses were outlined and submitted to the faculties of the College of Science, Literature, and the Arts, the College of Education, the College of Agriculture, Forestry, and Home Economics, and the Graduate School, with the result that they have been accepted for credit. A special curriculum for the training of nursery school workers was organized in the College of Education. This curriculum utilizes the resources of the University and offers a well-rounded program for the prospective nursery school

worker which, with an additional year of more advanced work, will train individuals for work in the field of parent education.

During the Summer School of 1926, a number of the institute courses were offered and were well attended. Three National Research fellows in child development spent the summer at the institute.

Several graduate students associated with various departments of the University, worked on research problems connected with the institute program during the year.

*Extension.*—The third phase of the institute program contemplates the distribution of knowledge concerning young children through an extension service. This work was actually started in November. Necessarily a considerable amount of time was spent in getting acquainted with the facilities afforded by the University and the state.

Eighty-two public talks and addresses were given by members of the institute staff before various organizations and groups, explaining the purpose and function of the institute and outlining its program. Six public lectures on various phases of the "Development of the Young Child" were given by members of the university faculty and the institute staff. The average attendance at these lectures was 125, the audience consisting largely of parents. Two extension courses on "The Care and Management of the Young Child," carrying university credit, were offered in co-operation with the General Extension Division, one being given in St. Paul to a group of 17, and the other in Minneapolis to a group of 30. Nine study groups were organized in different parts of Minneapolis, some enrolling both fathers and mothers, others enrolling mothers only, the total enrolment being 141. Each of these study groups met on the average, five times, with attendances at each meeting ranging from 6 to 28.

In co-operation with the Agricultural Extension Division, two four-lesson projects were organized in the northern part of the state, under the community plan, one at Virginia, reaching 125 women in two study groups and the other at Chisholm reaching 80 women in two study groups. The material was given to these groups directly by an extension worker from the institute. Two four-lesson projects were organized in Morris and Chokio, on the local leader plan, the first reaching 18 local leaders, each representing groups of 12 to 15 and the second reaching 20 local leaders, each representing groups of 15.

In co-operation with the Division of Child Hygiene of the State Board of Health, the institute undertook the giving of a program on the pre-school child at four regional conferences of public health nurses, at Minneapolis, Mankato, St. Cloud, and Virginia, respectively. Exhibits and talks were given in three cities on National Child Health Day.

The extension service of the institute has assembled a library of 426 books and 737 pamphlets, for use by study classes, extension groups, and workers. Through the co-operation of the educational department of the state library, four traveling libraries dealing with the care and management of the young child have been established. A considerable amount of time has been spent by the extension workers in gathering materials, preparing outlines and texts, and in conferences.

Plans have been made and materials gathered for a series of correspondence courses to be offered in co-operation with the General Extension Division. The first of these is to be a non-credit course offered without fee to residents of the state; the others are credit courses.

In co-operation with the Division of Home Economics, the institute organized a two-day conference on Child Training Courses and Children in Home Management Houses, prior to the meetings of the American Home Economics Association. This conference was attended by over fifty people representing twenty-six institutions. It included a survey of the work now being done in child training and a discussion of future developments and possibilities. The conference should result in modifications of procedure, higher standards, and increased facilities in a considerable number of institutions.

The institute has had many visitors, local, out of state, and from foreign countries, during the past year. There seems to be widespread interest in all aspects of the program we are undertaking.

With the many problems incident to the first year of organization out of the way, the institute hopes to settle into its place as a part of the University and the state and write its history in sound, fundamental research, and in effective instruction, both within the University and out in the commonwealth.

Respectfully submitted,

JOHN E. ANDERSON, *Director*

## THE JOINT COMMITTEE ON SOCIAL HYGIENE

*To the President of the University:*

SIR: The Joint Committee on Social Hygiene presents the following report of its work from March 1, 1926:

*Policy and personnel.*—Shortly preceding March 1 it had been decided by the committee that another attempt should be made at studying the past records of the Women's Co-operative Alliance for the purpose of seeing whether they would lend themselves to statistical analysis. This study of past records, it will be remembered, was the original "project one" of the research program. It was in accordance with this decision that Dr. Helen Witmer was engaged for six months, commencing March 1, to make this study. At about the same time Miss Katharine Hattendorf was transferred from the Women's Co-operative Alliance staff to that of the committee with the task of supervising the field work and of studying the problem of materials and methods of presenting them to mothers. So it was with this staff of two, with a stenographer added shortly afterwards, that the real work of research began on March 1.

Committee meetings were held once a month at which progress reports were made by Miss Hattendorf and Dr. Witmer, suggestions in regard to these were made by the various committee members, and policies were discussed. The following are the chief decisions arrived at by the committee.

At the meeting on March 4 it was decided to "go forward with the original plan of research but to put greater stress on the experimental work involved in project two." On April 7 it was decided that "the emphasis should be put on parental sex education" (rather than on that of sex education of children) and "on the evaluation of the past and present records of the Women's Co-operative Alliance with the expectation of devising experimental tests and improvements in methods." On May 12 the chief suggestion was that the attitude tests might be used by the parent advisers in their house to house interviewing. On June 9 it was decided to make Dr. Witmer the executive secretary of the committee to July 1, 1927, her duties being "to prepare plans for the research projects of the Committee to be submitted to the Committee, and to take charge of the details connected with the projects and with the experiments of the Committee."

*Methods of investigation.*—It was decided early that Miss Hattendorf's work should consist of supervising the field work, of studying the materials to be presented there, and of improving the technique of interviewing. Dr. Witmer was to devote her time to the study of the past records, to the improvement of the forms for future records so that study of them would be made worth while, and to the setting up of experimental projects for testing the results of the Women's Co-operative Alliance program. In any situations which would touch the work of both, they were to collaborate.

Accordingly, Miss Hattendorf has given her time to supervising the parent advisers in their home visiting and in their conference work, intro-

ducing gradually to them the new record forms and the new tests that were devised in consultation with the committee. She has also supervised the parent advisers in the preparation of an outline of the material to be presented in the conferences, and, with a view to devising new material, has collected and tabulated many questions asked by children and by mothers as reported by the parent advisers. These questions should prove of real value in discovering just what kind of information mothers need most.

The first part of Dr. Witmer's work was that of studying the past records of the Women's Co-operative Alliance. She came to the conclusion that nothing that could be used statistically was to be found in these records other than such facts as are already incorporated into the monthly and annual reports of the Women's Co-operative Alliance. Accordingly, as what seemed to be most needed was a descriptive, interpretative history of the Alliance in order that people should understand through what stages of development it had passed before coming to its present policy, she suggested that this should be written by some person closely connected with the organization. While such a history was being written, aid might be given by the research worker in compiling such statistics as the records do yield. The committee agreed that this plan seemed to be the most feasible.

The next task was to revise the forms for record keeping so that the records from this time on should lend themselves to statistical analysis. These forms were devised in consultation with Miss Hattendorf, care being used to see that they did not unnecessarily interfere with the service function of the Alliance. At present a case record is kept of each mother with whom any sort of an interview is held. This includes a face sheet, giving the usual type of information as to education, nationality, religion, and so on; a description of the mother's source of sex information and of the sex education she has given her children; a statement as to the material the parent adviser was able to cover with her; an "attitude test," showing, presumably, her opinion on a number of concrete questions; a sheet showing, half objectively and half subjectively, the economic and cultural status of her home and neighborhood. Much the same type of information is secured from the mothers attending the conferences. It is hoped that from these records some correlations may be secured between attitudes (as expressed verbally and by behavior) and social and economic conditions.

Much time was spent in the formulation of these "attitude tests." A ranking type was used with the conferences that were held in April, with advanced conferences, and with a group of university students, and it was found that all groups ranked the statements very similarly in spite of varying degrees of instruction. It was concluded that this type was too complicated to use widely, and after several experiments the present form of multiple choice test was arrived at. It was Dean Kelly's suggestion that this test be used as an educational device in interviewing, a suggestion that may prove to be the most important discovery thus far.

As one of the things to be discovered is the effectiveness of the Women's Co-operative Alliance program of instruction in changing mothers' attitudes, a follow-up study of women who were enrolled in the conferences during 1925 and 1926 is now being made by Dr. Witmer. This same "attitude

test" is used, thus making it possible to compare the opinions of these women with those who have had no instruction by the alliance; and a record is kept that is quite similar, tho somewhat more detailed, to that described above.

At present, then, the work is going forward along these lines—the parent advisers are keeping detailed records of the mothers they come in contact with and are having mothers fill in the attitude tests; under Miss Hattendorf's supervision they are making a composite outline of the material to be presented in the conferences; special attention is being paid to the collection of questions that mothers report that their children have asked and of the age at asking; a follow-up study is being made of the past conference members, securing a statement as to their attitude toward sex education in general and the Alliance's program in particular, of their experience in obtaining sex information themselves, and of their behavior in giving it to their children. Miss Hattendorf is reviewing all literature on materials and methods; Dr. Witmer is giving her attention now to devising experimental projects.

Respectfully submitted,

HELEN LELAND WITMER, *Executive Secretary of the Committee*

## FINANCIAL REPORT

*To the President of the University:*

SIR: I have the honor to submit herewith the Annual Report of the Comptroller of the University of Minnesota for the year ending June 30, 1926. Full detailed statistics covering this period are in the *Report of the Comptroller*.

Respectfully submitted,

W. T. MIDDLEBROOK, *Comptroller*



**Federal Aid**

Morrill Fund .....	25,000.00	
Nelson Fund .....	25,000.00	
Adams Fund .....	15,000.00	
Hatch Fund .....	15,000.00	
Smith Lever Fund .....	150,319.33	
Smith Hughes Fund .....	18,916.04	
Purnell Fund .....	20,000.00	
	<hr/>	269,235.37
Permanent University Fund .....		134,808.81
Swamp Land Income .....		78,750.00
Student Fees, Net Schedule .....		1,048,652.70
Sales and Miscellaneous Schedule .....		* 296,274.33
Mayo Foundation .....		269,040.22
Minnesota Hospital and Home for Crippled Children .....		32,130.50
W. J. Murphy Endowment for a School of Journalism .....		17,941.11
Laura Spelman Rockefeller Memorial .....		41,214.84
Sundry Trust Funds .....		93,344.99
Senate Committee on Intercollegiate Athletics .....		382,616.88
Service Enterprises .....		708,609.08
Revolving Funds .....		277,355.98
		<hr/>
Total Cash Income .....		\$8,212,400.70

\* Sales, \$296,266.30; Grand Rapids Main Building Refund, \$5.50, and Cancer Institute Refund, \$2.53

## STATEMENT OF EXPENDITURES

1925-1926

	Salaries and Wages	Supplies	Expense	Capital	Total
ADMINISTRATION .....	\$ 143,027.38	\$ 7,298.12	\$ 8,757.69	\$ 1,892.36	\$ 160,975.55
GENERAL .....	174,799.89	36,315.46	60,890.40	55,295.90	327,301.65
<b>INSTRUCTION AND RESEARCH</b>					
Physical Education .....	40,621.30	4,489.31	1,570.27	1,188.21	47,869.09
Science, Literature, and the Arts.....	661,442.47	12,462.47	10,571.84	13,763.65	698,240.43
Engineering .....	252,666.05	9,464.84	4,491.91	15,562.41	282,185.21
Agriculture .....	877,274.79	93,877.48	94,938.23	42,086.33	1,108,176.83
Medical School .....	223,432.06	12,704.91	9,896.44	20,410.00	266,443.41
General Hospital .....	147,323.11	88,004.18	28,478.02	24,081.10	287,886.41
Chemistry .....	110,443.92	15,770.60	3,641.45	19,485.17	149,341.14
Mines .....	97,636.05	4,782.01	4,661.19	22,028.01	129,107.26
Dentistry .....	107,584.04	32,731.79	1,348.62	10,702.36	152,366.81
Law .....	57,375.88	883.19	822.29	8,018.40	67,099.76
Pharmacy .....	31,998.35	4,596.98	476.25	2,981.04	40,052.62
Education .....	115,331.80	4,458.75	3,210.78	3,180.71	126,182.04
High School .....	38,800.59	1,111.18	130.32	1,148.86	41,190.95
Summer Session .....	100,350.80	3,963.60	7,026.13	309.66	111,650.19
Extension Division .....	99,981.97	11,712.23	72,000.55	4,269.90	187,964.65
Graduate School .....	6,309.35	13,011.44	7,411.05	1,825.43	28,557.27
School of Business.....	88,427.70	874.14	303.25	430.95	90,036.04
Sub-Stations .....	181,665.18	41,431.59	32,962.86	61,036.00	317,095.63

<b>PHYSICAL PLANT</b>					
Main Campus .....	111,314.08	13,041.02	236,917.60	4,423.31	365,696.01
Agricultural Campus .....	44,515.24	3,502.75	82,091.35	770.57	130,879.91
Special Repairs .....			80,727.61		80,727.61
Land, Buildings, and Equipment .....				595,769.75	595,769.75
Comprehensive Building Fund .....				44,389.22	44,389.22
Comprehensive Building Fund—Interest ...				38,737.50	38,737.50
Highway Laboratory .....				47,588.00	47,588.00
Grand Rapids Dormitory .....				14,067.31	14,067.31
Grand Rapids—Main Building .....				62,237.50	62,237.50
REFUNDS .....			32,111.73		32,111.73
Sub Total .....	\$3,712,322.00	\$ 416,488.04	\$ 785,437.83	\$1,117,679.61	\$6,031,927.48
<b>TRUST FUNDS</b>					
Mayo Foundation .....	91,337.50			185,937.13	277,274.63
Laura Spelman Rockefeller .....	30,394.06	3,251.79	2,049.11	7,456.69	43,151.65
Minnesota Hospital and Home for Crip- pled Children .....				32,157.70	32,157.70
W. J. Murphy Endowment for a School of Journalism .....				16,308.42	16,308.42
Cancer Institute .....		467.14	920.85	57,063.84	58,451.83
Other Trust Funds .....				95,653.26	95,653.26
<b>SERVICE ENTERPRISES</b>					
Revolving Funds .....		331,347.79	140,224.21	30,115.38	501,687.38
Service Enterprises .....	222,799.60	486,661.59	120,008.63	42,205.07	871,674.89
<b>SENATE COMMITTEE ON INTERCOLLEGIATE</b>					
ATHLETICS .....	54,709.81	26,403.11	168,078.76	92,776.48	341,968.16
Grand Total .....	\$4,111,562.97	\$1,264,619.46	\$1,216,719.39	\$1,677,353.58	\$8,270,255.40

**DETAIL OF REVENUE  
STUDENT FEES**

1925-1926

University—	Summer Session	Regular Session
Science, Literature, and the Arts.....	\$ 27,025.00	\$236,130.13
Engineering .....	6,810.00	98,718.50
Medicine .....	16,743.50	80,831.50
Chemistry .....	1,580.00	15,815.50
Mines .....	115.00	6,665.00
Dentistry .....	7,603.00	69,297.50
Law .....	2,200.00	26,530.00
Pharmacy .....	305.00	15,672.50
Education .....	41,383.00	62,906.75
Graduate .....	20,158.82	7,877.50
Business .....	1,955.00	23,783.00
Nursing .....	25.00	4,115.00
Dental Nursing .....	125.00	1,981.00
Music .....	72.00	29,480.00
Music—Special .....	36.00	4,618.50
High School Registration.....		8,085.00
Public Health .....	880.00	1,083.50
Laboratory .....	2,796.50	62.00
Medical Technicians .....	165.00	987.50
War Specials .....	1,985.00	3,886.75
Recreation .....	402.75	
Unclassified .....	126.00	12,520.00
Miscellaneous .....	1,208.00	11,486.60

Agriculture—		
College .....	4,821.50	42,842.25
School .....		2,844.00
Federal Board .....		45,387.22
Music .....	2,404.00	1,700.00
Gymnasium .....		2,141.15
Institute of Co-operation .....	276.00	
Short Courses .....		1,428.50
General .....		267.60
Deductions—	\$141,201.07	\$819,144.45
Health Fees .....	\$4,625.00	
Shevlin Fees .....	1,150.00	
Union Fees .....	1,153.00	
Post Office Fees .....	920.00	
	<u>\$7,848.00</u>	
Refunds .....	314.60	24,122.27
	<u>8,162.60</u>	
Net Fees .....	\$133,038.47	\$795,022.18
Extension—		
Extension Classes—Evening .....	\$ 94,413.10	
Extension Classes—Short Courses .....	6,445.00	
Extension Classes—Correspondence .....	19,733.95	
	<u>\$120,592.05</u>	

### SUMMARY

Regular Fees Net.....	\$795,022.18
Summer Session Fees Net.....	133,038.47
Extension Fees Net.....	120,592.05
Grand Total .....	<u>\$1,048,652.70</u>

## DETAIL OF REVENUE

1925-1926

### SALES AND MISCELLANEOUS

Minnesota General Hospital		
Pay Department .....	\$ 31,500.16	
Outpatient .....	18,944.31	
X-Ray .....	3,602.70	
Tonsillectomy.....	4,785.65	
Miscellaneous .....	2,009.43	
	\$ 60,842.25	
Dental Infirmary .....		62,409.04
Lyceum-Extension Division .....		30,046.39
Agricultural Departments		
Northwest School and Experiment Station, Crookston, Minn. ....	23,970.59	
West Central School and Experiment Station, Morris, Minn. ....	17,091.23	
North Central School and Experiment Station, Grand Rapids, Minn. ....	12,560.78	
North East Experiment Station, Duluth, Minn.	7,824.05	
South East Experiment Station, Waseca, Minn.	7,938.32	
Zumbra Heights Fruit Farm .....	2,285.64	
Department of Agriculture, Experiment Station	5,735.55	
Cloquet Forestry Experiment Station .....	6,029.98	
Itasca Forestry Experiment Station .....	24.50	
	83,460.64	

Payroll Refundments .....		870.14	
Cancelled Warrants .....		3,028.28	
Daily Balance Interest—State .....		4,316.34	
Cancer Institute Reimbursement .....		1,416.73	
Farm House Rentals .....		596.93	
Todd Memorial Equipment—Dr. W. R. Murray Gift .....		1,200.00	
Sandy Land Investigations .....		13.35	
Agricultural Extension .....		525.01	
Direct Process Beneficiation of Low Grade Ores ...		3.73	
Albert Lea Experimental Creamery .....		2,147.50	
Daily Balance Interest—University .....		2,435.66	
Miscellaneous .....		1,585.32	
Scientific Instrument Shop .....		148.75	
Gymnasium .....		4,146.70	
Bindery Sales .....		47.57	
Minnesota Daily .....		13,044.20	
		<hr/>	
		\$272,284.53	
Departmental Sales			
Administration .....	\$ 51.52	School of Mines.....	1,426.18
General .....	8,163.62	Law School .....	416.79
Physical Education for Men.....	1,160.15	School of Pharmacy .....	215.70
Physical Education for Women.....	83.03	College of Education.....	930.29
College of Sci., Lit., and the Arts....	1,179.94	University High School.....	9.73
College of Engineer. and Arch. ....	1,222.03	General Extension Division....	39.42
Department of Agriculture.....	2,249.97	Graduate School .....	1,675.52
College of Medicine.....	527.77	Physical Plant .....	2,882.57
College of Chemistry.....	423.44	Miscellaneous .....	1,324.10
			<hr/>
			23,981.77
			<hr/>
			\$296,266.30

# PUBLICATIONS OF THE FACULTIES

## THE UNIVERSITY LIBRARY

FRANK K. WALTER, M.A., M.L.S., University Librarian and Professor of Library Methods

Library of the University of Minnesota. Minneapolis: University of Minnesota. 1925. 12 pages.

In a quiet corner with a little book. *Wisconsin Library Bulletin* 21:208-12. October, 1925; *Minnesota Chats* 1:2-7. September, 1925.

Limits of library standardization. *Wilson Bulletin* 2:453-55. October-November, 1925. Librarian's own reading. *Ibid.* 2:486-90. January-February, 1926.

University Library survey of the Carnegie Foundation. *Libraries* 31:97-98. February, 1926.

## THE COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

### ADMINISTRATION

JOHN B. JOHNSTON, Ph.D., Dean of the College of Science, Literature, and the Arts and Professor of Neurology

Predicting success in college at the time of entrance. *School and Society* 23, No. 577:1-7. 1926.

### ANIMAL BIOLOGY

WILLIAM ALBERT RILEY, Ph.D., Professor of Animal Biology and Head of the Department of Animal Biology

The terror of the night. *Nation's Health* 7:616-17. 1925.

Ticks may be both parasites and carriers of disease. *Ibid.* 8:176-77. 1926.

The dog as a carrier of disease to man (with M. Joannides). *Journal of American Medical Association* 85:1054-55. 1925.

Darling's histoplasmosis in the United States: the possibility of further occurrence of cases (with C. J. Watson). *Minnesota Medicine* 9:97. 1926.

A case of Darling's histoplasmosis originating in Minnesota (with C. J. Watson). *Archives of Pathology and Laboratory Medicine* 1:662-67. 1926.

Reviews and abstracts of parasitological literature. *Abstracts of Bacteriology; Folia Haematologica.*

Editorial Board. *Journal of Parasitology; Annals of the Entomological Society of America.*

Collaborator. *Biological Abstracts.*

THOMAS SADLER ROBERTS, M.D., Professor of Ornithology, Director of the Zoological Museum, and Professor Emeritus of Pediatrics

The season, July to August, 1925, Minnesota region. *Bird-Lore* 27:264-67. 1925.

The season, September to October, 1925, Minnesota region. *Ibid.* 27:341-44. 1925.

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The season, March to April, 1926, Minnesota region. *Ibid.* 28:141-43. 1926.

The season, May to June, 1926, Minnesota region. *Ibid.* 28:212-14. 1926.

*Reviews of*

W. T. Hornaday, A wild animal round-up. *The Saturday Review of Literature* 11:513. January 23, 1926.

John Rowley, Taxidermy and museum exhibition. *Ibid.* 11:873. June 19, 1926.

ELMER JULIUS LUND, Ph.D., Associate Professor of Zoology

Control of magnitude and direction of the continuous bioelectric currents associated with organic polarity. *Proceedings of the Society for Experimental Biology and Medicine* 23:233-34. 1925.

Effect of oxygen and carbon dioxide concentration on the inhibition of respiration and photosynthesis by KNC (with I. E. Surbeck and V. Holt). *Ibid.* 24:38-41. 1926.

The electrical polarity of obelia and frog's skin, and its reversible inhibition by cyanide, ether, and chloroform. *Journal of Experimental Zoology* 44:383-96. 1926.

DWIGHT ELMER MINNICH, Ph.D., Associate Professor of Animal Biology

The reactions of the larvae of *Vanessa antiopa* Linn. to sounds. *Journal of Experimental Zoology* 42:443-69. 1925.

OSCAR WILLIAM OESTLUND, Ph.D., Associate Professor of Animal Biology

A chapter in the life history of *Mordwilkoja vagabundus* (Aphididae) (with F. C. Hottes). *Annals of the Entomological Society of America* 19:75-80. 1926.

ADOLPH R. RINGOEN, Ph.D., Assistant Professor of Animal Biology

Reviews and abstracts of some important American haematological literature. *Folia Haematologica*.

#### ANTHROPOLOGY

ALBERT ERNEST JENKS, Ph.D., Sc.D., Professor of Anthropology

A suggestion for abstracts of anthropological literature. *Science* 60:73-76. 1924; *Reprint and Circular Series of the National Research Council*, No. 56.

Welding the nations together. *The Dearborn Independent* 24, No. 41:2, 15. 1924; *The Baptist* 5:783-85. 1924.

Italian race and its characteristics. *The Dearborn Independent* 24, No. 44:2, 15. 1924.

Study in race values—Italians. *Ibid.* 24, No. 25:2, 14. 1924.

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How the Slavs came to Europe. *Ibid.* 25, No. 35:25-27. 1925; translated into Slavic. *Nove Evope*. September, 1925; translated into Croatian. *Hrvatski Glasnik* 17, No. 52. 1925.

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WILSON D. WALLIS, B.Sc., Ph.D., Associate Professor of Anthropology

An unusual form of glenoid fossa possibly due to loss of teeth. *Dental Cosmos* 66:1104-7. 1924.

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The independence of social psychology. *The Journal of Abnormal and Social Psychology* 20, No. 2:147-50. 1925.

#### ASTRONOMY

FRANCIS P. LEAVENWORTH, M.A., Professor of Astronomy and Head of the Department of Astronomy

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Observations of the magnitudes of variable stars. With other observers published under the heading, "Monthly Report of American Association of Variable Star Observers." *Popular Astronomy* 33:323-34, 395-409, 463-82, 544-63; 34:129-40, 200-211, 266-75, 329-40, 389-99.

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J. ARTHUR HARRIS, Ph.D., Professor of Botany and Head of the Department of Botany

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Variation and correlation in the inflorescence of *Manfreda virginica*. *Annals of the Missouri Botanical Garden* 11:411-59. 1924.

Differential absorption of anions by varieties of cotton (with W. F. Hoffman and J. V. Lawrence). *Proceedings of the Society of Experimental Biology and Medicine* 22:350-52. 1925.

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A table to facilitate correction for undercooling in cryoscopic work. *American Journal of Botany* 12:499-501. 1925.

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CARL OTTO ROSENDAHL, M.S., Ph.D., Professor of Botany

Minnesota, general features, geographic and local plant and animal communities. *Naturalist's Guide to North America* pp. 267-84. 1926.

Review of

William Release, Winter botany. *Phytopathology* 16:61, 62. 1926.

FREDERIC KING BUTTERS, B.S., Ph.D., Associate Professor of Botany

Notes on the range of *Mainanthemum canadense* and its variety *interius*. *Rhodora* 28:9-11. 1926.

WILLIAM S. COOPER, Ph.D., Assistant Professor of Botany

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S. B. Show and E. I. Kotok, The rôle of fire in the California pine forests. *United States Department of Agriculture Bulletin* 124. 1924.

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OSCAR W. FIRKINS, M.A., Professor of Comparative Literature

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The looking-glass: a one-act play. *The Drama* 16:171-73. 1926.

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FREDERICK KLAEBER, Ph.D., Professor of Comparative and English Philology

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JOSEPH WARREN BEACH, Ph.D., Professor of English

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CECIL A. MOORE, Ph.D., Professor of English

John Dunton: pietist and impostor. *Studies in Philology* 22, No. 4:467-99. October, 1925.

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ELMER EDGAR STOLL, Ph.D., Professor of English

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JOSEPH MORRIS THOMAS, Ph.D., Professor of English, Chairman of the Department of English, and Assistant Dean for the Senior College

Revision of Composition for college students (with Frederick Manchester and F. W. Scott). New York: Macmillan Company. 1926. 625 pages.

*General editor*

Marjorie Nicolson, Art of description. New York: F. S. Crofts and Company. 1925. 438 pages.

Mary Ellen Chase and Frances K. del Plaine, Art of narration. New York: F. S. Crofts and Company. 1926. 494 pages.

Elizabeth Jackson, Selections from Macaulay's Prose. New York: Harper and Brothers. 1925. 254 pages.

MARTIN B. RUUD, Ph.D., Associate Professor of English

Thomas Chaucer: a biography. *Studies in Language and Literature* No. 9. Minneapolis: University of Minnesota. 1926. vi+136 pages.

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John Samuel Kenyon, American pronunciation. *American Speech* 1:48-53. 1925.

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MARY ELLEN CHASE, Ph.D., Assistant Professor of English

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The garment of praise. *Scribners' Magazine* 78:422-32. October, 1925.

WILLIAM P. DUNN, Ph.D., Assistant Professor of English

Sir Thomas Browne: a study in religious philosophy. Menasha, Wisconsin: George Banta Publishing Company. 1926. 190 pages.

CORTLAND VAN WINKLE, Ph.D., Assistant Professor of English

Epithalamion by Edmund Spenser, edited with introduction and notes. New York: F. S. Crofts. 1926. 144 pages.

CLIFFORD A. BENDER, M.A., B.S. in Educ., Instructor in English

Another forgotten novel. *Modern Language Notes* 41:319-22. 1926.

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DARRELL HAUGH DAVIS, Ph.D., Associate Professor of Geography and Head of the Department of Geography

The blue grass region of Kentucky. *Journal of Geography* 25:121-36. 1926.

Climatic change and lowered lake levels. *Minnesota Chats* 6, No. 87:1-6. 1926.

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RICHARD HARTSHORNE, Ph.D., Instructor in Geography

The significance of lake transportation to the grain traffic of Chicago. *Economic Geography* 2:274-91. 1926.

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WILLIAM HARVEY EMMONS, Ph.D., Professor of Geology and Head of the Department of Geology and Mineralogy

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## DENTISTRY

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## THE COLLEGE OF PHARMACY

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