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MINNESOTA CHATS



For a Better
Minnesota

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University's Biggest Class of Student Nurses



Above the group is shown a general view of the enlarged hospital

The Future of the University Hospitals

Recent Developments and Prospective Growth Outlined by Dean Lyon

WHATEVER may be the outcome of the project by which the University of Minnesota has tried to interest the city of Minneapolis in situating its General Hospital on or near the university campus, the Medical School at Minnesota is going ahead with its original plan of eventually increasing its hospital facilities to 600 beds and of bringing other buildings and equipment up to the standards implied by a hospital center of that size.

During the past year alone the University Hospitals have made a fourth of the stride between their 1924 status and 600 beds by adding to the original 200 bed capacity approximately 100 more, through the construction and opening of the Memorial Cancer Institute and the Todd Memorial Eye, Ear, Nose and Throat units.

Ultimate construction of the Minnesota Hospital and Home for Crippled Children, for which William Henry Eustis is giving the funds, will add about 50 more beds to University of Minnesota hospital facilities. The hospital unit under the Eustis gift will be built on the campus, while the Convalescent Home will go on the property adjoining the Dowling School site which Mr. Eustis gave. It lies on the west bank of the Mississippi River near Minnehaha Park.

Time and again both President L. D. Coffman and the dean of the Medical School, E. P. Lyon, have pointed out that Minnesota is strategically located in the field of medical education and that it has so firm a beginning and prospects so splendid that it would be unwise to plan for its future in any small way. The Medical School seems destined to become a large and comprehensive institution, and to foresee its development in accordance with any other theory would be a mistake.

More than a year ago the Medical School announced plans that would involve the erection there of a Women's Hospital, a Home for

Nurses, a Dispensary Building to house the department which already cares for 60,000 patients annually at no more cost to them than a registry fee of ten cents, an Administrative Building, an addition to the Service Building and the completion of the unfinished wing of Millard Hall, the main medical building.

Toward the accomplishment of this development, what has been done? In view of the keen interest with which Minnesotans seem always to have followed the development of the Medical School and its hospital, it may be worth explaining that the attainment of some of the main objectives seems to be in sight.

In the first place, the University either has received or will receive within a little more than a year the million and a half dollars in real property and securities contemplated in the William Henry Eustis gift.

Secondly, some hundreds of thousands of dollars from the remaining funds due the University under the Comprehensive Building Program have been allocated to the Medical School.

Expect Gift for Nurses' Home

Finally, it is Dean Lyon's firm belief that from some quarter he will receive either as one gift or several, the money needed for the erection of a Nurses' Home on the university campus.

That some adequate living quarters for the students of nursing and the employed nurses in the University Hospitals be found seems imperative. Not only does the number of nurses increase necessarily as the size of the combined hospitals grows, but the past two years have shown a marked increase in the number of students electing nursing at Minnesota. The class entering in the present year showed an increase of approximately 50 per cent over last year's, one of the biggest percentage gains ever experienced in any unit of the University.

For several years it has been admitted that living quarters for the nurses and student nurses are inadequate.

Few other needs of the University of Minnesota can have so great an appeal to persons philanthropically inclined as does the cause of wholesome, cheerful, comfortable and adequate homes for these young women. Student nurses go through an arduous course of training in preparation for a career that is well paid but that involves much hard work, long hours, strenuous duties, and requires much exact information and no little skill. At the completion of a day's work these students need, perhaps more than any other group of women students, a home in which they can relax in comfort and enjoy the stimulus of study and companionship in attractive surroundings.

There is no implication that the student nurses must live in squalor even at present, but the remodelled residences in which most of them are housed have, in the first place, too little room for the increased student body in nursing, and in the second place, they lack almost all of the attractive features which could so easily be included in a well-designed home for nurses should some one see fit to make such a building possible.

Because the money for it is assured, the other unit placed near the top in this program of enlargement is the Minnesota Hospital for Crippled Children. And next most important, as Dean Lyon views it, is the new Dispensary Building. The dispensary work is housed at present in part of the semi-basement of Millard Hall, the headquarters building of the Medical School. It not only takes up much space that could be used to advantage in other ways, but it is inconveniently arranged, making it practically necessary, because of its public nature, to shut off that part of the building from the part in which instruction is carried on.

Dean Lyon plans to build the Minnesota Hospital for Crippled Children as an adjoining unit to the Cancer and Todd Hospitals, lying along Union street, and the Dispensary Building, eventually, along Delaware street at the corner of Union street, also connecting with the other units.

A STRIKING fact about the growing group of University of Minnesota hospitals is that although they are state hospitals by legislative enactment and are officially entitled the Minnesota General Hospital, relatively little state tax money has been used in their construction. The Elliot Memorial Hospital, the original unit, was made possible by a gift of \$113,000 from the estate of Dr. and Mrs. Adolphus F. Elliot of Minneapolis, after which public-spirited citizens came forward with a donation of \$43,000 for the purchase of a site. The state contributed \$83,000 toward the project for completion of the building and purchase of equipment. The Memorial Cancer Institute was financed by the \$250,000 gift of the Citizens Aid Society, and the Todd, Gale, and Mapes gifts provided \$45,000 toward erection of the Todd Memorial Unit. University money to the amount of more than \$100,000 was used in the completion of the Todd unit, making it, of the entire hospital group, the chief beneficiary from university funds. It is not implied that the state has pursued a particularly penurious policy, for it built Millard Hall and the Institute of Anatomy, each at a cost of more than \$300,000, though truth to tell, their erection was an imperative necessity, for without them Minnesota would have had no adequate Medical School. The state also appropriated money for the service building.

Public Supports the Medical School

The interesting fact remains that time and again in the history of the Medical School public-minded men and women have seen the necessity of contributing substantially to the development of medical education to strengthen the hands of those who are leading in the fight against disease and suffering and in scientific explorations that bring new knowledge and experience to be employed in that battle.

The casual visitor to the new units of the University Hospitals is impressed with the skillful arrangement of corridors, rooms and wards, as well as by some of the more outstanding pieces of equipment. In the X-ray room of the Memorial Cancer Institute he will be struck by the polished and beautiful walls of greenish tile and will learn that beneath that tile the room is completely sheathed in a leaden

lining, half an inch or more thick, which prevents the powerful rays from penetrating the walls and wandering off into places where they are not wanted. These walls also serve to protect practitioners employing the rays, which are known to have serious effects on persons constantly exposed to them, as some hospital workers are. Like other therapeutic agencies, they are good when applied for the purpose and in the manner designated by medical science, but are not to be trifled with.

Another bit of equipment for which the University is thankful to a generous donor is the radium emanation plant in the Memorial Cancer Institute. This was obtained with part of the funds in the Howard Baker Bequest, a gift of \$40,000 for use in one of the specified departments of the Medical School and more recently designated to be spent in the fight against cancer.

DISSOLVED in a flask of water, the radium, which cost more than \$30,000 although it weighs but half a gram, approximately one-tenth as much as a five cent piece, is enclosed in a ball of lead that lies inside a huge iron safe, carefully locked. It could not easily be stolen and if stolen would be useless to the possessor, first, because he would lack the scientific skill to recover it from the water, and second, because radium is so scarce that anyone offering half a gram for sale would immediately be suspected unless he were an authorized dealer. Nevertheless the Uni-

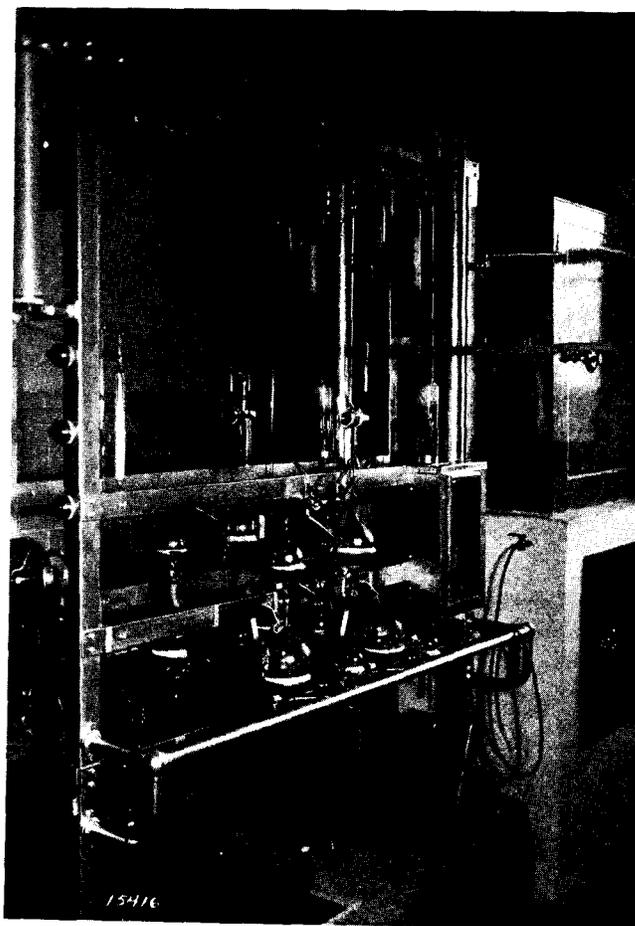
versity of Minnesota carries insurance on its supply.

The fact is that the actual radium will not be used in the treatment of patients, for the supply is large enough to permit the collection of radium emanations. These are very short lived, but during the few days of their effectiveness, they are not only as good as original radium for purposes of treatment, but are better because their strength can be standardized.

Radium emanations, infinitesimal sparks of radio-active matter, are constantly given off by radium, and while these retain their potency they are as good for cancer treatment as the original substance. To collect these emanations in the tiny glass tubes in which they are used, an elaborate piece of equipment has been set up.

A lead covered pipe leads from the lead ball in which the radium is enclosed, out through the wall of the safe to an elaborate pump

mechanism composed chiefly of glass flasks, connected by glass tubes, through which mercury is forced by air pressure. The emanations, constantly sparking off from the radium in the safe and escaping through the lead tube into the glass flasks, are forced from a first flask into a second, where chemicals purify them. Helium gas is about the only foreign substance that can not be separated from the emanations. They then are forced into a second flask or chamber, and out of it through glass cocks into tiny glass tubes the size of the lead in a pencil. They contain the radium ema-



The new radium emanation machine

nations with which diseased tissues may be treated.

A mere 1800 years from now the hospital will have but one half as much radium as it has now, due to the steady barrage of emanations which will shoot off from the main supply. For the emanations are nothing theoretical or fanciful. They are actual, though minute, bits of the parent substance. They are like the sparks that fly from red hot iron struck by a hammer, except that the radium shoots off the sparks on its own account. The activity of the emanations decreases much more rapidly. In fact it decreases one sixth each day, and while this is a geometric progression and will never reach zero, it requires but a few days for a tube's therapeutic potency to be gone.

This leads directly to the conclusion that patented or advertised medicinal articles treated with radium emanations must be used within a week from the time of manufacture if the emanations are to be of any value. And seldom can an article made for sale be sold and used within a week, barring perishables of universal consumption, such as bread.

How Emanations Are Standardized

Equipment by which the strength of the small emanation tubes is tested and standardized has been set up. It operates on the same theory as does the famous "mechanical bloodhound" perfected by Professor Henry A. Erikson, head of the Department of Physics at Minnesota, which "barks" at the presence of radium. This piece of equipment is the common one known as an electroscope. Pieces of gold leaf are attached to a tube suspended in a large empty container, and are charged with electricity, both receiving the same charge, either positive or negative. Then, under the laws of electricity, they repel one another and stand apart. But as it happens, radium makes the air near it a conductor of electricity, with the result that, as soon as the electroscope comes near the radium the electric charge flows off, and the pieces of gold leaf, no longer charged, flutter down on the rod. In determining the strength of emanation tubes a measurement is obtained by measuring the distances from the electroscope at which the tubes cause the electric current to escape. Tubes that are effective at the same distance are of approximately the same strength.

Dean Lyon cites such equipment as the radium emanation machine as proof that the science of physics is coming into medicine today in much the same way that chemistry did a quarter of a century ago, when the biochemists and physiological chemists began making the discoveries which have since given them such an important position in medical science. Insulin as a cure for diabetes is the most recent and possibly the most outstanding contribution of the chemists to modern medicine.

"With the spreading use of radium, ultra-violet light, roentgen rays and the like, the physicist is taking his place alongside the chemist," Dean Lyon says. "Some marvelous pieces of equipment have been developed as important adjuncts to medical practice. In performance these machines are therapeutic, which is to say, curative, but their operation is usually beyond the skill of the average physician and a thoroughly trained physicist is needed to manage them. It requires a physicist rather than an M.D., for example, to determine just the correct angle at which an X-ray machine should be directed at a patient if the rays are to reach the very place where they are to take effect and no other, as in the case of a cancer seated deep in the body. It takes a physicist, also, to operate the machine effectively, for, while it is true that anyone can make it go when all is well, just as anyone can put his foot on the gas and steer a motorcar that is in good order, the moment any difficulty arises, a thorough understanding of the equipment is necessary."

Machines like the X-ray and the deep-heat machine, which employs the principles of electricity to carry heat to spots deep in the body rather than to the surface alone, are instances of the new physical therapy which, according to Dean Lyon, is definitely a part of medicine in the broad sense, but yet is not necessarily implied in the M.D. degree. In his own phrase, "they are as much a part of medicine as the scalpel and the pill." And they represent new and wonderful phases of that ever advancing and improving science.

PEOPLE the state over have been relatively slow to realize that the Minnesota General Hospital, comprising the University of Minne-

sota Hospitals, is as much a part of the state hospital system as are the state hospitals for feeble minded, insane, epileptics, or for children and tubercular persons. The only real difference is that the University Hospitals are operated under the direction of the Board of Regents while the others are under the Board of Control, and that the former hospitals have linked with their curative functions, though secondarily, the teaching function necessarily borne by a hospital that is part of an educational institution.

Dean Lyon points out that the word to be emphasized in relation to the Minnesota General Hospital is "general," inasmuch as it is the institution to which the counties of the state may send general cases, those for which Minnesota has not made specific provision elsewhere in its asylums and institutions. It is now coming generally to be understood that any county, indeed any commissioner of any county, may send to the University Hospitals indigents who are in need of hospitalization. Half of the expense of their hospitalization is stood by the county and half by the state. The state reimburses the University and collects half of its outlay from the county. In this sense hospitalization means hospital costs only, there being no charge for medical attention, inasmuch as that is provided by the full-time staff members, who use their cases for teaching purposes, students being required to observe the treatments as they progress.

It was the wish of the original benefactor of the hospital, Dr. Elliot, that his gift go to better the lot of lonely and friendless invalids and, at least in the ratio of his donation to the investment in the whole hospital, a policy of receiving charity cases has been maintained. In addition, however, to the indigent patients sent by counties and to the charity cases, the University Hospitals receive patients of moderate means who can pay for hospitalization but are unable to meet standard hospital costs. In this, according to Dean Lyon, it is meeting one of the recognized needs of the present era, in that it is an often stated belief that medical attention is immediately available to the poor, who get it through charity, and to the rich, who can command every convenience, but is often foregone by the class of persons who are neither in poverty nor affluence and to whom

such unexpected and out of the ordinary bills as those for physicians and hospital service are sometimes the "last straw." It is equally well known, of course, that physicians treat thousands of such persons, frequently without receiving any pay at all, a burden which is partly lifted from their shoulders by such institutions as that on the Minnesota campus.

Private Patients Now Admitted

By a recent action of the University Regents a new policy has been established of permitting designated full-time members of the medical faculty to treat some personal patients in the Minnesota General Hospital under an arrangement whereby hospital costs are paid to the University and reasonable fees to the attending physician himself. This is a system that has been put into effect by a number of prominent medical schools in Boston and New York, and the reasons for it are not hard to find in the annals of medical education. These schools have been faced with the conflicting facts that they need full-time teachers on their faculties and that full-time teaching in medicine is certain to remove a physician from the active practice of his profession which is so desirable in keeping him perfectly alert and proficient. State institutions have no choice but to interpret "full-time" as just what it means, with the consequence that doctors who become full-time teachers have to give up downtown practice. It is to provide these men with an opportunity to keep up a small and highly necessary practice, to keep them wholly alive in their profession, that the permission for them to have personal patients in the University Hospitals has been voted by the Board of Regents.

Thanks to what has been learned from the experiences of the past, the Minnesota Hospital and Home for Crippled Children will be adequately supported by the original gift, which will be so administered that it will both build and equip the buildings and provide an endowment for their maintenance. Approximately \$1,000,000 of this gift of more than \$1,500,000 will be retained as an endowment to assure at all times the fully efficient administration and support of the noble work which the Hospital and Home has been designated by its donor to perform.

Finding the Individual Student and His Problems

A Report of the New Faculty Committee of Counselors

By Professor Donald G. Paterson

An outstanding accomplishment of the past 20 years has been the rediscovery of the individual in the mass. Time was when nearly any group was relatively small and each person, however slender his accomplishments, stood out as something of an entity. He drew attention by the mere fact of his being there.

Gradually, as our country grew nearer and nearer to its present population of something like 115,000,000, groups of all sizes grew proportionately greater. With the others, the universities began to present attendance figures that astonished a generation that had grown to manhood in a world of things much smaller, numerically. During the inevitable transition period from smallness to bigness, one of the criticisms of large universities most often heard was that the individual received too little attention.

This was not, as it might have seemed, a problem that was at all peculiar to universities. As men massed in greater and greater numbers to accomplish the things which a larger world required, the individual everywhere became less and less conspicuous. And, as so often happens, this situation brought its own cure, for society decided that it must pay purposeful and intentional heed to the individual if it was to fit him into the niche that would best serve public ends. As a result of this awakening the individual in the mass seems destined soon to be better off than the individual in the smaller group, for in the larger group his case will be taken up and given individual atten-

tion, whereas in the smaller group he may be assumed to be well enough off by virtue of his position and may receive little personal consideration or none.

It is chiefly the psychologists who are to be thanked for the new technique of rescuing the individual from the mass, and of the names that might be applied to this practice, personnel work is probably as satisfactory as any. Guidance is perhaps a more specific description of the purpose of such work, and in universities it is described exactly by the phrase "student guidance."

At the University of Minnesota "student guidance" has been centering the attention of many of the ablest members of the administrative and teaching staffs, including President L. D. Coffman, and Dean J. B. Johnston of the College of Science, Literature, and the Arts. A representative Faculty Committee was appointed three years ago by Dean Johnston with Professor Donald G. Paterson of the Department of Psychology at its head.

*The ensuing report covers the problems and accomplishments of this committee, in its original and modified forms, from the time of its appointment to the present. Readers are especially urged to follow the report through until they come to the description of actual cases in its latter half. In these little human interest stories of student struggles and victories will be found one of the chief explanations of the fascination educational work with young people has for the type of men and women best fitted to carry it on.—
Editor's Note.*

THIS report deals with the attempt to develop an effective advisory and counselling service for students in the Junior College of Science, Literature and the Arts, a development which is an outgrowth of the recommendations of the University Committee on Educational Guidance urging that improved means for personal advice to students be provided.

In June, 1923, three special advisers were appointed in the Junior College. They began their work in September, 1923, giving approximately one third of their time. These advisers devoted the year to intensive study of selected groups of students primarily with the aim of training themselves. This involved

not only discovery of the range and extent of problems presented by various students but also development of a technique for aiding students in overcoming difficulties. Probation students, students of superior ability and superior high school achievement who were failing to live up to their expectations in the University and students who were superior in every respect constituted the selected groups that were interviewed and followed up. Work with these groups indicated the advisability of increasing the work during 1924-25.

As the work progressed the aims of advising became more clearly outlined; the genuine difficulties to be overcome more obvious. Perhaps

a statement of these aims will best serve as an introduction to the present report of progress.

Aims of Counselling

The aims of counselling were first to bring about a more harmonious adjustment of individual students to the opportunities available within and without the University, and second, to establish, as far as possible, a friendly and constructive personal relationship between individual members of the faculty and students who desire such contact. This aim may be regarded as an attempt to re-establish the student-faculty relationship said to have existed in the small college and to have been lost as a direct result of increase in enrollment.

There is an obvious difference of aim between this group and the registration advisers who assist the student in complying with curriculum rules and regulations. Furthermore, these faculty advisers should not be thought of as offering a mere "Pollyanna attitude" which seeks to solve student problems by spreading good cheer, optimism and expressions of faith in the inherent goodness of human nature. Unintelligent advising is apt to be of this sort. Neither should the work be confused with that of sentimentalists who have no real knowledge of the complexities of human nature or of the mechanisms of human adjustment but proceed to bring about better adjustments on the naive theory that the liberal use of praise and blame, of simple rewards and punishments is all that is necessary to make each student do his best.

On the contrary, the work of special advisers may best be characterized by the following statement of their duties and qualifications prepared by Dean J. B. Johnston and a committee:

The function of advisers is two-fold: to help the student and to collect and report information which may be used by other agencies to improve the administration of the University. In helping the student the adviser is called upon to deal with curriculum matters, methods of study, living conditions, associations and habits, interests, extra curricular activities, health and any and all matters which affect the student's work and the degree of his success as a student and as a future citizen or professional man or woman. The aim and function of the adviser is to help the student to make the most of his University opportunities and to realize in the highest degree his own possibilities. The point of view and attitude of the adviser are determined by the question, "What is best for this individual student?" The adviser must approach his

work with the spirit, interest and method of a University officer as distinguished from an advocate of a college or department.

The other administrative agencies to which the advisers may furnish information or suggestions include:

- a. Officials or committees dealing with problems of university entrance and the co-operation with high schools.*
- b. Officials or committees dealing with the regulations governing students and interested in harmonizing or standardizing the regulations of the several colleges.*
- c. Officials or committees controlling the transfer of students from one school or curriculum to another because of interests or professional considerations.*
- d. The Students' Work Committees.*
- e. The University Health Service.*
- f. The Committee on Educational Research.*

For the prosecution of their own work advisers will collect information about the student, sometimes voluminous and of varied character. The advisers may expect the Committee on Educational Research to furnish them with forms for personnel records and for recording various kinds of information. When this has served the adviser's needs for the individual student it should be made available to the research committee for the study of methods and ways of improving personnel work, and to other agencies to which it may be useful.

It was agreed that it was better to limit this group at first to a small number who are willing to undertake the full duties and responsibilities of advisers, and limit the students to be cared for at first to certain groups or types not too numerous for the advisers appointed. The students to be handled from the start can be selected according to the conditions of the college concerned, e.g., students of superior ability, those who indicate their desire for such conferences, those who are in some degree unsuccessful in their work, and so on. As the advisers gain in experience and develop technique they may take on additional groups of students and other advisers may be added to learn the methods and to undertake their share of advising.

The advisers will maintain always an independence from any disciplinary function. They should not be members of student's work committee or other disciplinary body. They will furnish such officials with information and diagnosis when desired, but they will not take part in or responsibility for any disciplinary action. Advisers are essentially friends and counsellors of students whose function is to help young men and women as long as they are students.

The Program of the Second Year

In planning to extend the work for 1924-25 in order to reach a larger number of students through a larger committee, the following program was drawn up:

- 1. That the three special advisers be re-enforced by addition of six or nine additional faculty members who will serve as special advisers and members of special adviser's committees in addition to their other duties.*

2. That a Committee of Special Advisers be organized consisting of nine or twelve faculty members (including the three special advisers appointed last year).

3. That this Committee of Special Advisers adopt a uniform mode of procedure in studying individual students governed, as far as possible, by similar aims. That this Committee hold regular staff conferences at two week intervals for purpose of conference, exchange of experience and developing unity in aims and methods.

4. That this Committee be subdivided into three sub-committees of three or four members each. The first sub-committee to undertake the intensive study of a selected group of gifted students. The second sub-committee to undertake the study of a group of students of average ability. The third sub-committee to undertake the study of a selected group of probation students to be selected by Dean Shumway.

5. That the immediate program of each of the members of each sub-committee for the present be limited to the following five points:

(a) To act as registration advisers for each assigned student throughout residence in the Junior College.

(b) To study time distribution as it actually exists in the case of each assigned student.

(c) To study each assigned student's vocational and professional aim or objective.

(d) To study the extent and nature of each student's participation in extra-curricular activities.

(e) To investigate methods of study, time of study, place of study and conditions of study.

6. That each adviser keep a personnel record folder filled out as far as possible and kept up to date for each assigned student.

7. That a written record in the form of informal notes be kept concerning the facts elicited and suggestions made at each and every interview, this written record to be entered on the Interview Sheets printed for this purpose and filed in the student's record folder.

8. That a summary be prepared for each student interviewed as soon as the adviser has collected sufficient information to admit of a judicious summing up of the student's capacities, aims and adjustments. This summary should be organized under the following headings: (a) identifying information (b) reason for assignment to special adviser (c) facts apparently favorable to good scholarship (d) facts possibly unfavorable to good scholarship (e) apparent needs and suggestions made and (f) scholarship record by quarters.

9. That bi-weekly conferences of the advisers should be devoted in part to the preparation of a comprehensive statement and agreement on aims involved and the means to be employed in bringing about the best possible adjustment of each student to the opportunities afforded by the institution.

10. That the advisers be urged to read such books and periodicals as are suggested by members of the group and by speakers who will discuss advisory problems before the University group of advisers.

Donald G. Paterson,

October 7, 1924

THROUGHOUT the year this group held frequent meetings with practically perfect attendance. The following formal discussions were led by invited speakers: Dr. F. S. Chapin, on "History of Social Case Work," Miss Mildred Rosenstiel on "Vocational Advising," Dr. R. M. Elliott on "Psychological Mechanisms Involved in Student Adjustments," and Dr. Angus Morrison on "Mental Hygiene Problems." In addition to these formal meetings the group held four additional meetings for the purpose of outlining the program, arranging for specific interviewing tasks and discussion of selected cases. Members of the group were supplied with copies of "The Principles of Vocational Guidance" formulated by the National Vocational Guidance Association, and Dr. F. J. Kelly's "The American Arts College."

The first task undertaken was the interviewing of 54 new fall quarter freshmen placed on probation after the mid-quarter examinations. Additional groups interviewed during the year were: 33 students of high expectation and poor college performance; 39 Twin City students and 52 non-Twin City students of high expectation and high performance in college. In addition an undetermined number of students seeking special advice voluntarily were interviewed one or more times.

Theoretical Basis for Advisory Work

There is an important theoretical basis for such advisory work outlined as follows:

- a. Appreciation of the extent and nature of individual differences in aptitudes, abilities, interests and desires among college students.
- b. Appreciation of the range of motives among college students, direct and indirect means of expressing these motives, the numerous possibilities of mental conflict arising from the multiplicity of motives, and possible methods of solving such conflicts in harmony with the student's best interests.
- c. Knowledge of the more obvious symptoms of mental hygiene problems so that those requiring the special services of a physician, a psychologist or a psychiatrist may be referred to the proper agencies.
- d. Knowledge of and ability to utilize social case work technique in interviewing students.
- e. Familiarity with the significance of the results of devices for measuring intelligence and other personality traits.
- f. Knowledge of the educational significance of extra-curricular activities.
- g. Knowledge of sources of occupational and vocational information.

It is apparent that such advisory work requires trained interviewers, a detailed knowledge of the assets, liabilities and opportunities belonging to each advisee, and a continuous prosecution of research to develop better methods of personality analysis and opportunity analysis.

One might conclude that this program can not be executed by faculty members because it is difficult, if not impossible, to develop qualified faculty members. In other words, it might be claimed that such a program requires a centralized staff of specialists such as medical examiners, psychiatrists, psychologists and social workers. To be sure, such expert consultation and research service is needed, and it is to be hoped that Minnesota will not neglect the opportunity (if not obligation) of providing an adequate service of this kind. However, even with such a service, the problems of student adjustment can not be adequately handled unless the classroom instructors are kept fully informed of the significance of the problem and the necessity for faculty co-operation in carrying out the recommendations of the specialists. Hence, the attempt to educate and train this group of faculty advisers will pay dividends even though the work gradually becomes centralized in a bureau operated by specialists.

How the Work Goes On

It may be of interest to list here our present methods of obtaining detailed knowledge of the assets, liabilities and opportunities of each student. These are:

1. Interviews with the student, his instructors, his friends, his parents and others who may know him well.
2. Student Personnel Record Folder, filed in the office of the dean of the college in which the student is registered in accordance with the resolution passed by the University Committee on Educational Research. This folder makes provision for recording information on previous school history including summarized school marks, previous occupational background of the family, results of physical examinations and health ratings, information on his complete college record both scholastic and extra-curricular, re-

sults of intelligence tests, personality tests, educational tests and other special tests and statements concerning the student's aims, interests and plans from time to time.

3. Knowledge of curricular and extra-curricular opportunities in the University and of educational and training opportunities outside the University.
4. Research projects designed to provide better tools for personality analysis and more adequate knowledge of opportunities.

As soon as the Committee of Faculty Counselors begins to operate on a production basis (1926-27) a systematic study will be made to determine the value of such student-adjustment work. In the meantime a number of major research projects are under way, such as Dr. Edna Heibreder's research designed to develop methods of measuring obscure personality traits such as introversion, inferiority complexes, neurotic symptoms, etc.; Miss Myers' attempt to isolate and measure scholastic zeal and interests apart from intelligence; Miss Hubbard's study of the interests of the socially inclined versus the mechanically inclined; Mr. Langlie's studies of the value of placement tests and the value of teacher's ratings of personality traits; Miss Hubbard's study of methods of differentially predicting success in specialized curricula such as medicine and law.

Program for the Current Year

WE have enlarged the committee to 27 members for the year 1925-26 and have changed the name to Committee of Faculty Counselors. The change in name was made to avoid confusion between the work of these counselors and the work of the regular staff of registration advisers. The large increase in the committee was made to acquaint a larger group of the faculty with the work of the more active members of the committee (for instance, those teaching the Orientation course have been added with the expectation that they might serve as counselors for students enrolled in that

course). We have also added certain members to the committee because of their interest and knowledge of some phases of the problem in the hope that they will contribute to the group discussions without actually participating in the interviewing of students.

As a result of last year's work a demand arose for more specific aid and instruction on the best method of conducting student interviews. This demand really arose because of a desire to be more fully informed concerning the problems to be analyzed in student interviews. To meet this need three sub-committees have been appointed and are at work,—each faced with the task of preparing a manual or guide for aiding in approaching a curricular problem of adjustment, a vocational problem, or a personal problem. The completion of such a manual will bring together for the first time, interviewing techniques, typical problems and ways of meeting those problems. Such a manual is urgently needed by the members of the committee and will serve as an excellent means of training new members who may be added to the committee from time to time.

Faculty counselors have been greatly handicapped by lack of knowledge of available opportunities in attempting to urge unsocialized students to participate in extra-curricular activities most appropriate for their particular needs. Strange to say no classified list of extra-curricular activities is available. Such a list or classified directory should show for each organization listed, its name, address, its purpose, nature of its meetings, conditions of admission and financial obligations. Mr. William Anderson and Mr. F. S. Chapin are now preparing such a directory aided by Mr. Theos Langlie who is handling the details. When this directory is completed it can be placed in the hands of faculty counselors and can also be given to students with judicious advice concerning participation.

The immediate interviewing work, now going on, is directed toward conservation of scholastic talent among new freshmen who are failing in 50 per cent of their work although they secured ratings of 60 percentile or above in the college ability tests. Additional groups will be interviewed during the course of the

year, with major emphasis placed on the most promising students.

The Aims of Interviews

In interviewing students the attention of counselors is being directed toward:

1.

Studying time distribution as it actually exists in the case of each assigned student. The counselor frequently enlists the co-operation of the student to the point where he will systematically record his activities on a prepared Time Distribution Sheet returning at a later date for a discussion of time budgeting. In some cases it would mean advising a student to study less but to study more intensively. Similar attention can be given to each activity reported.

2.

Investigating methods of study, time of study, place of study and conditions of study. Many students complain that they can not concentrate or that they can not stay awake to study in the evening. Frequently it is necessary to call their attention to Whipple's "How to Study Effectively" or to Kornhauser's "How to Study" emphasizing the principles that seem to apply in the particular case. Some students need special advice on relaxation and rest before the evening meal in order to complete an evening of intensive study. Difficulty in concentrating in many instances is a symptom of mental conflicts and reveries resulting from failures to achieve certain ends in real life. Hence, improvement in study can not be expected unless the underlying conflict is removed.

3.

Studying the extent and nature of each student's participation in extra-curricular activities, aiding and urging the student to engage in those activities most in line with his own interests, abilities and needs. For example, we frequently find that a student has devoted three or more years to the study of some musical instrument yet drops this activity upon entering college. Such a student might be urged to join one of the musical organizations or to take an extra course in the Department of Music to maintain his interest and ability in music.

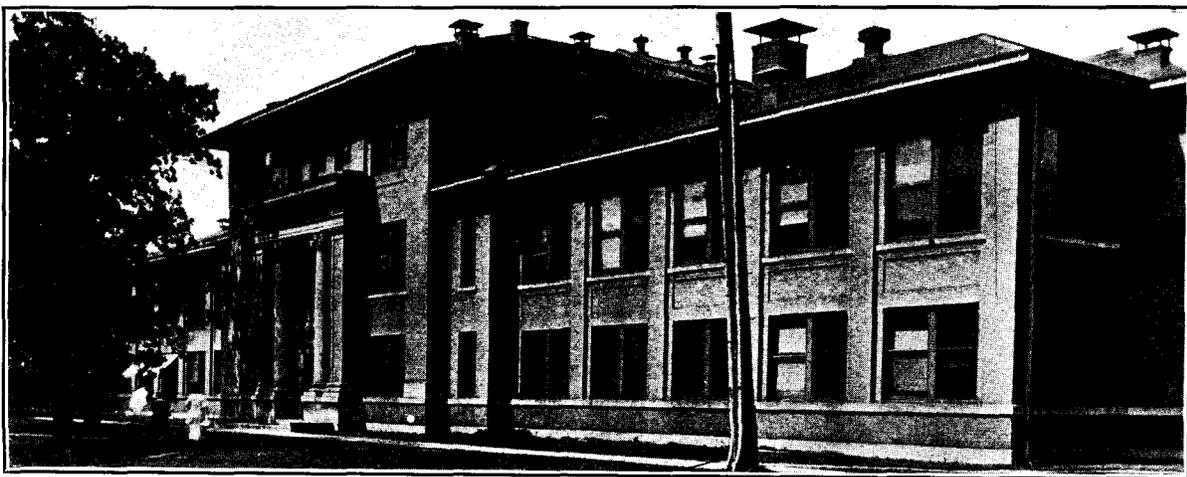
4.

Studying each assigned student's vocational and professional aim or objective to determine its origin, its harmony with family background and student's real abilities, etc. In this work we are very fortunate in having the aid of Miss Mildred Rosenstiel whose expertness and skill has resulted in numerous readjustments.

5.

Giving each assigned student an opportunity to discuss personal problems frankly and confidentially with an older and more mature member of the faculty.

The surprise and gratitude expressed by many students at the opportunity such interviews have afforded them is evidence of the need for and the worthwhileness of such counselling work. Time and again students at the conclusion of an interview have expressed amazement at the fact that anyone in such a big University would devote time to them and be interested in them as individuals. This type of appreciation leads the members of the committee to believe that their work is sufficiently important to justify strenuous efforts to improve and extend the service.



Psychology Building at the University of Minnesota

Something on Selected Cases

THE following cases have been selected to indicate the complexity of the problem and to indicate some of the results that have been achieved. No attempt has been made to classify systematically the various types of student adjustment problems. The aim here is merely to give a bird's-eye view of some student problems encountered.

A. Cases of inferior ability and inferior college work yet possessed by an irrational and intense desire to do college work.

I.

Miss M. A., 20 years of age, entering S. L. & A. in September, 1924. College ability test very low, i.e., 2 percentile, indicating meagre vocabulary, lack of reading ability and

lack of genuine scholastic interests. At time of first interview was failing in 66 per cent of her work. Wanted to study nursing but not physically able to do this. Insisted upon coming to the University of Minnesota in order to keep up with her younger and brighter sister who entered the University at the same time. Miss M. A. was in a highly nervous and run down condition because she had studied night after night without success in grasping the subject-matter. She acknowledged that she would be happier if she were working at something more in line with her abilities. Because she disliked business but loved children, kindergarten work was suggested as a possibility. An interview with her mother confirmed all the

facts and the mother was anxious to have her daughter placed in some other line of work. Miss Rosenstiel interviewed the girl and persuaded her on the ground of ill health to drop her work in the University, to work until September and then to undertake a kindergarten training course, which she did. On November 15, 1925, the follow up report indicated that she is successful in her kindergarten training and is very happy in that work.

II.

Mr. W. H. entered S. L. & A. September, 1924, age 18. His college ability test rating shows average ability but his high school scholarship was very low. He graduated from a Minneapolis high school at the bottom of his class scholastically, i.e., 7 percentile, his principal predicting failure for him in college. He made a very poor record during his first year, claiming that he did not study enough. He came to a faculty counselor to learn how to make good grades. The real motive for staying in college was a desire to keep up with his classmates. Interviews with the mother and with the boy resulted in their decision to find some other form of training better suited to his abilities. The Psychology Department gave him a series of tests, discovering that he was highly gifted along mechanical lines. He was advised to enter a trade school, taking the auto mechanics course with the idea of going into the automobile business later on. Follow up report indicates the boy is successful and enjoying this course.

III.

Mr. D. L. entered S. L. & A. September, 1924, at age of 20, taking Pre-medical course. Is entirely self-supporting and is an earnest conscientious student. Very poor rating on college ability tests (in lowest one per cent of entire freshman class). Failed in 66 per cent of his work at mid-quarter. He could not understand his failure in view of the fact that he had done nothing except study for the six weeks' period. He was grateful for information that his lack of reading habits throughout his life with a resulting meagre vocabulary made it almost impossible for him to master his college subjects. He said, "Well, I believe that is true and I ought not continue because

I'm paying my own way and I can get more out of my money by trying something else." His interest in medicine was a "derived interest" and not in line with his abilities. His uncle had greatly influenced him for some three years to take up medicine. Boy plans to go into business by starting at the bottom in some industry.

IV.

Miss D. M. entered Art Education September, 1924. Very poor ability, test rating 7 percentile. She failed during freshman year and was failing when interviewed in November, 1925. This student was emotionally exhausted due to continual failure, in spite of her best efforts. Her father is dead and she and her mother earn their own living. Their great fear is that the girl, lacking a college education, will be forced to struggle through life as the mother has, working for a mere pittance in unskilled work. Miss Rosenstiel made a very careful investigation after winning the confidence of the girl and her mother and arrangements were made for her to enter a normal kindergarten training course, obtain that training in two years and then take up further art training during the summers while teaching kindergarten during the winter. This account is too brief and inadequate to reveal the whole story. We hope that the tragedy of continued failure may now be obviated. The girl was on the verge of quitting school, deserting her mother and going to an eastern city to become "a librarian." The main motive here was to escape from poverty and failure and to be near a girl friend. Without guidance such a student could easily wreck her future possibilities because of the role that irrational, emotional factors are bound to play when facing an intolerable situation such as she found herself in here.

THE above cases serve to indicate that a variety of non-scholastic and non-intellectual motives serve to drive students of inferior scholastic abilities to continued and repeated attempts to succeed in the University. Such students do not need discipline. They do not understand dismissal, which is merely followed by return to the University at the first opportunity. They need guidance which will lead

them to see that the University is not an opportunity for success for them and cause them to seek opportunities for success elsewhere.

B. Cases of superior tested ability and poor college achievement.

I.

Miss W. H. entered S. L. & A. Pre-medical course in September, 1922. She failed during her freshman year and was failing during her second year when interviewed. She was obviously unfitted for medicine and science. She was reported by instructors as being neurotic and unfitted for routine laboratory work although recognized to be brilliant. Her high school history revealed that this student had literary talent, contributing poetry and prose to the school paper and annual, writing class songs and class poems during all four of her years in high school. Her college ability test scores were remarkably high, i.e., 99 percentile. Inquiry disclosed the fact that she had wanted to study medicine since the age of six, probably to fulfill her father's own thwarted desire to study medicine. The above facts persuaded the student to transfer to the general Arts course with literature as her objective. In the five quarters since that decision she has made 65 credits and 130 honor points. Dr. Morrison, psychiatrist, has aided her greatly in gaining better emotional control. Miss Rosentiel has helped her in obtaining summer work and in counselling with her. Mr. Paterson has worked with her continuously, encouraging her and aiding her in keeping her good work up in spite of certain emotional stresses and strains. The immediate objective is now graduation with the development of short story writing technique.

An adequate description of this interesting student would require from five to ten pages. Her record folder contains eight pages of notes covering various interviews, numerous poems of genuine merit, copies of correspondence with former teachers and literary critics, test blanks confirming her unusual literary ability and a detailed record of achievement in her courses. The successful outcome of this one case will more than repay the time and effort that has been put into the advisory work to date, for here we have the possibility of reclaiming and con-

serving talent bearing the earmarks of genius. The answer will not come, of course, until five or ten years have elapsed. Will this student really live up to her expectations? If so, the cultural world will be enriched by her achievements.

II.

Mr. B. A., age 22, entered Pre-legal course, S. L. & A., in September, 1923, with 77 credits advanced standing. He was referred to a special adviser April 3, 1924, being on probation for failure in studies. This student had a very high test rating (94 percentile), had won a gold medal for scholarship in high school and claims to have made good grades at a smaller college. He was in poor health and had lost confidence in his own mental capacity. This seems to date from his failure in debate tryouts as a college freshman. Apparently a marked change in personality took place with a change in his whole mode of living. His success in the college ability tests encouraged him greatly and re-assured him as to his mental capacity for law. The Student Health Service gave him intensive physical examinations, the results of which convinced him that his health was really O. K. A light program of studies stressing political science was arranged. He made 10 hours of C grades that quarter and followed this up by earning 30 credits and 40 honor points during the next two quarters, making him eligible to enter law school.

III.

Mr. L. J. A. entered the Pre-medical course in September, 1921. When interviewed on October 16, 1923, he was still in the Pre-medical course although he had failed in physics three times and chemistry twice. In spite of these failures in the basic sciences he had done good work in rhetoric and French. The college ability tests revealed marked ability, 88 percentile in Vocabulary and 97 percentile in the Miller tests.

He has nine older brothers and sisters, five of whom have entered the teaching profession. He is especially fond of a widowed sister who is a teacher. Her husband was a physician who was killed in the World War and she believes her brother conceived his plan to become a physician as a result of a desire to carry on the

work left undone by her husband. She feels that this was a mistake and that he would be wiser to prepare for teaching. He agreed with this plan and immediately improved in his scholarship, forming plans to graduate from the College of Education.

IV.

Miss L. E. entered S. L. & A. in September, 1924, at the age of 16. She graduated from a large Minneapolis high school near the top of her class. Her college ability testing rating was likewise superior, 83 percentile. Her major interest in high school was English and she planned to major in English here, preparing herself to teach English and languages in high school. When first interviewed in February, 1925, she was greatly discouraged because she had made a D in rhetoric although she made a B in French and a C in botany. She felt that she had been unfairly treated by her rhetoric instructor. This was probably the result of a feeling of timidity and inferiority occasioned by her race (she is a colored student) and also by her keen disappointment over doing poorly in the one subject she felt most qualified to handle. In view of this feeling and due to the probable lack of opportunity for her in teaching her attention was directed to the field of social service work. She seemed eager to consider this possibility. She finished the year with a C average. In view of her demonstrated scholastic ability in high school we may say that her first year in college had been rather unsuccessful. Perhaps she will be able to overcome her initial discouragement and become more satisfactorily adjusted later on.

C. Cases of superior ability and superior college achievement who need guidance.

I.

Miss W. N. D. entered S. L. & A. September, 1924. Her first interview with a special adviser was held on February 17, 1925. This student showed very superior ability on entrance, tests rating 80 percentile, high school scholarship rating 86 percentile. Three older brothers and a sister are college graduates. Her health was good and she enjoyed excellent study conditions. She made a B average dur-

ing her first collegiate quarter. She participated in no extra-curricular activities in high school or in the University. She is timid and shy although she has a very pleasing appearance and manner. She is not interested in teaching and does not want to prepare for teaching but does not know what she want to do after graduation. She has no decided likes or dislikes, her interests being limited and her attitude toward most things in life being one of indifference. She is unsocialized and has made no attempt to adjust to the University on the social side. Her adviser was unsuccessful in winning her confidence or in discovering the real cause of her indifference which is probably bound up with a failure to be popular in spite of her wealth and family social position. Her adviser was also unsuccessful in persuading her to interview Miss Rosenstiel. Her scholastic work throughout the year was excellent, 45 credits and 93 honor points.

II.

Mr. O. R. entered Pre-legal course in September, 1924. He has very superior ability and has made a B average during his first year. He participated in no extra-curricular activities in high school or in college. He has been brought up in apartments, moving frequently and hence has never enjoyed the socializing influence of neighborhood groups of playmates. He has not adjusted himself to the social side of university life, merely attending classes. He seemed grateful for suggestions that he make strenuous efforts to identify himself with the intellectual, cultural and social life of the University. In view of his interest in law he was encouraged to develop a genuine interest in literature and in public speaking, both of which he dislikes.

The above cases indicate that even superior students doing superior college work need assistance and advice, especially guidance toward socializing influences. Many of these students also need guidance with reference to proper planning of courses looking toward graduate work, broadening their courses during their junior college years, and taking on extra-curricular responsibilities.

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MINNESOTA CHATS



**For a Better
Minnesota**

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Foreword

WHEN is a book "a book" and when is it something else? At a recent meeting of Minnesota faculty members who were discussing educational problems it was brought out that a large institution such as the University of Minnesota may spend thousands of dollars a year on books without making any great addition to its library collection. Although this sounds like a paradox it is true.

IN many subjects, especially in those of the first two years, students are required to study long assigned readings from books which they are not required to buy. Instead, the University Library stocks up on these books, buying as many as it believes will be enough to give all students a chance to do the required reading. In some courses as many as 900 students use these books, with the result that there is a tremendous wear and tear on them. Perhaps they last no more than a year.

BOOKS used in this way are not really books added to the library collection, according to the belief expressed in this gathering of teachers. They constitute equipment or supplies, just as the acids and materials used in a laboratory are supplies. They are used up "in process."

THIS is but one of many situations that will have to be worked out before the book funds of the University reach a satisfactory basis. The book and binding fund has been increased during four years past from \$30,000 to \$51,000. Meanwhile the number of "supply" books to be bought has also grown, so that the gain is minimized. What will be the solution?

THIS is printed here merely to suggest to the Minnesota public one of the innumerable problems that constantly arise in the administering of a University.

THE EDITOR

President Coffman Discusses the University

Greatest Need, As He Sees It, Is To Obtain Many Inspiring Teachers

DISCUSSION continues unabated as to the needs of our American colleges and universities. Some maintain that a reorganization of the curriculum, the prescription of high standards of scholarship with rules for enforcing them, the introduction of honors courses and credits for quality, elaborate tutorial and advisory systems, freshman dormitories, and the like are needed. All these things are desirable; it is to be hoped that they may be provided.

Then there are those who maintain that the greatest need is the elimination of many students now in, or planning to go to, college. They frankly insist that too many students are going to college. Too many for what, is not always clear. The claim is made that it is the business of the college to pick the gifted and to provide university education for them. It is true that there always have been some persons who should not go to college; there are some now. Those who cannot and those who can and will not do satisfactory college work should not be allowed to linger around the institution. But the vast amount of consideration and attention which this particular problem is receiving in many quarters just now does not, in my opinion, represent the



President L. D. Coffman

greatest need of our institutions of higher learning. The greatest need, now as always, is great minded and great souled teachers, persons who have the power and who delight in using that power in inspiring students. President W. O. Thompson, of Ohio University, has said "The very marked tendency to put all the emphasis upon the inefficiency of the student has served as a smoke screen to protect inefficient and incompetent teaching." An overemphasis on scholarship with all of the rules that have been devised for measuring and tabulating it, with an underemphasis on educational and liberal culture has misled a great many men and women as to the function of much of our "education" according to President Thompson. Continuing, he says "The first issue of a university, therefore, is to develop its faculty in

magnanimity, generosity, world mindedness and cultural living. Such a faculty will produce liberal education in spite of the subjects they may undertake to teach."

This states my view precisely. Administrative devices and readjustments will help to improve our colleges and universities, but in the final analysis nothing is half so important as teachers genuinely interested in the teaching

"The greatest need, now as always, is great minded and great souled teachers, persons who have the power and who delight in using that power in inspiring students" writes President L. D. Coffman of the University of Minnesota in his annual report. The article published herewith is made up of extracts from President Coffman's report, which was submitted to the Board of Regents at their February meeting. In it he touches particularly on the subjects of inspiring teachers, University of Minnesota finances, and relations of the University with the state Department of Administration and Finance.

of youth. Not all who engage to teach possess this quality. Those who possess it in a high degree are always too few. Our problem is to seek them out and to reward them accordingly. A university with a faculty of twenty or even ten of the world's greatest teachers on it would be the greatest university of all time. In all our efforts to improve the university in material ways, nothing should be permitted to take our attention away from the most fundamental need—that of great teachers.

Relations with the Legislature

THE Legislature has always been disposed to deal with the University of Minnesota in a statesmanlike manner. The needs of the institution have been considered in relation to the other needs of the state. They have been met usually in proportion to the ability of the state to meet them. The Board of Regents, on the other hand, has always carefully considered and investigated and examined its budgetary requests before they were submitted to the Legislature for consideration and action.

The University has been recognized as one of the powerful arms of the state—not powerful politically, for it has, since its establishment, diligently and with avowed purpose, refrained as an institution from political activity—but powerful in the sense that it has provided education for thousands of the youth of the state; powerful in the sense that it has sought to discover and has actually discovered new truths and facts about the cure of human disease, more economical methods of administering different kinds of business, the evaluation of the laws of justice, the improvement of methods of learning, the development of new varieties of grain, of fruits, of trees, of new ways of retaining and extending soil fertility; and powerful in the sense that through its school, extension service, and experiment stations it has actually assisted the solving of many of the problems of the communities of the state. The University is, and should be regarded as an instrument of service, and nothing else. It should develop as the state develops. The character and forms of service it renders and expects to render should be in keeping with the needs of its constituents. It is clear that it cannot do every-

thing. What it does should be excellent in character in every respect.

Recent Legislatures have done several things with regard to the administration of the University which were particularly wise in character. Among these are first, making the appropriations to the University in a lump sum; second, providing the University with a building fund extending over a long period of time; and third, increasing the appropriations from time to time in accordance with the actual needs of the institution.

Should Not Delimit Uses

For many years the University was required to submit a budget to the Legislature in detail, item by item, and specification by specification. The appropriations were made in terms of these items and specifications. This was found to be highly impractical and in many cases, inefficient and uneconomical. At the time the budgetary estimates were prepared it would seem that an appropriation of \$4,000 for some special item would be quite adequate, but in the performance of the work some two, three, or four hundred dollars more might be found necessary if the task was to be brought to a successful conclusion. Since this money was not available because it had not been appropriated for this purpose, it was necessary to stop the work sometimes at the point when the work would have proved of greatest value to the institution and the state. Adjustments in budgetary items are necessary for the intelligent and successful performance of the work of the University. They make it possible for the University, among other things, to make the shifts which are required to keep talented and distinguished persons on the faculty.

The regents of the University now very carefully study all the needs of the institution and prepare a detailed statement for the advice of the governor before the legislative session. The governor in turn incorporates this statement or such part of it as he deems wise after a proper hearing on the matter in his report to the Legislature.

Following the action of the Legislature, the Board of Regents prepares a careful, detailed budget for each year of the biennium. This

budget is adhered to so far as seems wise and practicable. Every transfer of every item or sum no matter how small is subject to careful consideration by the board or by a special committee of the board. This means that every emergency within the institution receives consideration and if the money is available it is met. At the close of each year, the comptroller of the University is required to prepare a detailed statement showing the sources of income as well as the expenditures of the institution. This report is usually prepared following an examination of all of the records by the state examiner, and is then filed with the Board of Regents. After consideration by the board, it is published for distribution.

THE second respect in which the legislature has acted wisely and in a statesmanlike manner in dealing with the University, has been in making an appropriation of \$560,000 a year extending over ten years for university buildings. It was clearly shown at the time this appropriation was made that this sum of money was sorely needed by the institution to take care of its building requirements. The University has proceeded slowly, cautiously, and prudently in erecting new buildings. It has builded more wisely because the money became available annually than it would have builded if the money had all been available during one biennium. Occasionally, we find someone who feels that the University is expending large sums for buildings. It should be remembered in this connection, that during the last three or four years there have been a number of large gifts for buildings at the University. The two new hospital units now being erected upon the campus as well as the stadium, are the gifts of friends of the institution. Some 17,000 persons contributed to the erection of the stadium and for an auditorium on the campus. The cancer unit of the hospital is the result of the \$250,000 gift by the Citizens Aid Society of Minneapolis. The Todd Memorial has been made possible by gifts from Mrs. Todd, Mrs. Gale, and Mrs. Mapes. There is, in addition, a gift now approximating a million and a half by Mr. William Henry Eustis, part of which will be used in erecting a crippled children's hospital unit on the campus.

Other States Build More

So far as the buildings which have been erected at the expense of the state are concerned, it should be said that while Minnesota has been liberal in this respect, a number of our neighboring states have appropriated much larger sums for buildings over shorter periods of time than has Minnesota. The state of Michigan appropriated to the University of Michigan more than \$8,000,000 for buildings during the last four years. The state of Iowa has appropriated in the neighborhood of \$4,000,000 for buildings for the University during the last four years. The amount appropriated by the state of Illinois for buildings at the University of Illinois during the last biennium was \$2,500,000. A similar request is being made for the next biennium. Ohio has a building program of \$8,000,000 to be submitted at this next legislature. The program at Minnesota, if it continues to develop as it is now developing, will not be a burden upon the state at any time. We should be able to build in accordance with our actual needs, and to have ample time to study our problems. There will be no extravagances or lavish expenditures. Progress will be made wisely and intelligently. The Legislature is to be commended for having adopted this plan.

A third respect in which the Legislature has encouraged the development of the University has been in increasing the appropriations from time to time. It is true that these appropriations have not always been as large as the request submitted.

Four years ago, the University submitted a request of \$3,450,000 for operation and maintenance. The Legislature appropriated \$3,000,000. Two years ago the University submitted the same request as four years ago. The Legislature appropriated \$3,150,000. The request of four years ago was made after a careful analysis of the University's needs. If it had been granted, there would have been no request for additional money made of the Legislature two years ago and no additional request would have been made in 1925. Furthermore, the University of Minnesota, in every respect, would have been on a plane comparable with that of other institutions. We have not, we

regret to say, been able to measure up to that standard in every respect. If we receive the appropriation which we ask this time, this defect will be remedied. If not, we shall fail in our competition with certain neighboring institutions for desirable men for the staff, find it increasingly more difficult to keep worthy men on our own staff, and we shall have certain inefficiencies in administration which will be more or less unfortunate. *In 1925 the regents asked an appropriation of \$3,382,000, approximately \$70,000 less than was asked four years ago and two years ago.* The reason for this decrease was that the income of the University increased during the last biennium from the occupation tax and the swamp land funds, from certain increases in student fees, and from savings in our heating plant due to improvements. These increases represent new sources of income amounting to approximately \$70,000 a year.

WHEN our former request for \$3,450,000 was submitted four years ago, it was based upon the instructional needs of the institution. During the next biennium, the number of students at the University increased about 1,500. It is perfectly clear that the appropriation was more sadly needed two years ago than it was four years ago. Some effort was made to meet these needs by the legislature increasing the appropriation from \$3,000,000 to \$3,150,000 a year.

For the actual maintenance and operation of the University during each year of the present biennium, we therefore submitted a request for \$3,382,000, this money to be provided by direct appropriation. This request includes the request for the schools of agriculture as well as those for the various experimental stations throughout the state. It is our belief that there is no state that is getting more for its money in the way of higher education than Minnesota. The appropriations, as well as the requests at the University of Minnesota, are less than those of a number of neighboring states where every cent is devoted to the university and to the college of agriculture. At Minnesota we have not only the University with its two campuses, but the several schools of agriculture to be cared for out of this appropriation. Considering the an-

nual amounts which are required for the efficient management and operation of these schools, the sum which remains for the University and its various departments is small when compared to the amount of money appropriated by a number of other states for higher education. We have found it necessary to supplement the state's appropriation with increases in students' fees from time to time.

Financial Relations with the State

At the last session of the Legislature an act known as An Act in Relation to the Organization of the State Government was passed. This act creates a Department of Administration and Finance and places it under the supervision and control of a Commission of Administration and Finance. The purpose of the act is to bring about a simplification and unification of the functions of state government, and to supervise and control the expenses and expenditures of the several officials and departments and agencies of the state government and of the institutions under their control. The commission is given power to make all contracts, do all purchasing, construct all buildings, direct the sale of all property, and to examine and investigate the organization of the various departments and agencies of the state government and the institutions under their control.

There is some reason to believe that the University cannot be made subject to an act of this sort except by an amendment to the constitution. The Creative Act of 1851 made the regents a public corporation. The right to be a corporation is a franchise. The constitution "perpetuated" this franchise, and the "rights, immunities and endowments" that accompanied it.

The Act of 1851 vested certain powers in the Board of Regents, among others the right to contract and to be contracted with; to make, use, and alter a common seal; to appoint a chancellor, professors, tutors, and such other officers as they deem expedient; to determine the amount of their salaries; to erect buildings and to purchase apparatus and to enact laws for the government of the University. Even if these powers were not specifically granted, the corporation from the fact and purpose of its creation would have such powers by implication as

would reasonably be necessary for the accomplishment of its purpose.

Funds Come from Many Sources

It may also be remarked that the funds of the University come from several sources: the Federal Government, the state, fees from students, income from trust funds, and gifts, as well as from the operation of its service enterprises. The Board of Regents as a constitutional board has exclusive power and control at least over the revenues derived from the Federal Government, fees from students, income from trust funds, and gifts. Of course so far as state funds are concerned the legislature has the power to grant or withhold appropriations. It may even appropriate money with designation, but any attempt to appropriate money with designation so as to limit the constitutional powers of the Board of Regents has, I believe, been declared unconstitutional.

It should be said in this connection that the university authorities would welcome and gladly accept any opportunity to save money. The University, just as any other agency of the state, does not desire to spend money for the sake of spending it. It is the business of the University to spend money where it feels reasonably assured that by so spending it, it will improve the educational facilities and conditions for the boys and girls of the state who attend it, or by spending it, it will lead to the discovery of new knowledge and of new truth. Great liberality and freedom must be permitted in these respects if an institution of higher education is not to suffer.

It should be said still further that the University should co-operate with the Commission of Administration and Finance or any other agency of the state in any way possible if the co-operation meant a saving.

Thousands Take Part in High School Music Contest

Plans for Repeating Last Year's Success Are Well Under Way

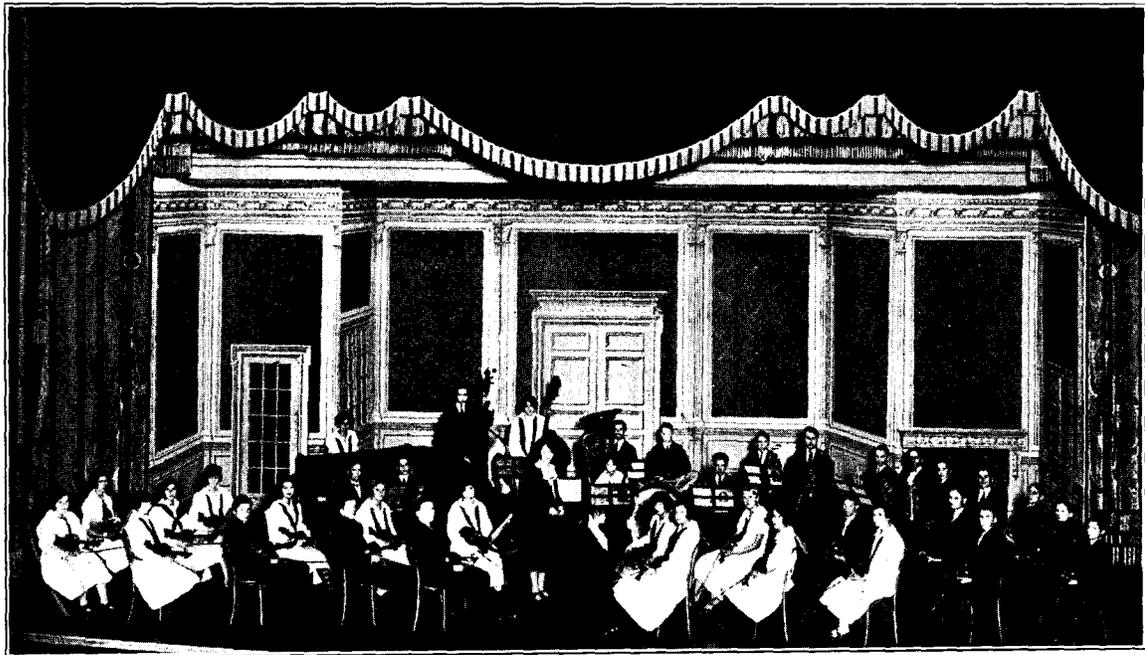
By Professor Irving W. Jones

“NOT to win a prize or to defeat an opponent, but to pace each other on the road to excellence.”—This motto in the bulletin of the Minnesota State High School Music Contest represents an ideal. The contest itself represents an educational device. And because President Coffman and the University administration believe in both the device and its objective it comes about that the contest project is receiving co-operating assistance through the General Extension Division of the University.

Appreciating this co-operation the high school administrators and special teachers of music throughout the state have made a wonderful response to the project. As a result probably 200 high schools are now at work making preparation to participate in the district and final contests when they are held in May. This accomplishment, coming after

only one year of trial, is bringing great satisfaction to the sponsors of the contest.

In a large proportion of the 259 high schools of Minnesota there are conducted various musical activities, maintained as a part of the cultural forces operating upon the pupils. Some of these activities are organized classes in some phase of musical theory or practice, strictly curricular in character. But by far the larger number are extra-curricular activities, into which pupils enter because they are particularly interested, or particularly talented, just as they enter into athletic, forensic, or other voluntary activities. The number and kind of extra-curricular activities is growing continually in the schools of the country; they are recognized as legitimate and highly desirable educational agencies. Music for many reasons claims and receives attention.



Chisholm's Winning High School Orchestra of 1925



A winner: The Zumbrota High School Girls' Glee Club; right, Director Irving W. Jones, University of Minnesota.

It will be recognized that whatever educational benefits accrue from these musical activities will depend on the standards and ideals that govern them, the quality of the performance as well as of the music studied, the intensity and continuity of the interest and effort put forth by the participants, and the joy and satisfaction that comes from knowing that a good thing has been well done. It is not always easy to present to a group of high school pupils such objective standards as may be necessary for their guidance and inspiration, especially when they do not have convenient access to musical performances of an exemplary sort. There is often a danger, therefore, that pupils and teachers either will become content with mediocre performance, or else will chafe under the strain necessarily incident to an attempt to accomplish results which may not be appreciated. While such a condition does not obtain in the larger number of Minnesota schools it must be admitted that it is found here and there with the result that not a few of these musical activities fail to realize on their investment.



High school activities in music take certain rather well-defined forms, and the Minnesota Contest has made it possible for each of these forms to have recognition. A school may compete in any or all of several classes, corresponding to the events of a physical contest, according as it has three classes represented in its activities. The group activities recognized are choruses of mixed voices, girls' glee clubs, boys' glee clubs, orchestras, bands, and music memory teams.

As a stimulus to individual pupils classes have been provided for soloists—vocalists, pianists, violinists, and players of other band or orchestra instruments. Inasmuch as the training of soloists is less distinctively a school activity, a restriction requires that they are

It is just here that competition as an educational device finds its opportunity to function. Whenever the possibility for competition is offered we are sure to find, first a stimulation or motivation for the best effort that can be put forth, and second, an application of the definite objectives to which the effort is directed.

Achievement, Not Competition, the Purpose

THERE are some dangers connected with competitions in any form of activity; dangers that the contest may become an end in itself, instead of a means; that participants will strive to win rather than to achieve; that contests may become personal antagonisms rather than fine adventures or that more or less spectacular non-essentials may be exploited. It is a function of the administration of the contests to plan and carry them out in such a way that the possibility for these dangers to become realities is reduced to a minimum.

eligible to compete only on condition that they are members of some group, vocal or instrumental, that is competing in the contest.

In order that competition may be made as fair as possible schools are, for the ensemble classes, grouped in three divisions, according to the size of their enrolments. The pupils of a small school by this means compete against those of other small schools, and are not put at a disadvantage by being obliged to meet performers prepared through the larger resources of a large school.

How the State Is Divided

FOR the practical administration of the contest the state has been divided into ten districts, centering at Bemidji, Crookston, Chisholm, Duluth, Moorhead, St. Cloud, St. Paul, Marshall, Mankato, and Winona. In each of these centers the competing schools of the adjacent territory will meet for a preliminary contest about May 1. The winners of first place in each class and division of these contests will then represent their districts in the final contest, to be held at the University, May 13 to 15. Winners in this contest become state champions in their respective classes.

A contest would not, of course, be entirely complete without prizes. And while the administrative committees do not believe in prizes for their intrinsic value, they do believe in some sort of trophy which shall symbolize the winning achievement. In each district contest and again at the final contests winners of first place are given a trophy; for group classes these take the form of cups or decorative plaques, and for soloists that of medals. Those placing second and third are given appropriate ribbons. In each district the school winning the greatest number of points, on the basis of the number of first, second, or third places it wins in the classes entered, is given a district championship prize. This is a rotating trophy, to become the permanent property of a school only when won three times.

The extent to which schools will participate this year is not yet known. Entries are not due until March 15, and very few will be made before then. Some conjecture can be made, however, on the basis of the numbers participating last year, which was the initial year of

the contest. At that time about 4,000 pupils were entered in nine district contests. These came from 58 different cities and represented 93 different schools. In some cases the same cities were represented by several schools. There were 162 different groups entered, of which only one failed to compete. The total number of soloists entered was 158. Each district sent a quota to the final contest. Approximately 1,000 of these winning pupils participated in the sessions, which occupied two days, May 14 and 15. They came from 34 communities and represented 40 schools.

A greatly increased advance interest is being manifested in this year's contest, and all indications point to a corresponding increase in participation. It would not be surprising if 6,000 to 7,000 pupils were entered in the district contests.

The University's Contribution

The part that the University plays in this development is not inconsiderable, and yet it remains as it should a contributing, and not a dominating, one. The direction of the contest rests with a committee made up of school superintendents and music teachers chosen by the Music Section of the Minnesota Education Association. This section assumed a certain sponsorship in this way, and the University through the General Extension Division, has offered the services of Irving W. Jones, assistant professor of music, and has employed its facilities in reaching the schools. The section, in turn, asked that Professor Jones act as chairman and central executive of the state committee.

There is a local committee for each district, composed of school superintendents representing participating schools. These are charged with the organization and administration of the district contests, and with the development of the project in their regions. The whole attempt has been to make the organization thoroughly democratic.

Marshall, Minnesota, Set the Example

THE contest as it now operates is the perhaps unintentional development of a small, locally organized contest held at Marshall in

the spring of 1924. Superintendent R. L. Brown, of that city, knowing of the success of music contests in other states, invited the schools of the southwestern part of the state to join in a local effort. About a dozen accepted the invitation. None of the school men were versed in the management of music contests, so they "left it to Brown" to arrange the details. Some of them, it must be said, were not at all sure that such a contest was likely to mean much to their schools, and were rather skeptical about its success. But after the tonal battle there was no longer any doubt in any one's mind. Pupils, teachers, admin-

istrators, became enthusiastic and agreed that the contest had far exceeded expectations.

It occurred to these school men that a project that could mean so much locally should be extended to all the schools of the state. They decided that the University was the logical agency for directing the broader program. President Coffman, whose interest and faith in music as an educational subject is well known, readily saw the possibilities of the project and asked the General Extension Division to provide the facilities necessary. Dr. Richard R. Price, director of the Extension Division, is enthusiastic about the development of the contest.

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Annual Schoolmen's Week Plans Are Announced

A Thousand Will Discuss Problems of the Blackboard World

MONDAY, March 29 to Friday, April 2, are the dates set this year for the annual Schoolmen's Week and Superintendents' and Principals' Short Course conducted by the College of Education at the University of Minnesota with the co-operation of the State Department of Education.

As usual, two men nationally prominent in education have been invited to be present as the principal short course speakers, those for this year being Dr. W. W. Charters, professor of education at the University of Chicago, an outstanding authority on the elementary curriculum, and Dr. B. R. Buckingham, director of the Bureau of Educational Research at the Ohio State University. Dr. Buckingham has done research work in education in the New York City schools, the University of Wisconsin, and the University of Illinois. He is editor of the *Journal of Educational Research*.



Dr. W. W. Charters



Dr. B. R. Buckingham

Schoolmen's Week has come to rank definitely alongside the annual winter meeting of the Minnesota Education Association as one of the two big conferences of the year in Minnesota, devoted to the interests of education by those who are professionally engaged in that field. It is restricted, however, to those who are in the administrative phase of educational work. There will be meetings of the Superintendents' Section, Minnesota Education Association, the Elementary Principals' Section, M. E. A., the annual State Conference of County Superintendents, called by Commissioner J. M. McConnell, and the Tenth Annual High School Conference, including its many sections.

Minnesota educators will await with interest the Report of the Committee of Seven on Aspects of the Relation of the High Schools of Minnesota to the State University which will be presented Thursday, April 1, in the ball-

room of the Minnesota Union. Members of this committee are, under the chairmanship of C. W. Boardman, principal of the University High School: Miss Elizabeth Clark, St. Cloud; Miss Marie R. Lange, Mankato; J. E. Marshall, St. Paul; E. M. Phillips, of the State Department of Education; J. P. Vaughan, superintendent of schools at Chisholm; J. C. West, superintendent of schools at Bemidji and Mr. Boardman.

The committee members will discuss these topics: "Factors Affecting the Selection of High School Graduates Who Enter the University"; "The Preparation of High School Graduates for University Entrance"; "The Guidance Program of the High Schools of the State"; "The Guidance Program of the University of Minnesota"; and "The Eliminated Freshman." Following presentation of reports on these aspects of the problem, there will be a general discussion, directed by Ernest O. Melby, superintendent of schools at Long Prairie.

To Discuss Commerce Teaching

Second in interest only to the report on relationship to the University will be a symposium on commercial education and a discussion of co-operative research in education. Speakers in the commercial education symposium will be E. M. Phillips, inspector of high schools for the State Department of Education; Dean George W. Dowrie, of the School of Business, University of Minnesota; and Dr. Charters, the visiting speaker from the University of Chicago.

Dean Guy Stanton Ford, of the Graduate School, University of Minnesota, will preside at the symposium on co-operative research in education. Discussion will be: "The Mathematical Investigations," J. C. Brown, president, St. Cloud State Teachers College; "The Classical Investigations," Dr. B. R. Buckingham, Ohio State University; "The Projected Investigation in History and the Social Sciences," Professor A. C. Krey, Department of History, University of Minnesota; and "Investigations in Teacher Training," Dr. W. W. Charters, University of Chicago.

The Superintendents' Section meeting on Wednesday evening will be given over to a discussion of Physical and Health Education.

The annual meeting of the Minnesota State High School Athletic Association, of which Superintendent G. V. Kinney, of Red Wing, is president, will be Friday afternoon, and the annual banquet of the Knights of the Hickory Stick, with whom the Superintendents' Section, the Principals' Section, and the Elementary Principals' Section will join, is on the program for 6:00 p.m. Thursday.

The Tenth Annual High School Conference will take place on the first three days of the week, March 29, 30, and 31, and the Association of Minnesota Secondary School Principals, which replaces the former Administrative Section, will hold its session on Tuesday evening.

Schoolmens' Week will be packed throughout with one discussion or paper after another that is of more than usual interest to men and women in the field of education. At the annual meeting of the Minnesota Society for the Study of Education, on Monday evening and Tuesday forenoon, the list of speakers includes Dr. John E. Anderson, director of the Institute of Child Welfare on the University campus, Dean M. E. Haggerty, of the College of Education, who will discuss character education; Newton Hegel, of the Minneapolis public schools, who will present a paper on "Occupational Changes by Students Who Complete Only the Ninth Grade"; and many others. Principal Ross N. Young, of the John Marshall High School, Minneapolis, is president of the society.

Consider Student Activities

Addresses before this group Tuesday forenoon will be, "The Social Significance of Extra-Curricular Activities," by Dr. F. Stuart Chapin, head of the Department of Sociology at Minnesota; "Following Up the Year-Book on Extra-Curricular Activities," by L. V. Koos, professor of secondary education, University of Minnesota; and "Reaching the Individual," by Dr. B. R. Buckingham, Ohio State University.

Dr. Charters will be the principal speaker at the annual luncheon of the Minnesota Council of Administrative Women in Education, to take place at noon on Wednesday, March 31.

Part of the week's program also will be a three-day conference of deans of women, at

which the speakers will include Dr. J. Anna Norris, head of the Department of Physical Education for Women, on "The Positive Health Program" and Professor D. G. Paterson, chairman of the faculty committee of counsellors on, "Counselling the Mal-adjusted Student."

Concluding the conference of deans of women Friday morning will be a conference on "Personal Standards for the Girl of 1926." Social standards will be discussed by Miss Florence Richards; honor standards, by Dean Blitz; and citizenship standards, by a speaker

still to be selected. This meeting will be a symposium of free discussion from the floor.

The tenth annual contest of the Minnesota High School Declamation League will be held in the Music Building Auditorium at the University, Friday evening, April 2.

Many Will Seek Teachers

Throughout the week the Bureau of Recommendations of the College of Education will be at the service of superintendents and principals who are seeking graduates of the College of Education for positions in the Minnesota public schools.

How Much Do You Know About Poison Ivy?

Dr. E. D. Brown Says Some Know Things About It That Aren't So

SOME students of plants breed beauty—roses, tulips, hyacinths, and orchids. Some breed utility and food—spineless cacti, new varieties of wheat, oats that will grow in cold climates. Some learn to heal defective trees, some to grow thick, smooth greens on golf links, some nurse foreign shrubs and flowers that have been transplanted to our shores. It has remained for Dr. E. D. Brown, a pharmacologist, to give years of his time in a laboratory at the University of Minnesota, to a study of poison ivy, commonest of pestilential weeds, which he ranks next to the mosquito and the pollen bearing plants that cause hay fever as one of the great American plagues.

Dr. Brown has found in his studies that poison ivy is so widespread and has affected so many people that a perfect library of cures, explanations of its effects, and theories about its action has grown up, one of the most interesting apocryphal literatures in the country. And at the same time he has reached some conclusions of his own about this villain which are quite as interesting as the wrong ones.

First of the common theories among those he aims to overturn is that some persons are immune to the poison of *Rhus toxicodendron*, as the commonest form of poison ivy is called in the pharmacopœia. There is, he says, no such thing as immunity to poison ivy. Many people will not be affected under certain circumstances and some have had experiences that would lead almost anyone to think himself immune, only to learn later that a simple exposure caused them intense suffering.

Item number two among the fallacious theories concerning poison ivy is that the person affected must take care not to touch the inflamed spot for fear of transferring the poison to another part of his body. There are two reasons for his calling this a fallacy. In the first place, the infection is likely to spread anyway, and in the second place, many experiments with the liquid that exudes from the

little festers that come in ivy poisoning have shown that it does not infect the parts to which it is transferred.

After one has come in contact with poison ivy the onset of symptoms may come in from five hours to eight days, Dr. Brown has deduced from a large number of cases in his experience. He has found also that any one person varies in susceptibility at different times, so that he or she may come unscathed through a patch of poison ivy, but tomorrow or a month hence may be seriously poisoned by mild contact.

Mosquitoes Carry the Poison Oil

Most startling among his beliefs, probably, is one that insects, especially mosquitoes and small flies, carry the ivy poison, and he believes that this is responsible for the widely found opinion that the wind, blowing from an ivy patch, may carry the poison and bring on an eruption. The plants of the poison ivy are favorite gathering places for mosquitoes because they are low to the ground and preserve a cool, moist shade during the hot hours. Standing on the leaf stems and tiny branches, the mosquitoes pick up on their feet and legs some of the oily substance which contains the ivy's poisonous principle, and when they alight on a person's hand or arm or face they can transfer enough of the poison to bring on a case of poisoning.

DR BROWN is all the surer that insects, rather than the wind, must carry the poison, because he has proved that the oil containing the poison is not volatile. It does not vaporize. In a study printed in the *Archives of Dermatology*, published by the American Medical Association, he writes: "There are a large number of persons who claim to be so susceptible that they are poisoned by merely venturing into a vicinity where the plant happens to grow. Since the poisonous principle is

not volatile as was at one time supposed, it was thought that it perhaps might be carried by dust or pollen from the plant. A better explanation is that it may be borne by insects. This is especially true, he has found, of the small variety known as *Rhus rydbergii*.

"Rhus" Is a Widespread Nuisance

Varieties of the genus *Rhus* are found in many parts of the world, especially in temperate climates. Dr. Brown says he knows of a large number of authenticated cases in which persons have been poisoned from handling objects finished in Japanese lacquer. The waxy resin from which this lacquer is made contains oil from a plant which is a first cousin of the American poison ivy. And now that mah jong is passé and there is no danger that one will be accused of commercial propaganda, it may be told that many a person was "stung" with *Rhus* poisoning when he got too gay among the winds, seasons, and flowers.

Dr. Brown has poisoned himself hundreds of times in the past few years. He is an ideal experimenter in the field of *Rhus* poisoning because it seldom fails to work on him. As a by-product of his activities he has acquired the habit of wearing short-sleeved shirts. He got tired of rolling up his sleeves every time he wanted to rub a little poison ivy on, so now he wears the sleeves short at all times.

To those whose main interest is in a cure for ivy poisoning, Dr. Brown announces that he has not yet carried his work far enough to say that any one substance or compound is the best treatment, but he has discovered that irritating medicines are preferable to astringents or emollients and he is convinced that there is no specific for ivy poison, no "sure cure in twenty-four hours" or in any other period of time.

A Catalogue of "Cures"

A MARVELOUS category of alleged cures for this common ailment of the links, the field, the footpath, and the park has been collected by the Minnesota investigator. Here are some of the things people have sworn by as cures:

Lime water and olive oil in equal parts.

Bruised leaves of belladonna mixed with fresh cream.

Tincture of chloride of iron.

Spirits of turpentine.

Hydrogen dioxide.

Brine from pickled fish.

A boiled decoction of cup oak bark.

Potassium chlorate.

Fluid extract of eupatorium.

Arsenic, taken internally.

Tincture of poison ivy (*Rhus Toxicodendron*) taken internally.

Coffee applied to the irritated spot.

Milk and cream poultices.

The swamp button bush, steeped in water.

Linseed oil mixed with lime water.

Of all these he merely comments that the ones that are applied externally and are irritants are more likely to be of some use than the others.

Ivy May Cause Delirium

That the victims of ivy poisoning sometimes develop mild delirium is one of the interesting discoveries Dr. Brown has made. He once became delirious himself after suffering from a particularly severe case, and one of his students, who volunteered to undergo the poisoning on his arm, became delirious, though only for a very few moments. The student, strangely enough, was one who had thought himself immune and had stood and even lain in ivy beds to prove his immunity. Finally it attacked him quite unexpectedly after he had been helping gather the plant for use in the laboratory.

Persons who are perspiring are much more susceptible to ivy poisoning than are those whose skin is dry, the experiments have shown. Moreover, one is more likely to be perspiring when in the vicinity of the plant, as when he is taking a walk through the fields, is playing golf, making hay, hunting, or fishing. So there is small comfort, after all, in the thought that a dry skin helps one to resist it.

While Dr. Brown is convinced that the poison is not volatile and therefore is not blown by the wind, he has several times come upon cases of persons poisoned by ivy after they had been near where it was being burned. This happens in the fall or spring burning of pastures and in the burning of brush piles containing *Rhus* that has been uprooted. The oil does not volatilize but is carried in the smoke

in tiny particles like soot, and when these alight on the skin they cling and infect.

Has Even Eaten Poison Ivy

In experiments Dr. Brown has eaten poison ivy without the least internal discomfort. His experiments and those of others clearly indicate that only the skin is susceptible to this poison, while the mucous membrane is not. If anyone were so inclined he might eat freely without any bad results, provided only that the leaves or fruit came in contact only with the mucous membrane. Any place where it touches the skin is likely to become inflamed and to itch intolerably.

In his study of *Rhus* Dr. Brown has come on some interesting instances of men and women being poisoned by leaves and plants not commonly considered poisonous. One man suffered intense itching whenever he handled tomato plants, and one woman who liked spinach and could eat it without the least bad result suffered greatly from itching whenever she had to handle the green leaves in washing and preparing them for the table. Some persons react to the moccasin flower (lady's-slipper) in the same way others do to poison ivy, though this reaction is relatively rare.

Dr. Brown's paper in the *Archives of Dermatology* shows how futile it may be to believe oneself immune. He writes:

Undressing in an Ivy Patch

"The first person on whom toxicodendrol (the extracted oil) failed to give a reaction gave a history of having undressed and dressed in patches of poison ivy as a boy, when swimming, as a precautionary measure against having knots tied in his clothes by his companions. He had never been poisoned and felt sure that he was unsusceptible. I was of the opinion that I had found one who was unsusceptible and made arrangements whereby he could help me gather material. An excursion was made and a considerable quantity of the plant was gathered, Mr. C. using his bare hands. The hands were thoroughly washed with soap and water on our return to the laboratory, our absence amounting to three hours."

Four days later a few spots were noticed on both hands. There was no itching and Mr. C. thought it was the result of bug bites.

In brief, the poison developed in so severe a form that the "immune" victim was able to sleep very little for nearly a week, and when he put his wrist watch back on, though the strap had been soaked in alcohol, his wrist became affected once more.

IVY poison may even be picked up from the ground, as in a sand pit or plowed field, if recent operations there have crushed the plant and spilled some of the oil. As in the case of many other plants that humans cannot withstand, ivy is not known to bother animals, though it is avoided by grazing beasts. This is one of the important reasons for its insistence and omnipresence.

The common "poison ivies" of America are relatives of the sumac, which is also a *Rhus*. Among its various names and nicknames are poison oak, poison ash, poison dogwood, trailing sumac, poison vine, and black mercury. In the central and eastern United States the common varieties are *R. venenata*, the swamp variety, and *R. toxicodendron*, the commoner kind, also *R. rydbergii*. The western variety, found on the Pacific Coast, is more commonly referred to there as poison oak. It is *Rhus diversiloba*.

Will Investigate the Primrose

Dr. Brown is now beginning to investigate charges against the common primrose, *Primula Obconica*, that it, like the moccasin flower and occasionally the tomato vine, is a source of itching skin irritations. There are a number of well authenticated cases of primrose poisoning, but he has as yet been unable to get enough primrose plants and stalks to produce the vegetable oils and substances from which he could study their chemical composition.

One of the quaintest sights in the botanical garden at the University of Minnesota is Dr. Brown's poison ivy patch. It looks just like any other growth of the same weed, but it isn't. It is guarded—and dedicated to science. Which shows somewhat more restraint than the dedication ordinarily bestowed by, let us say, a golfer in the rough.

Corrective Gymnastics Build Up Minnesota Men

A Well Student Who Tried "Orthopedic Gym" Tells His Experiences

By Joseph H. Mader, Jr.

EVERY student entering the University of Minnesota for the first time, which necessarily includes all freshmen, is subjected to a thorough physical examination by the Students Health Service, directed by Dr. H. S. Diehl. Careful records of the physical condition of the students are kept. A large percentage are thoroughly healthy. A very few are in such a condition that they may not be admitted at the moment. Others are recommended to consult their own family physician, or to report back to the Health Service from time to time for periodical observation.

It is also a function of the Students Health Service to certify to the physical fitness of students who wish to enter athletics and, on the other side of the picture, that department determines which students are in too poor a condition to enter the squads for military drill. Students who are unable to drill are assigned to groups in orthopedic gymnastics, where they take part in correctional gymnastic work under the direction of Emil Iverson, coach of outdoor winter sports and of the cross-country team. The following article is by a student who "took" orthopedic gymnasium work during one two-hour period, just to see what it was like.

"WHAT sort of systematized recreation is this course of yours?" I asked Emil Iverson, director of correctional gymnastic work, as I saw him one afternoon on his way to the quarters under Minnesota's new Stadium where he carries on the classes popularly known as "orthopedic gym."

Minnesota's hockey coach and rebuilder of men gave me a closely questioning look and a twinkle showed in his eyes.

"So you think it's all play with those chaps over in my room, do you?" he said. "Then I'll tell you what to do. You come over and take part in one of my classes. If you can stay with us for two hours and still consider it recreation I'll resign my job."

So with an aching back and weary limbs as mute testimony that orthopedic gymnastics is something more than recreation and play, the writer sets down his views of that two-hour grind. During the period at least 150 men appeared, each with some physical defect, small or great, such as rendered him unfit for drill or for the formal gymnastic curriculum.

There were fat, pudgy men who looked like the members of a reducing club of business men. There were thin, lanky young men who seemed to be undernourished and weak. There were crippled men, some with arms or legs missing or twisted as the result of disease or mis-

fortune. Some had misshapen backs; some, sagging shoulders. One group with large legs and feet had thin, bony arms. All lined up obediently at their instructor's command to fall in.

They Begin with Deep Breathing

The opening fifteen minutes of the class were devoted to deep breathing exercises. Then followed a rigid ten minutes of setting-up exercises destined to make the perspiration rise on the most hardened athlete. All at once the command came to recline, and for five minutes he kept the men at the "push up" exercise.

The orthopedic gymnasium is divided into three departments, each serving a special function. One department treats only cases of weak feet, fallen arches, or other foot troubles. Another corrects spinal trouble, weak backs, sagging shoulders, poor position, and many faults that have their seat in the spine. The other division is purely for the purpose of reducing, and here also, Mr. Iverson takes care of persons who have trouble with their lungs, such as hinder their breathing.

THREE years ago, Morris Greenberg reported to Coach Iverson after he had been given his physical examination. He had weak arches, flat feet, a hardly perceptible chest ex-

pansion, and sagging shoulders. In general he looked like a hospital patient. Iverson took him into his gymnasium, fitted him out with a pair of trunks and began to rebuild his body. Last year, Greenberg fought his way through the military boxing tournament, and then met the best in the university tourney, until he won the all-university championship in the welter-weight division.

At present, more than 250 men are undergoing this type of physical training under Mr. Iverson. The recent completion of new facilities under the Memorial Stadium provided facilities to carry on this work for all students at the University. One would hardly think that so much could be accomplished in a room fitted out with so little paraphernalia. A few ladders, several rings, two arm exercisers, and as many neck exercisers, together with a dozen mats, constitute all the equipment with which the instructor performs his work.

"Men come here prepared for real hard work, and they get it," said the coach. "The men who are crippled the worst take the most interest in the work."

I watched one young man with a shrivelled leg, a result of infantile paralysis, take a rope-walking exercise intended to strengthen this leg. The act consisted of balancing on the narrow edge of a board, reclining to the knees at every other step. Time and again he went back and forth until I became interested as to whether or not it hurt his deformed foot. Upon asking him about it, he replied that it only made his back tired.

Work Varies with Ailments

Great care is used in prescribing the kind of exercise for each individual case. The men with flat feet are marched around a large square which has been marked off with footprints. This exercise consists of two separate movements. The first is an ordinary step which changes into a pigeon-toed walk. Iverson stated that twenty minutes of this each day has cured more cases of flat feet than all the arch

supporters that have been put on the market.

Fifteen years ago in his native land of Denmark Mr. Iverson became interested in this work while attending the University of Copenhagen. After coming to this country, he continued this work in a special course at the University of Illinois. Upon coming to the University of Minnesota, he immediately broached the necessity of such a course to the athletic administrators, and work was begun, though on a minor scale. The importance of this work was not disregarded when the new facilities were installed under the Stadium.

NOT the least interesting feature of the gymnasium is the reducing class. Statistics have proved that overweight is a detriment to a student, both physically and mentally. Their course of study includes not only exercises but a regular and prescribed diet.

Two years ago, a young man reported for football, with a record which showed that he was fully fifty pounds overweight. He presented a front that would put the male population of Munich to shame. This chap was a difficult case according to his instructor. He was naturally fat, and try as he might, Coach Iverson could find no effective treatment. Finally he decided to overwork the fat boy for some time, and at the same time limit his diet. At last he began to see results. For four weeks, this youngster was half starved and made to work like a Trojan. But he reduced, and last fall was one of the best reserves at the center post of the football team, where he may become a regular in 1926. When the training season was over, he reported again in order to keep fit during the winter.

"The most gratifying thing about this work," said Mr. Iverson, "is the fact that the boys take pride in their accomplishments. Each bit of advance is eagerly noted by them, and makes them strive to accomplish more in the future.

"I have yet to find a more contented class," he informed me.

Physical Educators Will Meet at Minnesota

Dr. Norris, University Director, Heads the Mid-West Society

THOSE whose interests lie in the field of physical education will focus their attention on Minneapolis and the University of Minnesota, Thursday, Friday, and Saturday, March 11, 12, and 13 when the Mid-West Society of Physical Education will conduct its annual meeting there. A district organization of the National Society of Physical Education, the Mid-West Society conducts its winter meeting alternately in Chicago and in some other well-recognized center of educational effort. This year's meeting will be in Minneapolis partly out of compliment to Dr. J. Anna Norris, head of the Department of Physical Education for Women at the University of Minnesota, who is completing her third year as president of the society. W. F. Webster, superintendent of Minneapolis public schools; the Minneapolis Civic and Commerce Association; and President L. D. Coffman, of the University, joined a year ago in extending an invitation to the society to hold this year's meeting in Minnesota.

The University's main part in the affairs of the meeting will be to provide a place for, and aid in conducting, the elaborate program of demonstrations of physical education work which is each year a feature of this organization's meetings. These demonstrations will be for the most part in the Women's Gymnasium on the main campus. They will include exemplifications

of teaching basket-ball to girls, land drill in life saving, methods of teaching tumbling, pageantry, orthopedic exercises for children, and the organization of large groups for athletic tests.

Orthopedic gymnastics will be demonstrated in a separate section including demonstrations for grade school children and remedial gymnastics for college women. There will be a demonstration of the silhouettograph by which the Department of Physical Education for Women at Minnesota maintains a record of the improvement in posture and physique of its students during their college course.

A novelty will be the participation of delegates in many of the demonstrations, something that has not before been tried, Dr. Norris believes. Delegates will be asked to take part in demonstrations of organized games, clog dancing,

and gymnastics. Delegates will also have a chance to plunge into the women's swimming pool at the University as part of the swimming demonstrations, which will include class work for beginning and advanced groups of women swimmers.

The Women's Gymnasium at Minnesota will also be a center of interest on the first night of the gathering when students in the Department of Physical Education for Women will put on their annual demonstration of indoor work in physical education. Delegates



Dr. J. Anna Norris

Above, The Women's Gymnasium

will be invited to witness the work. General meetings on Friday will be conducted at the downtown convention headquarters and the annual luncheon of the society will be served at noon. At that time President Coffman will be the speaker.

Following the demonstrations on the campus Saturday morning, delegates will be given an opportunity to adjourn to the Minneapolis Arena where a program of ice sports will be presented, directed by Emil Iverson, the University of Minnesota coach of hockey and winter outdoor sports. Hockey and figure skating will be demonstrated by University students and a group of high school boys will stage speed races at 220 yards, 440 yards, a half mile, and a mile relay race. Many of the delegates who come from districts south of Chicago will find the ice events of particular interest because of their novelty.

Prominent among speakers and discussion leaders during the convention will be Dr. William H. Burton, professor of education at the University of Cincinnati; Miss Elizabeth Halsey, of the University of Iowa; Miss Margaret McKee, of Des Moines, Iowa; Thomas Neale, of Western Reserve University; and Miss Alice Brownell, of the University of Wisconsin. Among University of Minnesota people who will take part, apart from President Coffman and Dr. Norris will be W. R. Smith, director of intramural sports, Dr. Alice Tolg, Miss Gertrude M. Baker, Miss Irene A. Clayton, Miss May S. Kissock, and Miss Mary Starr Conger, all members of Dr. Norris's department.

The Minneapolis Park Board, public schools, and Y. M. C. A. will be represented on the program.



The "Past Diseases" of College Students

A Study by Drs. Diehl and Shephard Shows the Home Town Relationship

WILL your son or daughter have measles before reaching the age for entering college? Or scarlet fever? Or smallpox? Typhoid or St. Vitus dance?

Perhaps the immediate impulse is to throw out an indignant "no" in response to such a question, though it is common knowledge that many of these and other diseases are at times prevalent. But wait a moment before offering that prompt negative. This is a question in which the facts may speak for themselves. A recent publication by officers of the Students Health Service at the University of Minnesota shows just what diseases some 5,031 entering students at that institution have had.

Not only does the study, published originally in *The Journal of Industrial Hygiene*, show what diseases these students have had, but it divides them into residence groups, showing which of the ailments are more prevalent in country, village, town, small city, and large

city. And it shows the frequency of them among men as compared with that among women. A large majority of the students are from Minnesota.

Dr. H. S. Diehl, director of the Students Health Service and Dr. W. P. Shephard, formerly his assistant, now city health officer at Berkeley, Cal., gathered these statistics and wrote the report. Disagreeing with the government statistical method which classifies all places of less than 10,000 as rural and all of more than that as urban, they arranged five categories calling communities up to 50 in population, rural; 50 to 1,000, villages; 1,000 to 5,000, towns; 5,000 to 50,000 small cities, and 50,000 and over, large cities.

This proved an important corrective arrangement, for some diseases which under the old method had been called rural, were found to be prevalent not so much in rural communities as in the villages and towns, while other

diseases that had been attributed chiefly to large cities were found not to be so frequent in the truly large cities, but to haunt chiefly the communities of 5,000 to 50,000.

An extremely careful check of students' answers to inquiries about their past diseases was made, yet the writers admit that complete accuracy was scarcely possible. Women, they believe, are more likely to recall past diseases than are men, and especially will they carry the recollection of an ailment like chicken pox, which may have threatened their beauty. Diseases like appendicitis are also recalled because the possibility of surgery, always connected with appendicitis, makes the disease loom large in the patient's mind, so that he remembers it. Reports of tuberculosis and nervous breakdown are thought by the authors to be rather less complete than those on mumps and measles, because the former are ailments which many persons hesitate to mention.

Respiratory Ills Are Worse in Country

Students from rural communities, says this report, are highest in past histories of pleurisy, rheumatism, smallpox and tuberculosis. They are lowest in chicken pox, diphtheria, tonsillitis, typhoid fever, and whooping cough.

Students from villages of from 50 to 1,000 population are highest in past histories of appendicitis, chicken pox, influenza, measles, mumps, nervous breakdown, typhoid fever, and whooping cough. They are lowest in past histories of chorea (St. Vitus dance) pneumonia and tuberculosis.

Students from towns of 1,000 to 5,000 are highest in past histories of scarlet fever, lowest in pleurisy and rheumatism.

Students from small cities between 5,000 and 50,000 in population are highest in past history only of diphtheria and tonsillitis but are second highest in past history of measles, mumps, chicken pox, chorea, typhoid fever, and pleurisy. They are lowest in past history of nervous breakdown and scarlet fever.

Students from cities of more than 50,000 population are highest in past history of chorea. They are lowest in past history of appendicitis, influenza, measles, mumps, pleurisy, and smallpox.

Figures for 3,478 university men show that those who were raised in villages have had the most diseases, the authors' figure being for them 368.5 with students from the smaller cities next, 326.4. Third most past diseases were reported by students from the towns, their figure being 301.7. Rural students, in communities of fewer than 50 persons had next to the least past diseases to report and students from large cities the fewest. The figures are 287 and 279.1, respectively.

Community Health Work Important

Drs. Diehl and Shephard point their arguments and facts not to show that communities of certain sizes are unhealthy places to live in, but to prove that the increasingly intensive work in disease prevention, hygiene, and sanitation carried on by the large cities is succeeding. Only rarely is the smaller community in a position to maintain the same sort of effective health supervision by competent staffs that can be provided in large cities.

THIS is the second report of comparative health among students from communities of these five types that has been put out by the present authors. The first dealt with physical defects rather than past diseases, and in that also, it was found that the villages had more persons physically defective than any other unit relative to its population. The report now under consideration suggests that the physical defects may be in part due to the diseases, inasmuch as many ailments, such as scarlet fever, diphtheria, rheumatism, and the like, which sometimes leave defects, are more common among students from the smaller places.

The conclusions reached in the previous study were as follows:

Students raised in villages of from 50 to 1,000 population have more physical defects than students raised in other communities.

Students raised on farms show more physical defects than those raised in towns or large cities, about the same number as those from small cities, and fewer than those raised in villages.

Students raised in towns of from 1,000 to 5,000 population show fewer physical de-

fects than any others except those from large cities.

Students raised in small cities of from 5,000 to 50,000 population are exceeded in physical defects only by students from villages.

Fewest Defects in the Cities

Those raised in cities of more than 50,000 population show the lowest number of physical defects.

In introducing their article, these health officers say: "The demands of hygienists for increasing financial support from industry, organized charity, and governmental departments are being met more and more with questions concerning quality rather than quantity of their work. To show, convincingly, the end-results being obtained by a given set of preventive measures is sometimes difficult, but end-results are the first interest of those furnishing the funds. With the present differences which exist between rural and urban health activities, there should soon appear a demonstrable difference in the health conditions of rural and urban residents, and if such a difference does exist, a powerful argument is ob-

tained in favor of present urban health practices.

"The preventive phases of industrial medicine and health insurance, requiring, as they do, periodic physical examinations, stand alone as our only well-organized activities in the field of adult hygiene. It is believed that our findings in a comparative study of urban and rural health, tend to support disease prevention procedures common to most large cities today."

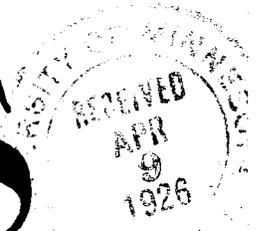
They also describe the extreme care used in obtaining statistics. Records of 5,031 students at the University of Minnesota, comprising two entering classes, were used. These were subdivided by sex and according to the size of the places from which they came. Histories were taken by having the students fill in uniform blanks which were then taken to specially trained checkers, who made sure that all questions were answered, inquired carefully into the records of past diseases, and made sure that the student had actually spent his youth in the place he had named.

Only diseases which might have a bearing on the subsequent health of the student or might throw light on the hygienic condition of the community were studied.

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MINNESOTA CHATS



For a Better
Minnesota



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A Prayer for Colleges

By the Rev. C. A. Wendell

Pastor, Grace Lutheran Church and University Lutheran Pastor

FATHER in heaven, we would lift up our voices this morning in unison with all Christians who pray for the colleges of our land. May Thy blessing rest on these institutions, and make them nurseries for Thy Kingdom.

BLESS the young men and women who come to them, hungry to know and eager to fit themselves for useful service. May their minds be open to receive the truth, and their hearts brave to face the facts of life. Deliver them from the bondage of bigotry and send them forth in freedom to view the glories of Thy universe.

BUT when they seek after light, may they not close their eyes to Thee, Lord Christ, who art the Light of the world. When perplexity meets them at the crossroads, may they remember Thee who art the Way. When they hunger for knowledge, may they not forget Thee who art the Truth. When the heart yearns for satisfaction, may they draw near to Thee who art come that we might have life, and have it more abundantly.

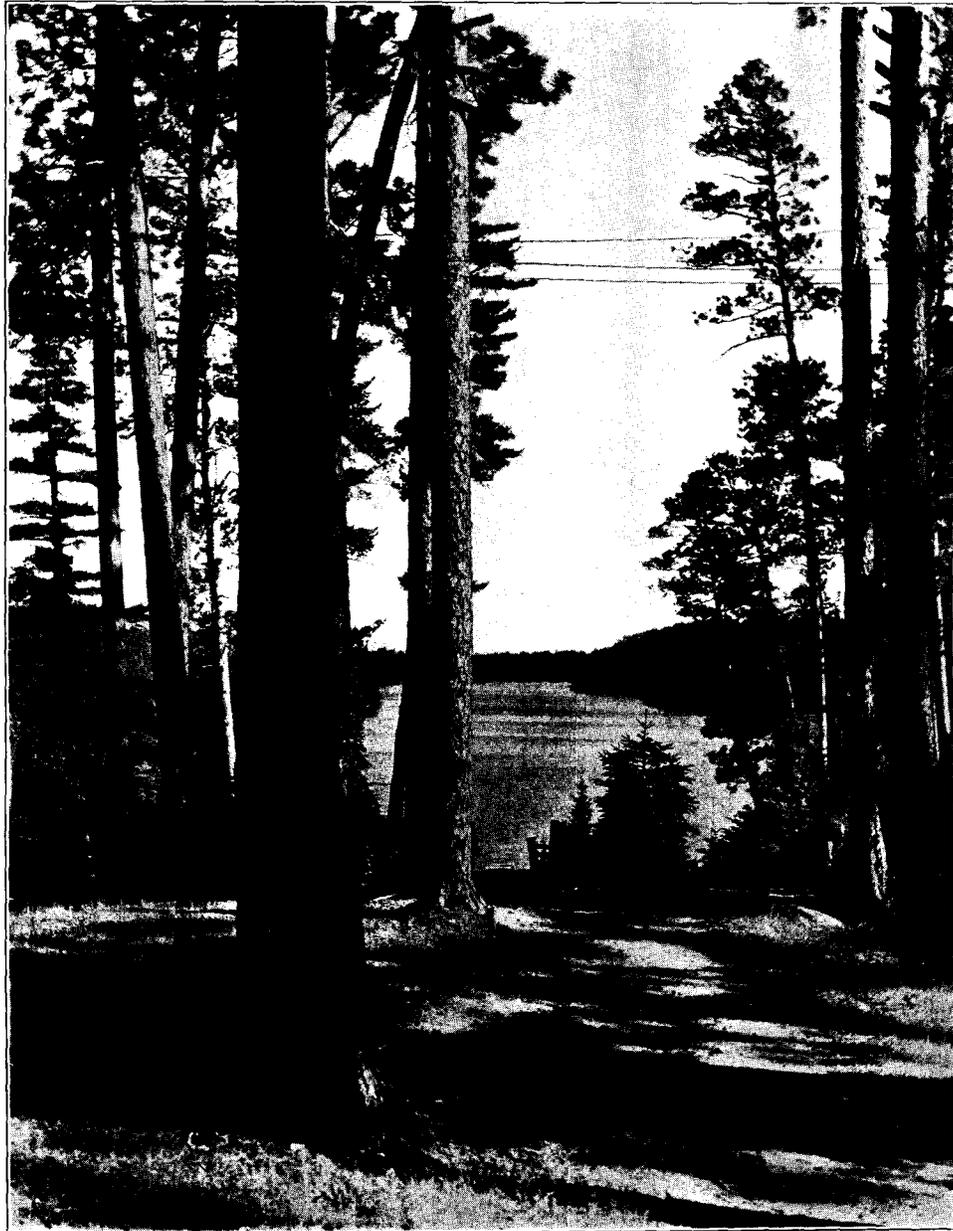
THESE are days of solemn crises to our young friends. Childish opinions have served their purpose and are falling away like scales around an opening bud. The frost night of unbelief is upon the world, and the delicate faith-life is in danger of death. Enfold it, O Lord, with the warmth of Thy love and save it from all harm.

WE pray Thee too for the men and women whom Thou hast appointed to teach the young. Help them to see the holiness of their calling, and the delicacy of the task set before them. May none of them come with rude hands or unhallowed hearts. Show them the folly of attempting to teach without first sitting at the feet of the supreme Teacher. Inspire them with an ever deepening appreciation of the spiritual values of life, and give them grace to walk humbly in deepest soul communion with the Saviour of men.

ENLIGHTEN, guide, and uphold the presidents of our great institutions of learning. Vast responsibilities are laid upon them, and they need Thee every hour. Give them strength for every burden, patience for every vexation, wisdom for every crisis, and courage for every moral issue. In all their planning, may they and their helpers, from the highest to the humblest, ever remember that the furtherance of Thy kingdom is the chief purpose of all true education. Amen.

(Reprinted from the Grace Messenger)

A Chief Beauty Spot of Minnesota



*Lake Itasca Seen from the State Lodge
(From the Ten Thousand Lakes Association)*

Climatic Change and Lowered Lake Levels

A Geographer's Comments on an Important Minnesota Problem

By Professor D. H. Davis

University of Minnesota

THE lowering of lake levels, including those of the Great Lakes, is of great economic importance and of special concern to this section of the country inasmuch as it will, if continued, lead to the total disappearance of many of the smaller, shallower lakes, great changes in the shore line and area of those lakes which are larger and deeper, and a decrease in the utility of the Great Lakes. In addition, the disappearance of impounding reservoirs for storing water to regulate stream flow will materially increase stream fluctuation, with a resultant decrease in the navigability of the rivers and a lessening of the possibilities for the development of hydroelectric power. The lowering of the water table will also increase the severity of droughts and the danger of forest fires and probably decrease the effectiveness of a given amount of precipitation in crop production.

The problem of lowered lake levels is of direct and pressing importance to the shipping interests, to all users of water power, and of less obvious and direct though of only slightly lesser significance, to every dweller in the Land of Lakes. Careful studies should, therefore, be made of the causes producing the present lowered water table so that plans may be formulated which will, if carried out, so regulate run-off that higher lake levels will be restored and preserved.

The problem of maintaining satisfactory lake levels is not a simple one. The relative value of the various factors which have been effective in producing the present low water stages in our lakes is uncertain and difficult of determination. In the case of the Great Lakes, for example, the obviousness of the effect of diversion of water from Lake Michigan through the Chicago Drainage Canal has frequently led to overlooking factors of perhaps equal importance, as such diversion is apparently in-

sufficient to produce the total fluctuations which have occurred, natural oscillations for a period of years having been three times as great as the changes occasioned by all diversions of water.¹

Factors Affecting Water Stages

Among the factors frequently suggested as effective in producing the present low water stages is climatic change of one or more of the three following types:

1. A progressive change in precipitation, either an increase or a decrease.
2. Oscillatory cycles of dry and wet periods of long time intervals—periods of hundreds of years or more.
3. Short period oscillatory cycles of dry and wet periods.

My purpose is to discuss briefly such evidence as exists as to the probability of occurrence of climatic changes of the above stated types. The evidence of climatic changes which will be considered consists of:

1. Popular belief, based on memory and hearsay.
2. Non-instrumental evidence as afforded by tree records, land forms, and archeological studies.
3. Accurate instrumental records of weather conditions.

POPULAR belief in a change of climate is widespread and of long standing. As early as 1770, the belief was prevalent that winters were becoming milder. Professor Samuel Williams of Harvard College, one of the outstanding pioneers in the fields of American meteorology, taught that "winter is less severe, cold

¹ Diversion of Water from the Great Lakes and Niagara River. Reports of Col. J. G. Warren, Corps of Engineers, and the Board of Engineers for Rivers and Harbors of an investigation authorized by Public Resolution No. 8, 65th Congress, p. 44, 1921.

weather does not come so soon." About 1880 a widespread impression prevailed among otherwise well-informed individuals that settlement and plowing of the soil produced an increase in rainfall and made agriculture possible in portions of the Great Plains where the amount of rainfall had previously been insufficient for crop production.

Studies of the instrumental records, however, by numerous investigators, both between 1883 and 1894 and within the past few years, show no basis in fact for such a belief. The sequences of increasing decreasing rainfall which occur exhibit no regularity and no progressive changes, either increases or decreases in precipitation, are shown by the instrumental records in such areas. In the better watered portion of the country, as in the New England States, a study of the chronicles of weather conditions, kept by the early settlers and running back three centuries, reveals no change in the variability of the seasons.

Careful investigations have uniformly shown that popular belief as to climatic changes are extremely unreliable. Man's memory is exceedingly untrustworthy in such matters. Exceptional seasons and storms, especially if their occurrence is during the childhood of the observer, register impressions which do not serve as an accurate basis for estimating quantitative relations between past and present weather phenomena. In addition, in the case of variation in the amount of precipitation, the average individual often fails to distinguish between variation in amount and change in the effectiveness of the same amount. If a list were compiled of exceptional snowstorms, of heavy rains, and of similar meteorological phenomena from any section of the United States, where records are available from the date of first settlement down to the present time, neither a progressive nor a permanent change in the climate would be shown by the records.

Although the fact of climatic change cannot be established through the testimony of human experience, the considerable body of non-instrumental evidence of secular variations in climate is of great interest to most climatologists.

Are Glacial Swings Continuing?

Evidence of periods of glaciation is so strong that it cannot be disregarded and much interest

naturally centers around the question whether these long period oscillations of climate are continuing into historic times.

The results of investigations in climatic chronology in the Southwest by A. E. Douglas² have been included by Huntington in his work on "Climatic Changes," and by comparison with results obtained from other studies in central and western Asia, he concludes that similar climatic fluctuations occurred during the past 3,000 years in both areas, at the same time. Supplementary studies by E. Antevs³ and others apparently support the view that past climatic conditions can be determined by studies of the annual rings of trees. To Huntington, the physiographic and archeological record also seems to support the evidence of the trees. These studies are of interest in that they seem to indicate long period fluctuation in the amount of precipitation. In the studies made, "3 major wet periods between and after 3 major dry periods seem to have culminated about 1200 B.C. and in the 7th and 13th centuries of the Christian Era."

Few climatologists feel competent to evaluate the evidence of such long period oscillations as postulated by Huntington. Such questions are properly left to experts in fields other than that of climatology and it may be of interest to note that the experts do not agree in their views.

RESULTS obtained from a study of tree rings may indicate climatic fluctuations, but there is considerable diversity of opinion as to which climatic factor, temperature, rainfall, or the length of the growing season, is responsible for the change in the characteristics of the rings. Geologists also are not in entire accord with the view that a physiographic fact such as variation in lake level, as evidenced by elevated beach lines, results from climatic oscillations in regions of active mountain growth such as the areas in which Huntington carried on his studies. Archeologists similarly do not all agree with Huntington's conclusions and

² A. E. Douglas, *Weather Cycles in the Growth of Big Trees, M.W.R.*, Vol. 37, pp. 225-237, 1909; *A Method of Estimating Rainfall by the Growth of Trees, Bull. Am. Geog. Soc.*, Vol. 46, pp. 321-335, 1914; *Conclusions from Tree-Ring Data—General Methods in the Advance of Cycle Studies, Geogr. Rev.*, Sup., Vol. 13, pp. 659-661, 1923.

³ E. Antevs. *The Big Tree As a Climatic Measure*, Carnegie Inst. of Washington, Publ. No. 352, 1925.

point to the fact that other factors such as increasing salinity of the soil under irrigation or decreasing soil fertility under continued use might have been more potent than increasing aridity in causing depopulation of the areas studied.

In view of our lack of sufficient careful study of the non-instrumental evidence and the present conflicting views of the experts, the exact nature and intensity of historic fluctuations of climate and their effects on man are still subjects of debate and need much accurate quantitative study. We have certainly had great, long period climatic changes during past geological time. Whether these changes are still in progress, we do not know definitely, and even in case we accept as facts the results of such studies as have been made, we can make no prediction as to whether lake levels are due to rise or fall as a result of such change.

Such data as are used in these non-instrumental studies of long period fluctuations of climate do not lend themselves readily to accurate measurement of short period fluctuations which can best be determined by instrumental records. It is upon the evidence furnished by accurate instruments, and not upon human memory or non-instrumental evidence, that reliable conclusions as to the existence of short period cycles of climate must be based.

On the basis of such records, for the world as a whole, Brückner believes that he has shown warmer and drier periods alternating with periods which are cooler and moister in an oscillatory cycle of about 35 years from maximum to maximum.⁴ These oscillations have been traced back 700 years in Europe, and in Brückner's opinion, there is no doubt they will continue. If he is correct and his conclusions apply to the United States, we are now approaching the minimum which should occur about 1935 and this would at least partially explain our lowering lake levels. As will be seen, however, the application of his conclusions to the United States does not meet with the approval of most American climatologists.

⁴"Zur Frage der 35 jährigen Klimaschwankungen." *Pet. Mitt.*, Vol. 48, pp. 173-178; "The Settlement of the U. S. As Controlled by Climatic Oscillations." Memorial Volume of the Transcontinental Excursion of the Am. Geog. Soc. of N. Y., 1915, pp. 125-129.

At the present time there is an increasing realization of the economic significance of accurate statistics of precipitation and at the same time a tendency to extend the application of available statistics beyond their true utility. Too often the fact that measurement of precipitation for a single year at a given place represents only the precipitation for that year and place is ignored, although it is a well-known fact that the horizontal distribution of precipitation varies within rather considerable limits, even in comparatively small areas.

Precipitation Records Are Recent

Accurate precipitation records have been kept in the United States a comparatively short time; at few of the stations do the records antedate 1850 and most of them date from later than 1870. In view of this fact and the danger inherent in drawing conclusions from such short records of precipitation, there have been few important studies of these records in relation to periodicity of rainfall in the United States.

In intermediate latitudes, precipitation occurs in association with general cyclonic storms which vary in: (1) path, (2) number, and (3) intensity from year to year. Hence the precipitation for a given year or month normally varies from the average for that year or month. It is a matter of common knowledge that a single heavy thunderstorm may produce a rainfall for a given month two or three inches above the normal for that month. As a result of such variability, it often happens that for any given area a single year or month or a series of years or months may be either drier or wetter than the average. The question as to whether the instrumental records show either a tendency toward a progressive change in rainfall or an oscillatory cycle of precipitation anywhere in the United States has been investigated within recent years by Brückner, Henry, Kincer and others.

Henry⁵ plotted the "progressive averages" of precipitation for selected stations in southeastern New England, in the Upper Ohio Valley, and in the Middle Mississippi Valley.

⁵A. J. Henry, *Bull. D.*, pp. 18-24, Pl. II.

For the first two stations, the period was 62 years (1834-1896); for the Middle Mississippi Valley, the record covered 38 years (1858-1896). The Ohio Valley curve shows a rough periodicity of about 9 years, but the curve for the Middle Mississippi Valley shows practically no indication of periodicity. The New England curve shows an increase in rainfall between 1845 and 1889 except for a short drought period in 1880-1882. This increase in the rainfall was apparently a local phenomenon. Comparison of the curves shows no agreement as regards their periods of maximum and minimum. A later study of the "anomalies" of precipitation by districts for the entire United States for a twenty-five year period (1887-1911) "lends no color to the theory of a cycle of precipitation as advocated in certain quarters in Europe."⁶

The annual rainfalls for a group of six long record stations as plotted recently by Kincer, appear in the section on Precipitation and Humidity of the *Atlas of American Agriculture*. Although these curves show periodicity in the mean annual rainfall, the fluctuations seem to be local, hence no definite conclusions for large areas can be drawn from them. As from other studies, there seems to be no basis for concluding that rainfall is either increasing or decreasing anywhere in the United States or that there is any periodicity in precipitation over considerable areas.

ALTHOUGH we have no long time records, in many portions of the United States comparable precipitation measurements have been carried on for a period of sufficient length to show indications of periodicity or progressive change from wet to dry or vice versa if it existed, but in practically every case, the occurrence of dry and wet years seems to be wholly fortuitous so far as the United States is concerned. The likelihood that all the various and

complex forces which produce variation in precipitation should operate to produce similar cycles of precipitation in all parts of the country is extremely remote.

The probability that rainfall will be normal is very small. For the twenty-five year period studied, Henry arrived at the conclusion that such probability could be represented by the fraction $2/475$, with the probabilities favoring a precipitation below normal, as conditions for unusually heavy rains over extended areas are apparently exceptional. This situation as regards the relation of actual to average precipitation will often result in the appearance of a rough periodicity in precipitation which is not general for the country as a whole or even for any considerable area.

In view of the available records for the United States, and the results of such studies as have been made therefrom, any value which is at present attached to secular variation in rainfall as a factor in determining lake levels is hypothetical. There is no justification, on the basis of our present information, for making any quantitative estimate of the importance of this factor in determining present lake levels and no possibility of assigning any certain value to the factor in predicting probable lake levels during succeeding decades.

Although our present knowledge of climatic changes does not warrant any assumption that present lowered lake levels result therefrom, further investigation should be made in an endeavor either to prove or disprove the popular belief that climate has changed within historic times. The avenues of speculation which are opened up by the possibility of such changes have led to the advancement of many ill-conceived and improbable hypotheses which have received wide circulation and belief. Our knowledge of climate is in its infancy; a more complete understanding of the laws governing climate may well help us to solve our problems, not only of lowered lake levels but many others of even greater significance to the welfare of the human race.

⁶ A. J. Henry, "Secular Variation of Precipitation in the U. S., *Bull. Am. Geog. Soc.*, Vol. 46, pp. 192-201, 1914.

Law Students Learn To Use the Law They Know

A Practice Court Provides Experience in Litigation

SHALL a law student learn only what the law is, or shall he learn also what to do with it, once he has it?

On this question there is a mild difference of opinion among law schools. Some of them believe that the student should learn only the law in law school; in other words, that legal procedure should wait until the student is a lawyer and has entered an office where he can observe how one goes about getting a case into court and doing all the many and divers things a lawyer must before his knowledge of the law takes effect on judge or jury. They teach procedure in class but not by laboratory methods.

Those who conduct the Law School at the University of Minnesota take the opposite view. It is their belief that law school is a good place to show a student not only what his shells are composed of, and how they have evolved and improved during the years, but also how to load his piece, find the range, and, most important of all, how to fire.

One of the most interesting things about the Law School at Minnesota is its practice court in which students make their fledgeling efforts in legal procedure. In it they supplement their knowledge of the law with some very valuable first hand experience in litigation.

For many years no law schools taught litigation. Law schools are a comparatively recent development in education, for that matter, so that even today most of the older attorneys are men who learned their law in the older way, by reading it in the offices of leaders at the bar. Those who were trained in that way were sure to receive ample training in litigation, for their study rooms were veritable laboratories of legal procedure. Briefs and appeals and petitions and garnishments were all the time being prepared under their noses and they were asked to help, or it was suggested that they look-see what was going on.

As the law schools gradually grew, giving their attention almost wholly to instruction in

the law rather than litigation, the younger generation of lawyers found that they were going into practice with less and less practical knowledge of how a case should actually be got before those who were to decide it. Some of them found to their grief that they were right enough in what they wanted to do and say in the courtroom, but that unfamiliarity with the particular ways of going about things there handicapped them and sometimes entirely blocked them from doing the thing they were trying.

Minnesota was one of the first universities to establish in its Law School a practice court and a professorship in procedure. Its precedent and that of other schools that pioneered in such training has now been followed by a large number of university schools of law, although a considerable number of others have as yet held off. But admittedly the venture has been a success on the Minnesota campus, and training in litigation has become a valuable and permanent feature of Law School teaching.

Professor Wilbur F. Cherry, who conducts this work at Minnesota, points out that no other profession sends men out as bachelors without having first trained them in the operative as well as the theoretical phases of their callings. The dentist and physician are trained to operate; the engineer must draw plans and make specifications; the prospective teacher must practice teaching; and training in agriculture is carried on in intimate proximity with practical farming and husbandry processes.

Actual Conditions Reproduced

The training in practice is given under conditions that simulate actuality, and for that purpose the practice court has been developed. There, in the course of a year, the student has a chance to act several times in the capacities of attorney for the plaintiff, for the defendant, witness, and juror. Perhaps he may even volunteer to sit on the prisoner's bench, but

fear lest impassioned oratory might shake down plaster and light fixtures has kept the school from prosecuting "criminal" cases in this court. Its proceedings are restricted to cases of the civil type.

A lawyer must learn first of all to draw the papers necessary to get his case into court and carry it through successfully, Mr. Cherry points out. So "practice papers" are the first concern in this division of the Law School. A fictitious case is worked up describing, let us say, how a man has failed to pay a note, for the face value of which he is now to be sued.

Papers involved in this case bring the action in St. Louis county, but it is later transferred to Hennepin county, subsequent to which there are garnishment proceedings, an answer filed, garnishment disclosure by banks in which the man is supposed to have had money, and many other papers, including those necessary to secure the amount of the final judgment, interest, and costs of the garnishment proceedings.

This is typical of the work students in procedure must do. These papers are those neces-

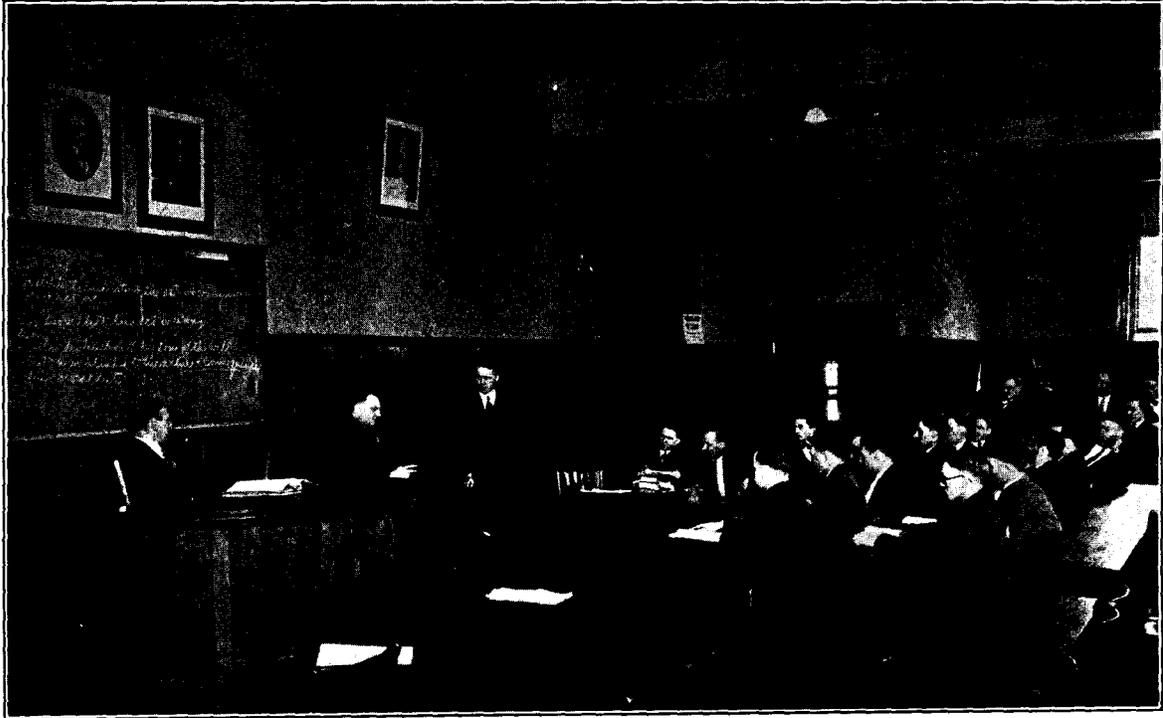
sary in "an action with complications." The next case for which papers must be drawn is an injunction having to do with building proceedings.

When students have handed in their papers they get back their own set together with a mimeographed set of errorless papers with which their own are compared in the classroom.

AFTER the strictly "paper work" has been completed sessions of the practice court are begun in which an entire case is brought and fought through the "court." Each student serves as counsel in three cases. He draws the papers and prepares to present the case. In the first case no one appears against the plaintiff. Subsequent cases are brought to trial, prosecuted and defended.

A Practice Case in Court

To show how real a task this is made, the following copy of an actual practice case is presented:



The budding attorney quizzes a witness

COURT CASE NO. IV**Section A**

Attorneys for Plaintiff—L. Anderson, Hunt

Attorneys for Defendant—Hallin, Sands

Witnesses for Plaintiff—Miss Bringgold, Burkhardt,
Flynn

Witnesses for Defendant—Hulstrand, Humble, Huntley
Deputy Clerk—Abromovitz

STATEMENT OF FACTS

Henry Smith of Oswego, N. Y., being about seventy years old, made a subscription of \$3,000 to build a house of worship for the First Methodist Church of Oswego. The subscription paper which he, with others, signed, read as follows:

"We, the undersigned, in consideration of the building herein named, and the mutual promises of each other, each for himself and not for another, agree to pay to the Treasurer of the First Methodist Church of Oswego the sums set opposite our respective names, for the purpose of constructing a house of worship for said church; payment of the subscriptions to be made in three equal installments, the first payable when the entire sum of \$20,000 is subscribed for said purpose, the second six months thereafter, and the third upon the completion of the building."

Before the sum of \$20,000 was fully subscribed, Henry Smith moved to Minneapolis, became domiciled there and met with an accident which rendered him insane. Shortly after the \$20,000 had been subscribed and plans for the church building approved, Smith was adjudicated insane by the Probate Court of Hennepin County and a guardian of his estate and person appointed. The building was thereafter erected. Smith never paid any part of his subscription. He remained insane until his death. The church now wants the subscription of Smith collected.

This case is set for trial January 22. Written statements of evidence must be handed in not later than January 5 at 5 P.M. Attorneys for plaintiff will see Mr. Chapman on January 5 at 7 P.M.; attorneys for defendant at 7:30 P.M. Trial briefs and certificates of conference with witnesses must be handed in not later than January 12.

When a case has been placed in the hands of the students there is one strong temptation against which they must be guarded. This is to prepare an airtight defense, one that there could be no argument about, or a complaint so overwhelming that no defense could possibly offset it. If students were allowed to treat the fictitious cases in this way there would be no battle in the practice court and the whole proceeding would be nullified. Human nature being what it is, some such preparations are often made by student attorneys on one side

or the other. On this account they must show their briefs and case plans to an instructor who arbitrarily rules out points that would block proceedings entirely.

One case in practice court is tried by each student before a judge and one before a jury. More than one attorney is the rule, both for plaintiff and defense. Each student has two chances to serve as attorney in court cases during the year, three or four opportunities to serve as witnesses or as deputy clerk of the court. Freshmen are employed as jurors when there are jurors, and freshmen also are witnesses on occasion. The practice course is confined, however, to members of the senior class, as they must have learned the law in earlier years before there is any excuse for having them start practicing in court.

In preparing cases for the practice court the students draw up briefs, determine issues, prepare testimony, arrange with their witnesses as to what shall be done, and try as best they may to anticipate the moves that the other side will make; also they must determine what the law in the case is.

Many practice cases are thrown out of court on a writ of error, and when this happens the erring attorney must attend a special term of court and properly conduct his case.

During the trial Professor Cherry serves as judge. He does not often interrupt the proceedings, but makes a note of points on which the students should be corrected. These he later brings to their attention when the entire case is discussed in open class.

Students Prepare Real Cases

But senior law students at Minnesota practice on real as well as theoretical cases, an advantage enjoyed by scarcely any other law students in the country. By virtue of an arrangement with the Minneapolis Legal Aid Society, a branch of the Family Welfare Society, senior law students spend several afternoons a week in the downtown office of the Legal Aid, preparing cases for the persons of small means and little comprehension of life's more intricate problems, in whose interests the Legal Aid Society is maintained.

Small debtors, employees who have been discharged with some small bits of salary un-

justly withheld, men or women financially unable to employ an attorney who nevertheless need legal advice to straighten out their matrimonial or financial affairs, their bickers with landlords or neighbors, are those whom the Legal Aid Society serves, and it is in the preparation of their cases that the senior law students are employed.

Professor Cherry believes that this work serves a double purpose in that it gives the budding lawyer an idea of unselfish public service at the same time that it gives him experience in the actualities of litigation. It brings him promptly into contact with the seamier side of life and shows him the troubles and harassments, minor on the world's scale but stupendous in their own lives, which persons poorly adjusted socially have to endure.

The law students cannot go into court and actually plead any of these cases, for they are not

yet members of the bar, but almost all of the preparatory work is done by them. Also they can appear in the Conciliation Court of the city of Minneapolis, which is maintained for the benefit of poor litigants. One appearing in that court need not be an attorney nor be represented by one. Its chief purpose is to mete out justice in small cases without the necessity of legal fee payments by the parties to the action. Many persons who cannot speak English or whose mental equipment is insufficient to permit them to state a case in court clearly are represented in Conciliation Court by senior law students from the University.

In reciprocation for this opportunity the University of Minnesota pays a proportionate share of the salary of the Legal Aid Society's attorney, who becomes an instructor on the staff of the Law School. This arrangement has been maintained for a number of years and has been found most satisfactory.

A Social Center for University Men

Many Campus Activities Focus at the Minnesota Union

By Minton M. Anderson

Manager, The Minnesota Union

A UNIVERSITY union is an organization of university students and faculty, generally men, whose purpose is to maintain a suitable club house for the men on the campus and thereby provide facilities for study, for promoting friendship and good fellowship among students and between students and faculty, and to provide a desirable eating place and opportunities for indoor recreation.

The origin of university unions can be traced to Cambridge University, England, where in 1815 the first union was established. Later the universities of Oxford, Edinburgh, Glasgow and Belfast organized unions. The idea gradually assumed a broader range and grew constantly in England during the remainder of the nineteenth century. University unions were planned and operated to include all activities which are necessary to university group life. The primary objects of the English unions were to provide students with the comforts and conveniences of a social club, a place to hold debates, and a center with which various university societies could be affiliated. This attempt to unite the various university organizations into one society gave the union its name. The English unions of today are very similar to those in America and Canada, except that they emphasize debate more strongly.

At the beginning of the twentieth century this idea of student unions was taken up in America, and it has had a constant and rapid growth. Today a large number of universities and colleges are in the process of campaigning for funds for such buildings, while some are planning and erecting buildings, and still others are operating large and beautiful club houses. Several unions which have been built recently are memorials to those who served in the World War.

Need for Unions Grows Swiftly

With the increasing enrollment in the colleges and universities, the need for unions is growing. Training along academic and technical lines is not complete without a balanced understanding of the social and human, or personal, side of life. In other words, before persons can be considered educated, they must learn to live together in a community and become good citizens practicing and advocating truthfulness, honesty and morality, all of which constitute manhood of the proper kind. To this task the unions can bend their efforts. By the social intercourse resulting in the various union activities, important steps are taken in the development of character and high ideals, which do not ordinarily result from the thoughts of a person individually, but from the raising of the standards of the entire group of which he is a part.

The very life of a union comes from its success in endeavoring to give service to the University. Through its activities it helps to develop a true university spirit and to maintain the traditions which are dear to an institution. It serves as practically the only connecting link between the universities and the city and state associations and clubs.

The unions provide the students with a large variety of wholesome recreation in attractive surroundings, a proper eating place, a convenient gathering place, and in fact all the necessities of university club life. This meeting of students on common ground tends to broaden the vision, develop personality, and effect an equality of spirit.

Also, the alumni of the universities are given a center at which they may meet old friends and classmates when they return to their university on special occasions such as homecoming, Founders' Day, and alumni reunions.

This arrangement undoubtedly does a great deal toward binding the alumni to the university. In general, one can say that a union binds the alumni, former students, students and faculty into a closer community of interest.

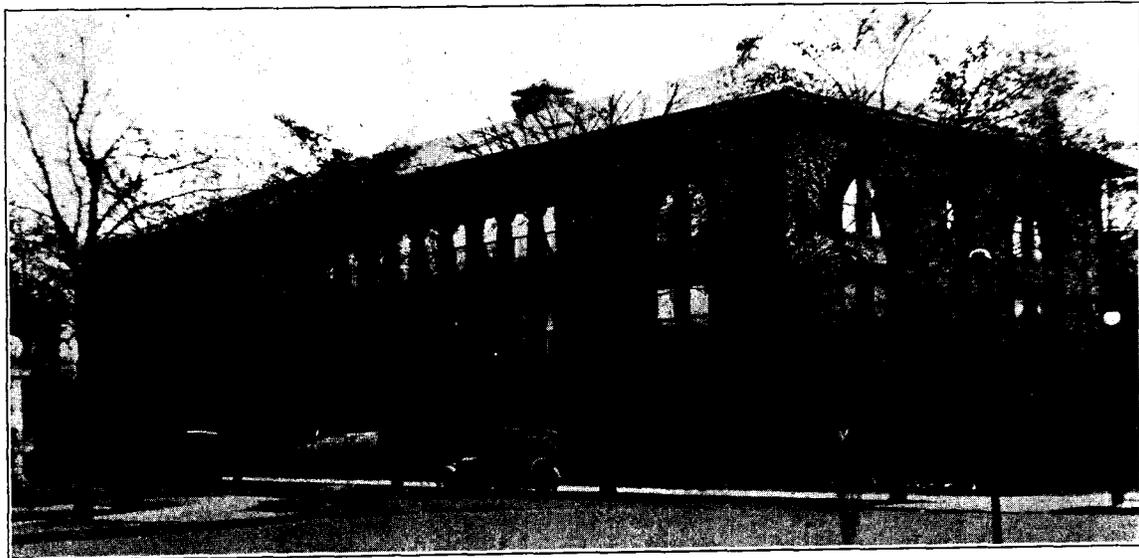
How Minnesota's Union Began

The movement for a men's building at Minnesota began in 1908, when a tribute was planned to Dr. Northrop, president of the University. The building was to cost between \$300,000 and \$400,000. A campaign was launched among the students first, with the result that \$25,000 was pledged. Even though this response was encouraging, it was apparent that it would be impossible to raise the large amount of money necessary, and therefore the project was in a sense laid aside for a few years. During this time the Board of Governors of the Minnesota Union acted merely as an organization without a building, with the thought that some plan for raising funds would be found in the near future which would be more successful than the last.

Then came the offer of the Board of Regents through President Vincent that the Chemistry Building which was to be vacated in the fall of 1914 could be used for a men's club house. The Board of Governors, undecided whether or not they should lay aside their plans for a new building, finally decided to accept this

offer with the hope that the building could be renovated and reconstructed as a suitable students' building, until such time when it could be used no longer, at which time it was anticipated that a new building would be available. When the building was turned over to the Board of Governors, \$17,500 was appropriated by the Legislature for the purpose of rebuilding the interior. This amount was, of course, insufficient even to clean out a portion of the building which had been used for so many years as chemistry laboratories and lecture rooms. Besides, there was no money available for equipment of any sort, and at least \$50,000 to \$60,000 was needed to do the proper remodeling for a dining room and two living rooms. The Board of Regents at this point allowed the collection of \$1.00 in fees per semester at the time of registration from each male student. This money was kept in charge by the comptroller of the University, and drawn on from time to time by the Board of Governors with the advice and counsel of the comptroller.

IT was the opinion of the Board of Governors that the first service to be offered to the students should be some desirable eating facilities. There were no funds available to equip either a dining room or a cafeteria, so a makeshift lunch counter was devised in one of the rooms on the



The Minnesota Union Building

main floor where sandwiches, fruits and coffee were served in a sort of cafeteria style. About 1916 the board had on hand \$5,000, and borrowed \$9,000 from the University to equip a regular dining room. The result was that a dining room was opened in the fall of 1916. Service was maintained at each table, but this plan became too expensive, and the cafeteria system was adopted, which system is in effect at the present time.

There was no theater on the campus for the presentation of student dramatic productions. This need could probably best be filled, it was decided, by remodeling the old chapel or lecture room in the east end of the Minnesota Union. Again came the problem of lack of funds. However, the Board of Regents came to the rescue by making personal loans to finance this work, reimbursement for which was made some time later when the finances

of the Union permitted. As more money was available, all other debts were paid off and some small changes made in the building each year. The rooms were refinished and furnished with tables and chairs to be used for study. Bowling alleys were installed on the second floor. During this same period a ballroom was built on the second floor by the removal of partitions from what was formerly a chemical laboratory and two lecture rooms.

At this point in the history of the Union, approximately 1916, the Board of Governors of the Minnesota Union encountered several difficulties in establishing what might be termed their independence as a student organization, free from certain obligations to the University. This might be better explained by stating that several requests were made by the University

for space in the building for certain instruction departments, these requests being denied by the Board of Governors because of the fact that the Union was expected to be a self-maintaining department paying all of its expenses of operation. The building, they said, should be reserved for the student body. The board did not wish to appear selfish in its decision, but if this policy of granting space to other departments were adopted, it was possible to see where in time the entire building would go back to the hands of the University and the activities of the students would be crowded out.

Lack of funds was for long the chief difficulty encountered by the Union. For several years proper space and equipment were lacking and there was no provision for supervision. When the University changed from the semester system to the quarter system, the amount of the fee charged the student was changed

to \$.70 per quarter. In 1919 the amount was increased to \$1.00 per quarter. With this increase in the amount of revenue from students' fees together with the profit realized from the operation of the cafeteria dining room, several improvements were made possible, including a game room, billiard room, and a soda fountain.

During the years 1917-1919, the war program of the University changed the entire plan in this department as well as other departments of the University. Practically nothing was done during those two years and the War Department used the building as eating and sleeping quarters for the Students' Army Training Corps. Under the direction of the War Department the entire building was thus occupied until approximately January 1, 1919.

Immediately following the war, an abnormal



The Union Cafeteria

enrollment was recorded at the University, which created a growing demand for larger eating accommodations, recreation space, and lounging, reading; and study rooms. Something had to be done immediately. The Board of Governors, realizing that a new building was out of the question, decided that the only solution of the problem was to build an addition. With the co-operation of the Board of Regents, this addition was built in 1922. It is a three-story addition approximately 60 feet wide and 70 feet long. The lower floor was given over to the cafeteria as an addition to their original dining room, which raised its seating capacity to 750 people; on the main floor the additional space more than doubled the size of the lounging and study room; and on the third floor the ballroom was enlarged.

Again in 1925 it was apparent that more space was needed. At the same time the Little Theatre, which had been used for years by the dramatic organizations for the production of plays and by the University as a lecture room, was abandoned in favor of more appropriate quarters. At the same time a proposition was made to the Union by the Campus Club, which was at that time housed in a frame building near

the Engineering Building. It was suggested that should the Board of Governors of the Union be in a position to finance an addition on the east end of the building similar to the one on the west end, the Campus Club, a faculty dining and social organization, would rent the space for a period of seven to ten years. The rooms were to be furnished and maintained by the Campus Club, and the rental fee to be paid the Union was to be based on the amount of money spent in building the addition.

Faculty Club Rents from Union

This suggestion was discussed by the Board of Governors with the president and comptroller of the University, with the result that a sum of \$15,000 was given by the University to help the Minnesota Union erect the building and thereby assist the Campus Club to establish a home on the campus. The remaining \$35,000 necessary to complete the structure was furnished from the Minnesota Union by carrying an overdraft in its budget until the money should accumulate during the next few years from the students' fees and the operation of the dining hall. The Campus Club addition to the building contains a dining room, lounging room, living room, game room, library, committee rooms and sleeping quarters for approximately eleven persons. The addition was built with the thought in mind that when the

Campus Club moves into a building of its own the entire space will be turned back to the Minnesota Union for the use of the students.

The cafeteria of the Union officially started in 1916, and has had a rapid development. When it was established, the statement was published that the meals would be served at cost or as nearly to cost as

possible. This in reality is still true. However, the University in assuming the responsibility of the business management of the dining room, must run it in such a way that no deficit is incurred, and therefore a small percentage of profit must be obtained. There should be no criticism of this policy when the quality of food and the prices are taken into consideration. Furthermore the profit derived goes directly back to the students to be used in the improvement of the building. A glance at the average menu will convince anyone that the prices are very reason-



In the Recreation Room

able and much below the average of other restaurants and dining rooms in the city. The average two years ago was found to be \$.16 for breakfast, \$.32 for lunch, and \$.28 for dinner. Very little change from these figures would be found at present.

The buying of food is done through the University purchasing department, and the cafeteria department maintains a butler's pantry and serves private luncheons and banquets at reasonable prices. Almost all of the employees are students who are attempting to earn part of their expenses.

The Union As a Student Club

While the Minnesota Union is primarily intended for the use of the men students at the University, it has been the desire of the Board of Governors since the formation of the organization that the name should be "Minnesota Union" and not "Men's Union," since the purpose of its existence is the uniting of Minnesota spirit primarily, even though it is largely dealing with the men.

Through the several years of development, space throughout the building has been equipped to furnish study, meeting and game rooms; billiard rooms with candy and cigar counters, bowling alleys, ballroom, barber shop, housing bureau, soda fountain, trophy room, newspaper and magazine room, checker and chess rooms, rooms for art exhibits, Little Theatre, reception room, and manager's office. Most of these departments are still a part of the building.

The activities which largely comprise the program for the year are as follows: the assigning of rooms to the new students, assistance in the registration of the students, sponsoring of informal stag mixers and get-togethers, arranging musical concerts both radio and band, accommodating conventions and assemblies, planning and carrying out of homecoming programs and the "M" Banquet, assisting the Athletic Department in the program of meeting athletic teams, working with the All University Council in sponsoring the Common Peoples' Ball—the Mock Junior Ball—working in connection with the Alumni Association in arranging for alumni reunions, Mother's and Dad's Day programs, legislative visitors' program,

and numerous other University functions of this kind.

A special committee from the Board of Governors has worked for several years to discover a football song for the University by offering cash prizes to winners of the contest. The success of this project had been more or less uncertain until last year when two of the songs submitted were in a sense adopted by the student body and will probably be used for some years to come.

The Board of Governors also tenders a farewell dinner to the graduates of the fall and winter quarters, at which time no regular commencement week program is arranged by the University.

The following statistics show the approximate number of people who use the building for special occasions during a normal school year:

Committee meetings and conventions . . .	15,000
Dances	25,000
Concerts and entertainments	30,000
Meals	425,000

These figures, however, do not include those students who use the building for study, reading and recreation, which probably numbers 2,000 to 2,500 each day.

How the Union Is Governed

The Minnesota Union is governed by a board of approximately seventeen members—fourteen students, two faculty and one alumnus. The student representatives are elected by the student body, the faculty members are appointed by the faculty members of the Minnesota Union, and the alumnus member is appointed by the Alumni Association. The term of office is two years. It is the duty of the governors to see that the organization is governed according to its constitution, to employ a manager, and to determine the policy of the building.

Plans for the Future

Until a few years ago elaborate construction plans were constantly before the Board of Governors when any change in the building was authorized, but since the completion of the Greater University Plan for the development of the campus, the board has turned its atten-

tion to the utilization of the present building to its utmost capacity and the eventual occupation of the Campus Club addition. At present the Minnesota Union building is surpassed by many university unions in size and beauty of architecture, but it probably serves as many people as any of the others. Judging from the increased use of the Minnesota Union building in the last few years it may be necessary in the future to turn away many student and faculty organizations because of the need for more room. The third or attic floor, however, should the need for space become too great, can be finished and used to fairly good advantage, which will mean an additional 25,000 square feet.

So far not a great deal has been said regarding the need for, nor the prospects of, securing

a new building, since the efforts of the entire University Family — administrators, faculty, alumni, students and friends have been turned to a realization of plans for a Memorial Stadium which has just been completed and the Memorial Auditorium, the construction of which will probably commence reasonably soon. The completion of these two projects will be of inestimable value to the University, and they have, therefore, deserved the undivided support of everyone connected with the University for the three years past and will for a few years to come.

Then, in its turn, it is anticipated that the problem of erecting a new Minnesota Union will be brought to attention and receive the most whole-hearted support.



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MINNESOTA CHATS



*Athletic
Review
Number*

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Foreword

PUBLIC interest in all branches of athletics has reached a pitch during the past ten years that leaves no doubt as to the attitude of the American people towards wholesome and virile competitive sports. Attendance at athletic events of every description has tended to double and triple. Such games as football, hockey, and golf have followings of a size undreamed of prior to the World War. Outdoor sports have come to play a large part in American life.

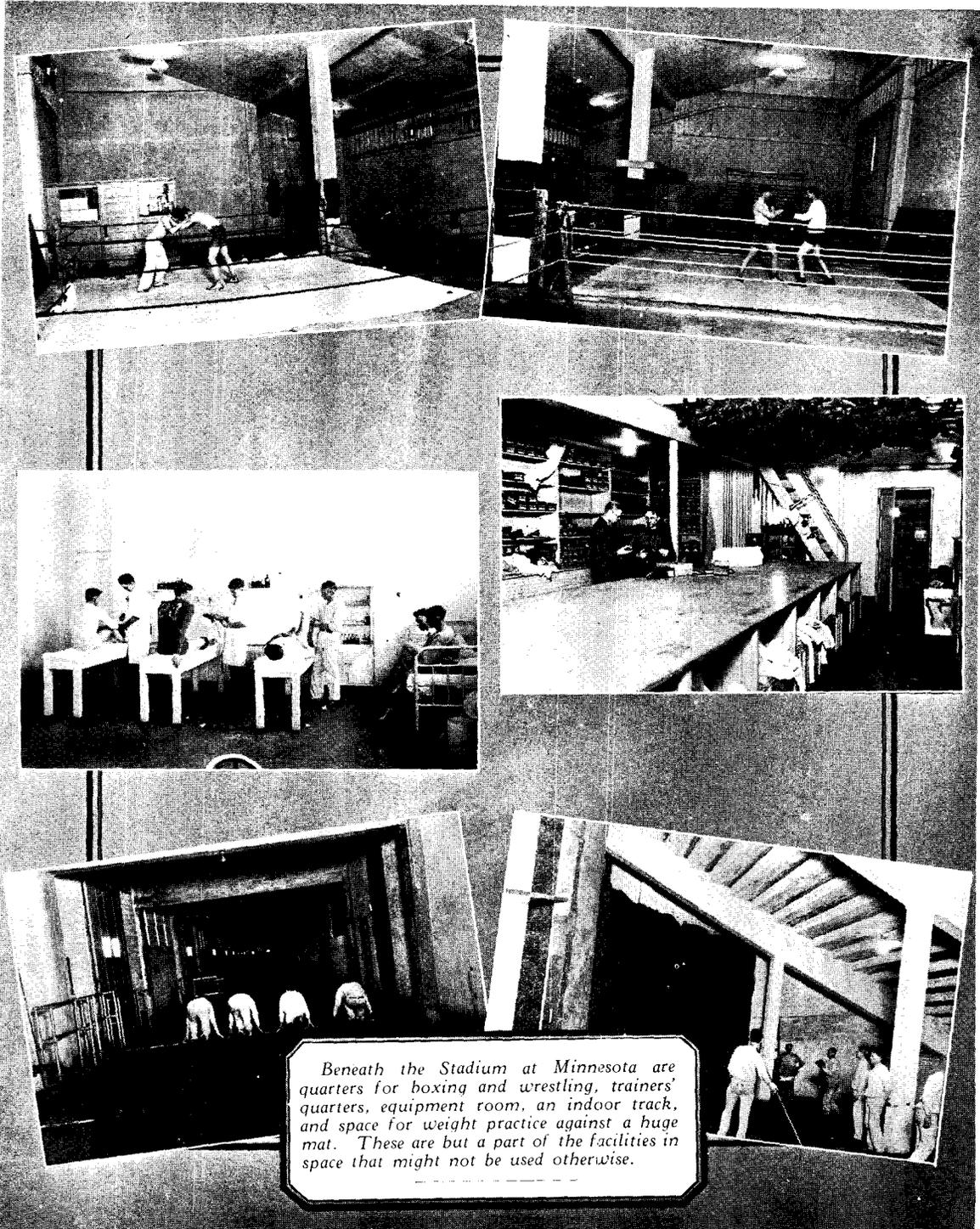
COLLEGE and university athletics are in the very nature of things the most wholesome and best supervised manifestations of this tremendous public interest in games. Nowhere else must the athlete reach anything like the personal standards set up in colleges. The athlete must maintain his classroom standing if he is to play; he must remain an amateur, often at the cost of great personal sacrifice, as in the case of men who earn their own living while attending college, and he must be in every way an acceptable member of the college or university group.

IN the Western Conference, or "Big Ten," of which Minnesota is a member, the most careful supervision of athletic policies and performances is maintained by a group of conference representatives, one from each institution, which meets several times a year. Within each institution a committee carefully selected for their sincerity and appreciation of university standards, as well as for their interest in athletics and understanding of sports, governs intercollegiate athletics.

AT Minnesota this governing committee is made up of E. B. Pierce, secretary of the General Alumni Association, chairman; Otto S. Zelner, professor of engineering; Dr. H. S. Diehl, head of the Student Health Service; W. L. Boyd, professor of veterinary surgery; James Paige, professor of law; W. T. Middlebrook, comptroller of the University and representative of the administration, and F. W. Luehring, secretary, the director of athletics. Alumni members are Arnold C. Oss and John F. Hayden, both famous athletes of other days, and there are two student members, Donald C. Rogers and Gordon R. Fisher.

UNDER the direction of this body, which at all times has the co-operation of all other governing machinery of the University of Minnesota, athletics at that institution are maintained at a standard that conforms in every way with the best in college traditions of clean, wholesome, competitive sports that upbuild the bodies of students who take part and at the same time provide a principal stimulus to the college spirit that is essential to the best type of university life.

Quarters for Athletics Beneath the Stadium



ATHLETICS IN THE UNIVERSITY

NO fact is more fully recognized in modern education than that the student's physical well-being must receive attention, together with the development of his mental faculties and the encouragement of growth in morals and standards. The well body contributes so universally to success and happiness in all of the activities of life that its attainment is no longer a secondary matter, an after-thought, but has come to be rated among the primary purposes of undergraduate education. Self-mastery, efficiency, endurance, and familiarity with recreational activities that fit one to work all the harder and more effectively are among the contributions of physical education to the student.

The University of Minnesota gave thorough recognition to the new status of physical education and athletics in the spring of 1922, when it reorganized the department with a full time director and staff. That action was followed in the fall of the same year with the campaign among students, faculty members, and friends of the University which raised pledges of nearly \$2,000,000, of which some \$700,000 was invested in a new stadium. When collection has been completed the remainder will be used for the construction of a campus auditorium.

Make Steady Progress

Construction of the Stadium has been followed by enlargement of Northrop Field, the original play and athletic field of the institution, by the development of intramural sports for students as differentiated from intercollegiate athletic teams, by the enlargement of the intercollegiate athletic programs through the addition of such sports as hockey, in which Minnesota already has won three Western Conference championships, and by a general strengthening of the coaching and instructional staff. Today athletic profits are being used for the acquisition of property on which to erect a field house, or enclosed athletic field. It will be financed from

athletic profits, which come from football. One after another, the other universities of the Western Conference have found it necessary to erect field houses, both to care for the rapidly growing numbers who engage in athletics of one or another type, and to make it possible for spring athletic teams to begin practice sooner than the elements will permit them to do outside. It has long been recognized that the more northern institutions are severely handicapped in such sports as baseball and outdoor track by the lateness of the season as compared with that enjoyed by competing institutions further south.

Every Student Benefits

Statistics included in the president's report for 1924-25, the last completed year, show that 7,492 men were registered in the University of Minnesota and that 11,029 men students were registered in that year for physical education or athletics of some type. It would appear that each man in the University took part in an average of one and a half athletic activities.

Here are the figures:

Varsity candidates for athletic teams.....	861
Freshman team candidates.....	757
Compulsory physical education.....	2,651
Correctional gymnastics.....	578
Intramural athletics	
Fall quarter.....	1,175
Winter quarter.....	2,239
Spring quarter.....	2,768
Total.....	11,029

Obviously enough, the duplication took place in the three intramural groups, where many men took part in different seasonal sports, autumn, winter, and spring. There is also some duplication among varsity candidates, such as men who play football in the fall and basketball in the winter, or who play basket-ball in the winter quarter and go out for baseball or track in the spring. The striking thing about the statistics is that practically every student

takes part in some kind of body-building activity. The requirement in the College of Science, Literature, and the Arts and the College of Education that every student take part in freshman physical education and hygiene courses makes it certain that every man in those colleges engages in gymnastics or athletics at some time during his college career. It is also required that every student know how to swim before he graduates, and those who cannot pass the initial swimming test are required to devote their physical education efforts to learning before they may enter the classes devoted to other activities.

The development of intramural sports at Minnesota is discussed elsewhere in this issue of MINNESOTA CHATS by W. R. Smith, director of those activities.

Playing Space Enlarged

Space available for athletic activities at the University of Minnesota has been doubled in the past five years. The area of old Northrop Field was 5.9 acres, with which may be included the 4.4 acres comprised in the parade ground, used partly for intramural athletic events and partly for military drill. The stadium tract has added 3.6 acres to the total and in the fall of 1925 Northrop Field was enlarged by the addition of 4.2 acres available for athletics. Part of this land was obtained by filling a long stretch of the former Northern Pacific Railway's cut through the University campus and still more was obtained by removal of old bleachers and walls that had been necessary when the field was the scene of all intercollegiate athletic contests.

As a result of the enlargement of Northrop Field it now provides three complete football fields instead of one as formerly. One of these is devoted ordinarily to varsity practice, one to freshman practice, and one to the activities of scrub teams not required at the moment as opposition for the varsity.

Existence of three practice fields instead of one also makes it possible for baseball, track, and spring football to be carried on simultaneously without interfering with one another. Under the old conditions, the baseball outfield

was necessarily a part of the same tract on which the track athletes or spring football squad were carrying on their practice. All of the difficulties that arose from such a situation have been removed.

Northrop Field is also equipped with a series of tennis courts at the west end, covering an area which is flooded in the winter to provide an excellent practice rink for the hockey squad. In its northeast corner there is still space available, even with football at its height in the fall, for the autumn activities of baseball enthusiasts, weight men from the track squad, and the like.

Although the stadium football field is used for practice only on the afternoons preceding games, the excellent track which surrounds the gridiron is at all times available for track athletes. It has become headquarters for the cross-country squad in the autumn and for the track squad in the spring. Track athletes whose performances are actually on the track, in the sprints, middle, and long distance runs, now practice only in the Stadium.

All recognized sports at Minnesota are conducted on a major sport basis, which is to say that successful competitors in intercollegiate events receive letters and sweaters as emblems of participation. Letter winners also receive an "M" pass which entitles them to a seat in the "M" section at University athletic events in the future.

Minnesota's ten sports are football, baseball, basket-ball, track, swimming, hockey, gymnastics, wrestling, cross-country, and tennis. At times golf has been added to the list but it is not recognized as an intercollegiate sport at present. About the only college sports in which Minnesota does not take part are fencing, rowing, golf, and water polo. The last named, however, is an event in the sport of swimming rather than a sport in itself, and the fact that Minnesota has been able to default in the water polo event and yet win conference swimming championships speaks for the strength of the University's swimming squads.

Minnesota a Pioneer

Students of the history of athletics in the Middle West know that in three important

sports Minnesota was one of the earliest pioneers. Its football teams, with those of Michigan, Wisconsin, and Chicago were in the public eye before the sport had developed to any noteworthy degree at other big Western Conference institutions. In basket-ball, also, Dr. L. J. Cooke at Minnesota was a leading pioneer, together with the veteran A. A. Stagg at Chicago. In more recent years Minnesota was one of the first to develop hockey and was the first winner of a conference hockey championship when Michigan, Wisconsin, and Minnesota formed a triangular interconference league four years ago.

Several times in recent years agitation has arisen for the introduction of rowing as a college sport at Minnesota. Up to now this idea has been prevented from materializing, chiefly because of the large expense of maintaining college crews. A fear that the condition of the river water at the point where crew practice would have to be held might endanger the health of participants has also been a factor in blocking the development of this aristocrat of college sports. At present only one Western Conference university, Wisconsin, maintains a crew, which is a result of the excellent opportunity afforded by Lake Mendota in Madison. As there are no conference competitors, it has had to seek competition in the east at great expense.

The Present Staff

Four years ago the only man in the Department of Physical Education and Athletics who was practically full time was Dr. L. J. Cooke, but as he also gave much time to instruction in the freshman hygiene courses for men, he was not really a full time man in athletics. There are now ten men giving their full time to the athletic and physical education program, these being the director, F. W. Luehring, Dr. L. J. Cooke, Dr. Clarence W. Spears, head football coach, Sherman W. Finger, track and freshman football coach, L. F. Keller, director of the training

course for men working for a degree in physical education, W. R. Smith, director of intramural sports, Harold T. Taylor, basket-ball coach, Neils Thorpe, swimming coach, Emil Iverson, coach of hockey and cross-country and director of orthopedic gymnastic work, and George Clark, who will join the staff next fall as first assistant to Dr. Spears and baseball coach.

Men who devote part time to important positions in athletics are: Blaine McKusick, wrestling coach, Dr. W. K. Foster, coach of gymnastics, Major Lee Watrous, baseball coach, whom the War Department has transferred, effective at the end of the current college year, Sig Harris, Robert Saxton, Carl Lidberg, and Merton Dunnigan, assistant coaches in varsity or freshman football, and L. F. Boyce, assistant to Mr. Thorpe in teaching and coaching swimming.

There is also an adequate auxiliary staff of trainers and custodians of equipment, fields, and physical plant. Dave Woodward is trainer

and Oscar Munson, custodian of equipment. Joe Roth is the veteran field man.

In his work as director of ticket sales, a position which has steadily grown in importance since the Stadium provided a seating capacity of 50,200, Dr. L. J. Cooke has had the help of Kenneth Wells, who has also been continuing his studies in the University.

Attendance Grows Swiftly

When it is realized that attendance at home football games increased from 63,059 persons in the fall of 1923 to 139,778 in the fall of 1924 and to 193,707 in 1925, the importance of having a well-systematized ticket procedure becomes apparent. Ticket receipts at home were \$88,000 in 1923, \$219,533 in 1924, and \$306,497 in the unusual 1925 season when a series of seven straight home football games were played in the Stadium. The probability is that that mark for home game receipts will long remain one to be shot at. After the split



Director F. W. Luehring

with opposing teams had been made, Minnesota's income from home football games last fall was \$168,308.66 and from all football games, \$217,929.85.

Meanwhile the permanent list of regular ticket purchasers has grown from 3,500 two years ago, first to 10,000 and then to 16,000,

while it is probable that it will be considerably larger when order blanks for the 1926 season tickets are mailed in August.

The following table shows the men who competed last year in all branches of intercollegiate sport, under the direction of the coaches already mentioned:

Participation in Intercollegiate Athletics

Sports	Total No. games	No. conference games	No. non-conference games	Total No. receiving athletic instruction*	No. candidates for teams	No. with intercollegiate competition	No. "M's" awarded	No. freshman candidates	No. numerals awarded	No. games won
Football	8	4	4	265	60	26	23	205	21	3
Baseball	21	12	9	120	70	18	11	50	15	12
Basket-ball	16	12	4	222	72	15	12	150	15	10
Cross-country	4	3	1	154	40	10	6	114	10	none
Gymnastics	4	3	1	20	15	10	6	5	none	4
Hockey	10	6	4	86	41	14	11	45	15	8
Swimming	6	4	2	85	24	16	13	61	15	5
Tennis	5	5	none	50	20	4	4	30	none	1
Track	4	4	none	125	50	30	13	75	22	1
Wrestling	4	3	1	56	34	10	9	22	none	none
Rifle shooting	38	6	32	1,165	435	29	..	none	none	36
Total	120	62	58	2,348	861	182	108	757	113	80

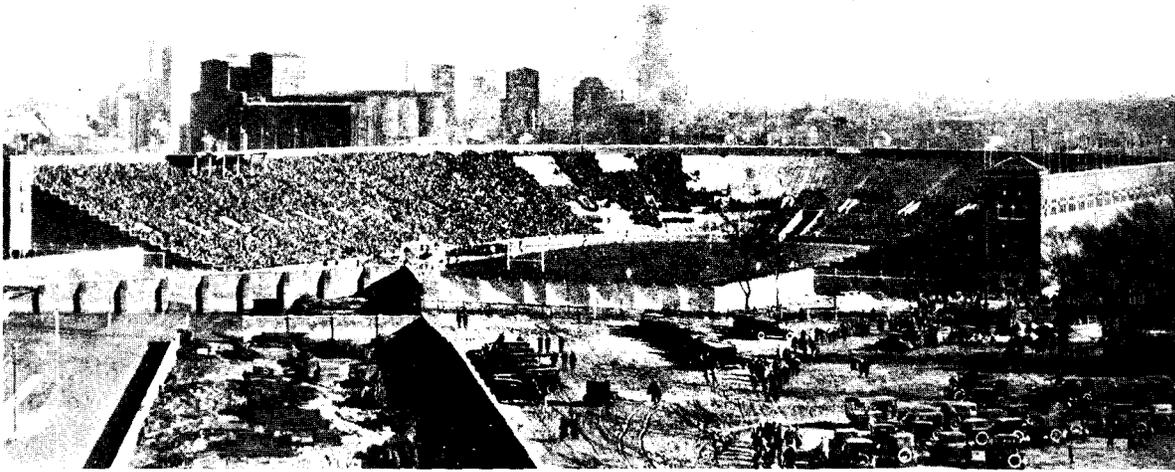
* Including freshmen.

The Staff in Physical Education for Men



Left to right: Front row: Emil Iverson, hockey; Bob Saxton, football assistant; Dr. C. W. Spears, football; Director F. W. Luehring; Dr. L. J. Cooke, assistant director; W. R. Smith, intramural athletics; Dave Woodward, trainer. Back row: Major L. R. Watrous, baseball; Niels Thorpe, swimming; Sherman W. Finger, track and freshman football; L. F. Keller, teachers training course; B. G. McKusick, wrestling and boxing; Oscar Munson, equipment. Missing: H. T. Taylor, basket-ball; Dr. W. K. Foster, gymnastics.

Action in the New Minnesota Stadium



The last named sport, rifle shooting, is carried on under the direction of the Department of Military Science and Tactics.

Construction of the Stadium has given Minnesota two centers of athletic activities rather than one.

Basket-ball is still played on the main floor of the old Armory, although the increasing demand for seats at intercollegiate games has resulted in the transfer of actual games to the Kenwood Armory, down town. Swimming also is conducted in the University Armory. The Armory is the center for gymnastic work, and the hockey and baseball teams make it their headquarters because their playing space adjoins it. Intramural activities indoors and indoor classes in required physical education also are conducted in the Armory.

Other sports have been transferred almost wholly to the Stadium and the splendid new quarters that were finished off a year ago in the vast space under the Stadium. Besides the team and locker rooms for football players and the trainers, coaches, and equipment rooms necessary in that sport, quarters under the Stadium have been developed for wrestling and boxing, for ortho-

pedic gymnastic work, and for protected practice in track and field athletics during the cold season. There are 8 squash racquet courts.

Minnesota has been fortunate in having a large body of former "M" men, players who have given their best to the school on all sports fields to build the increasing reputation and strength of the University of Minnesota in athletics, who have continued to show a keen interest in the development of physical education work at their Alma Mater. Traditionally these men receive an "M" pass upon graduation

which entitles them to a free seat in a special section at all subsequent University athletic contests. When the space beneath the Stadium was finished off it was wisely decided that a room should be set aside for the "M" men, which should be a headquarters for them whenever they cared to gather there, say during football practice, or before and after some of the big games. The room has been freely patronized by Minnesota "M" men and it is symbolic of the institution's appreciation of the support they continue to extend to athletics, even after they have been out of college for many years.



Dr. L. J. Cooke

Consequent to the creation last

fall of a surplus from football in the neighborhood of \$100,000 after providing for the athletic budget of the coming year, President L. D. Coffman announced that surplus athletic receipts would be used in the University's building program, and it soon became known that the first structure to be financed in this way would be a field house, to shelter physical education and athletic activities of the outdoor type during the long period when it is necessary to remain indoors. The University has proceeded to buy a number of pieces of adjacent property along University avenue near Oak street, just across the street from the new Stadium, and it is there that the Field House will eventually be erected. Work may start during the present year.

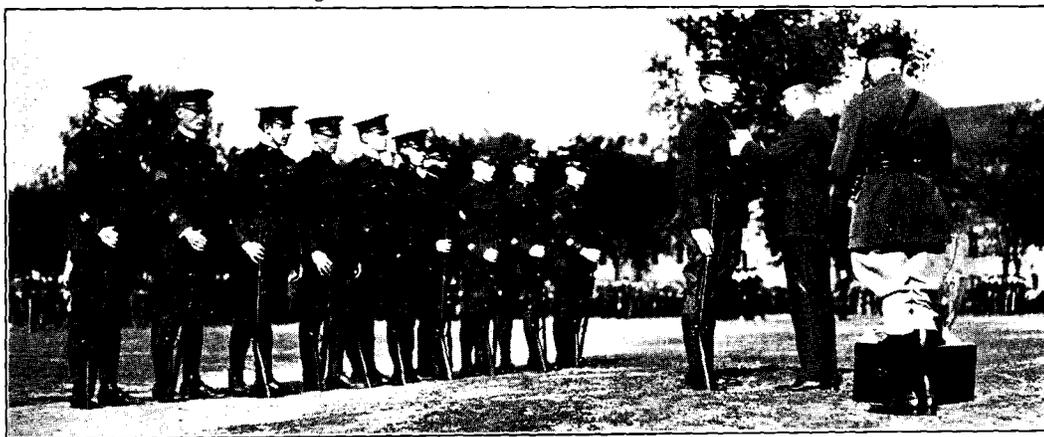
Exact plans for the Field House have not yet been approved, but it will be a large building designed primarily to cover as large a space as possible and to give protection from extreme outdoor weather to an interior which shall be, in effect, a field. This space will be large enough, presumably, to permit baseball practice, practice in the track and field sports, and in basket-ball at any time of the year. In the Field House there also will be provision for a full sized basket-ball floor of the removable

type and for seats to surround this floor. It will then be possible to accommodate something like the normal student demand for seats at basket-ball games and at the same time to admit the increasing number of other persons who have become University basket-ball fans.

Student Books Adopted

Adoption of the student book system, under which students, for a materially reduced price, obtain tickets to most of the major athletic events, resulted in a demand for admission to basket-ball games that was far greater than the old Armory could meet. The transfer of these games to a down town floor helped somewhat, but there are still occasions when it is necessary to turn large numbers away from Western Conference basket-ball games. This problem will be solved by the erection of the Field House, and it is expected, also, that the added seating capacity will place basket-ball alongside of football as a sport that not only pays its own way, but also contributes something of a surplus to the support of the other activities in physical education, none of which, with these exceptions, comes anywhere near to breaking even financially.

Minnesota Riflemen Make Records



With second place in the Western Conference rifle matches and second in the National Intercollegiate Shoulder to Shoulder match already won, the University of Minnesota rifle team, coached by Lieutenant M. J. Conway, is awaiting word of the outcome of the Hearst Trophy Match, which Minnesota has won for the past two years. A victory this year would carry with it permanent possession of the trophy. Harold Stassen, captain a year ago, captured the National Junior and the Intercity championships and with Emmett Swanson, this year's captain, was a member of the Dewar Trophy Team. Captain Swanson this year was high man in the "shoulder to shoulder" match with 392 of a possible 400. Men who fired in that match were Captain Swanson, Harold Stassen, Edward Van Duzee, Gaige Paulson, and John Crew.

Adequate indoor facilities for early season baseball practice will be provided for the first time by the Field House, and it will provide opportunity, also, for winter practice in track sports. The indoor track that has been constructed beneath the Stadium is a big advance over anything Minnesota has had heretofore, and it will continue in use even after the Field House has been built, but at best it can never be as satisfactory as the broad spaces under the new shelter are sure to be. In erecting a field house Minnesota is following the example of other conference schools. Michigan and Illinois built such structures several years ago, and Iowa has recently announced plans for a new one to go up there. Minnesota will have the advantage of the experience of those institutions in planning and erecting field houses, so it is reasonable to suppose that the one near the Stadium will be an advance on the others. It will give Minnesota an unquestioned rating near the top in athletic facilities.

Compulsory Physical Education

To give a better idea of the extent of compulsory work in physical education and of the



work done in orthopedic gymnastics for men who are found to have some physical defects, the following extract from the annual report for last year of F. W. Luehring, director of the department, is reprinted:

Any man who receives a physical examination of A-1 and a posture grade of A or B, was allowed to substitute membership on a class athletic squad for his regular physical education work. Many men took advantage of this ruling and participated with freshman teams.

A new system of grading was inaugurated at the beginning of the winter quarter. No absences were allowed. All cuts excused or unexcused were made up. Excused absences were made up with one period and unexcused with two. This system proved to be the most successful

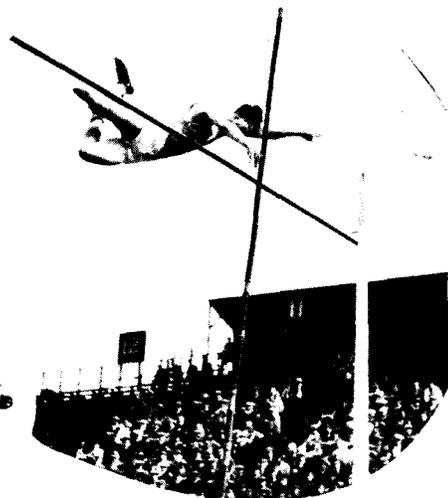
yet tried. A number of incompletes were given, but a large percentage of them was made up.

The distribution of grades for the year is as follows:

Enrolled	A	B	C	D	F	I	Cancelled
2,651	129	617	859	232	267	161	386
Percentage	4.8	23.3	32.4	8.8	10.1	6.1	14.5

The percentage of failures and cancellations is much too large, but is no doubt due to the fact that the course does not carry credit and therefore is not taken seriously.

Five hundred seventy-eight (578) men were registered



in required orthopedic physical education work during the year. These were divided as follows: 236 in the fall quarter; 176 during the winter quarter, and 146 in the spring. Classes were conducted largely out of doors during the fall; chiefly indoors during the winter and entirely out of doors during spring. Fresh from a summer study of orthopedic physical education, Mr. Iverson placed this work on the best basis we have had in recent years at Minnesota. Dr.

Cooke gave such medical assistance to Mr. Iverson as was necessary. A schemetograph was purchased by the department and used in making posture graphs of all entering students as a part of their physical examination. These records are valuable for determining the degree of normality of each student's posture and for stimulating and measuring improvement. Mr. Iverson prescribed home exercises for each individual and in addition gave class instruction in body building activities. Some athletic games were introduced, adding a much needed touch of play life to these handicapped students. Three advanced leaders were assigned to these classes as practice teaching assistants. More practice teachers could well be employed in this work if they were available.

PHYSICAL EDUCATION COURSES

FOUR years ago the University of Minnesota, realizing the need for well-trained men in the field of physical education, incorporated into its program a Four-Year Course in Physical Education and Athletic Coaching for Men. This course proved to be a very fruitful one and immediately became popular. Incoming freshmen began to register for the work and other students who were already in the University, but in other schools, transferred to the College of Education and enrolled in the physical education course. That the course is well thought of and is fulfilling a long felt need is shown by the fact that in four years the enrolment has increased from three to fifty-three. During these four years several men who transferred from other courses or from other colleges or universities have graduated and invariably have been able to obtain good positions.

In 1923 the Legislature of the state of Minnesota passed a law stating in part as follows: "There shall be established and provided in the public schools of this state, physical and health education, training and instruction of pupils of both sexes." This law opens up a vast field for men and women who are interested in the teaching of physical education. It is at present impossible for the institutions which offer courses for the training of teachers to supply the demand for instructors and coaches in this branch of work. Any man who properly fits himself can be assured of a good position.

Train School Coaches

The four-year curriculum for the training of teachers of physical education was organized with a view toward properly fitting men for just such positions. Superintendents and prin-

cipals in the public schools are demanding for their coaching and teaching positions men who have had not only careful and thorough work in physical education but also a good, all-around, balanced training in other lines of education. He must understand the problems of general education and must be well enough educated to take his position on the faculty beside the other instructors. In other words, he must have a college or university degree. Realizing this fact, the University of Minnesota placed the physical education course in the College of Education which is the school for training teachers in all branches of work. The course was so arranged that the graduate receives a very thorough training in all phases of education and obtains the degree of bachelor of science and the University teacher's certificate. He receives not only a major in physical education but a very liberal education besides.



L. F. Keller

The course includes all of the phases of work in physical education. The man who takes the work receives training in the following branches: (1) Theory and practice in all athletic subjects, embracing all of the major sports and those minor sports which are of use in general physical education in the school systems. (2) Theory and practice in other physical education activities, such as mass athletics, calisthenics, apparatus work, and all such activities which are useful in general physical education work. (3) Theory and practice in physical education and normal diagnosis and the correction and prevention of defects in form and posture. (4) Theory and practice in conditioning and training of athletes and in the prevention and cure of athletic injuries. (5) Thorough instruction in problems relating to hygiene and public school health.

(6) Instruction in the principles of organization and administration of physical education and actual practice in such work in the Intramural Athletics Department. (7) Practice in the application of all of the branches in the public school system of the city of Minneapolis.

Graduates Are Successful

The prospect of obtaining a good position after one has graduated from this course is very good. The physical education law has created numerous openings. The demand on the part of school administrators for men of liberal education gives the university graduate a wonderful opportunity. The fact that men who have graduated from two-year courses and have been teaching are returning to school in order to secure a degree makes the course a profitable one. The desire to have men in school positions who are all-around physical educators in preference to mere athletic coaches practically assures a desirable position to all graduates.

All men who have graduated from the course have been placed in very desirable positions. Of those who completed the work last year two are directors of athletics in prominent normal schools and the remainder have charge of the physical education and athletics in large high schools. Moreover the Minnesota graduates of the past who have physical education positions have established a prestige which is very helpful to present and future graduates. Some of the men who are prominent in athletics are as follows: "Gil" Dobie, Cornell University; Clark Shaughnessy, Tulane; Ossie Solem, Drake; Boles Rose, University of California; Francis Stadvold, University of West Virginia; Earl Martineau, Western Normal; Ted Cox, River Falls Normal; Percy Clapp, Milwaukee Normal; Harold Hansen, Georgia Tech.; Ray Eklund, University of Kentucky; Fred Oster, University of California, Southern Branch; Niel Arneson, Dupont High, Louisville, Kentucky; Ed Buckley, Ely; Clarence Schutte,

Santa Barbara, California; Wm. Foote, San Diego, California; Lloyd Peterson, Owatonna; Victor Dunder, Wilmar; Ted Moyle, Rochester; Varner, Rochester. There are many others who are in responsible positions and are adding to the prestige which is of long standing and which guarantees serious consideration to the applications of all Minnesota graduates. At present those men who finish the four-year curriculum usually have several good positions from which to select.

The Course That Is Offered

The course as it is outlined for the four years' work is listed below:

FRESHMAN YEAR

Fall Quarter	Winter Quarter	Spring Quarter
English, 5 credits	English, 5 credits	English, 5 credits
Chemistry, 5 credits	Chemistry, 5 credits	Sociology, 5 credits
Elective, 5 credits	Elective, 5 credits	Hygiene, 2 credits
Military Science	Military Science	Elective, 3 credits
Physical Education	Physical Education	Military Science
		Physical Education

SOPHOMORE YEAR

Fall Quarter	Winter Quarter	Spring Quarter
Animal Biology, 5	Animal Biology, 5	Human Anatomy, 4
Psychology, 3	Psychology, 3	Minor Sports, 2
Minor Sports, 2	Minor Sports, 2	Advanced Leaders, 1
Advanced Leaders, 1	Advanced Leaders, 1	Bacteriology, 5
Military Science	Military Science	Military Science
Elective, 4	Elective, 4	Elective, 3

JUNIOR YEAR

Fall Quarter	Winter Quarter	Spring Quarter
Physical Development of Childhood, 2	Physiology, 4	Physiology, 4
Gymnastics, 1	Gymnastics, 1	Gymnastics, 1
Kinesiology, 2	Kinesiology, 2	Technique of Gymnastic Teaching, 2
Elements of Preventive Medicine, 3	Educational Psychology, 3	Athletic Training and First Aid, 2
History of Education, 5	Elective, 5	The High School, 3
Elective, 2		Elective, 3

SENIOR YEAR

Fall Quarter	Winter Quarter	Spring Quarter
Physical Examination and Normal Diagnosis, 2	Orthopedic and Remedial Gymnastics, 2	Organization and Administration of Physical Ed., 3
History of Physical Education, 2	Educational Hygiene, 3	Football Coaching, 3
Baseball Coaching, 2	Principles of Physical Education, 3	Track Coaching, 2
Educational Sociology, 3	Basket-ball Coaching, 2	Practice Teaching, 2
Practice Teaching, 2	Practice Teaching, 2	Elective, 5
Elective, 4	Elective, 3	

SUMMER SESSION COURSES IN PHYSICAL EDUCATION AND ATHLETIC COACHING

1st Session—June 18-July 31

2nd Session—July 31-Sept. 4

The Department of Physical Education and Athletics will again conduct courses during the summer quarters. These courses will be taught by regular members of the University staff and will receive credit toward the bachelor of science degree in the College of Education, in so far as they are subjects which are included in the regular four-year curriculum. The courses are designed mainly for men who desire to increase their knowledge along coaching and general physical education lines. The main stress is put upon the major sports but courses in gymnastics, athletic training, orthopedic gymnastics, swimming, and theory of physical education will be included in the summer curriculum. Many other courses in the College of Education

or College of Science, Literature, and the Arts which are requirements in the regular four-year course in Physical Education will be taught in the Summer Session. There is ample opportunity for one who has already a good physical education training to take work in the summer and in a short time receive the regular college degree which is so essential for good teaching positions.

The summer school term is divided into two sessions. The first session provides a full physical education curriculum. In the second session courses which will be of interest to men who are not full time coaches or teachers will be offered.

COURSES

First Term

JUNE 18-JULY 31

- A. GENERAL EXERCISE. Volley ball, baseball, handball, playground ball, basket-ball, tennis, golf, horseshoes, gymnastic games. No registration required. Open to students and faculty. (No cred.; no prereq.; all; MTWThF IX; A.) MR. TAYLOR.
- B. GENERAL SWIMMING. No instruction. No registration required. (No cred.; no prereq.; all; MTWThF; Sec. 1, V; Sec. 2, IX; Sec. 3, X; A.) MR. THORPE.
13. ELEMENTARY SWIMMING. Individual instruction for those who cannot swim. (No cred.; no prereq.; all; MTWThF IV; A.) MR. THORPE.
14. INTERMEDIATE SWIMMING. Individual instruction given. (No cred.; no prereq.; all; MTWThF VII; A.) MR. THORPE.
15. ADVANCED SWIMMING. For teachers and coaches. Instruction in form and speed swimming, diving, plunging, water sports, life saving. (1 cred.; no prereq.; soph., jr., sr.; MTWThF VIII; A.) MR. THORPE.
17. SCHOOL GYMNASTICS. Tactics, free exercises, tumbling, and apparatus work, suitable for upper grades and high schools, in the schoolroom and in the gymnasium. (1 cred.; no prereq.; jr., sr.; MTWThF VIII; A.) MR. TAYLOR.
23. TECHNIQUE OF GYMNASTIC TEACHING. Lectures and quizzes on terminology and methods of teaching. (1 cred.; no prereq.; jr., sr.; MTWTh VI; A.) MR. TAYLOR.
26. ORTHOPEDIC AND REMEDIAL GYMNASTICS. Lectures on the theories governing the correction of defects of form, posture, etc. Practice in handling classes and in executing the various movements. (1 cred.; no prereq.; all; TWF VI.) DR. COOKE.
30. ATHLETIC TRAINING AND FIRST AID. Principles governing conditioning of men for various sports; diet, sleep, exercise, bathing, massage. Overtraining; its cause, diagnosis, prevention, and cure. Prevention, first aid treatment, and care of common injuries of the athletic field and gymnasium. (1 cred.; no prereq.; jr., sr.; MWF I; A.) DR. COOKE.

35. ATHLETIC ORGANIZATION AND ADMINISTRATION. Discussion of place of athletics in physical education program; organization for athletic control; schedule making; construction and maintenance of athletic fields; purchase and care of equipment; eligibility problems; management of contests; financial accounting; insignia; awards. (1 cred.; no prereq.; jr., sr.; TS III; A.) MR. FINGER.
37. FOOTBALL. Lectures on history, rules and theory, strategy and generalship, styles of attack and defense, methods of organizing practice and handling men, development of team spirit, officiating. Demonstrations and practice in the technique of position, play, and the mechanics of football fundamentals. (3 cred.; no prereq.; sr.; MWF II, III; A.) DR. SPEARS, MR. FINGER.
38. BASKET-BALL. Lectures on rules, styles of offense and defense, the conditioning and handling of a team. Practice in fundamentals of footwork, passing, dribbling, goal throwing, etc. (2 cred.; no prereq.; sr.; TThS I, II; A.) MR. TAYLOR.
39. TRACK ATHLETICS. Instruction and practice in the standard track and field events. Lectures on conduct of meets, rules of competition, officiating, track strategy, regulation of practice, and preparing contestants for competition. (2 cred.; no prereq.; sr.; MTWThF IV; A.) MR. FINGER.
42. BASEBALL. Theoretical consideration of, and actual practice in, batting, base running, and methods of playing each position. Special attention to "inside baseball" and the development of team play. (2 cred.; no prereq.; sr.; MTWThF VII; A.) DR. COOKE.

See also Courses 1su, 2su, 9su, 10su in the Department of Physical Education for Women.

Second Term

JULY 31-SEPT. 4

- A. GENERAL EXERCISE. See Course A above. (No cred.; all; MTWThF IX; A.) MR. KELLER.
- B. GENERAL SWIMMING. No instruction, no registration required. (No cred.; no prereq.; all; MTWThF; Sec. 1, IX; Sec. 2, X; A.) MR. THORPE.
13. ELEMENTARY SWIMMING. See Course 13 above. (No cred.; no prereq.; all; MTWThF VIII; A.) MR. THORPE.
14. INTERMEDIATE SWIMMING. See Course 14 above. (No cred.; no prereq.; all; MTWThF VII; A.) MR. THORPE.
17. SCHOOL GYMNASTICS. See Course 17 above. (1 cred.; no prereq.; jr., sr.; MTWThF VI; A.) MR. KELLER.
23. TECHNIQUE OF GYMNASTIC TEACHING. See Course 23 above. (1 cred.; no prereq.; jr., sr.; TTh IV; A.) MR. KELLER.
38. BASKET-BALL. See Course 38 above. (4-week course.) (2 cred.; no prereq.; sr.; MTWF VII, VIII; A.) MR. KELLER.

INTRAMURAL ATHLETICS

THE idea of intramural athletics at the University of Minnesota was originated nearly twenty years ago by Dr. L. J. Cooke and Dr. W. K. Foster. These gentlemen fostered inter-class basket-ball, baseball, track, and tennis. A wider scope of intramural athletic activities was planned and fostered for a number of years by Professor Zelner, of the Engineering College, at the time President Vincent appointed him chairman of an Intramural Board. The idea of mass competition has grown steadily from that time. Today we find it necessary to employ four people who spend their entire time in supervising a program of sports for all.

The function of intramural athletics is to provide exercise and recreation in the form of athletic competition for every man enrolled or connected with the University who is not at that season of the year engaged in varsity athletics. Voluntary competition creates greater interest and is therefore more beneficial than compulsory athletic classes. Over 6,000 men, including faculty and students are connected with the University. About ten per cent of these men were engaged last year in competition for varsity athletics. Varsity athletics include the sports of football, basket-ball, baseball, track, swimming, cross-country, hockey, gym-

nastics, wrestling, and tennis. The Intramural Division must therefore provide participation in competitive sports during all seasons of the year for more than 5,000 students.

President Max Mason, of the University of Chicago, stated: "Among extra-curricular activities, Intramural Athletics is of major importance. There is in its participation a development of real interest—a growth among friendly groups in competitive athletics. Such competition between friendly groups is eminently desirable. It is based upon a healthy rivalry that is an integral part of the game. The less narrow the participation in Intramural games, the greater will be the tendency toward valuing athletics as a whole at their real worth." No one is barred from participation in intramural sports except varsity letter men and squad men from the sports in which they excel. If an individual has made a varsity letter at another college

or university of equal rank with our University, he would be ineligible to compete in intramural athletics in the sport in which he won his letter. There are no scholarship requirements other than that the students be required to carry a minimum of ten hours' work per week. As long as he is permitted to continue his work in the University he may take part in intramural athletics.

Value of Intramural Sport

Most people will agree that intramural athletics, properly supervised, will play a very important part in the general improvement and development of the student body. The morale and the class of work of these students will be greatly improved if they engage in a reasonable amount of play. Vigorous athletic activities help the individual to combat the desire for more vicious forms of diversion that tempt everyone. If he is engaged in athletics his

leisure time is employed in a wholesome manner. The individual will be able to keep physically fit and if the games are moderately indulged in they will serve to produce a clearer mind and a sound constitution so important in life's success. It is not our object to make of every student a highly trained athlete but to develop co-operation in competitive effort and to instill respect for officials and observance of the rules. These games should teach one to win or lose with the grace becoming the highest type of man. Habits of clean living and clean pleasure are always worth cultivating. Good

sportsmanship is developed and what is practiced in play is never forgotten.

Nearly every form of athletic activity is fostered in order that the individual may find recreation each season of the year in that game he most enjoys. Tournaments and contests are organized in 21 different sports. Most students prefer team play rather

than the sport which emphasizes individual activity. The most popular games are those which do not require a long period of preparatory physical training or the purchase of expensive equipment. To be a success, the game must call for team work and co-operation; it must be strenuous enough to serve as an outlet for pent-up nervous energy.

Form Teams When Possible

Whenever possible, the formation of teams and team play is encouraged. The groups into which students naturally arrange themselves, such as fraternities, campus organizations, boarding clubs, classes, colleges, military divisions, or any department, are used as units for team competition. Students need not belong to any campus organization in order to enter teams in the various tournaments. If a group is interested in any particular sport they may band together and a schedule will be arranged



Frat. Teams in Intramural Football

for them. Each student is asked to select a representative as manager of the club. All schedules, rules of tournament play, and such like are then mailed to the manager, and he in turn must communicate with the members of his team. In some sports, like tennis, golf, squash ball, handball, cross-country, and the like, tournaments or meets are held in which students compete for themselves. Many of the colleges conduct tournaments in these same sports so that it is possible for a student to enter more than one tournament in his favorite sport.

To increase interest in competition, prizes such as cups, medals, or other awards are offered. The intramural "M" is given only to those teams or individuals winning an All-University championship. If as many as fifty enroll in individual tournaments, gold and silver intramural medals are awarded to the winner and the runner-up. In the interfraternity competitions cups are awarded to the champions. A few of the more popular sports provide cups for the second place team. For the past two years a participation point system has been installed encouraging all campus organizations to enter students in the different types of sports. Certain limitations are placed on the number of different sports individuals in the organization may compete in. The object of the point system is to enroll all members of each organization in some type of game. Fifty points are awarded to each one for entering and playing through their entire schedule without forfeiting. A few additional points are awarded for championship in the division. The emphasis is placed on playing rather than winning the contest. The group with the highest total points at the end of the year is given a large trophy.

The Sports Offered

During the fall quarter, the following sports are offered by the Intramural Department: bowling, cross-country running, golf, tennis, volley ball, football, touch ball, and Sigma Delta Psi trials. In the winter quarter the sports are basket-ball, hockey, swimming, in-

door track, gymnastics, basket-ball free throw, Western Conference bowling, squash ball, handball, boxing, wrestling, indoor golf, and Sigma Delta Psi. In the spring quarter the sports are baseball, diamond ball, track, tennis, golf, volley ball, and Sigma Delta Psi. As the need for, or popularity of, other sports arises they will be added to the list. Equipment for the majority of the sports and officials to govern the games are furnished by the department. The aim of intramural athletics in the University of Minnesota is to include every man in the University in some sport.

Basket-ball is one of our most popular sports. Each year about 120 teams compete in tournament play. These teams are in various leagues such as the Academic Fraternity, the Professional Fraternity, the Military, the Freshman, the Intercollege, or the Independent. Each league is then divided into any number of divisions so that there are usually six to eight teams in the division. A round robin is then played in the division—each team playing every other team, and the championship is determined on the percentage basis. The various division winners then play an elimination tournament to select the league winner. The league winners compete in the same manner for the All-University championship. In this way each team in the University plays an average of five to seven games in the season. The number of teams competing is limited because of floor space and time allotted to the Intramural Department. This past winter intramural basket-ball games were played each evening from 7:30 to 11:30.

Baseball, diamond ball and all other team championships are determined in similar manner. Lack of play space limits the number of enrolments we may accept. The students have shown wonderful spirit in co-operating with us under these difficulties. There are 45 baseball teams playing at six o'clock in the morning. More than 75 diamond ball teams play in the twilight league. This spring over 300 men are engaged in tennis tournaments. The number of participants is growing each year. The spirit of play is improving and we hope that all other conditions may keep pace with these.

PHYSICAL EDUCATION FOR WOMEN

THE summer session courses at Minnesota in the Department of Physical Education for Women may be classified into a recreational and a teacher training group. It is hoped that full advantage will be taken by students of the opportunities in each. The instructors in the department are women of rich experience in their fields. The acting head of the department for the Summer Session is Miss Gertrude M. Baker, assistant professor on the regular staff. Miss Baker will handle a teacher training course in physical education for schools and a recreational course in interpretive dancing.

The Teachers Course in Play will be handled this summer by Miss Florence Warnock, a successful instructor in the Department of Physical Education in the Minneapolis public schools for the past six years.¹

A course in basket-ball and one in baseball, volley ball, and soccer, led by Miss C. Ruth Campbell, will devote half the time to technic and methods of coaching. Miss Campbell is a graduate of the professional course in physical education of the University of Minnesota and has had two years' experience at Macalester College as well as experience in refereeing girls' games in basket-ball.

Courses in girls' athletic associations and in community recreation, given by Miss Millicent Hosmer, are planned for those who are interested in the administrative side of girls' athletics in schools or in the scope and administration of community recreation. Miss Hosmer has had wide experience in community recreation in war recreation centers, Y.W.C.A. recreation centers, and in school work. At present she has

charge of the physical education at Edison High School.²

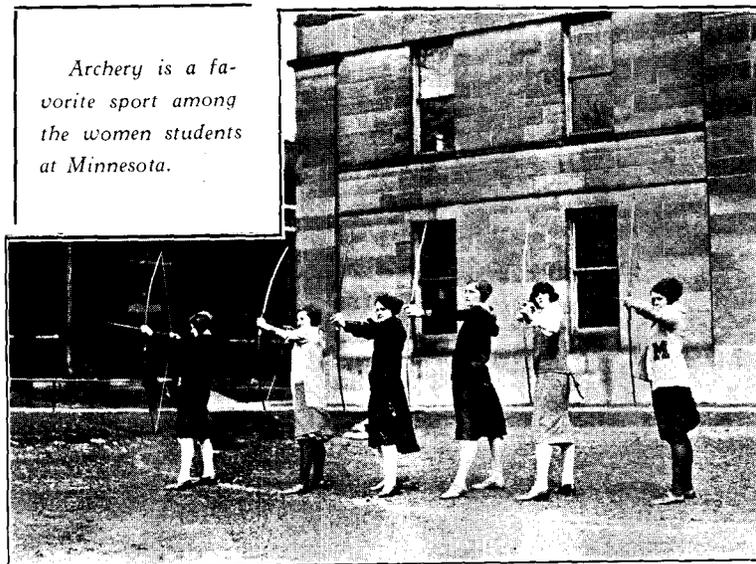
Physical Education Is Required

In 1923 the Minnesota Legislature passed a law making physical education compulsory in its schools of the state.

The situation thus created calls for the teaching of physical education by a large number of the teachers of the state. In the main they have not taken professional courses in this specialty; but among them are many who are interested in it. For these there is a real opportunity to fit themselves to become leaders in the subject in their schools and communities and to exert an important influence in the development of a successful physical education program in the state.

The courses offered by Miss Baker, Miss Warnock, and Miss Campbell in the Summer Session are specifically for the purpose of assisting the teacher without specialized preparation to acquire the fundamental knowledge, technical skill, and pedagogical proficiency necessary to co-operate in putting the State Syllabus of

Archery is a favorite sport among the women students at Minnesota.



Physical Education into effect in both grade and high schools.

Miss Baker's, Miss Hosmer's, and Miss Warnock's courses will be open to men as well as women.

Recreational classes in swimming, tennis, and golf are offered for those who do not as yet know the sport. More advanced swimming strokes, dives, and life saving will be taught in advanced classes. Mrs. Foote, who has taught the swimming for the past three summers, to the eminent satisfaction of her students will return again this summer. Miss Warnock will have the tennis, and Miss Margaret MacRae,

a very successful teacher of golf in Minneapolis, will teach that sport.

The pool will be open for "dips" at specified hours, and the 23 tennis courts will be open to all players on the payment of an initial fee of \$1.00. Reservation of courts can be made by telephoning the office of the Women's Gymnasium or applying in person.

¹ By special arrangement with the Minneapolis Park Board the playground at Van Cleve Park, Fourteenth avenue southeast, and Como avenue, will be used for demonstration and practice purposes.

² Certain courses carry credit toward the teacher's certificate in physical education (the four-year curriculum). These are the Teachers' Course in Play, Technic of Swimming Strokes, and Interpretive Dancing. The course in Community Recreation will be honored as an elective in the four-year curriculum.

THE STAFF IN ATHLETICS

The Department of Physical Education and Athletics for Men at Minnesota was reorganized on its present basis early in 1922, when F. W. Luehring was engaged as director. The Department of Physical Education for Women was already at that time a well-organized department under the direction of Dr. J. Anna Norris, who is still its head. Both are leaders of nationally recognized ability in the field of university physical education.

Dr. L. J. Cooke, who for many years devoted more time than any other faculty member to the supervision of athletic activities, and who has been in the service of the University of Minnesota for upward of 30 years, became assistant director and supervisor of ticket sales, a position necessitated by the swiftly increasing attendance at athletic contests, especially in the Stadium.

Following the three-year régime of William H. Spaulding, Dr. C. W. Spears was brought to Minnesota in the fall of 1925 as head football coach. Dr. Spears brought a national reputation to Minnesota which he upheld by sending his team into the last game of the year a contender for the Western Conference championship.

Sherman Finger, track coach and coach of freshman football, came to Minnesota in the fall

of 1924, following the resignation of T. Nelson Metcalf, who became athletic director at Iowa State College. Mr. Finger was a member of the famous Chicago football team captained by Walter Eckersall. He was for many years director of athletics at Cornell College, Iowa.

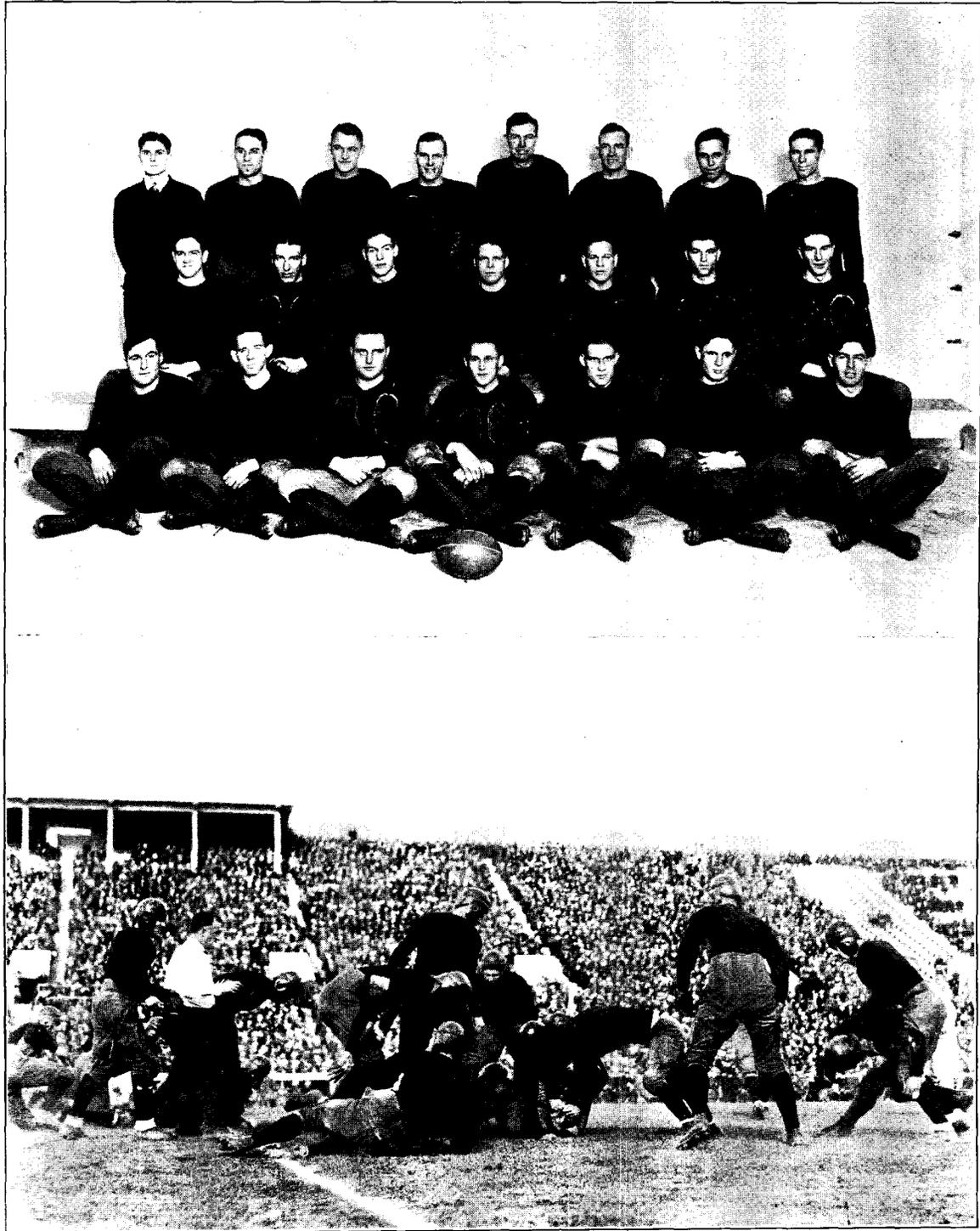
W. Ray Smith, who came to the University from the faculty of University High School, is completing his third year as director of intramural athletics. General student participation in athletics other than intercollegiate has practically tripled during his régime.

Harold T. Taylor, basket-ball coach, has spent three years at Minnesota, the first as assistant to Dr. L. J. Cooke, and the two subsequent years as head basket-ball coach. Prior to coming to Minnesota Mr. Taylor coached the state champion team at Aurora which won the State High School Basket-Ball tournament the first year after that contest was transferred to Minneapolis.

Niels Thorpe, swimming coach, in six years at Minnesota has turned out two championship teams, two that won second place, and one that won third. The other team finished fourth in the Western Conference. Only one other institution in the conference has a record of successes in swimming that approaches this.

(Continued on page 32)

Minnesota's 1925 Football Team



Team names.—Standing: Anderson, manager; Drill, Hanson, Joesting, Hyde, Gary, Tuttle, MacKinnon; middle: Just, Van Duzee, Wheeler (captain-elect), Mulvey, Almquist, Peplaw, O'Brien; front: Allison, Mason, Arendsee, Captain Ascher, Maeder, Kaminski, Walsh.

FOOTBALL

SINCE the days of the "Giants of the North," when Minnesota was one of the few middle western institutions that played a grade of football that commanded attention and praise, the Gophers have been leaders in the king of college sports. When Minnesota's record on the grid-iron threatened to slump after the war, first one new head coach and then a second was brought to the University to build up the game. The entire state, also, turned in and gave liberally towards the construction of the new Stadium, seating more than 50,000 persons, which gave Minnesota football playing facilities equal to those of any other western university.

During the past four years Minnesota has broken just about even in Western Conference competition, but with a squad of unusually capable players most of whom were sophomores last fall, the new head coach, Dr. Clarence W. Spears, looks forward to a season of successes this autumn.

Michigan is the only institution that has been able to win consistently from Minnesota since 1922, the last of the disastrous seasons, when Michigan, Wisconsin, and Iowa, all three conquered the Gophers. Since then Minnesota has beaten Iowa two games out of three, won its one game with Illinois and its one game with Indiana; has tied once with Northwestern, and by a strange coincidence, has played a series of three straight tie games with Wisconsin. Minnesota and Wisconsin will meet in Madison this fall, and the fury of the efforts both will make to end the four years' stalemate is expected to place that game among the memorable meetings of the 1926 football season.

1926 Schedule Is Unusual

Minnesota's 1926 schedule will be one of the most interesting ever played, in the opinion of student enthusiasts, who look forward to the Wisconsin contest as they do to the second in a series of three games with the famous

Notre Dame team, which will again come to Minnesota, and to the unprecedented double-header which Dr. Spears arranged at the schedule meeting last fall when his free-for-all challenge to every conference team was accepted only by Yost of Michigan, Little of Wisconsin, and Ingwersen of Iowa. Failing to book a fourth conference game, Coach Spears took up Fielding Yost's offer to play a double-header with Michigan, the first game to be at Ann Arbor in early October and the second in Memorial Stadium on the closing day of the season.

This arrangement has been sufficiently unusual to command nation-wide interest. It assures Minnesota of a thorough test against a team which most sports critics will undoubtedly consider the strongest in the Western Conference if pre-season estimates can be depended on. Most of Michigan's star players of 1925, who easily captured the conference championship, will be back for the coming fall. At the same time, Minnesota's best men will also return. There is no occasion for assuming in advance that either of the two will come off the best.

Start Practice Earlier

Spring practice began this year the day after the University reopened following the spring vacation, and will be continued until late in May. Dr. Spears will have to fill some holes in the line, including that left by Conrad Cooper, at center. Returning linemen will include, however, such able players as Walsh, Hyde, Meili, MacKinnon, Hanson, Kaminski, Gary, Mulvey, Drill, and Maeder, together with Captain Roger Wheeler, Tuttle, and Kopplin among the end candidates.

The "sophomore backfield" which carried the 1925 team through to a bitter struggle against Michigan for the conference championship, will also return practically intact. In it

will be Herb Joesting of Owatonna, one of the outstanding fullbacks of the past season, "Shorty" Almquist, "Dutch" Arendsee, Harold Murrell, Jack O'Brien, Bob Peplaw, and Eldon Mason. Captain Herman Ascher and Everett Van Duzee of last year's backfield will not be in college when the football season returns.

Last autumn's freshman squad was not one of the largest on record, but it included a number of young athletes who will be able to give a splendid account of themselves on Northrop Field in next fall's practice. Among them are Leif Strand of Two Harbors, a promising center candidate, Wendell Bredemus, who returned to Minnesota last fall after a year's absence, A. Hulstrand, the former Hibbing Junior College star, Clayton Gay of Moose Lake, brother of Chester Gay, the 1923-24 lineman, and among other line players, Lawrence Johnson, George Gibson, Sholly Blustin, John Raynor, and Arnold Feinberg.

Look for Strong Backfield

The backfield will also be strengthened by such flashy players from the freshman squad,

coached by Sherman Finger, as Andrew Geer, Harold Barnhardt, Raymond Anderson, and Joe O'Brien. Barnhardt will be a powerful player at either the quarter or halfback position and in Geer. Dr. Spears will have an accurate and swift forward passer.

Minnesota's new coaching staff for football is headed by Dr. Clarence W. Spears, whose famous shift, together with the fighting spirit he is able to engender in a team, has made his name respected in football camps throughout the country. Prior to his coming to Minnesota he had long records of success as head coach at Dartmouth and at West Virginia.

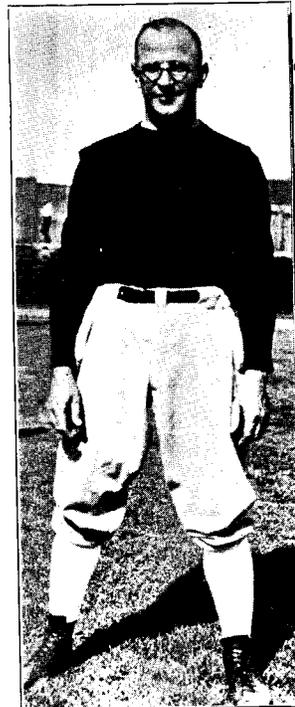
Last fall at Minnesota Dr. Spears surrounded himself with a staff of assistants that included Sherman Finger as head freshman coach, Sig Harris, known to generations of Minnesota football fans, Bob Saxton, also a former Dartmouth player, and Major Ray Hill. As assistants with the freshman squad Sherman Finger had Merton Dunnigan, a former "M" man, Carl Lidberg, the 1924 star fullback of the Gophers, and Harold Taylor, varsity basketball coach.



Sig Harris



Dr. C. W. Spears



Sherman W. Finger

Some changes in the staff of assistant coaches are likely before the fall practice season begins, and two have already been made. George "Potsy" Clark, for several years head coach at Kansas University has been engaged as full time coach of the backfield and Eddie Lynch, now in business in Minneapolis, has been helping with the ends during spring practice. Lynch may return during the fall season. He is one of the men whom Dr. Spears coached at Dartmouth. Probably no conference university can present an abler group of men in charge of football instruction.

Despite the fact that the team fought vainly against Michigan on the last day of the 1925 season to win the Western Conference championship, the football season of 1925 was one of the most successful in the history of athletics at Minnesota. Student interest and loyalty ran high. The team never stopped fighting in any game. One traditional foe, Iowa, was downed 33 to 0 and the Gophers were well on their way to a victory over Wisconsin when a last quarter forward passing rally brought George Little's team even with Minnesota a little before the final whistle blew.



"Potsy" Clark

Continue Notre Dame Series

Minnesota and Notre Dame established grid-iron relations for the first time last year in a three-game series, of which the first two, including one this fall, are to be at Minneapolis. The third game, in the fall of 1927, will be played at South Bend.

Alumni, pleased with the selection of Dr. Spears as head coach, backed and worked for the team in the sturdiest fashion and public interest, both in the Twin Cities and throughout the state and Middle West was greater than it had been since the days of the celebrated team of 1916, called by many the best that Minnesota has ever turned out.

One conference game was lost, that with Michigan, which overwhelmed the Minnesota eleven by a score of 35 to 0. If there is con-

solation in the joint facts that Minnesota was in the final game for the championship and that Michigan's team was called by its veteran coach, Fielding H. Yost, the strongest that has ever represented Ann Arbor, then there is full justification for seeking refuge in those truths. Minnesota and Michigan will meet twice the coming fall, each represented by approximately the same team that played under its colors a year ago.

North Dakota, Wabash, Grinnell, and Butler displayed a splendid brand of football in Memorial Stadium, but none of them was strong enough to hold Minnesota to fewer than four touchdowns.

FOOTBALL

Game Record

1925

Minnesota 25	North Dakota 6
Minnesota 34	Grinnell 6
Minnesota 32	Wabash 6
Minnesota 7	Notre Dame 19
Minnesota 12	Wisconsin 12
Minnesota 33	Butler 7
Minnesota 33	Iowa 0
Minnesota 0	Michigan 35

Captain, 1925: Herman Ascher

Captain, 1926: Roger Wheeler

Letter Men, 1925

Clarence Arendsee, Ben Allison, Harold Almquist, Captain Herman Ascher, Conrad Cooper, Herman Drill, Mitchell Gary, Neil Hyde, Harold Hansen, Fred Just, Herbert Joesting, William Kaminski, Arthur Mulvey, William Meili, Harold Murrell, George MacKinnon, Eldon Mason, Albert Maeder, John O'Brien, Robert Peplaw, George Tuttle, Everett Van Duzee, Roger Wheeler, Leonard Walsh, Al Meagher, manager.

Winners of Freshman Numerals

Raymond Anderson, Harold Barnhart, Wedworth Beard, Herbert Bizer, Shalloy Blustin, T. J. Catlin, Leslie Cooper, Arnold Feinberg, J. E. Miller, John Raynor, Clarence Rubbert, Kenneth Fritzell, Malcolm Frykman, Clayton Gay, Andrew Geer, Francis Gibson, George Gibson, Fred Hovde, Anton Hulstrand, Lawrence Johnson, C. O. Knoerr, Joe O'Brien, Frank Rarig, Leif Strand.

Coaching Staff, 1925

Head coach: Dr. Clarence W. Spears; freshman coach: Sherman W. Finger; assistants to Dr. Spears, Sig Harris, Major Ray Hill, Bob Saxton, Merton Dunnigan; freshman assistants: Carl Lidberg, H. T. Taylor. Appointments for current season: George Clark, first assistant coach; Edward Lynch, end coach.

BASKET-BALL

MINNESOTA basket-ball looks forward to the construction of a real home in the proposed Field House which now seems a probability for next winter and will provide, for the first time, a playing space that is adequate both for the players and the students and outside audiences.

The season just closed has been one of the most unusual in the history of basket-ball at Minnesota, starting disastrously with but one victory in the first six games, and ending in what seemed by comparison, a blaze of glory, with four victories in the last six and only a hairbreadth between Minnesota and Iowa in the last game, which was lost. Minnesota finished the season in third place, although more than three teams were ahead of it due to the quadruple tie between Michigan, Indiana, Purdue, and Iowa for first honors.

Transfer of the Minnesota games from the University Armory, with its inadequate seating capacity, to the Kenwood Armory has been an advantage in one way and in another a liability, in the opinion of Head Coach Harold Taylor.

More persons than ever before saw Minnesota basket-ball games and that sport joined football as one that returns a profit, something no other sport except football has ever done. The average attendance down town has been 4,800 against 2,000 on the campus basket-ball floor and this year's receipts were \$18,000.

Distance Hurts Practice

On the other hand, the distance of the practice floor from the campus has worked against a large turnout for basket-ball, so that this year's varsity squad was one of the smallest on record.

Minnesota undoubtedly has ample man power in the field of basket-ball, but the turnouts have been relatively small in recent years due partly to practical and partly to other circumstances. With a field house affording ample space for all who wish to practice, a floor on which the players will come to feel at home and will think of as a real home floor, and the excellent dressing, locker, and shower facilities of the Stadium made available by the tunnel



Standing: Kenneth Wells, manager; Wright, Tuttle, Gay, H. T. Taylor, coach; Nydahl, Wolden, Captain Rasey, Wheeler, Mason, captain-elect

which will connect the Field House and the Stadium dressing rooms there will be every incentive for the students to come out for basket-ball in larger numbers than ever before.

The major part of the past year's work in basket-ball fell to Captain Ray Rasey and Mallie Nydahl as forwards, Herbert Wolden at center, and Eldon Mason, Roger Wheeler, and Verne Wright as guards. Besides these men only five others were regular members of the first squad: Clayton Gay, forward and guard; George Tuttle, center and guard; George MacKinnon, center; Harold Clement, center; and Robert Smith, forward. The last five named men, with one exception, put in at least 45 minutes in conference games.

Some 1926 Prospects

In Robert Tanner, of Marshall, Minnesota. George H. Otterness, of Willmar, and Leif Strand, of Two Harbors, Coach Taylor believes he has three as good freshman basket-ball prospects as have recently been developed at Minnesota, and these will be the principal additions to next year's squad from the 1926 yearling group. Otterness is a center, Tanner a forward, and Strand a strong rangy guard who will also be a leading contender for a center or guard position on the football team.

In justice to the 1926 team it should be pointed out that during the entire first half of the season the playing of the first string center,

Wolden, was hampered by the serious illness of his mother, which made it necessary for him to miss many practices and to remain at home while the team was away on two of its trips to play other institutions. Had the team struck its late season stride two or three weeks earlier there is no doubt that the final standings would have been changed for the better.

BASKET-BALL

Game Record

1925-26

Minnesota	24	Wisconsin	33
Minnesota	28	Indiana	33
Minnesota	8	Illinois	17
Minnesota	26	Chicago	24
Minnesota	14	Iowa	21
Minnesota	22	Michigan	33
Minnesota	28	Michigan	17
Minnesota	23	Indiana	41
Minnesota	28	Chicago	23
Minnesota	31	Wisconsin	19
Minnesota	28	Illinois	21
Minnesota	15	Iowa	17

Captain, 1926: Raymond Rasey

Captain-elect: Eldon Mason

Letter Men, 1925-26

Clayton Gay, Eldon Mason, Malvin Nydahl, Captain Raymond Rasey, George Tuttle, Verne Wright, Herbert Wolden, Roger Wheeler.

Head coach: H. T. Taylor; assistant, Carl Lidberg

Winners of Freshman Numerals

Lester Bolstad, Edward Colliton, Sam D. Gershovitz, R. L. Haggerty, Elton Hess, J. E. Miller, George Otterness, John Riordan, Carl Soderstrom, Leif Strand, Vernon Welch, W. G. Williams, James Walker, Joe Ford, Robert Tanner.

BASEBALL

BASEBALL, which strangely enough is one of the younger major sports at Minnesota, has made steady progress during the five years since its re-establishment following a long period when the national game was excluded from the list of Minnesota sports. The three-year tentative period for which baseball was originally brought back as an intercollegiate sport expired two years ago, and Director F. W. Luehring and the Senate Committee on Intercollegiate Athletics decided the trial had been successful enough to warrant a continuance.

Under an arrangement with the War Department, Major Lee R. Watrous, stationed at the University of Minnesota as a member of the military training staff, assumed the part time position of baseball coach and has retained it through the present season, bringing each successive team to a higher development than that of the year before. Major Watrous will terminate his service at Minnesota this year, having been transferred to Panama. He will be succeeded by George "Potsy" Clark, who has been head football and baseball coach at

Kansas University and who, besides coaching baseball, will be first assistant to Dr. Spears at Minnesota. Clark's baseball record has been even more brilliant than his performances on the gridiron. He will take charge of baseball in the spring of 1927. L. F. Keller, head of the training courses in physical education, is the freshman baseball coach.

Southern Trips Tried

To offset in part the handicap of a late practice start, Major Watrous has taken his players on a southern trip each of the past three years, an innovation at Minnesota which has given the team a two weeks start over what would otherwise be possible. Inclusion of adequate indoor baseball quarters, including an infield and batting and pitching cages in the prospective Field House will give further advantages to the Gopher diamond squad.

"Pete" Guzy, who starred on the gridiron and diamond in the Minneapolis High School League but found his lack of weight too great a handicap in "Big Ten" football, is the popular captain of the 1926 baseball team. A shoulder injury has kept him from his usual place in the box and he has been transferred to first base so that full advantage may be

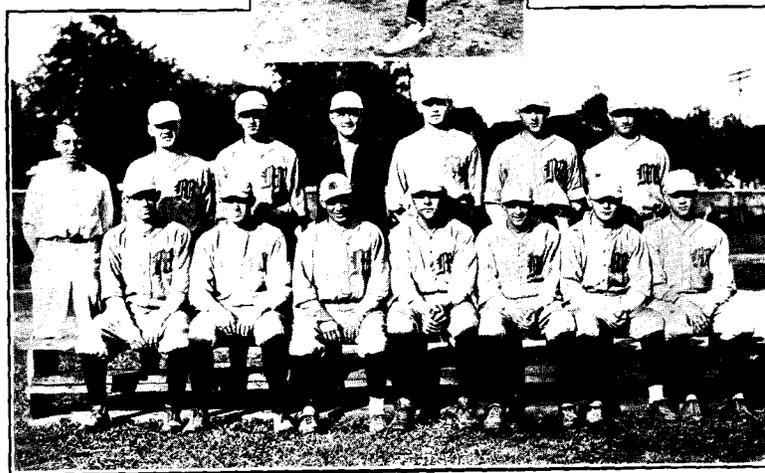
taken of his speed and batting ability.

Minnesota faces the 1926 schedule with one veteran pitcher, Henry Anderson, although able support for him may be developed among Allen Redding, Beaudin, Dave Canfield, and Phil Clarke. Ray Rasey, who captained last winter's basket-ball team, is the best prospect behind the bat, with A. O. Larson and S. J. Bakke as substitute material.

John Stark, a newcomer in Gopher baseball, will play at short stop this year, with Herman Ascher shifted to third and Eldon Mason, a three-letter man, guarding the second sack. Mason is captain-elect of the basket-ball team and Ascher was captain of last year's football team. Bob Smith will be first base alternate to Captain Guzy, while John Hall has been transferred from infield to outfield to fit into the machine better. Minnesota has a brilliant

group of young outfielders, including Serline, Joneson, Pelton, Nydahl, Krogh, Rohrer, Loudeen, and the two Rosses, Donald and Ray. Norgorden, a sophomore find, is said to be an unusually fast infielder and a man who will find plenty to do during the season.

Enlargement of Northrop Field has worked to the advantage of Minnesota baseball in that it has made it possible for baseball and



Top: Captain Peter Guzy. Back row: Woodward, trainer; Anderson, Emerson, Major L. R. Watrous, coach; Smith, Ascher, Rohrer. Seated: Mason, Rasey, Foote, Captain Christgau (1925), Guzy, Hall, Clark.

spring football practice to go on simultaneously without conflicting. On the old field the baseball outfield stretches over into what was properly football territory.

BASEBALL Game Record 1925

Minnesota	4	Northwestern	6
Minnesota	0	Iowa	1
Minnesota	5	Indiana	13
Minnesota	9	Indiana	1
Minnesota	10	Wisconsin	9
Minnesota	4	Michigan	9
Minnesota	1	Michigan	0
Minnesota	7	Iowa	5
Minnesota	7	Wisconsin	2
Minnesota	3	Northwestern	2
Minnesota	5	Ohio	6
Minnesota	1	Ohio	9

Captain, 1925: Rufe Christgau

Captain, 1926: Pete Guzy

Letter Men, 1925

Henry A. Anderson, Herman Ascher, Captain Rufus Christgau, James B. Emerson, William Foote, Peter Guzy,

John W. Hall, Eldon Mason, Raymond Rasey, Robert L. Smith, William Donnelly, manager.

Coaching Staff, 1926

Head coach: Major Lee R. Watrous; freshman coach: L. F. Keller

Schedule, 1926

April	24	Northwestern	here
May	1	Iowa	there
May	8	Michigan	here
May	11	Wisconsin	here
May	15	Wisconsin	there
May	20	Iowa	here
May	22	Indiana	here
May	29	Illinois	there
May	31	Northwestern	there
June	5	Indiana	there
June	7	Notre Dame	there
June	11	Ohio State	there
June	12	Ohio State	there

Winners of Freshman Numerals

W. J. Arnold, E. Davidson, D. Despard, A. V. Krogh, E. Norgorden, Milo Pelton, M. W. Quine, S. M. Serline, R. E. Shay, J. Stark, F. Sweeney.

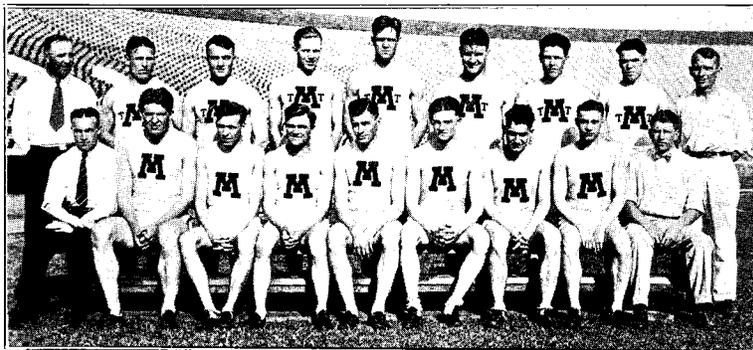
TRACK

WITH a field house assured to provide shelter for winter and early spring work indoors in the track and field sports, Minnesota's prospects are better today than ever before. Minnesota teams have given remarkably good accounts of themselves in outdoor track meets, both dual and conference, in years past, and this year's freshman squad is said by Head Coach Sherman Finger to be one of the best that has reported at the Armory in several years. These men will be available for competition a year from now.

Coming in the spring, the track season is just now beginning

and no account of the current outdoor season can be given. Minnesota has not, heretofore, engaged to any great extent in indoor track meets, having no place in which to conduct meets at home. The Field House will change this situation, and a boom in indoor track may be expected following its completion.

Minnesota's three dual meets for the current outdoor track season are with Ohio at Columbus, May 1; Wisconsin at Minneapolis, May 8; Chicago at Minneapolis, May 22. Another dual meet with Iowa had been arranged, but the conference meet went to Iowa City



Back row: S. W. Finger, coach; Schutte, Bunker, Lundgren, Just, Fisher, Scarborough, Woodward, trainer. Front row: Nathanson, manager; Cox, Johnson, Gruenhagen, Captain Mattice, Hyde, Rohrer, Matthews, Geddes, assistant manager.

and was set for the day on which Gopher and Hawkeye were to have met. Minnesota will be represented in that meet, however, on May 29.

Encourage High School Track

The Department of Physical Education and Athletics at Minnesota has been a main factor in encouraging interest in track athletics among Minnesota high schools, and with that end in view has conducted each spring a State Inter-scholastic Track and Field Meet, formerly on Northrop Field, but now in the Stadium. The meet will be conducted this year on May 22, the day Chicago meets Minnesota in Minneapolis. Arrangement of the high school meet on the same day as one of the dual inter-collegiate meets gives the 500 visiting high school athletes a chance to watch Big Ten competition while carrying on their own events.

Track athletics, although it has been the slowest sport to develop in northwestern universities, is the one which offers greater possibilities to the average college man than any other. That is to say that the student who has never thought of himself as an athlete may well have high potentialities as a track man which steady plugging on his part and careful coaching by the athletic staff may bring to light. Baseball players learn the game in boyhood or never. Football players are not infrequently developed from among men who had not thought of themselves as such, but they must have had strength, weight, or fight in unusual

proportions. A majority of all basket-ball players are developed in high school to the point where they at least look like college material. Few who learned to swim or skate at college age would expect to star as an intercollegiate swimmer or hockey player.

Green Men Have Chance

All this is different in respect to track athletics. Middle and long distance runners usually have their chief development as athletes after reaching maturity. The strength and stamina which make a man capable of hurling the weights to record distances usually come after he is of college age as the great differences between high school and college records in the field sports show. Form and practice play so tremendous a part in such sports as hurdling, vaulting, and high and broad jumping that it is impossible to tell what a man may be able to do until he has spent long hours in the most careful practice.

All of these elements open possibilities to the average college man of which few of them are really aware. With two hurdle events, two dash events, two middle distance runs, two long distance runs, two jumps, or three if the hop, skip, and jump be included, and the series of field events, javelin, discus, shot, and hammer, all to be considered, the variety of opportunity is one which doubles or triples the individual's opportunity to attain proficiency or even excellence.

(Continued on page 32)

SWIMMING

THE State of Ten Thousand Lakes lives up to its reputation when it comes to the field of sport, for Minnesota has won two championships in swimming, been conference runner up twice, and finished once third and once fourth in the past six years. During the same period Minnesota has lost only six dual meets, four of them to Northwestern and one each to Wisconsin and Iowa. Coach Niels Thorpe's team went undefeated through the season just closed, winning dual meets from Chicago, Iowa, Wisconsin, and Northwestern and easily cap-

turing the conference meet in the University of Michigan pool, thus capturing the championship.

Minnesota's present swimming team holds five conference championships for individual events, including the team performance in the 200-yard relay, in which a new conference record of 1:40 1 5 was set and the championship in the 300-yard medley relay. Jim Hill, captain-elect for 1927, is the conference and national collegiate record holder in the 150-yard backstroke event. Max Moody is con-

ference champion at the 100-yard distance, and Mickey Carter is conference fancy diving champion.

Approximately 700 men students make use of the Minnesota swimming pool as members of classes or squads, and a thousand or so others use it for occasional recreation. The freshman swimming squad ordinarily numbers about 75 and there are usually 25 members of the varsity swimming squad. In an average year 350 students are registered to learn swimming as part of their compulsory physical education, while an additional 250 register voluntarily for advanced classes in swimming.

With Yale, Princeton, and Northwestern, Minnesota probably ranks as one of the four leading institutions in the sport of swimming. Michigan, also, has made strides forward in recent years.

Of twelve members of the 1926 varsity squad who have been point winners in swimming, all but three of whom won letters this year, only two will be lost to the squad by graduation this spring. These two will be Captain Harold Richter and R. F. Mahachek. Returning letter men will be Captain-elect Jim Hill and his brother Sam Hill, who is a dash man, Mickey Carter, diver, Max Moody, dash man, Gordon Bjornberg, distance events, Charles Purdy, 200-yard breast stroke swimmer, and Clark Barnacle, diver. Point winners who have not yet won letters and who will return, are Dick Bennett, distance and dash events, Frank Lucke, distance and dash events, and Stanley Morris, dashes.

Coach Thorpe is looking forward eagerly to the addition of some of this year's freshman material to his squad of regulars. Among the outstanding freshmen have been Neal Crocker, the freshman captain, a dash man, Everett Freeman, dashes, R. Ridell, Dean Graham, and Glenn Morton, all distance

swimmers, Russell Brackett, a breast stroke man, and Don Cragie, whose event is the backstroke.

SWIMMING

Meet Record

1925-26

Minnesota	53	Minneapolis Y.M.C.A.	16
Minnesota	47	St. Paul Y.M.C.A.	22
Minnesota	22	Hibbing Junior Col.	22
Minnesota	51	Chicago	18
Minnesota	45	Iowa	24
Minnesota	47	Wisconsin	22
Minnesota	48	Northwestern	21

Conference Meet Winner

Minnesota—Five firsts

Captain, 1925-26: Harold Richter

Captain-elect: James Hill

Letter Men, 1925-26

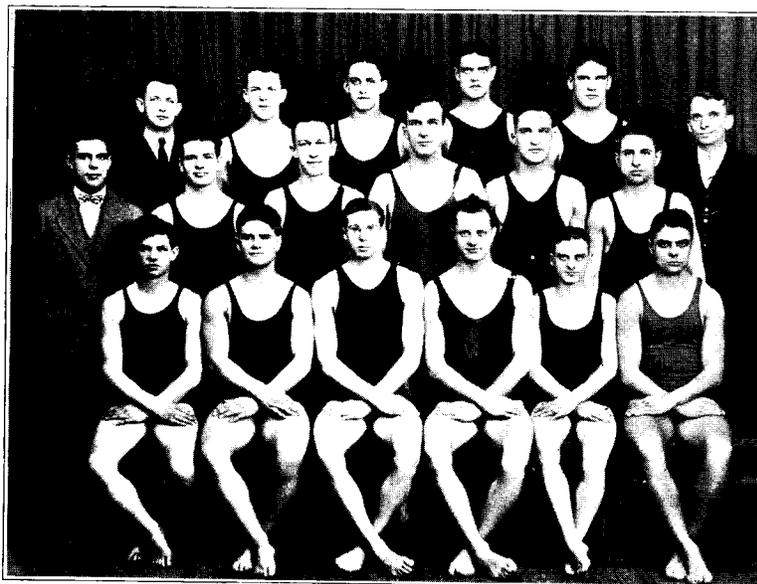
Clarke Barnacle, R. T. Bennett, G. O. Bjornberg, Miles Carter, Frank Lucke, James Hill, Sam Hill, Ross F. Mahachek, Stanley B. Morris, Max Moody, Charles Purdy, Harold C. Richter.

Coaching Staff

Head coach, Neils Thorpe; assistant, I. F. Boyce

Winners of Freshman Numerals

S. S. Bagley, Russell Brackett, Neal Crocker, E. P. Freeman, Dean Graham, Frank Lydiard, Glenn Morton, R. A. Mueller, R. D. Ostrander, D. Riddell, R. Prendergast, Harlan Strong, Alex Sreenson, R. S. Slaney.



Top row: Niels Thorpe, coach; Lucke, Dreveskracht, Purdy, J. Hill, captain-elect; Woodward, trainer. Second row: Paul Clayton, manager; Moody, Mahachek, Cooley, S. Hill, Rush. Front row: Bjornberg, Barnacle, Captain Richter, Bennett, Carter, Morris.

HOCKEY

HOCKEY, with swimming, was one of the pair of sports in which Minnesota teams won championships in the winter of 1925-26. Emil Iverson's squad went through a season of eight games, four each with Michigan and Wisconsin, without losing a start. Two of the Wisconsin games were ties, Minnesota winning the others. Michigan tied the Gophers in one game, the other three going to Minnesota.

Of eleven men who won letters in this year's series of games, only three will be lost by graduation, making prospects bright once more for the winter of 1926-27. Captain Edwin Olsen, "Heinie" Kuhlman, and Percy Flaaten have finished their playing days. Returning letter men will be Philip Scott, captain-elect, Melvin

ter a freshman outfit of 48 men appeared regularly for practice, the following 12 winning freshman numerals: Neason Gilman, Homer Hussey, R. C. Paulson, Lloyd Russ, Gerry Hawes, and L. Watson, all of Minneapolis; Clayton Henry, St. Paul; John H. Linneman, Brainerd; William Person, Duluth; Edward Tuohy, Duluth; R. D. Taylor, Duluth; and L. J. Westin, Staples.

Use of the Minneapolis Arena rink and the phenomenal growth in the popularity of hockey as a non-collegiate as well as collegiate sport boosted the attendance at Gopher hockey games during the past winter to a total of 18,646, not including the games played away from home. Iverson's men played two early season games at home with North Dakota, one with Carleton, and two with Notre Dame.



Back row: Leavitt, manager; Britts, Ball, Emil Iverson, coach; Lindgren, Beyers, Overby, Strausmann, assistant manager. Front row: Wilcken, Scott, captain-elect; Gustafson, Thompson, Captain Olsen, Kuhlman, Boos, Allison.

Gustafson, Clifford Thompson, George Boos, John Conway, Carl Wilcken, and D. C. Allison. The eleventh man to win his letter was T. W. Leavitt, student manager.

Hockey has increased in popularity at Minnesota each year since its establishment, the team's record of repeated championships or championship ties helping to attract the student interest and the large player turnout that is always essential to the development of a consistently winning squad. During the past win-

HOCKEY

Game Record 1925-26

Minnesota 0	Wisconsin 0
Minnesota 1	Wisconsin 1
Minnesota 6	Michigan 0
Minnesota 1	Michigan 1
Minnesota 4	Michigan 2
Minnesota 2	Michigan 1
Minnesota 4	Wisconsin 2
Minnesota 2	Wisconsin 1

Captain, 1925-26: Edwin Olsen
 Captain-elect: Philip Scott

Coaching Staff

Head Coach: Emil Iverson

Letter Men, 1925-26

Captain Edwin Olsen, Philip Scott, Heinrich Kuhlman, Percy Flaaten, Melvin Gustafson, Clifford Thompson, George Boos, John Conway, Carl Wilcken, D. C. Allison, T. W. Leavitt, manager.

Winners of Freshman Numerals

I. N. Gilman, Clayton Henry, Gerry W. Hawes, Homer L. Hussey, John H. Linneman, William W. Person, R. C. Paulson, Lloyd A. Russ, E. B. Tuohy, R. D. Taylor, L. A. Watson, L. J. Westin.

WRESTLING

WRESTLING, like hockey, is a sport which has had its main development at Minnesota in the past few years. Today, with the best equipped practice quarters in the conference and a brand new "sophomore" team that will go into next year's meets with a year of competitive experience behind them and a determination to win, the Minnesota mat team has prospects equal to those of any other in the Big Ten.

Prior to 1923 wrestling was conducted rather casually at Minnesota with an average of about two meets a year. For some of these it was necessary to make a hurried canvass of the campus and rush two or three husky looking, but untried, grapplers onto the mats to defend the fair and straining name of Alma Mater. An average wrestling squad was 10 or 12.

Gopher wrestlers gradually did better in 1923 and 1924, so that last year, when the Conference Wrestling, Fencing, and Gymnastic meet was held in the Armory some of the best matches were those in which Minnesota wrestlers took part.

This year the team was made up of green men with the exception of Captain Kenneth Dally, the 125-pound star, who was prevented from doing his best during much of the season, however, by an arm injury.

New Quarters Provided

Last year large quarters for the wrestling and boxing squads were finished off in the space below the Stadium of the University avenue side, so that now with three fully equipped wrestling rings and two boxing rings, with ropes, posts, mats, and full paraphernalia such as the men would have in a conference meet, there is greater incentive than ever before for the men to turn out for this sport. Head Coach Blaine

McKusick is at the Stadium nightly during the wrestling season and two or more nights a week during the remainder of the college year.

The wrestling season that has just come to a close was the most successful in the history of the sport at the University of Minnesota.

In looking back over the season's activities the most outstanding features were the high caliber of the members of the freshman squad and the splendid showing of the varsity in dual



Back row: Robert Paulson, assistant manager; Pederson, Ferrier, Krueger, Tiller, Blaine McKusick, coach; William Elling, manager. Kneeling: Church, Hendrickson, Captain Dally, Easter, captain-elect.

meets and the conference individual championships.

Starting out at the first of the season under a rather severe handicap, due to the fact that only two men from the 1925 team were available for competition, and with the further handicap that several of the most promising men were either unable to meet the scholastic requirements or suffered injuries, the team gradually improved with each meet, until finally it proved itself to be one of the best teams in our conference.

On Saturday night, January 23, 1926, the team went into its first dual meet against the strong veteran Illinois University team. It was a meet between a well-balanced, powerful, ex-

perienced squad and a green, inexperienced group; but one full of fight and grit determined to do its best. Illinois won by a score of 18-2.

February 6, 1926, the veteran University of Chicago team was met and defeated at Chicago, by a decisive score of 15-8.

The third dual meet occurred at Iowa City, and was lost 18-2. Then on February 20 Minnesota showed better form and won from Wisconsin 14-3. The following Saturday the Nebraska all-stars were taken on in our Armory and downed Minnesota 13-1.

On Saturday, March 6, Minnesota journeyed to Purdue University to battle for a five hundred per cent rating in the conference dual meets. Purdue University for a number of years has been rated as one of the really great wrestling schools of the West. Purdue had a veteran team and was doped to win easily; but Minnesota came through and tied Purdue. Score, 7-7.

The individual championship meet on March 5 and 6 proved that Minnesota had a really great team. With only three men entered Minnesota tied for third place. Stephen Easter, 1927 captain, won the championship in 135-pound division. Captain Dally was runner-up in the 125-pound division and Ben Ferrier took fourth place in 145-pound division.

The prospects for a championship team in 1927 are excellent. Only one man, Captain

Dally, is lost from the 1926 team, and there are many new men who are going to make the regulars battle for their positions. Captain Dally's loss will be keenly felt, however, as he was an unusual athlete. In Captain Easter, Minnesota has a real wrestler, and a good leader. If Minnesota does not win the championship it is safe to say that the team will be battling right at the top. William J. Elling managed the 1926 squad.

WRESTLING

Game Record 1925-26

Minnesota	2	Illinois	18
Minnesota	15	Chicago	8
Minnesota	2	Iowa	18
Minnesota	14	Wisconsin	3
Minnesota	1	Nebraska	13
Minnesota	7	Purdue	7

Captain, 1925-26: Kenneth Dally

Captain, 1926-27: S. S. Easter

Letter Men, 1925-26

Captain Kenneth Dally, S. S. Easter, Harold Pederson, Ben Ferrier, Donald Kopplin, William J. Elling, manager.

Minor "M's"

Bruce Church, E. Krueger, Al Maeder

Conference Champion, 135-Pound Class

S. S. Easter, captain-elect

Winners of Freshman Numerals

O. Sjowall, A. G. Wendte, W. W. Miller, G. N. Pederson, S. Izumi, LeRoy Jesme, Francis Gibson, A. Angvick, O. Howard, George Gibson.

CROSS-COUNTRY

CROSS-COUNTRY running, the little brother of track athletics, has been drawing a steadily increasing number of students at Minnesota during the past five years. Last fall this autumn sport, which is under way during the football season, attracted between 50 and 60 freshman candidates in addition to the regular squad of 20 men. Emil Iverson, who also serves as hockey coach and director of orthopedic gymnastics, has been cross-country coach at Minnesota during the past three seasons.

As a morning athletic event on the day of a big football game a cross-country match is an ideal sport especially for occasions like Homecoming. To the returning "grads" it may

look easy enough as the men plod across the parade ground to the finish line but to the runners, who have spent hour after hour during the practice season going over the long five-mile course from the campus into St. Paul by the River road and back this sport represents grit and stamina and strength. It is a builder of men as well as of wind and endurance.

Of three dual meets last autumn, Minnesota won from Ames and lost to Wisconsin and Iowa. It finished seventh among a dozen teams in the conference cross-country meet at Ann Arbor, Mich. Roy S. Popkin, of Duluth, captained the 1925 squad.

CROSS-COUNTRY**Game Record
1925**

Minnesota 24	Ames	31
Minnesota 31	Wisconsin	24
Minnesota 29	Iowa	26

(Low scoring team wins)

Captain, 1925: Roy S. Popkin

Captain, 1926: Vincent C. Hubbard

Letter Men, 1925

Vincent Hubbard, Orville S. Mathews, Roy S. Popkin, R. C. Swanson, Joe Wexman, Clarence Burgeson, Manager.

Coach: Emil Iverson

Winners of Freshman Numerals

E. D. Anderson, Ortonville; Marcus Andrews, Timpson, Texas; E. Gilbert, Minneapolis; H. Kording, Hayfield; Don Kuno, Marine; Richard Reusse, Fulda; C. Soderstrom, Chicago; and C. Wilcox, North Branch.

GYMNASTICS

GYMNASTICS* at the University of Minnesota dates back to the year 1903 in which the Minnesota gymnastic team won the Western Intercollegiate championship. Minnesota entered no team in 1904, none in 1906, but entered one in 1907 and again won the championship. The next championship team was in 1910. There were no meets in 1918 or 1919, but in 1925 Minnesota came through with another championship team.

The 1907 team was built around Jess Hawley, present football coach at Dartmouth. The 1910 team was led to victory by R. S. Callaway, now purchasing agent of the University, and R. E. Baker.

The 1925 team was probably the strongest intercollegiate team that has ever been seen in the West. Julius Perlt, who captained the team in 1924, entered three pieces of apparatus and won three first places. Magne Skurdalsvold entered two pieces of apparatus and got a first and a second, being beaten by Perlt. Tommy Saxe entered two pieces of apparatus and won a second and a fifth, being beaten by Perlt in one event and by Perlt and Skurdalsvold in the other. This team was Minnesota's 100 per cent team.

* By Dr. W. K. Foster.

The team this year was handicapped by the loss of the stars of last year. Saxe, who was this year's captain, left school to go into business. The rest of the men left through graduation.



Back row: Rose, Fritsche, Erickson, Besch.
Front row: Captain Wiley, Davidson, Dr. W. K. Foster, coach; Perry, Wentz.

since we have not fallen below third place in the whole history of our intercollegiate competition

The schedule for 1926 included meets with Iowa, Wisconsin, and the conference meet at Purdue. I have never seen an inexperienced team work harder for Minnesota than the team did this year. What they lacked in experience they made up by incessant work and grim determination.

We consider winning third place in the conference meet an actual win for Minnesota

GYMNASTICS**Meet Record, 1925-26**

Lost to Iowa at Iowa

Won from Wisconsin at Minnesota

Third in conference meet at Purdue

Captain, 1926: Lester E. Wiley

Captain-elect: D. Howard Perry

Letter Men, 1925-26

Richard Davison, Clarence A. Wentz, Lester E. Wiley, Carl F. Rose.

Head Coach

Dr. W. K. Foster

Squad Members

Captain Lester E. Wiley, Richard Davison, William Erickson, Theodore Fritsche, Perry D. Howard, Earl F. Rose, Clarence A. Wentz, Emil Besch.

(Continued from page 26)

Captain Gruenhagen is a star in the dashes. In his best form he is the equal of any dash man in the Western Conference. Seven other letter men are back for the 1926 squad: Fred Just, high jumper and hurdler; Gordon Fisher, whose events are the hammer and discus; Henry Morrison, a quarter miler; Harold Hirt, half mile; Theodore Scarborough, half and quarter miler; Vincent Hubbard, a crack cross-country runner whose track event is the two mile; and Paul

TRACK

Meet Record 1925

Minnesota 78	Chicago	60
Minnesota 50	Iowa	85
Minnesota 46	Wisconsin	86
Minnesota 47	Ohio	61

Captain, 1925: Craig Mattice

Captain, 1926: William Gruenhagen

Letter Men, 1925

William Gruenhagen, Fred Just, Gordon Fisher, Henry Morrison, Orville Mathews, Harold Hirt, Ted Scarborough, Vincent Hubbard, Paul Bunker, Ted Cox, Alfred H. Johnson, C. A. Rohrer, Clarence Schutte, Irving Nathanson, manager.

Bunker, a shot event man.

Coach Sherman Finger is also expecting creditable performances from a group of promising sophomore athletes and men who are in line to win letters, among them being Herman Drill in the shot and discus; Evald Lundgren, high and broad jump; Harry Patterson, hurdles; William O'Shields, sprints; George Townsend, low hurdles; Harold Binger, quarter mile; Marshall Crowley, pole vault; Wilson Katter, pole vault; and Royal Popkin, two mile.

Coaching Staff

Head coach: Sherman Finger

Freshman coach: Emil Iverson

Schedule, 1926

May 1	Minnesota vs. Ohio State	there
May 8	Minnesota vs. Wisconsin	here
May 22	Minnesota vs. Chicago	here
May 29	Conference Meet	Iowa City

Winners of Freshman Numerals

Noble Anderson, L. Altfillisch, J. T. Bernhagen, Glenn Card, Marshall Crowley, Jack Coolidge, Herman Drill, Lester Etter, B. A. Flesche, Donald Gordon, Robert Hannen, Ronald Havstad, Willis Krueger, W. R. MacRae, Jack Leland, G. W. MacKinnon, J. T. Mullen, J. H. Murrell, Edner Nelson, William O'Shields, C. R. Speers, Orville Satre, L. Tiller, Joe Wexman.

(Continued from page 17)

Emil Iverson, coach of hockey and cross-country has spent four years on the Minnesota staff. His hockey teams have won three Western Conference championships. The Minnesota team, under Iverson, was the conference pioneer in hockey. Iverson has a long record of successful coaching in winter sports, including several years at the famous Chicago Arena. He directs figure and speed skaters as well as hockey players.

Blaine G. McKusick, an instructor in South High School, Minneapolis, has coached the Minnesota wrestlers and boxers since 1923. A consistent increase in the excellence of Minnesota showings in both sports has resulted from Mr. McKusick's work.

Dr. W. K. Foster is the University of Minnesota's veteran director of gymnastic sports. His teams reached high water mark in 1925 when the Western Conference Wrestling, Fencing, and Gymnastic meet was held in the Min-

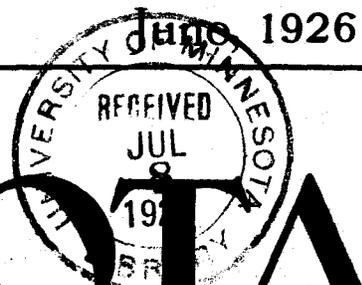
nesota Armory. Minnesota carried off the gymnastic championship with a team said to have been the strongest ever entered in conference competition.

Major Lee R. Watrous, who has served efficiently as baseball coach at Minnesota for three seasons past, will be lost at the close of the present season as the War Department has transferred him to the Canal Zone. Under him baseball was re-established as a major sport following

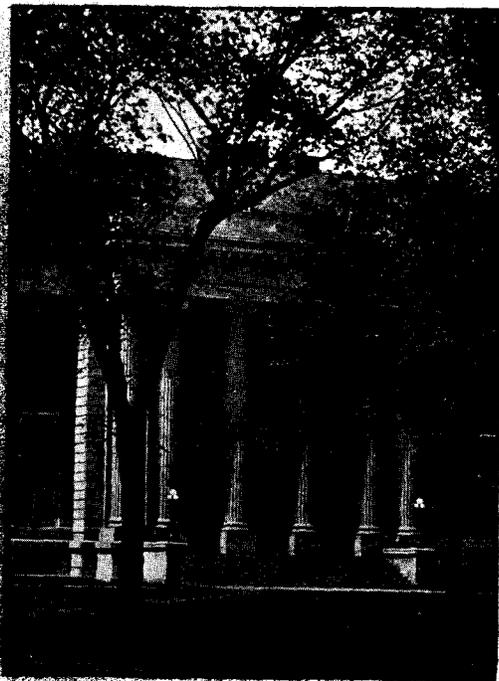
The director of the educational work in physical education, leading to the degree, bachelor of science in education, is L. F. Keller. Mr. Keller also has general charge of the courses in Physical Education offered during the Summer Session. Mr. Keller came to Minnesota in 1924 from Oberlin.

George Clark, football and baseball coach at the University of Kansas, 1921-25, has been appointed first assistant football coach and baseball coach, beginning September 1.

Vol. 6 No. 89



MINNESOTA CHATS



*Pictorial
Number*



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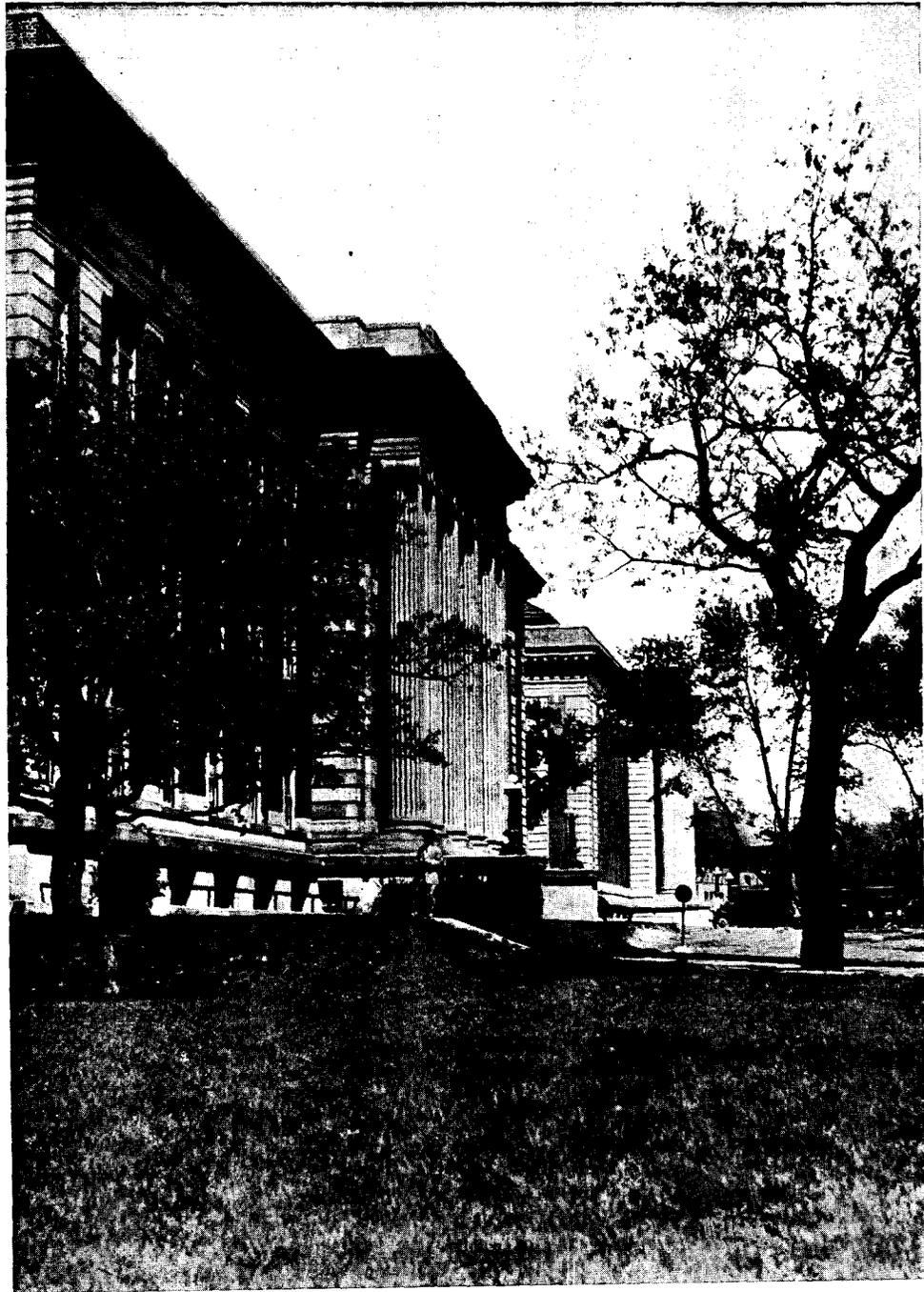
Foreword

BECAUSE no thorough pictorial representation of the University of Minnesota has ever been arranged, an effort to show the more notable scenes both on the main campus and at University Farm is made in the current issue of MINNESOTA CHATS.

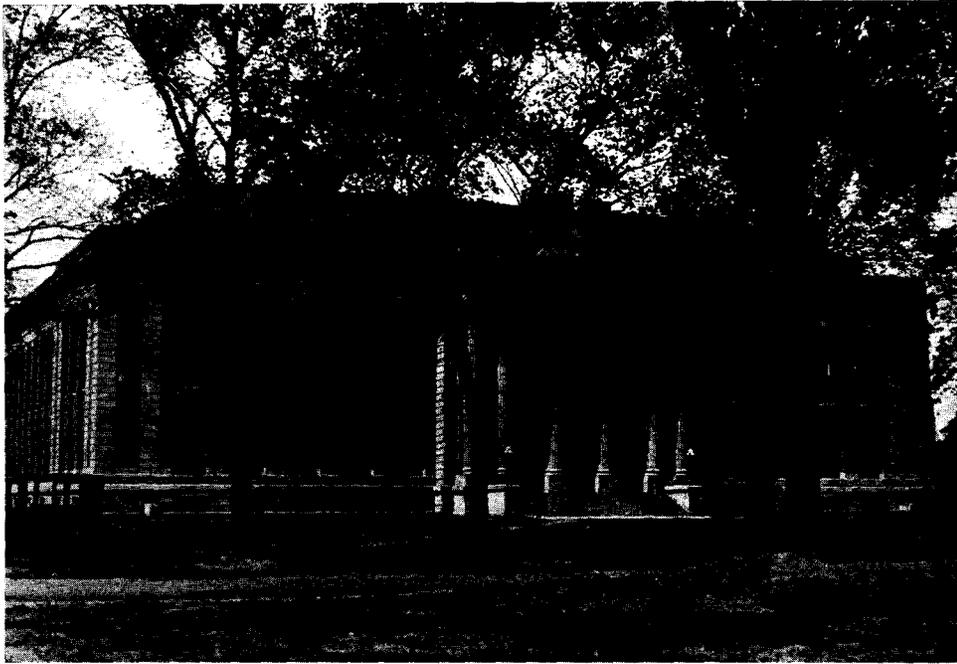
THESSE pictures not only show the beauty of many parts of the university grounds, but reveal also something of the magnitude and extent of the institution which the state has built up to provide an opportunity for the many whose ambition leads them into the fields of higher and professional education.

MOST of the University of Minnesota's principal divisions are represented by one or more pictures in the booklet. The pictures carry the unspoken suggestion that here is something with which every resident of the state should be familiar. Perhaps no other one place in all Minnesota is so well worth the half day or so that would be needed for a visit. The gates are always open and there is a vast number of beautiful, unusual, and interesting things to be seen.

THE EDITOR

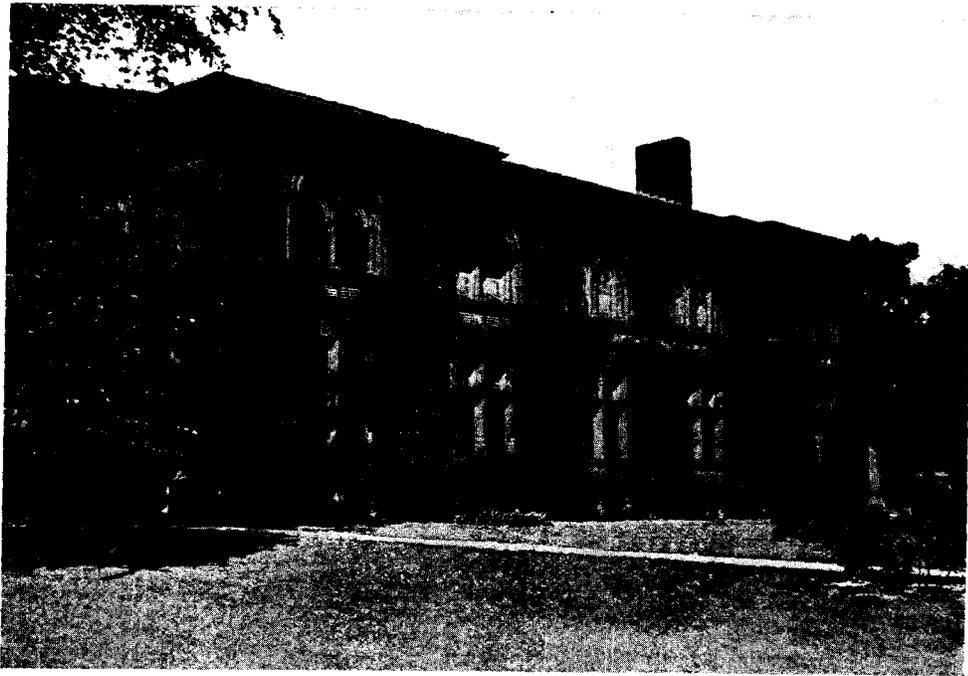


The Mall

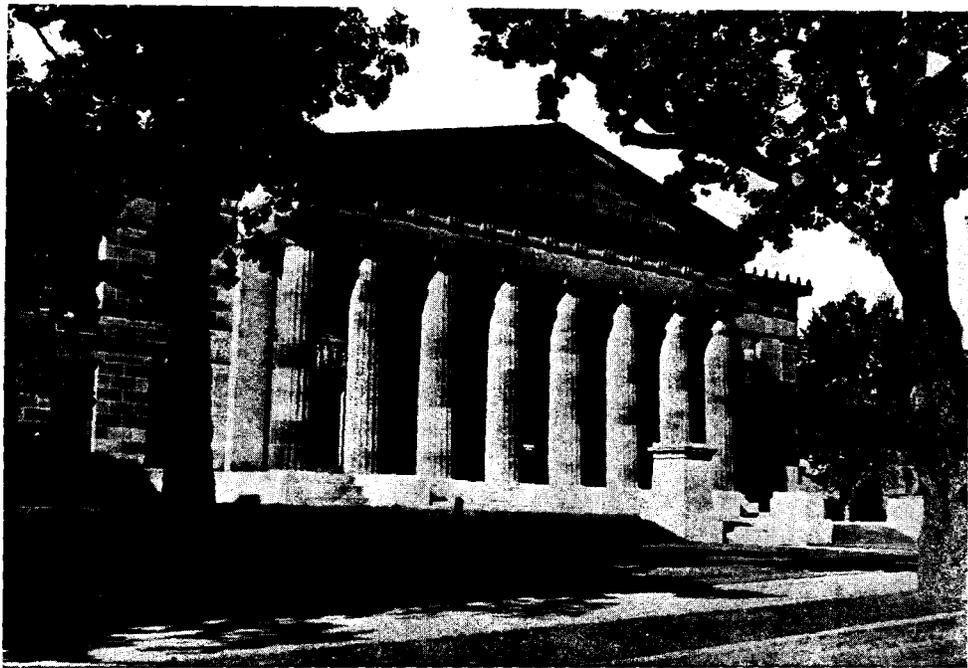


Upper
The Library

Lower
On the Campus



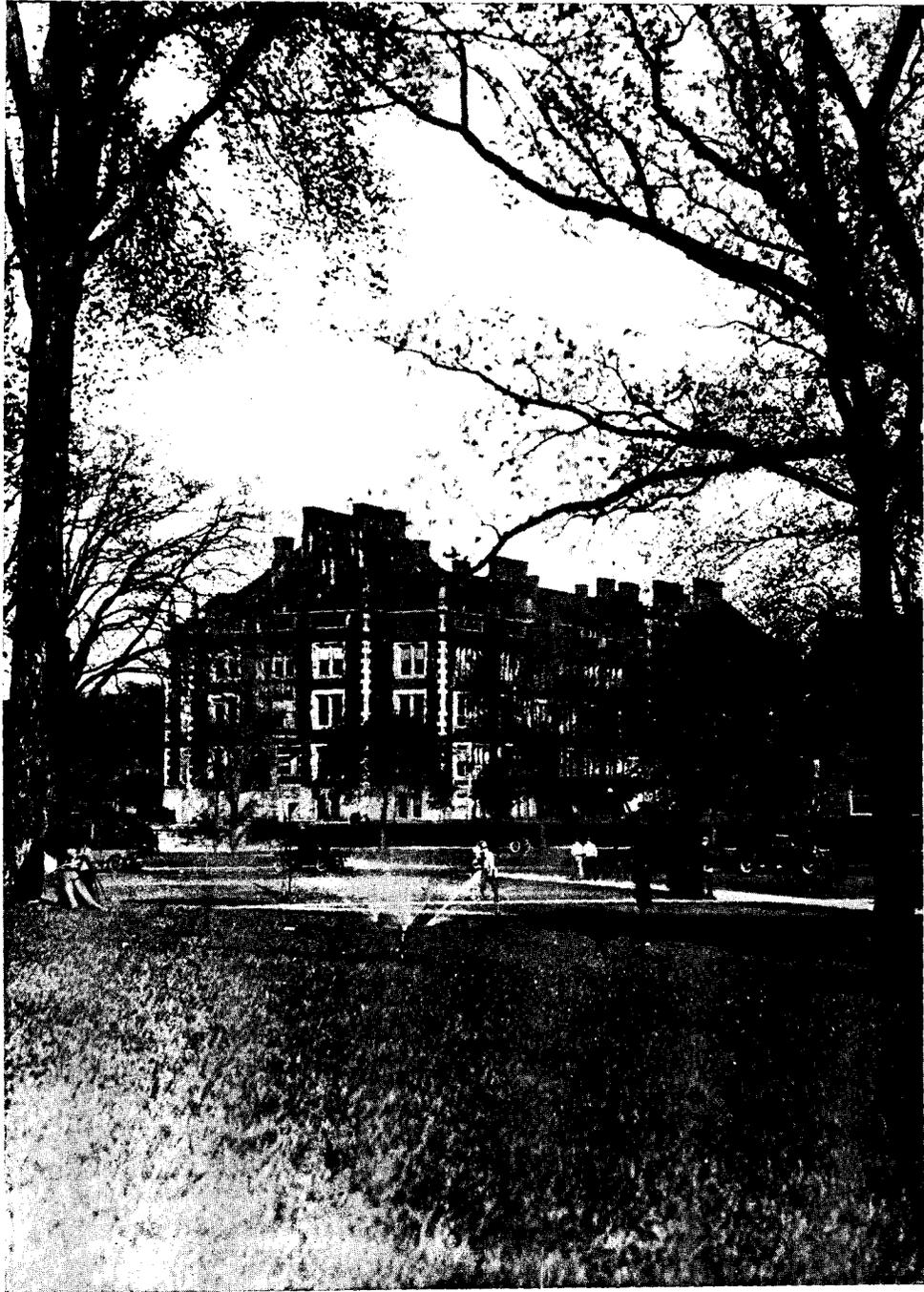
Upper
Shevlin (Women's) Hall



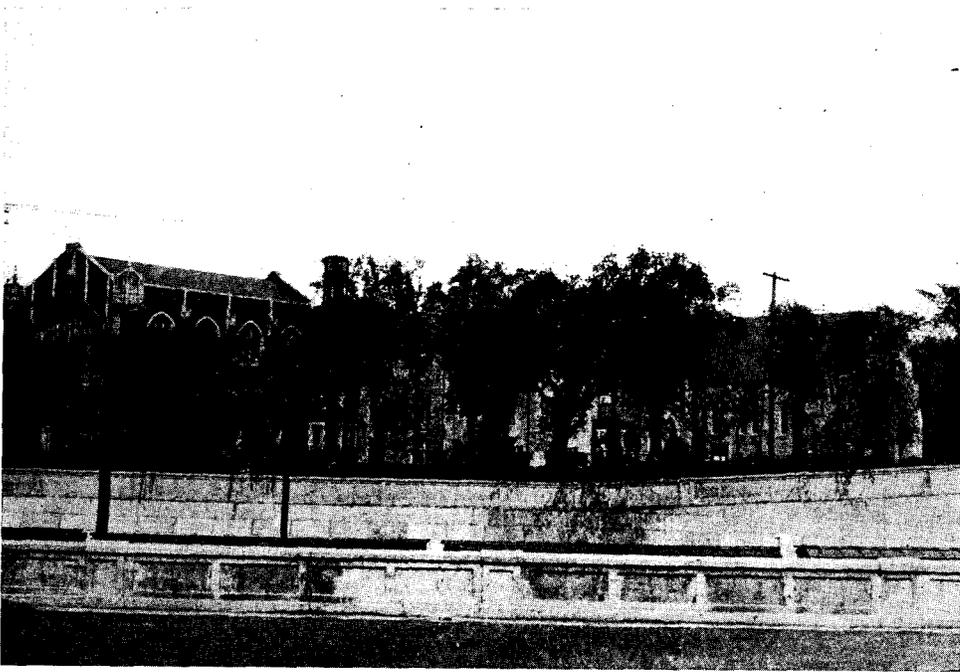
Lower
The Old Library



The
Governor John S. Pillsbury
Statue



Folwell Hall
from the Knoll

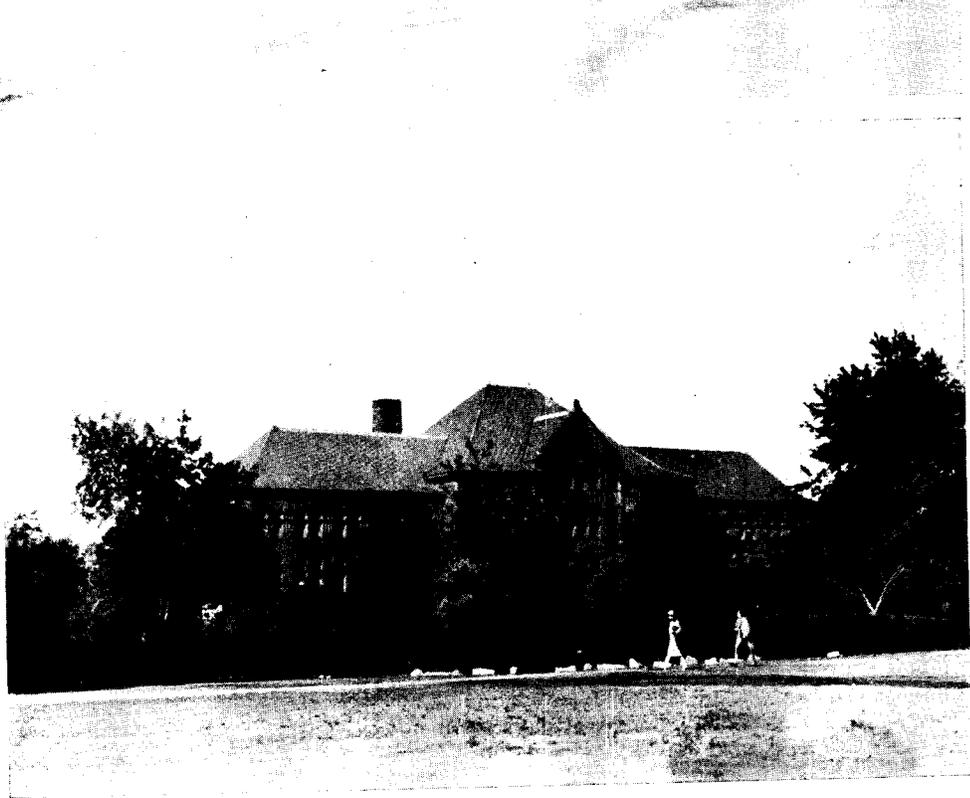


Upper
Engineering Quadrangle

Lower
Neighboring Churches



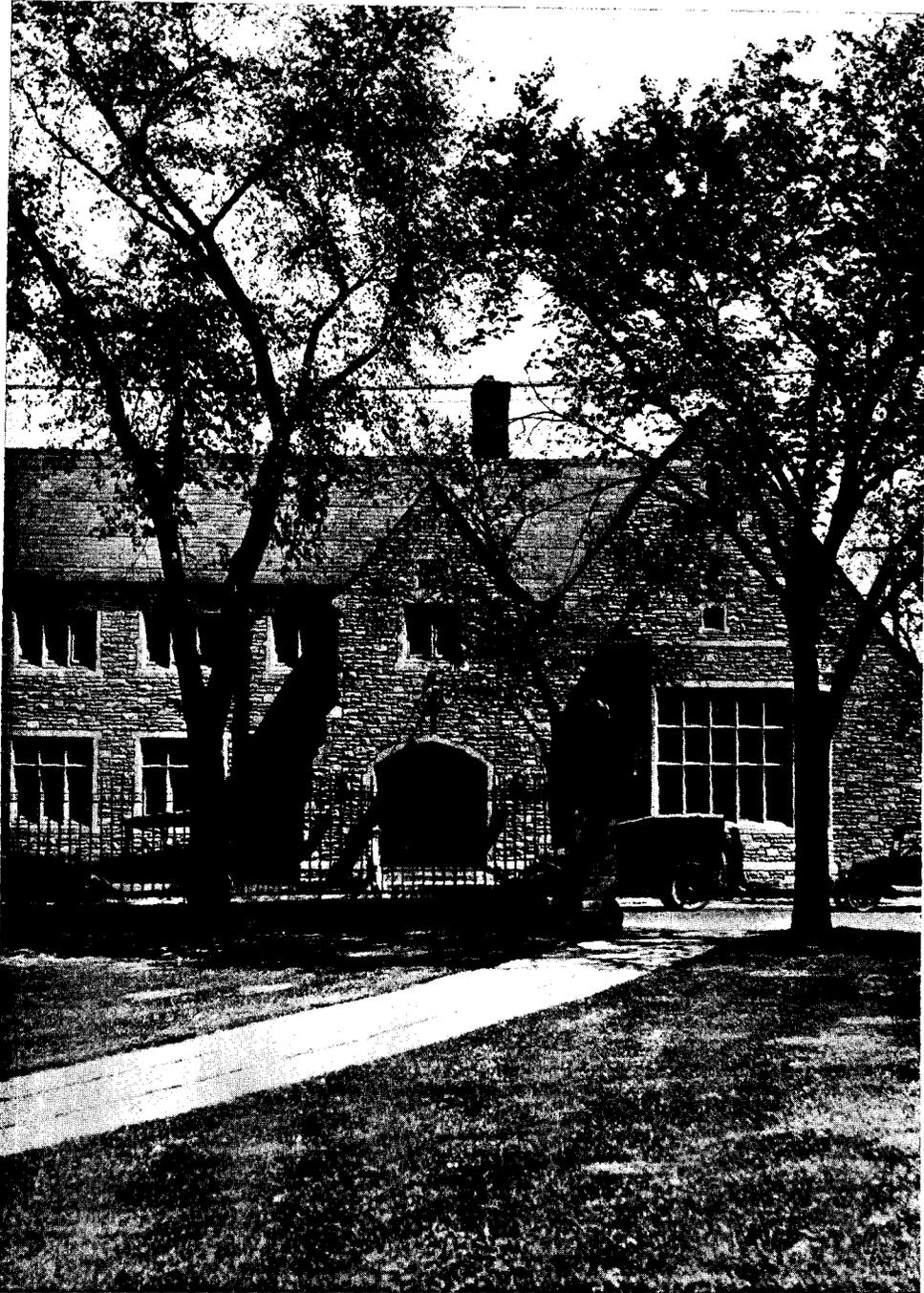
Upper
The Music Building



Lower
Pillsbury Hall



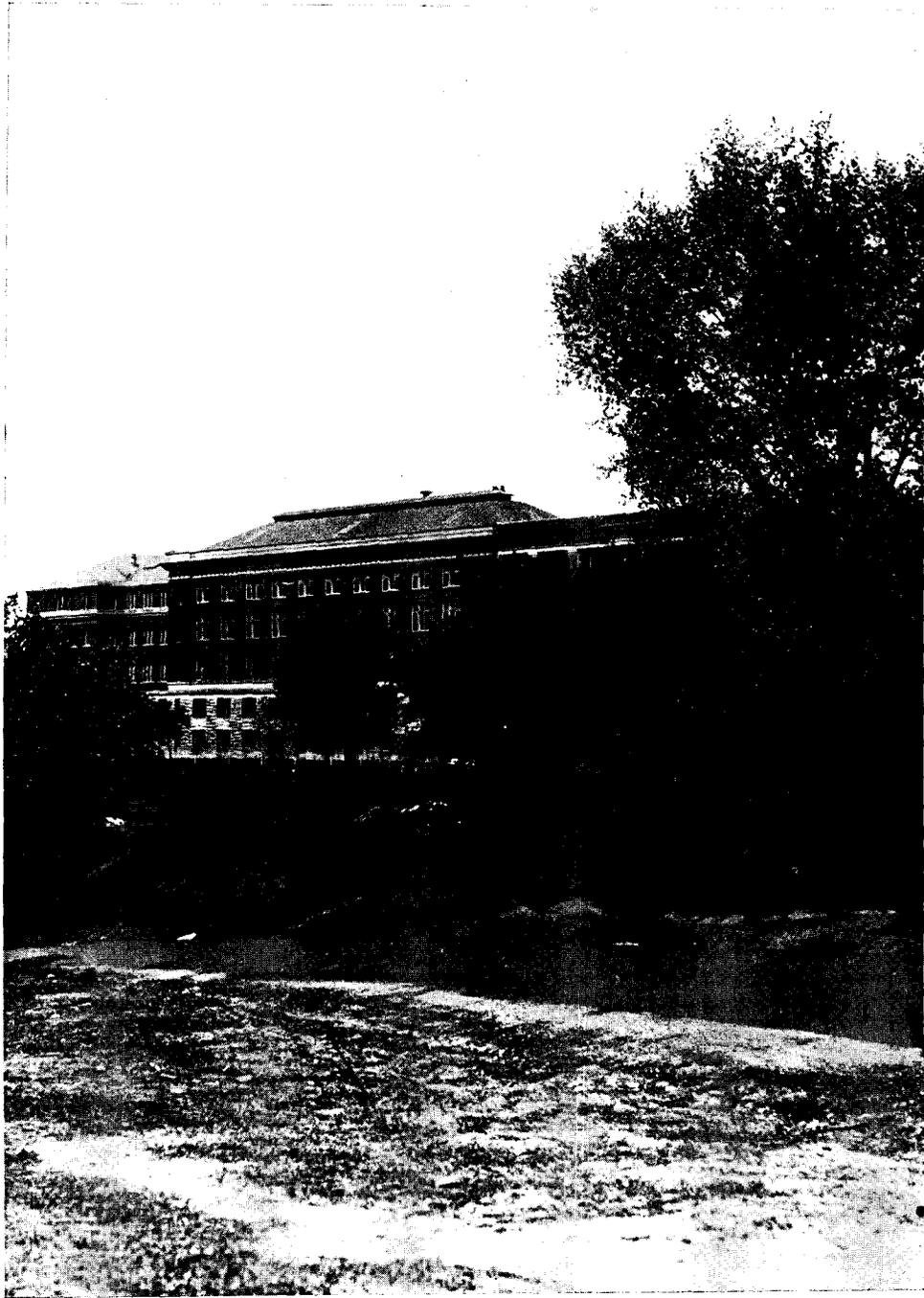
A Garden Entrance



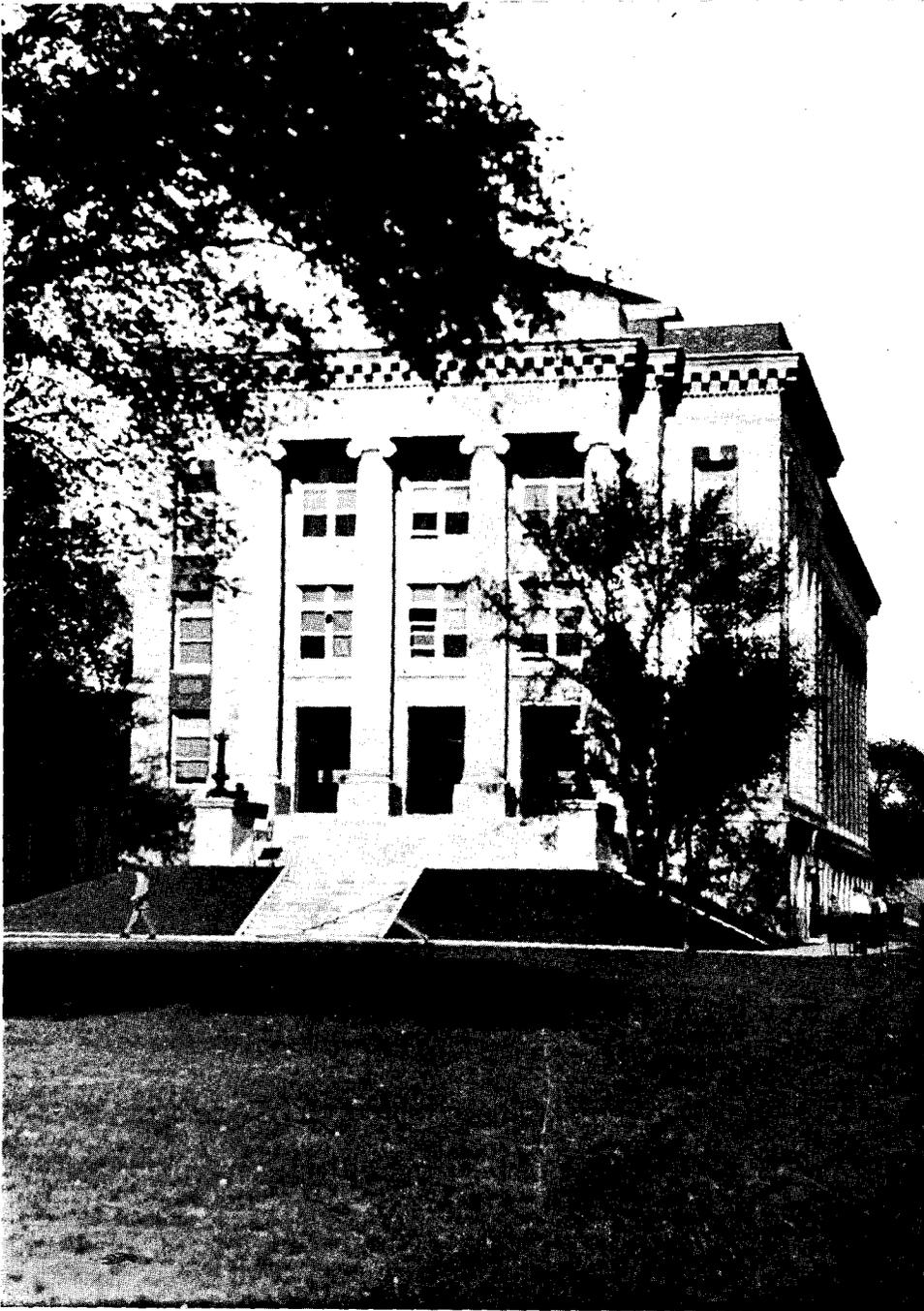
Y.M.C.A. Building



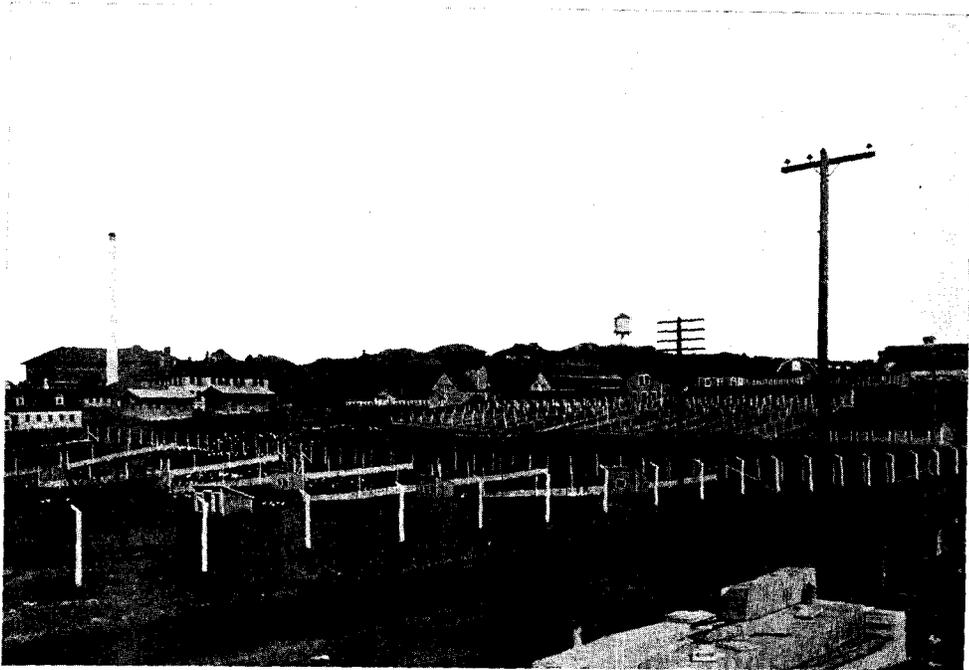
On
Commencement
Day



The University Hospital



Administration
Building



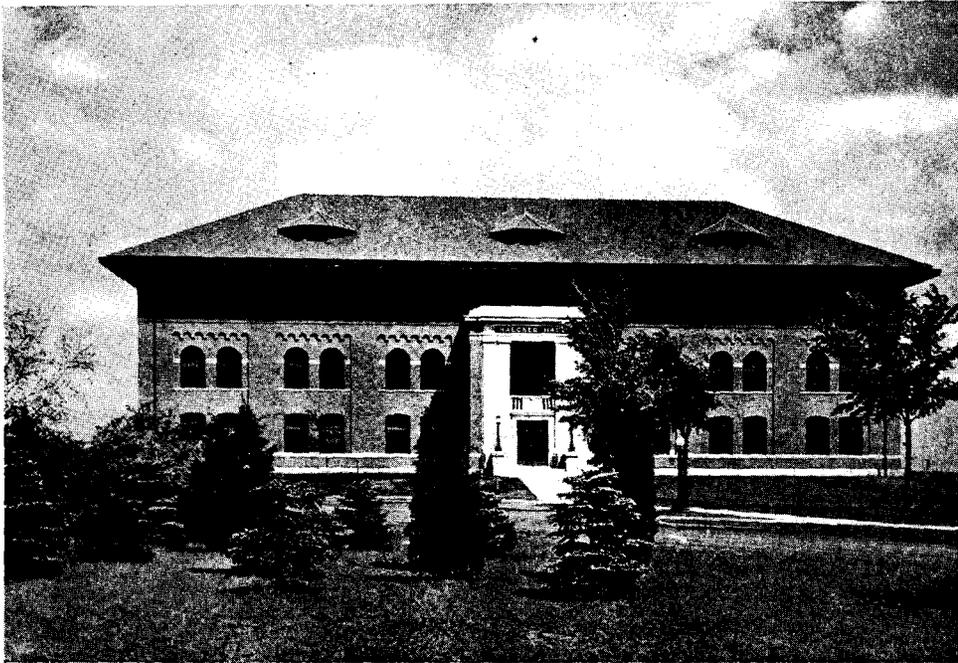
Upper
University Farm



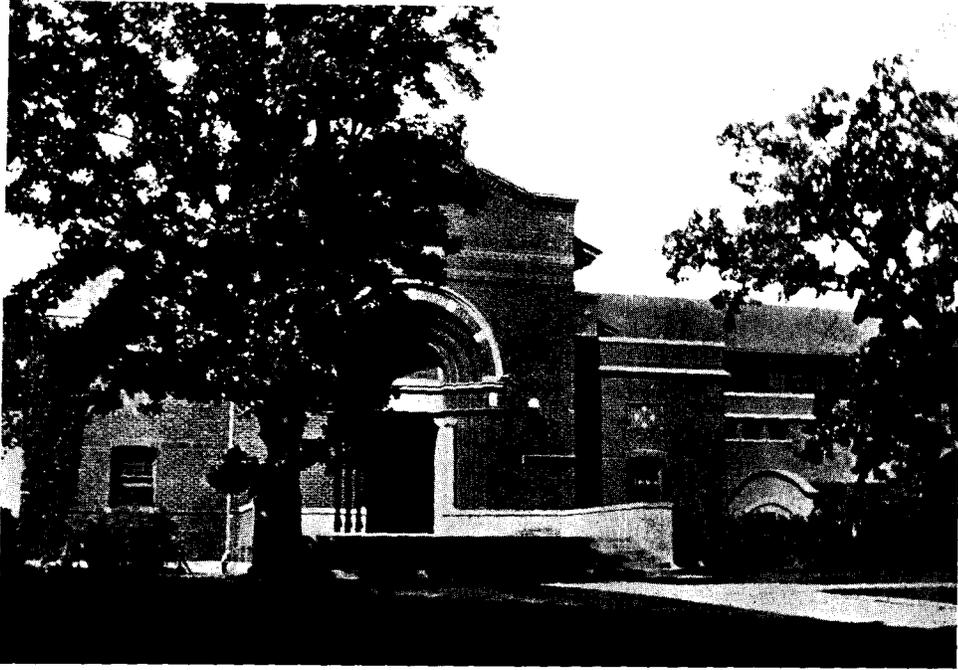
Lower
The Farm Gymnasium



Upper
Administration Hall
University Farm



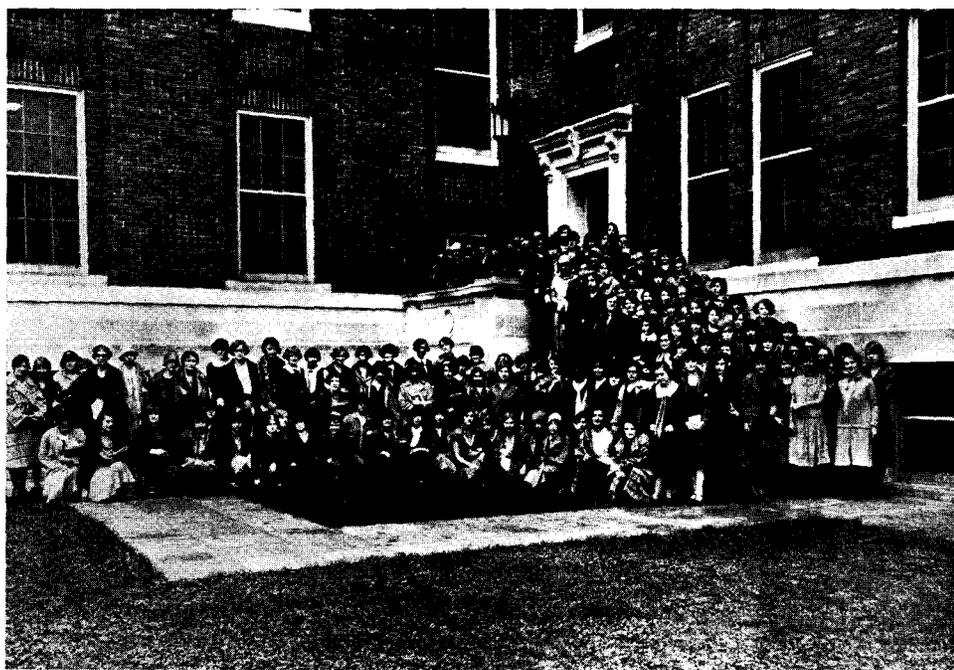
Lower
Haecker Hall
(Dairying)



Upper
Women's Gymnasium



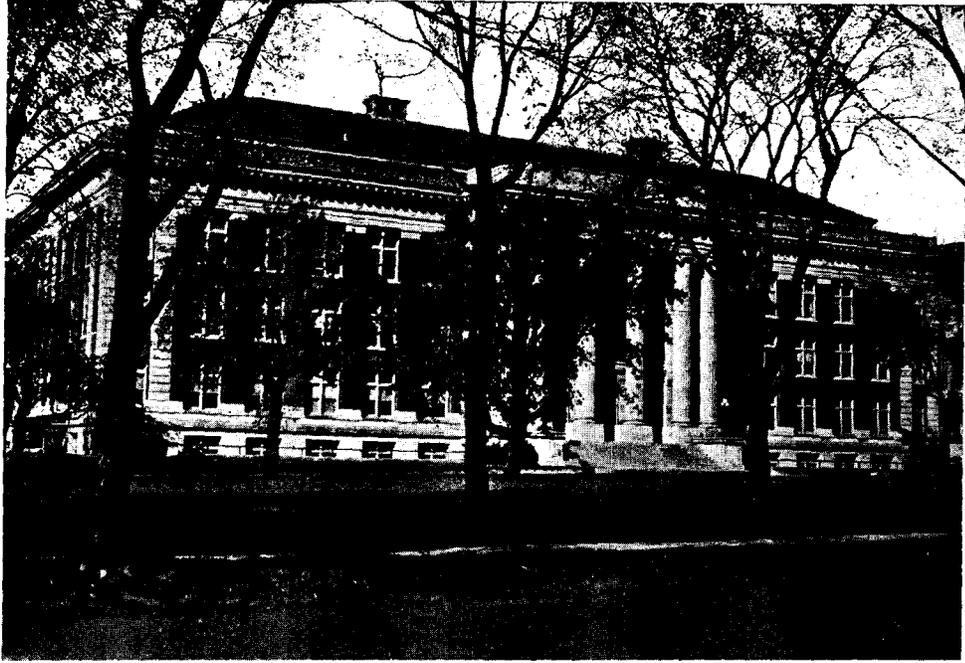
Lower
The Mines Experiment
Station



Upper
An Entering Class
of Nurses



Lower
Freshmen are Welcomed
in the Stadium



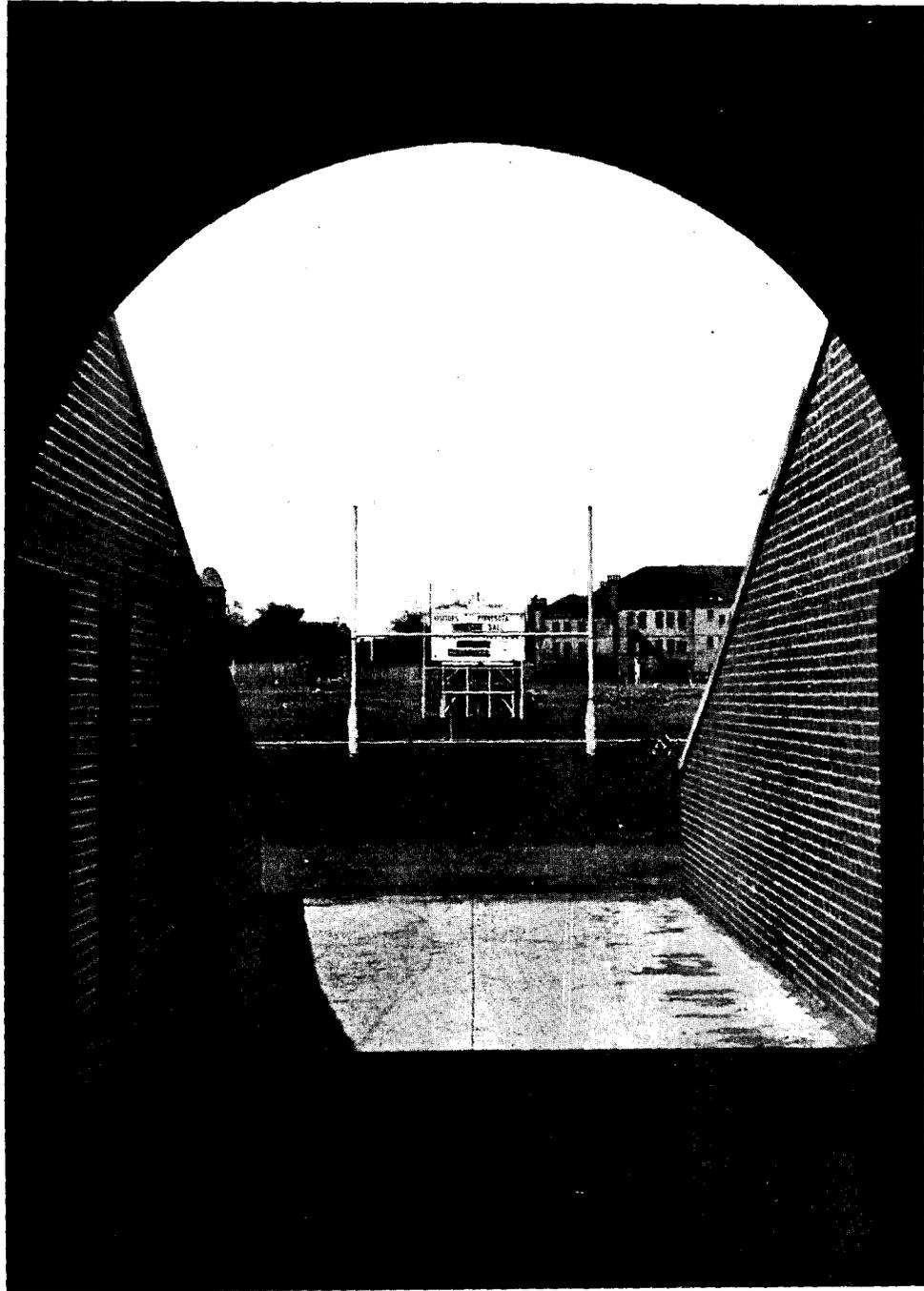
Upper
The Chemistry Building



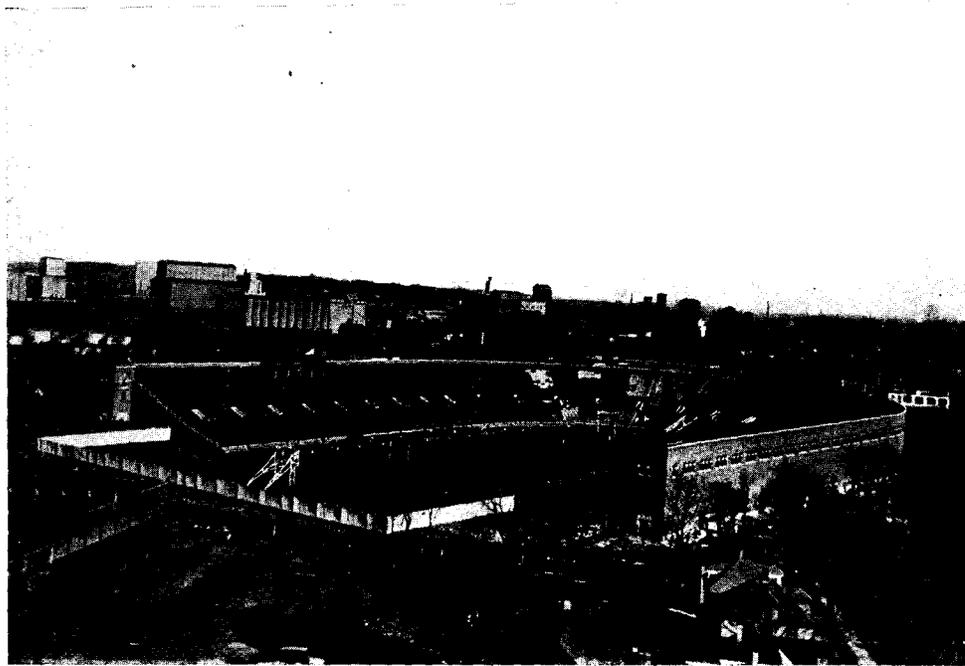
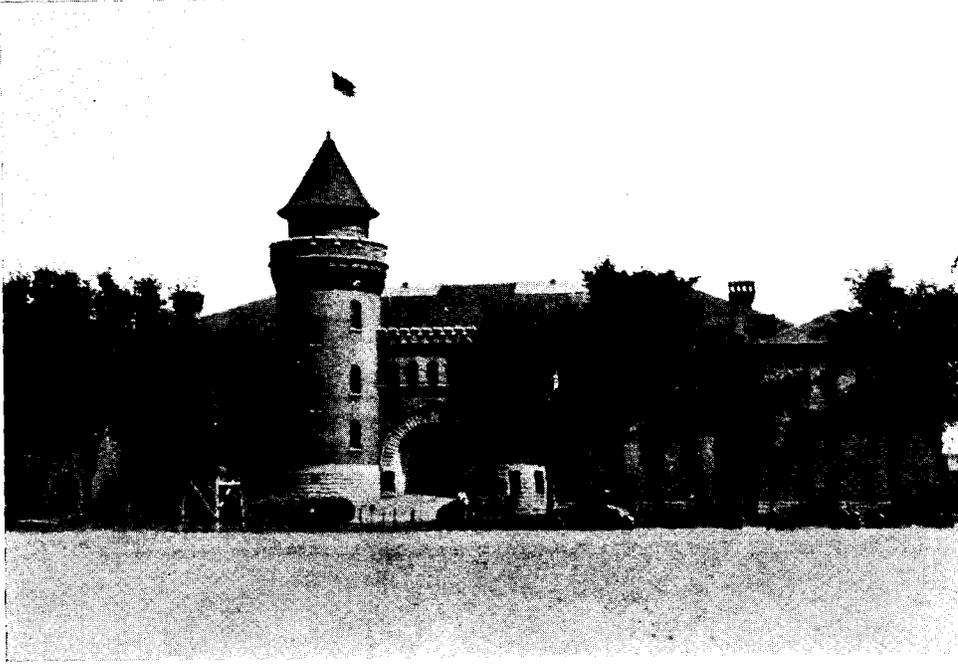
Lower
The Law School Corner



Pleasant Street



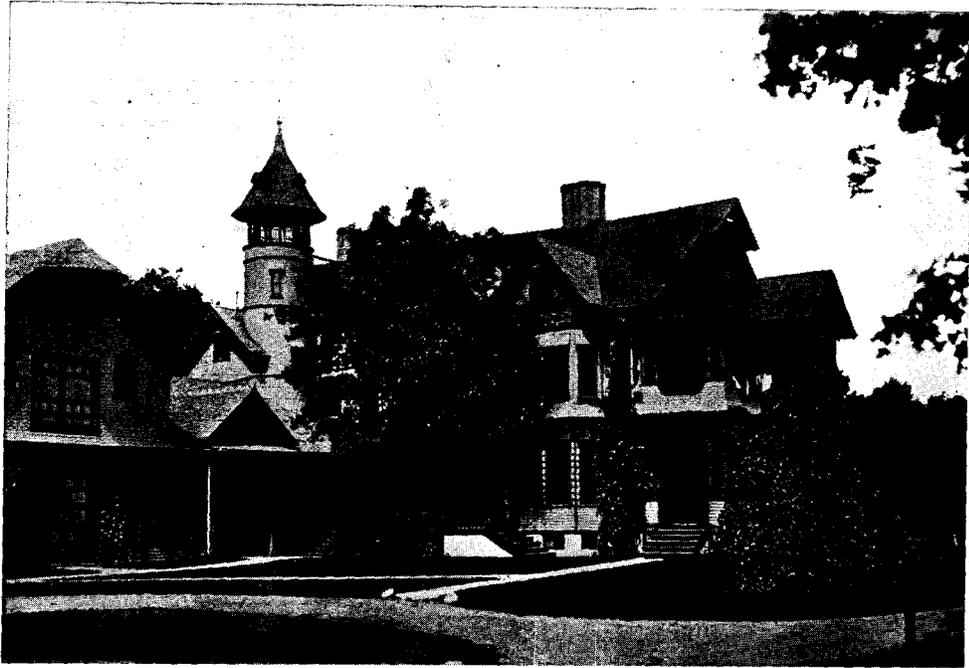
A Peep Into
the Stadium



MPLS. JOURNAL PHOTO

Upper
The Armory

Lower
Action in the Stadium



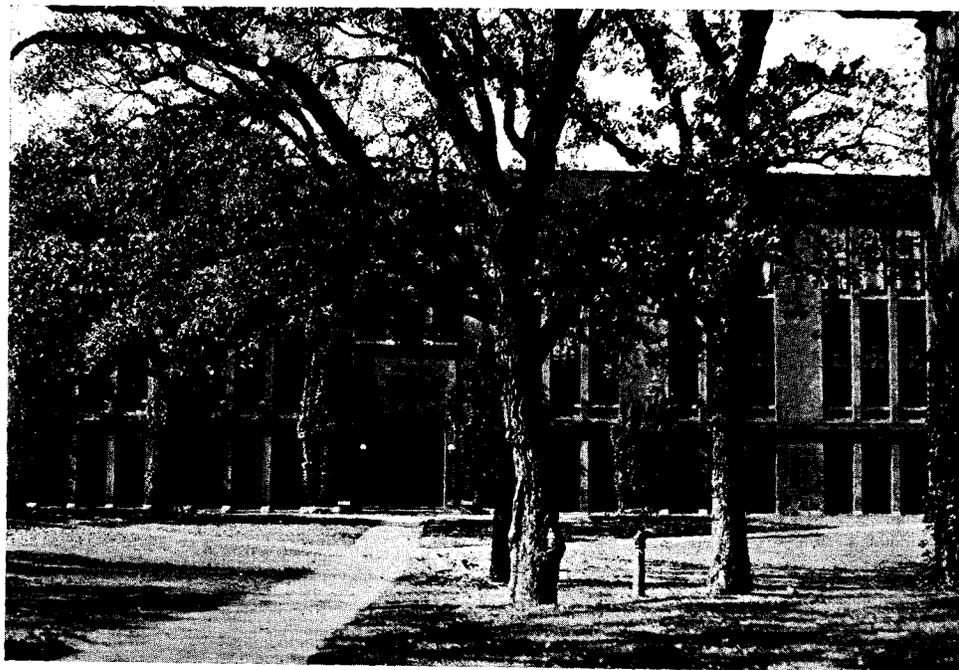
Upper
The Original "House"
at University Farm



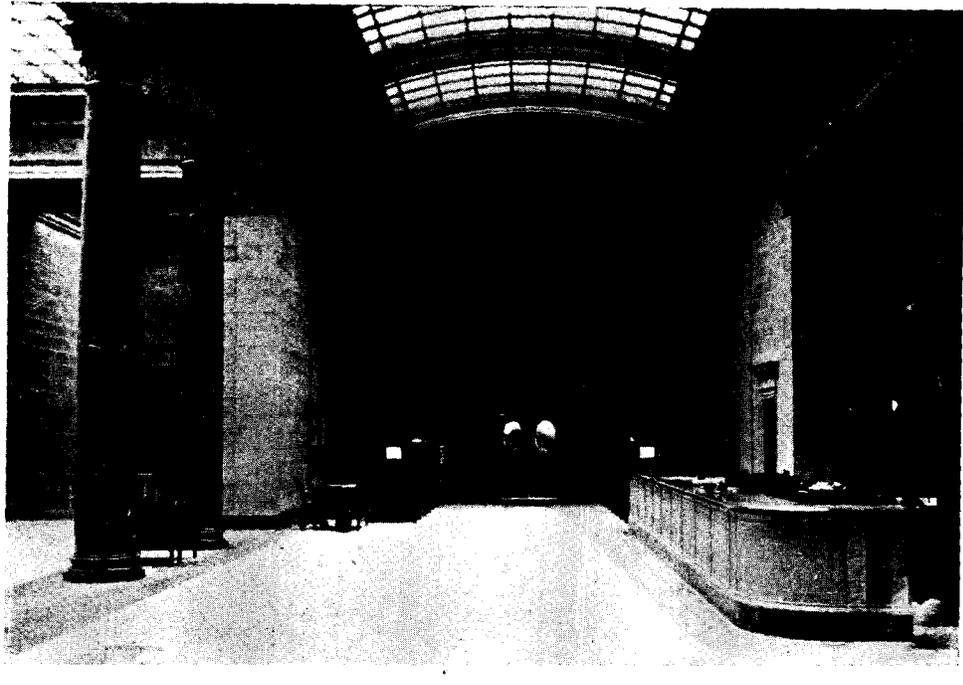
Lower
Shady Walk on the
Farm Campus



Upper
Millard Hall
(Main Medical Building)



Lower
University High School



Upper
The Library
(An Interior)



Lower
The Arthur Upson Room
in the Library

NOTICE

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Minneapolis, Minn.

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