

*The Bulletin of the*  
UNIVERSITY *of* MINNESOTA

The Biennial Report of the President  
of the University of Minnesota  
to the Board of Regents  
1944-1946

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## THE PRESIDENT'S REPORT

*To the Honorable Board of Regents  
University of Minnesota*

GENTLEMEN: I have the honor to present to you the biennial report of the University of Minnesota, 1944-46.

As the two-year period, or biennium, that included my first year of service to the University of Minnesota came to an end, by far the most visible phenomenon on this campus as on others throughout the nation was the tremendous increase in the number of college students, the majority of them veterans.

Internally, this phenomenon immediately confronts administrators with a score of problems, among them housing, classroom and laboratory space, the recruitment of suitable teachers and, above and beyond all others, obtaining the funds with which to operate the tremendous enterprises which their institutions have suddenly become.

Permeating and affecting all of our other problems and perplexities, however, and also, I surmise, outstanding in the minds of the public, is the question, "How effectively can the educative process be carried on for so large a group, under conditions as yet unrelieved with respect to so many urgent shortages and needs?"

College presidents generally are agreed that there will be an inevitable decline of efficiency for the present. But let me say two things: the *opportunity* to get an education is still intact; and the great influx of students, including veterans, is a heartening sign of the forward march of our American democracy.

The University of Minnesota never *gave* any students an education—but it has given thousands the chance to *get* one. More than ever before, students must shift for themselves, but "if you be a lover of instruction you will be well instructed" may still be said to them, as it was inscribed in letters of gold over the school of Isocrates in Athens four centuries before Christ.

The democratic day of mass education at the college level, sometimes deplored, has dawned. The standard colleges and universities cannot meet all needs. New types of institutions will be required. But the lament that "too many people are going to college" has an outworn sound, coming too often from those who deny to the children of others what they take for granted for their own. Who knows enough? Is not "a little learning" as dangerous for a nation as for an individual?

"If the United States is making a mistake in giving university education to too many students, it is surely one of the noblest mistakes in history" is the comment made to the British people a year ago by Sir Ernest Simon of the University of Manchester.

Our University has more at the moment that it can do. It has no ambition for mere size. The true measure of its greatness is not in size. But at the same time, great size has been thrust upon it. And this, in turn, means that we to whom its destinies have been entrusted must do everything in our power to obtain the added financial support that will make it possible for us to function with efficiency. In this effort, I feel sure that the people of Minnesota are behind us.

Let us remember that this moment is not the final measure of time or of ability. Surely it is the burning ambition of this University to deserve the

confidence of the people of Minnesota who give it the means to live and who expect it to serve. Surely, it is the solemn determination of this University to meet the test and trial of its time, and the challenge of change in an expanding world. Surely, it is the earnest commitment of this institution to grow with the growing needs and the more generous vision of the American milieu.

Spurred by knowledge of the terrible new weapons of destruction that man has devised, and awakened to the fact that hope for the future depends on our ability to inform and refine man himself, who alone can employ these engines, education has turned swiftly to meet this new challenge. I believe with Horace Mann in the improbability of the race, its capacity to learn, its certainty of biological adaptation, in the last extremity, to survive.

But educators almost everywhere are convinced there must be a new and broader approach to our task, that there is a terrible urgency to realize what John Ruskin meant a long while ago when he said, "Education does not mean teaching people to know what they do not know. It means teaching them to behave as they do not behave." Hence the ferment over general education, as it is called, in which this University is helping to pioneer—the effort to make liberal education more functional, with more humane outcomes in human conduct. There will be more, not less, of science and specialization in this modern scientific and industrial age, but with it, a greater effort toward an understanding of the social and moral meaning and responsibility of specialization.

Another basic function of a university, which, perhaps, is less widely understood than the instruction of young people, is the conduct of successful research, of investigations which widen the boundaries of knowledge for the solution of every kind of problem.

Twenty years ago the universities of this country took new notice of Minnesota because of this University's highly organized program of self-study. Research was the starting point, research to identify problems in the educative process itself, to assess handicaps and shortcomings, to redefine educational objectives and to test for their attainment.

In many areas, action and reorganization followed. Minnesota created new criteria for educational advance, not only at home but in the whole American academic world. We must press on with that kind of pioneering.

In the subject-matter disciplines, in science and in training for the professions, we have gone forward through research. Minnesota's growing pre-eminence in medicine offers an example. The training of physicians and surgeons, once the function of proprietary schools, was revitalized in this nation when transferred to a university environment under the stimulus and corrective of basic investigation in the medical and biological sciences. This has been true everywhere, but the alliance of this university with the Doctors Mayo through the Mayo Foundation was epochal. It set new standards of professional training, higher demands for professional competence. These reacted to set new goals for scholarly investigation. The circle was complete and in motion.

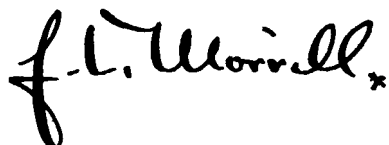
Through research a university does lift itself by its bootstraps. Its productiveness goes up; its maturity and prestige are enhanced. The spirit of scholarship, long since established, is strong in this university, but new possibilities beckon. Scientific investigations to enlarge the basic agricultural economy of the state and region have been well understood and they have been supported by both the state and the federal governments.

Research relations with the non-agricultural industry of Minnesota have not kept pace. The State Legislature has made a modest beginning through special appropriations. Business and industry are turning increasingly to the University with their problems. "Weapon research" and other projects carried on with distinction during the war years for the Army, Navy, and other federal agencies, some of them of a fundamental nature, some in association with Minnesota firms, reveal exciting peacetime possibilities.

The older resources of agriculture, mining and forestry are still plainly susceptible to new product and new process development. But they do not offer the only prospect of an expanding state economy. Present university research relations with business and industry can be better coordinated, and our availability more aggressively promoted. To do this will require interior organization, a more sharply focused outlook, a new sense of incentive for service to the welfare and prosperity of the people. To underwrite the productive ongoing of the University is the surest investment the people of Minnesota can make in their own future. The future of the University must be a changing one if it is to be a greater one. Research is the tested instrument of change and advance.

In conclusion, my first completed year at the University of Minnesota has been one of inspiration and happiness in every respect. The cooperation of both the faculty and my administrative associates has been generous and indispensable. The friendship of the students and the support of the alumni have been a source of great encouragement. The plainly evident pride and interested proprietorship of the people of Minnesota in their great state university are most heartening to those of us who serve them and their institution responsibly.

Given the means to meet the present emergency, the University of Minnesota will enter, I deeply believe, upon a new era more significant and productive than any in its history—an era of wider dimensions and greater destiny.

A handwritten signature in cursive script, reading "F. L. Merrill". The signature is written in dark ink and is positioned to the right of the typed text. There is a small asterisk-like mark at the end of the signature.

Minneapolis, Minnesota  
June 30, 1946

## EVENTS AND ACTIVITIES

*and*

### ACTIONS OF THE BOARD OF REGENTS

**University's Eighth President Chosen**—An event of the biennium was the election in February, 1945, of a new president of the University of Minnesota, its eighth. James Lewis Morrill, who for three years had been president of the University of Wyoming, was chosen for the office by unanimous ballot of the Board of Regents, and it was announced that he would take office July 1, 1945. President Morrill was 53 years of age at the time of his election. He had had a career in journalism and government agencies of the First World War before returning postwar to his alma mater, Ohio State University, where he began as alumni secretary. Subsequently he also taught journalism, did research in education and was junior dean of the College of Education, before becoming vice-president in charge of public relations, a position in which he continued until elected at Wyoming in 1941.

President Morrill came to the University of Minnesota at a moment that marked a milestone in the history of the institution, namely, its imminent transition from war to postwar conditions, and the story of this transition will be the history of the University, as of other educational institutions, during the next several years.

Dr. Morrill's assumption of office marked, also, termination of a long and honorable career at the University of Minnesota, that of Dr. Walter Castella Coffey. Dr. Coffey came to Minnesota in 1921 as dean of the Department of Agriculture and served in that office until July 1, 1941, when President Guy Stanton Ford reached the age of retirement. The Board of Regents thereupon elected Dean Coffey to the acting presidency, and shortly thereafter named him president. He thus served (1941-45) through four of the most trying years in the institution's history, years marked especially by all of the uncertainties and difficulties of wartime and by the unusual demands upon the University for teaching large naval and army contingents while at the same time conducting a broad program of special civilian training for industrial positions—these along with the usual formal programs of daytime and extension education. Upon his retirement for age as president emeritus, he was given by the Board of Regents a resolution of the heartiest appreciation for his stable and constructive leadership and undeviating devotion to his difficult tasks.

**Inauguration of President Morrill**—Formal inauguration of President Morrill was conducted April 25, 1946, in Northrop Memorial Auditorium at the conclusion of a series of educational conferences and dinner and luncheon meetings that began on the morning of April 23.

Speakers at the several educational conferences in Northrop Auditorium were Bishop G. Bromley Oxnam, president of the Federal Council of Churches of Christ in America; Winfield W. Riefler, professor at the Institute for Advanced Study, Princeton, N. J.; Wayne Lyman Morse, United States Senator from Oregon; Harlow Shapley, director of the Harvard College Observatory; George Dinsmore Stoddard, commissioner of education of the State of New York and president-elect of the University of Illinois; Louis S. Headley, president of the First Trust Company, St. Paul, Minnesota; James Bryant Conant, president of Harvard University, and George Nauman Shuster, president of Hunter College, New York.

The list of speakers at luncheons and dinners included George F. Zook, president, American Council on Education; Charles J. Turck, president, Macalester College, St. Paul; Frederick L. Howde, president, Purdue University; William Anderson, chairman, Department of Political Science; Gerry M. Stoner, president, Associated Women Students; Raymond B. Allen, executive dean, College of Medicine, University of Illinois and president-elect of the University of Washington; Bernhard Christensen, president, Augsburg College, Minneapolis; Conrad Elvehjem, professor of biochemistry, University of Wisconsin; John C. West, president, University of North Dakota, and President Morrill.

Speakers at the actual exercises of inauguration, apart from President Morrill, who delivered his inaugural address, were Governor Edward J. Thye of Minnesota, Edmund Ezra Day, president of Cornell University, Ithaca, New York, and Chairman Fred B. Snyder, chairman of the Board of Regents, University of Minnesota, who inducted Dr. Morrill into office. The invocation was spoken by Archbishop John Gregory Murray of St. Paul. The Very Reverend J. A. Aasgaard, president of the Norwegian Lutheran Church of America, pronounced the benediction.

More than five hundred persons, including delegates from colleges and universities in this country and abroad, representatives of learned societies and special guests of the University, marched in the impressive academic procession that moved from Coffman Memorial Union to Northrop Memorial Auditorium for the inauguration ceremonies. Following the inauguration there was a buffet luncheon in the ballroom of Coffman Memorial Union and an informal reception at which delegates and others had an opportunity to meet President and Mrs. Morrill.

Under Dean Theodore C. Blegen of the Graduate School as chairman, those comprising the inauguration committee were Regents Fred B. Snyder, Raymond J. Quinlivan, and Daniel C. Gainey; from faculty and administration, Donald G. Paterson, Henry Schmitz, Dwight E. Minnich, A. C. Krey, Malcolm M. Willey, and Paul E. Miller; from the staff, Mrs. Ruth Lawrence, Wallace Blomquist, Mrs. Mary J. Randolph, and James S. Lombard; from the student body, Miss Cherry Cedarleaf and Rod McQuary, who were, respectively, president of the All-University Student Council and editor of *The Minnesota Daily*.

A feature of the inauguration was the awarding of honorary degrees to the two living past presidents of the University of Minnesota. Dr. Guy Stanton Ford was awarded the honorary degree, doctor of humane letters, and to Dr. Walter C. Coffey was awarded the doctorate of science.

**Academic Tenure Regulations Adopted**—Regulations governing tenure in academic positions at the University, drawn by a special faculty committee and approved by the University Senate, were voted into effect by the Board of Regents on December 21, 1944.

Prior to 1945 the University had no comprehensive set of written rules governing the tenure of the academic staff. A variety of tenure practices had developed in different colleges and departments. A judicial committee of the Senate appointed in 1942 to determine the facts in disputes over academic tenure found itself without any guiding rules to apply. Finally a report on faculty problems from the Senate Committee on Education called attention to the uncertainty concerning tenure rights as one of several obstacles to the recruitment and retention by the University of the ablest scientists and teachers.

On October 21, 1943 the Senate resolved in favor of the appointment of a special committee to consider and report upon problems of faculty tenure. President W. C. Coffey, on November 24, 1943, named the following members: Professors William Anderson (chairman), W. H. Cherry, O. B. Jesness, M. G. Neale, George C. Priestner, Dean T. R. McConnell, and Assistant Professor John W. Clark. When the latter entered war service he was succeeded by Assistant Professor H. L. Turrittin.

Following approval of the regulations by the Senate and the Board of Regents, a special committee under the chairmanship of Vice-President Malcolm M. Willey worked out the details of applying and administering the regulations.

These regulations define *regular* faculty positions as those of professor, associate professor, assistant professor, and instructor. For tenure purposes research associates are put in the same class as assistant professors and research fellows are grouped with instructors. All professors and associate professors are accorded indefinite tenure automatically, subject only to removal for cause and to retirement according to general university rules. Assistant professors who by June 30, 1945 had served six years and instructors who by that date had served eight years were also given indefinite tenure at once. Other assistant professors may acquire indefinite tenure upon satisfactory completion of a five-year probationary period. On the other hand, instructors are not to acquire indefinite tenure at that rank after June 30, 1945, with the possible exception of certain instructors under the Department of Agriculture. After not to exceed seven years of service, instructors who have not been promoted are to be dropped.

*The non-regular* faculty positions under the rules include all positions with special titles such as lecturer and visiting professor, all teaching assistants and other assistants who are primarily graduate students, and all holders of part-time teaching and research positions. Without special action by the Board of Regents no holder of a non-regular position is to acquire indefinite tenure or to gain any right to reappointment.

In a sense the tenure regulations guarantee only minimum rights. The Regents retain full freedom to grant tenure rights in excess of those stated. Furthermore, removals for cause are permitted at any time, but in such cases the individual concerned is entitled to an investigation of the facts by the Judicial Committee of the Senate and to a hearing before the Board of Regents if he so desires.

One major purpose of the regulations is to keep every member of the staff informed as to his tenure status. The regulations are published for the benefit of all regular faculty

members; all non-regular members are entitled to be informed in writing as to their tenure rights. Furthermore, all instructors and assistant professors in their probationary period are notified regularly at least once a year as to their status. Deans and department heads are required to make regular reports on the tenure status of instructors and assistant professors, and a special clerk under the vice-president for academic administration keeps the records complete and up-to-date.—WILLIAM ANDERSON, *chairman, Faculty Committee.*

**Department of University Relations**—Following a series of surveys and committee reports which strongly indicated the need to enlarge and strengthen the University of Minnesota's program of public relations, the Board of Regents, in 1945, voted to create a Department of University Relations and delegated to the administration the task of finding a head for that department. At the June, 1945 meeting of the Board, William Lee Nunn was named director of the department, and later President Morrill named a faculty advisory committee.

Subsequently, two additional full-time people were added to the new department, in which was created, also, the position of publications editor, to handle production of special university bulletins.

Meanwhile, in a cooperative arrangement for attracting greater interest in University of Minnesota athletics, the post of assistant to the director of athletics was created, with relationships to the "M" Club, the Department of Physical Education and Athletics and the Department of University Relations. The informational representative for athletics was then attached to this new office. By the end of the biennium these new arrangements for acquainting the public with the University were in full operation.

**Industrial Relations Training and Research Center**—An Industrial Relations Training and Research Center was created at the University of Minnesota, February 22, 1945. A statement issued at that time described the Center as a means of providing professional training for leadership in industrial relations. To that end it integrates the work of the various departments most concerned with its problem, among them economics, psychology, engineering, political science, sociology, agricultural economics, and business administration. At the same time the Center carries on a continuing program of research designed to increase the effective utilization of human resources. The results of such studies are made available to labor, industry, and the public, to provide a basis for mutual understanding and cooperation.

Professor Dale Yoder of the School of Business Administration became director of the Center. He has the counsel and advice of two strong committees, one of faculty members from departments concerned, the other, a statewide committee representing industry, labor, agriculture, the press, the state Civil Service Department, and other interests.

**Survey of Schools of Agriculture**—In 1919, when, following the conclusion of the first world war, enrollments were rising rapidly in schools and colleges throughout the country, an act of the Minnesota Legislature authorized the establishment of a school of agriculture in Waseca county, presumably on the site of the Waseca Experiment Station. But the Legislature made then and has made since no appropriation to finance the establishment of the school. In the summer of 1944 a proposal to construct and activate such a school was made by a committee of Waseca residents. To seek advice in acting on this proposal the Board of Regents authorized, and President Walter C. Coffey named, a committee of three to survey the situation with respect to the University of Minnesota's Schools of Agriculture. Its members were Lyman E. Jackson, president, South Dakota Agricultural College; H. H. Kildee, dean of agriculture, Iowa State College and F. D. Farrell, president-emeritus of Kansas State College.

In a report on December 18, 1944, after visiting and studying all four schools, the committee gave findings in which the principal conclusions were the following:

1. That because of the importance of the Schools of Agriculture to the farming and rural life of Minnesota, the University should continue to give first consideration to the maintenance and improvement of the quality and effectiveness of the four existing schools rather than to an increase in the number of schools.

2. That probable enrollments and other conditions throughout a long series of postwar years, rather than any expected early postwar enrollments and other conditions, should be used as a basis for action on any proposal to establish an additional School of Agriculture.

3. That, with comparatively moderate expenditures for improved housing, for some enlargement of the staffs, and for some increased classroom and laboratory facilities at Morris, Crookston, and Grand Rapids, the four existing schools are adequate to the prospective needs. Moderate expenditures would enable the four schools together to accommodate readily an average annual enrollment of 1,500 to 1,600, or 300 to 400 more than the average of the ten years ended with 1939-40, and would be distinctly less than the cost of an additional school of the kind contemplated by its proponents.

4. That no provision should be made for an additional School of Agriculture.
5. That facilities should be provided at the Experiment Station at Waseca for the holding of meetings of groups of citizens coming to the station for short periods to learn at first hand of the results of research conducted there.

In line with this report, the Board of Regents made no request from the 1945 Legislature for funds to activate a School of Agriculture at Waseca.

Subsequently, a faculty committee headed by Dean Clyde H. Bailey of the Department of Agriculture considered the implications of the above report and advised the administration that it had passed the following resolution:

"THAT the instructional programs in the Schools of Agriculture at Crookston, Morris, and Grand Rapids be gradually raised to be designed in the interests of older students having completed at least the ninth grade of high school, or being 16 years of age, or who by tests were found qualified for admission."

**New Buildings Constructed**—An addition to Powell Hall, of which more than half the cost was paid by the Federal Works Agency, and a new dormitory for women at the Northwest School and Station, Crookston, were the only building projects carried out during the biennium, because of wartime restrictions, shortages of materials, and high construction costs.

When the federal government instituted a large program of cadet nurse training in the School of Nursing, additional dormitory space was necessary. Accordingly, on September 30, 1944, the Board of Regents voted to erect such a building, to be paid for as follows: Federal Works Agency, \$231,000; War Training funds, \$135,000; University dormitory fund, \$54,000. The contract, awarded to the Hagstrom Construction Company, St. Paul, called for completion by July 1, 1945.

Facilities for student housing at the Northwest School and Station of Agriculture were increased during the biennium by construction in 1946 of a new dormitory for women, on that campus. After original plans were made, costs of building rose so high that the legislative appropriation of \$149,000, originally intended to cover equipment as well as building, was all required for the building. The Regents appropriated from general funds \$47,688 to equip the building.

**Re-establishment of Dads Day and Mothers Day**—Dads Day and Mothers Day, conducted on a restricted scale during the war years, were fully re-established after V-J Day. The Dads Day dinner was served in Coffman Memorial Union Saturday, November 24, 1945 with about 700 in attendance. Mothers Day was conducted May 11, 1946, when the ballroom was filled to capacity. President J. L. Morrill spoke on both occasions.

**Mayo Professorship in Public Health**—The University of Minnesota's first permanently endowed professorship was created on January 11, 1946, when the Board of Regents accepted a gift of \$150,000 from the Mayo Properties association, Rochester, Minnesota, income of which was to be used to pay the salary of the Mayo Professor of Public Health, who was to assume that title at the opening of the college year that fall when the Department of Preventive Medicine and Public Health was to become the School of Public Health, a division of the Medical School.

It was also provided that if such income were insufficient to pay a salary of "not to exceed \$10,000" additional funds would be appropriated to the salary from the contingent fund of The Mayo Foundation. At the time this matter came before the Board, President Morrill told the membership, "The establishment of this professorship is a significant milestone in the development of the University of Minnesota. For the School of Public Health it assures for all time a distinguished professorship beyond what the University could otherwise afford. For the Medical School it provides an ultimate and effective bond with the graduate work and the public health interests of the Mayo Foundation. It represents also a permanent tribute and reminder of the broad and humanitarian interests of the Doctors Mayo. As the first endowed professorship in the University of Minnesota, it sets an example which we hope will be followed by others."

**Veterans Bureau Created**—When it became evident in the fall of 1945 that the number of veterans who would come to the University of Minnesota under the two acts permitting federal payment of their expenses would be large, it was seen that special advisory, counseling, and expediting services would be needed to make their stay on campus as effective and convenient as possible. Accordingly a Veterans Bureau was created, as an arm of the Office of the Dean of Students, and a director of the bureau, with advisers and counselors for students, was appointed. As the numbers of veterans subsequently increased even beyond what had originally been foreseen, the wisdom of the Board of Regents in creating such an agency became apparent.



**Radio Station WLB Becomes KUOM**—Agitation by the Minnesota Dads Association to have the call letters of the University Radio Station, WLB, changed to KUOM, thus incorporating the initials of the University of Minnesota in those letters, bore fruit in 1945, when the Federal Communications Commission approved such a change. The new call letters went into use June 1, 1945.

Subsequently, the University Radio Committee instituted an effort to obtain a new wavelength for KUOM, now on 770 kilocycles, with the idea that it might become a full-time station. KUOM now operates from sunrise to sunset and also shares time on certain days with WCAL of St. Olaf College, Northfield, Minnesota. Applications for certain wavelengths under consideration were not successful, but the efforts to change had not been dropped at the end of the biennium. The Radio Committee also had under consideration application for an FM wavelength to supplement KUOM's present coverage, but final action had not been taken.

**Campaigns for Hospital Additions**—Two campaigns to raise funds for additions to the University of Minnesota Medical School and Hospitals were conducted during the biennium and both were successful, although an abnormal rise in building costs meanwhile makes it likely that additional funds from state or federal sources will be sought.

In accordance with an act of the Legislature, a Committee of Founders of the Mayo Memorial was appointed by Governor Edward J. Thye, under the chairmanship of Dr. Donald J. Cowling, president emeritus of Carleton College. His committee was statewide in representation. During late 1945 and early 1946 it conducted a statewide campaign which resulted in pledges of more than \$1,000,000 toward the Memorial. Meanwhile, the 1945 Legislature appropriated \$750,000 toward the Memorial, it being understood that the plan was to construct a memorial building which would be a central unit of the Medical School, with offices, laboratories, a library, conference rooms, and the like, thus greatly increasing the facilities of the school and hospitals. Construction was postponed for the time being on account of high building costs and some changes in the physical plans and location of the structure.

With respect to this project, the Board of Regents on November 4, 1944, adopted the following resolution:

Voted unanimously to approve the following resolution of the Mayo Memorial Committee and to rescind resolution on the same subject approved by the Board on February 11, 1944:

*Resolved*, That the Committee of Founders of the Mayo Memorial hereby recommends that the Regents of the University of Minnesota adopt the following resolution:

*Resolved*, That on request of the Committee of Founders of the Mayo Memorial created by the concurrent resolution No. 10 of the Minnesota State Legislature adopted on April 24, 1943, the Regents of the University of Minnesota constituting a body corporate under the State Constitution do hereby ratify the establishment by resolution of the Regents on February 11, 1944, of a fund to be known as the Mayo Memorial Fund, but that the provisions hereof shall supersede those set forth in the Regents' resolution of that date.

That private and public donations and appropriations to the Mayo Memorial Fund so established shall be paid to the University of Minnesota and credited to this fund.

That all contributions donated thereto and accepted by the University shall become irrevocably the property of the Regents of the University of Minnesota as a body corporate, who as such shall have the title to the Memorial and all gifts therefor and the exclusive right to control, expend and use the same for the purposes hereinafter stated.

That the gifts so contributed shall be used by the Regents in their corporate capacity for the construction of a memorial medical building on the University Campus and for such expenses as may be incidental to the establishment of said fund.

That the sums or the income therefrom, if any, remaining in said fund after paying for such structure and incidental expenses shall be used for expenditures appropriate to the carrying on of activities therein or in connection therewith.

Having meanwhile received from the Variety Club of the Northwest, a social and charitable organization composed chiefly of men in the theatrical business, a proposal that it conduct a campaign among its members and in their theaters, to raise funds for a heart hospital to be built at the University of Minnesota and to bear the name, Variety Club Heart Hospital, the Board of Regents on September 22, 1945 passed the following resolution:

WHEREAS, The Variety Club of the Northwest, Inc., has indicated the desire to secure funds which shall be used for the construction, endowment, and maintenance of hospital facilities on the University of Minnesota Campus, to be utilized primarily for study and research into the causes, treatment, and care of heart ailments, and

WHEREAS, The Variety Club of the Northwest, Inc., plans to donate such funds to the University of Minnesota and to stimulate donations by others to the University for the purpose above referred to,

Now, therefore, be it resolved, by the Regents of the University of Minnesota, constituting a body corporate under the State Constitution, that a fund be established under the custody of the Regents to be known as the "Variety Heart Hospital Fund";

That private and public donations and appropriations to the "Variety Heart Hospital Fund," so established, shall be paid to the University of Minnesota and credited to this fund;

That all contributions donated thereto and accepted by the University shall become irrevocably the property of the Regents of the University of Minnesota as a body corporate who, as such, shall have the title to the hospital and all gifts therefor, and the exclusive right to control, expend, and use the same for the purpose hereinafter stated:

That the gifts so contributed shall be used by the Regents in their corporate capacity for the construction and maintenance of a hospital on the University of Minnesota campus to aid in research and study of the causes, treatment, and care of heart ailments and for such expenses as may be incidental to the establishment of said fund;

That the sums paid into such fund and any income therefrom remaining in the fund after paying the cost of construction and maintenance and any incidental expenses shall be used for expenditures appropriate to the carrying on of the activities of such hospital or in connection therewith.

The campaign conducted by the Variety Club was successful, and at the end of the biennium on July 1, 1946, plans were being laid for a special dinner in Coffman Memorial Union, at which more than \$260,000 would be turned over to the University, with a pledge of an additional \$25,000 a year for support of the hospital. With the knowledge that the United States Public Health Service was projecting a plan of extending federal aid to new public hospital construction, it was assumed that money from such funds would be sought to meet the additional costs, at current building prices, of erecting a 100-bed hospital.

**Deed to Residence of President**—At its meeting on March 9, 1945, the Board of Regents approved the following action:

Voted to accept with appreciation deed of gift, filed supplement to the minutes, page 3514, of the former home of the late Governor John S. Pillsbury at the corner of Tenth Avenue S.E. and Fifth Street, in the City of Minneapolis, made by his heirs, Mr. and Mrs. Alfred F. Pillsbury, Mr. and Mrs. Richard P. Gale, and Mr. and Mrs. John P. Snyder, as grantors, to the Board of Regents, as grantees, to be used as the home of the Chancellor of the University as long as that use obtains as the best use to be made of the premises, with the understanding that when that use no longer seems best the premises may be otherwise used for University purposes, or sold and the proceeds used for the best interests of the University.

**Staff Welfare Fund**—At its meeting on June 16, 1945, the Board of Regents approved the following:

Voted on recommendation of the President to approve the following recommendations of the Committee on Salary Contributions established in July 1942 (see minutes of Administrative Committee of Senate, July 1, 1932):

It was voted that from lists submitted by the members of the Administrative Committee, the President appoint a committee of nine essentially from the faculty, and with the privilege of adding four additional members from the staff, the Comptroller to act ex-officio, for the consideration and report to the Administrative Committee on the question of Salary Contributions during 1932-33.)

1. That the functions of the Committee be continued and that the Committee be re-constituted to represent more adequately both academic and civil service staffs.
2. That the fund heretofore subject to allocation on vote of the Committee be continued and that it be re-named "Staff Welfare Fund."
3. That the new Committee be named the "Committee on Staff Welfare Fund."
4. That the Staff Welfare Fund be available for allocation as the Committee on Staff Welfare Fund may recommend, and as approved by the President and the Board of Regents.
5. That the Committee on Staff Welfare Fund be appointed by the President and that it make periodic reports to him.

**Graduate Affiliation with Private Hospitals**—At its meeting on October 27, 1945, the Board of Regents took the following action:

Voted to approve affiliation of any hospital with the Medical School for purposes of graduate training in the clinical specialties of medicine in accordance with the following conditions outlined by the Administrative Committee of the Medical School under date of September 24, 1945:

1. The hospital shall have an organized program for the training of interns and residents which is acceptable to the Medical Graduate Committee of the University.
2. Affiliation must be recommended by the head of the University department concerned and approved by the Medical Graduate Committee.
3. One or more members of the staff of the affiliating hospital must be designated as University Preceptors, responsible for the supervision of such training.
4. Fellows supported by affiliating hospitals shall be expected to devote at least half of their period of graduate training to work in the basic sciences and appropriate clinical departments of the Medical School.
5. Stipends shall be at regular University rates for a period of 3 years. Appointments beyond this period shall be by special arrangement.
6. In order to insure adequate basic science and clinical training, affiliating hospitals shall provide stipends and tuition for double the period of clinical service which the fellow spends in the affiliating hospital. The payment of stipends may be arranged either through the University or made directly by the hospital.
7. Appointments to such fellowships may be initiated either by the affiliating hospital or by the University department concerned but must be acceptable to both. Appointees must be eligible for admission to the Graduate School and register as candidates for a Master's Degree.
8. In special circumstances deviations from this program may be authorized by the Medical Graduate Committee upon recommendation of the head of the Medical School department concerned.

**Limitation of Enrollment**—Following consultation with the Administrative Committee of the University Senate, President J. L. Morrill issued a statement of policy to govern limitation of student admissions to the University of Minnesota during the spring quarter of this year and on an experimental basis.

This action was in line with authority granted him for doing so at a meeting of the Board of Regents on February 15. The board also requested that he proceed to formulate such a policy.

Dr. Morrill's statement said:

No nonresident undergraduate college students will be accepted for admission to the University of Minnesota for the spring quarter, 1946, with the following provisos:

1. That students previously enrolled at the University during any regular academic year in other than War Training courses, and students who are sons or daughters of former students of the University will be admitted.

2. That on recommendation of the dean of the college involved and with the approval of the president, students, especially veterans, may be admitted when there are special and reciprocal educational reasons for doing so, with the understanding that preference will be given to students living in the area which is economically and educationally related to Minnesota.

President Morrill pointed out that examination of applications for admission probably would show certain cases in which it would be wise to make carefully chosen exceptions and said that the policy to be evolved in making these exceptions will be one of the experimental values derived from administration of the program.

Certain further refinements of the policy were later promulgated, among these permission under certain circumstances for the wives of veterans in the student body to take classes at the University.

It was announced that the policy would be continued for the forthcoming college year.

**Granting of Honorary Degrees**—The University of Minnesota continued during the biennium its conservative practice of granting few honorary degrees.

At Commencement in June, 1945, honorary degrees were granted to:

Donald J. Cowling, former president of Carleton College, LL.D., *honoris causa*.

Professor Andrew Boss, associate director, emeritus, of the Agricultural Experiment Station, Department of Agriculture, Doctor of Science, *honoris causa*.

The inauguration of President Morrill, April 25, 1946, was made the occasion for the award of honorary degrees to the two living former presidents of the University. The recipients were:

Dr. Guy Stanton Ford, president emeritus and former dean of the Graduate School, Doctor of Humane Letters, *honoris causa*.

Dr. Walter C. Coffey, president emeritus and former dean of the Department of Agriculture, University of Minnesota, Doctor of Science, *honoris causa*.

At a meeting of the University Senate at which the question of honorary degrees was discussed, President Morrill read the following statement of criteria for awarding such degrees, as adopted by the Administrative Committee, January 11, 1928:

Honorary degrees may be conferred upon those who have achieved distinction in scholarship or public service. To receive an honorary degree from the University of Minnesota one must be:

a. An author of some original work of such character as to leave no doubt as to his learning, his attainment, and literary ability as a writer, and he must hold an honorable position in some university or college, either in this country or abroad, or

b. A man of acknowledged eminence in art, literature or science, or in the professions, or in public service, who has contributed by his services to the advancement of art, literature, science, or public service.

**Wartime Leaves of Absence**—As of approximately June 30, 1946, the University of Minnesota had granted leaves of absence for some type of war duty, either in the armed or special services, to 843 faculty members and civil service employees, divided as follows: Academic, 363; medical fellows, 342; nurses from University Hospitals, 24; civil service employees, 114. As of the date given, 328 of these people had returned to their university posts, 180 had terminated their connection with the University of Minnesota, and 335 were still on leave, but with the prospect that the majority of them would soon return, if coming back.

**Army and Navy Training Courses**—The University of Minnesota's extensive war training programs for members of the armed forces and civilians were brought to a close during the biennium, and the Reserve Officers Training Corps of the United States Army and United States Navy were reorganized on a peacetime basis according to directives from the War and Navy Departments. The last army men to receive special war training courses were a group in the Japanese Language and Area program, who completed their work early in 1946. Meanwhile the Army ROTC was reduced to a small

force of officers and non-commissioned officers, as members of the advanced course had been commissioned and ordered to duty and undergraduates were unavailable for the basic course. Late in the year 1945-46 the University was informed that Army ROTC would be reactivated with a basic course (voluntary) and the following specialties for the junior and senior years: Air Corps, Anti-Aircraft Artillery, Quartermaster's Corps, Transportation Corps, Medical Corps, Signal Corps.

Postwar organization of the Naval ROTC was ordered by the Navy Department, with the University of Minnesota one of 52 colleges and universities the country over who will supplement the United States Naval Academy in providing officers for this nation's expanded navy. Two major lines of study were established, with the requirement that selected students be admitted as freshmen and pursue a full four-year course of study. One major course will lead to commissions in the Naval Reserve, while the other will be Naval Aviation. These programs were to get under way in the fall quarter of 1946.

The University continued to provide instruction in the Navy College Training Program, or V-12, until termination of the work nationally on June 30, 1946. Thus, throughout the entire life of the program or for a total of nine semesters extending from July 1, 1943, V-12 trainees, both NROTC and non-NROTC were on the campus. Since this was a college level program in every respect, a large percentage of the men who matriculated at Minnesota qualified for some degree. Many who did their work in technical or professional curricula earned degrees with designation while others earned a bachelor of science degree with a study major in either naval science or naval technology depending on whether their work was done in the College of Science, Literature, and the Arts or the Institute of Technology.

Other references to military training programs will be found in several of the college reports herein.

**Convocations Marking Special Occasions**—Three convocations marking special occasions were conducted on the University of Minnesota campus during the biennium. There was a memorial service for President Franklin D. Roosevelt on April 15, 1945, a convocation celebrating V-E Day, May 8, 1945, and one in observation of V-J Day, August 17, 1945.

Dean Everett Fraser of the Law School was speaker at the memorial service for President Roosevelt. Presiding officer was Col. Harry L. King, professor of military science and tactics. The invocation was pronounced by the Rev. Louis J. Forey, Catholic pastor to students.

President Walter C. Coffey was the speaker at the convocation celebrating V-E Day. Classes were dismissed for an hour, starting at 11:30 a.m., time of the gathering. Also taking part in the service were Rev. John Walker Powell, Professor George P. Conger, and a university chorus directed by Professor Earle Killeen.

At the V-J Day Convocation in August, the speaker was Dr. Theodore C. Blegen, dean of the Graduate School. Following presentation of the colors and the singing of "The Star-Spangled Banner" by the audience, Professor George P. Conger gave the invocation.

All three of these special meetings were held in Northrop Memorial Auditorium.

**National Association of College Unions**—The board of governors and the director of the Coffman Memorial Union served as planning board and hosts for the first postwar conference of the National Association of College Unions, which was held in Coffman Union April 11, 12, and 13, 1946. A total of 129 delegates took part in the meetings and discussed topics of general interest to those in the college union field. G. Ray Higgins, director, announced that in a two-year period the Union has received 140 inquiries concerning facilities and policies of the Union from 105 colleges, also that twenty colleges have sent representatives to study the building, four of them representing Unions in foreign countries.

**Metropolitan Opera Company of New York**—A new cultural venture that proved overwhelmingly successful was the appearance in April, 1945, and May, 1946, of the Metropolitan Opera Company of New York, which on each occasion performed four operas, on Thursday and Friday evenings, Saturday matinee and Saturday evening. The appearances were under auspices of the University of Minnesota, Orchestral Association of Minneapolis, and a statewide committee of sponsors and guarantors. The entire Metropolitan Company made the tour in which the Minneapolis appearance was one of several throughout the nation. During its 1945 visit the company sang "Lucia di Lammermoor," "Die Walküre," "Don Giovanni" and "Carmen." The program in 1946 was made up of "Tannhäuser," "La Traviata," "The Magic Flute," and "La Bohème."

Houses for all performances were sold out.

Mr. Stanley Hawks served as chairman of the committee in charge, with Arthur J. Gaines as manager and James S. Lombard as co-manager.

**Symposium on American Civilization**—In connection with a program of American Studies that was developed in the College of Science, Literature, and the Arts during the year 1945-46, a series of nine free lectures under the general title, "The Present Status of Civilization in the United States" was delivered by members of the faculty and two visiting speakers. Topics and speakers were as follows:

"Folk Culture and American Life," by Theodore C. Blegen, professor of history and dean of the Graduate School; "Does the Press Serve America?" by Gideon Seymour, vice-president and executive editor, *The Minneapolis Star-Journal and Tribune*; "If You Like It, It's Art," by Laurence Schmeckebier, professor of fine arts; "The Challenge of Change in Higher Education," by Dr. J. L. Morrill, president of the University; "The Social Conscience and the Literary Conscience," by Joseph Warren Beach, chairman of the Department of English; "Today's Folk Music," by Philip D. Jordan, associate professor of history; "Medicine and Contemporary Civilization," by Maurice B. Visscher, M.D., head of the Department of Physiology; "Why Motion Pictures?" by James Gray, literary critic, *The St. Paul Pioneer Press and Dispatch*; "Naturalism in American Philosophy," by Albury Castell, professor of philosophy.

The series was arranged by a committee headed by Professor Castell.

**Creation of New Deanships**—Three University officials who had gone by other titles were made deans during the biennium. The director of the General College, director of the Office of Admissions and Records, and director of the General Extension Division, all were given the title of dean. The change also involved new independence for the General College, which had been supervised by a committee, with its principal administrator holding the title of associate director. This was changed to director, then to dean under the new plan. William H. Crawford was named dean of the School of Dentistry, succeeding William F. Lashy; Richard L. Kozelka became dean of the School of Business Administration, succeeding Russell M. Stevenson; R. E. Summers became dean of Admissions, following resignation of William S. Carlson.

**Board of Regents Memberships**—Four members of the Board of Regents whose terms expired during sessions of the 1945 Legislature all were re-elected at a joint session of the two houses of the Legislature. They were Regents George W. Lawson of St. Paul, Richard L. Griggs of Duluth, James F. Bell of Wayzata, and Raymond J. Quinlivan of St. Cloud.

One change in membership of the board took place due to the death early in 1946 of Regent Albert Pfaender of New Ulm, after a long illness. Appointed by Governor Edward J. Thye to succeed him was Regent J. Seneca Jones of St. Paul. Mr. Jones has been secretary of the Minnesota Farm Bureau Federation since February, 1923 and is also secretary of the Minnesota Livestock Breeders Association. In naming him, Governor Thye declared that "his interest and work in agriculture will bring about closer relationships between the university and agricultural interests throughout Minnesota." Regent Jones is a graduate of Kansas State Agricultural College.

Mr. Pfaender, a graduate of the University of Minnesota in the Class of 1897, served on the board from February, 1935 until February, 1946, when he died. He was an outstanding lawyer in his home community of New Ulm and service in the Legislature and in community affairs of his city and county gave him a rich background for public service as a regent. A delegation of University officials went to New Ulm to attend his funeral and the board passed a resolution honoring their late colleague.

**Civil Service Classification and Pay Plan**—Following conferences between University of Minnesota officials and representatives of Building Service Local 113, A.F. of L., late in 1944, which were a continuation of differences of opinion that had led to two strikes in the preceding biennium, the problem was referred to Mr. Frank Gallagher of Waseca as an impartial investigator. Many of the suggestions in Mr. Gallagher's report were accepted by the Board of Regents, but certain changes in Civil Service rules and his proposal that a flat \$15 a month increase be granted to employees in the classes concerned in the Union's request were refused. Thereupon, a strike being threatened, the contending parties met in the office of Governor Edward J. Thye and reached a temporary agreement, main feature of which was an expression by the Board of Regents of willingness to recognize Local 113 as the authorized representative of employees who are members of that union and of others who might designate the union as their representative. The employees also were granted full privileges of submitting data bearing on the classification and pay study then under way by Public Administration Service. The board

also voted that while the raises to be granted as a result of the survey would not actually go into effect until July 1, 1945, they would be retroactive to January 1, 1945. These increases averaged 18 per cent.

In conducting the survey, members of the Civil Service staff worked closely with Public Administration Service. The most important provisions of the new plan are as follows:

1. The establishment of approximately 375 classes (later expanded to 452) with detailed specifications for each class.
2. The establishment of a pay plan which provides a five-step pay range for each class with cost of living adjustment geared to the composite cost of living adjustment indices of the Bureau of Labor Statistics for the cities of the state.
3. The reduction to a forty-four hour week of all classes working a forty-eight hour week schedule.
4. Standardization of vacation leave for all classes at one and one-fourth days per month permitting an additional one-half day per month leave in lieu of overtime for certain supervisory and professional classes as designated by the Civil Service Committee.

Further data on this program will be found in the report herein of the director of Civil Service Personnel.

Subsequently to the pay raises enumerated above, the Board of Regents on May 10, 1946, took further action increasing the pay of non-academic employees, to become effective July 1, 1946. At the same time faculty salaries were increased by a sum not to exceed \$400 a year and payment to teaching assistants was set at \$175 a month. The statement sent to Civil Service employees by President Morrill was as follows:

To the Members of the Civil Service Staff  
University of Minnesota  
Dear Friends:

It is my happy privilege to inform you that the Regents of the University of Minnesota today approved a salary adjustment plan for the Civil Service staff which should be of considerable interest to you. Vice presidents Middlebrook and Willey and I have made a most painstaking analysis of the University's financial situation. Our objective was to do everything possible to assist the Civil Service and teaching staff members in meeting the increasing cost of living to the maximum extent possible under the financial limitations of the University. It seemed to us desirable University policy to put all available funds not otherwise allocated, including those derived under the new formula of the Veterans Administration and from increased student enrollment generally, into salary increases rather than into new enterprises or staff expansion beyond the minimum required to handle increased enrollment.

The members of the Board of Regents have given unanimous approval and join with Mr. Middlebrook, Mr. Willey, and me in announcing to you the following provision for emergency increases to be given members of the Civil Service staff:

In addition to the merit increases which Civil Service employees will receive on July 1, 1946, in accordance with present University policy, additional salary adjustments will be made for the fiscal year 1946-47 in accordance with the following provisions:

1. Any Civil Service employee who has completed not less than one year of continuous service in his present class by June 30, 1946, will be eligible to receive an additional salary increase of one increment on July 1, 1946, provided the salary so adjusted does not exceed the maximum salary established for the class.
2. Any Civil Service employee who does complete one year of continuous service in his present class during the period of July 1, 1946, through January 2, 1947, will receive an additional salary increase of one increment effective with the beginning of the payroll period following the completion of one year's service.
3. Any Civil Service employee who was promoted to a new class or was first employed during the period January 3, 1946, through June 30, 1946, will be eligible to receive a merit increase of one increment effective with the beginning of the payroll period following the completion of six months of continuous service in his present class.
4. Any Civil Service employee who has been at the maximum salary of his class for not less than one fiscal year on June 30, 1946, and who has rendered not less than ten years of continuous service to the University will be eligible on July 1, 1946, to receive an increase of one increment beyond the maximum salary for the class upon the recommendation of his department head and approval by the Director of Civil Service.

May I take this occasion to express to you the deep appreciation of the Regents, myself, and my administrative assistants for your loyal and faithful service. It is by the continued loyalty and co-operation of the entire staff that the University will meet its responsibilities to the citizens of the state of Minnesota.

Sincerely,  
J. L. Morrill  
President

Further discussion of this and related matters will be found in the report of Hedwin C. Anderson, director of Civil Service Personnel.

The following statement went to the teaching staff:

To the Members of the Faculty  
University of Minnesota  
Dear Friends:

It is my happy privilege to inform you that the Regents of the University of Minnesota today approved a special faculty salary adjustment plan. Vice presidents Middlebrook and Willey and I have a most painstaking analysis of the University's financial situation. Our objective was to do everything possible to assist the faculty and Civil Service staff members in meeting, to the maximum extent possible

under the financial limitations of the University, the increasing cost of living. It seemed to us imperative University policy to put all available funds not otherwise allocated, including those derived under the new formula of the Veterans Administration and from increased student enrollment generally, into salary increases rather than into new enterprises or staff expansion beyond the minimum required to handle increased enrollment.

The members of the Board of Regents have given unanimous approval and join with Mr. Middlebrook, Mr. Willey, and me in announcing the following blanket adjustments in academic salaries effective July 1, 1946:

- (1) Teaching and research assistants will be compensated at a rate of \$175 per month for full-time service.
- (2) Other members of the academic staff of the rank of instructor and above, without regard to any individual increases granted or to be granted, will be given salary increases the equivalent of 10 per cent of any salary up to \$3,000 plus 5 per cent on salary beyond \$3,000, subject to a maximum increase of \$400.

May I take this occasion to express to you on behalf of the Regents, the University's deep appreciation for your local and faithful service. Clearly, it will require all of our energies and devotion if the University is to meet the demands placed upon it in this difficult postwar period.

Sincerely,  
J. L. Morrill  
President

**Nicholson Hall Named**—Following a now well-established policy of renaming campus buildings after well-known former members of the faculty or staff, the Board of Regents, on recommendation of a faculty committee, renamed the "Old Union" Nicholson Hall, thus honoring Dean Edward E. Nicholson, who several years ago retired from the office of Dean of Student Affairs. This building was originally constructed as a Chemistry building, for which purpose it was used until the present Chemistry building was erected. The older structure then became the Men's Union building and was a center of student life for many years until Coffman Memorial Union was built.

**Visit of Admiral William F. Halsey**—An impressive campus event of November 13, 1945, was the visit of Fleet Admiral William F. Halsey to the University of Minnesota. Admiral Halsey and staff, with Governor Edward J. Thye and other dignitaries arrived by automobile from St. Paul. He was met by the University marshals at the foot of the mall on Washington avenue. Shrubbery had been removed to permit the party to march up the center of the mall, and they proceeded to the steps of Northrop Memorial Auditorium, where a speaker's stand had been erected. There Admiral Halsey was greeted by Captain John T. Tuthill, professor of naval science and tactics, who introduced him to President J. L. Morrill and members of the Board of Regents. Admiral Halsey and President Morrill spoke briefly, after which the distinguished visitor was given a collection of books typical of Minnesota that had been published by the University of Minnesota. Press. Captain Harold E. Stassen, former governor of Minnesota and flag secretary to Admiral Halsey, was among those in attendance.

### THE COMMITTEE ON UNIVERSITY FUNCTIONS

During the biennium the following special convocations were held under the auspices of the Committee on University Functions.

1944-45:

- July 22: Summer session (first term) commencement exercises—Charles E. Friley, President, Iowa State College, "Science and Human Relations"
- August 24: Summer session (second term) commencement exercises—John O. Moseley, President, University of Nevada, "Leadership in a World Which Is To Be"
- October 5: Opening convocation—Walter C. Coffey, President of the University, "The University, 1869—and Now"
- December 21: Fall quarter commencement exercises—Ernest O. Melby, Chancellor, University of Montana, "Education Can Win the Peace"
- March 22: Winter quarter commencement exercises—The Very Reverend Vincent J. Flynn, President, College of St. Thomas, "Religion and the University Graduate"
- May 17: Cap and Gown Day convocation—Dorothy McNeill, President of the Senior Cabinet, "Presentation of the Class of 1945"; Walter C. Coffey, President of the University, "Neath Education's Sway"
- June 10: Baccalaureate service—The Reverend Howard Pierce Davis, Pastor, Massachusetts Federated Church, Bolton, Massachusetts, "Cosmic Confidence"
- June 16: Commencement exercises—Walter C. Coffey, President of the University, "Charge to the Class." Two honorary degrees were conferred. Andrew Boss, Professor Emeritus, University of Minnesota, received the degree of Doctor of Science, *honoris causa* and Donald J. Cowling, President of Carleton College, received the degree of Doctor of Laws, *honoris causa*.

### Graduation and Commissioning Exercises for Navy Groups

- October 24: Navy V-12 candidates. Fifty degrees were granted and two candidates received commissions.
- February 23: Navy V-12 candidates. Thirty-eight degrees were granted and thirty-five candidates received commissions.

*Special Occasions*

- April 15: Memorial service for President Franklin D. Roosevelt—These exercises were held at 4:30 p.m. in Northrop Memorial Auditorium under the auspices of the Navy, the Army, and the University. The speaker was Everett Fraser, Dean of the Law School.
- May 8: V-E convocation—A special convocation was held on V-E Day, at 11:30, in Northrop Memorial Auditorium. The speaker was President Walter C. Coffey, and an excerpt from Lincoln's Gettysburg Address was read by the Reverend John W. Powell, Lecturer Emeritus.
- May 15: Cap and Gown Day—In addition to the regular procession and convocation on Cap and Gown Day, two other functions took place. At three o'clock a Kentucky coffee tree was planted for President Coffey on the President's Lawn, campus knoll. Following this ceremony the President's Reception for the senior class was held in the Campus Club, Coffman Union.
- May 21: Appreciation dinner in honor of President and Mrs. W. C. Coffey—An appreciation dinner was held in the ballroom of the Coffman Memorial Union. About six hundred faculty members and civil service employees attended.
- June 5: Thirteenth annual Court of Honor program—A civic appreciation dinner at which 190 high ranking seniors were honored was held at the Radisson Hotel. The principal speaker was Willard E. Goslin, Superintendent of Schools, Minneapolis. Other speakers were Walter C. Coffey, President of the University, and Mary M. Buck, representing the honor students. W. L. Brisley, General Chairman of the Court of Honor committee, presided.
- June 21: Graduation exercises, Course in Applied Mortuary Science—These exercises were held in the Museum of Natural History at 8:30 p.m. The speaker was Dr. William A. O'Brien, Director, Postgraduate Medical Education. This was the first time that graduation exercises were held for graduates in the Applied Mortuary Science course.
- 1945-46:
- July 26: Summer session (first term) commencement exercises—Joseph A. Brandt, Director, Chicago University Press, "The Empires of the Future"
- August 30: Summer session (second term) commencement exercises—Charles J. Turck, President, Macalester College, "The Perils of This Peace"
- October 4: Opening convocation—James Lewis Morrill, President of the University, "As One Freshman to Another"
- December 20: Fall quarter commencement exercises—Laurence M. Gould, President, Carleton College, "The Way Will Open"
- March 21: Winter quarter commencement exercises—Howard L. Bevis, President, Ohio State University, "Youth Looks at Our Universities"
- May 16: Cap and Gown Day convocation—Harriett Schaffer, President of the Senior Cabinet, "Presentation of the Class of 1946"; James Lewis Morrill, President of the University, Address
- June 9: Baccalaureate service—The Reverend William S. Abernethy, formerly Pastor of Calvary Baptist Church, Washington, D.C.
- June 14: Commencement exercises—James Lewis Morrill, President of the University, "Charge to the Class"

*Graduation and Commissioning Exercises for Navy Groups*

- October 20: Navy ROTC and V-12 candidates. One hundred and two degrees and seventy-seven commissions were granted.
- February 23: Navy ROTC and V-12 candidates. One hundred and ninety-four degrees and one hundred and ninety-six commissions were granted.

*Special Occasions*

- August 16: V-J Day convocation—On August fourteenth Japan surrendered, and as August fifteenth was declared a national holiday and the University was closed, a special V-J Day convocation was held August sixteenth at 11:30, in Northrop Memorial Auditorium. Dean Theodore C. Blegen was the speaker.
- November 24: Dads Day—The date for Dads Day at the University is set to coincide with a football game. In 1945 the Wisconsin game was chosen. Fathers of University students were invited to attend the game and also a dinner in the ballroom of the Coffman Union. At the dinner Cherry Cedarleaf, President of the All-University Council, welcomed the dads to the University; Herman Roe, Publisher of the Northfield News, responded for the dads; Edward F. Flynn, President of the Dads Association, made a report for the Association, and President J. L. Morrill was the main speaker. The occasion was very successful.
- May 11: Mothers Day—Mothers of students were invited to come to the University during the day and visit classes and other places of interest with their sons and daughters. In the evening they attended a dinner in the ballroom of the Coffman Union. Gerry Stoner, President of Associated Women Students, welcomed the mothers to the campus; Mrs. E. H. Rehder of Red Wing responded. President J. L. Morrill gave a report for the University. There were approximately nine hundred in attendance.
- May 16: Cap and Gown Day—The following two functions took place in the afternoon: A tree planting ceremony on the President's Lawn at three o'clock, when a buckeye tree was planted for President Morrill, and the President's Reception for the seniors in the Campus Club from three-thirty to five-thirty.
- May 28: Fourteenth Annual Court of Honor program—A civic appreciation banquet in recognition of scholastic achievement was held at the Radisson Hotel. One hundred ninety-two students were honored. The principal speaker was Walter W. Finke, Executive Vice President of the Minneapolis Civic and Commerce Association. Other speakers were Malcolm M. Willey, Vice President, Academic Administration, University of Minnesota, and Roger Honebrink, representing the honor students. Lloyd E. Borg, general chairman of the Court of Honor Committee, presided.
- June 20: Graduation exercises, Course in Applied Mortuary Science—These exercises were held in the Museum of Natural History at 8:30 p.m. Dr. William A. O'Brien, Director, Postgraduate Medical Education, gave the address. President J. L. Morrill presided and conferred the certificates.

E. B. PIERCE, Chairman, Committee on University Functions



## UNIVERSITY PERSONNEL

### RETIREMENTS FROM THE STAFF

Each year some members of the faculty reach the age of compulsory retirement, bringing to a close long periods of active association with the University. Recognition of this service is given by a "retirement certificate." (The exact wording of this certificate appears on page 135, 1938-40 report.)

The following staff members retired during the biennium:

1944-45

Walter Castella Coffey

Dean of the Department of Agriculture and Director of the Experiment

Station ..... 1921-1941

Acting President, University of Minnesota..... July 1 to November 22, 1941

President, University of Minnesota..... 1941-1945

In addition to the above retirement certificate the Regents at their meeting June 16, 1945, voted unanimously to approve the following resolution:

WHEREAS, When faced with the choice of a president of the University of Minnesota the Regents, with full faith in his qualities of leadership, turned to Walter Castella Coffey, for twenty years dean of the Department of Agriculture, and asked him to assume the heavy responsibilities of the presidential office; and

WHEREAS, Faith was never more fully justified, for under the wise guidance of President Coffey the University, during the difficult and trying war years, has carried forward with high distinction its program for civilian students, and in addition, has met every demand made upon its resources by the Army, the Navy, and other governmental agencies for the furtherance of the war effort; and

WHEREAS, As administrator, public spokesman, and head of the student body and faculties, President Coffey has steadfastly devoted himself to furthering the best interests of the University, on the campus and throughout the state;

Therefore Be It Resolved, That in recognition of his loyalty and unselfish service and as an expression of the deep satisfaction they have enjoyed in their years of close association with him, the Regents of the University present to President Coffey this heartfelt statement, to which they have individually affixed their signatures; and they further direct that this action be entered in their minutes as a permanent record of their appreciation, and of their friendship.

The comments of the Chairman, Fred B. Snyder, on presentation of the foregoing resolution were:

This is the last day when the Board of Regents will officially meet with you as our beloved President. I have been asked to read and present to you a Resolution adopted by the Board of Regents and autographed by each member.

As our President, during the past four years, your official breast-strap, with its attached traces has been hitched to the whiffletree of a great educational institution overloaded with the burden to do its part in the preservation of our liberties from utter destruction in the horrible world war. I assure you the Regents have done their best to share with you the burden of the load.

Although you were well along in years when you were called, you have proven yourself competent to meet and master every challenge and now that you are leaving us, you bear some abrasions left by the chafing of the breast-strap and traces as proof of your loyalty and faithful service.

At all times your consummate prudence as an executive has been most noteworthy.

We all hope you will not feel hurt because we are setting you free while still in your prime to browse about untrammelled by official boredom in nature's green pastures made more luxuriant because of your twenty years service as Dean of our Department of Agriculture, and to enjoy the fruits of your labor and the affection of your friends.

Your going is due solely to the fact that you have already reached more than the allocated age for retirement. If you have heard it intimated that it is because you are in any way impaired in your efficiencies by age,—that is not true. You are still in full vigour and strength and have before you many years in which to continue and enlarge your contributions for the welfare of humanity. Some day I suspect you will wonder what old age will be like when it creeps in on you. Take it from me who has already felt the gentle touch that when it does come, you should be glad and rejoice because your life's record fits exactly into the bill of particulars as Cicero has put it in the mouth of Cato to say it.

"The best armour of old age is a well-spent life preceding it, a life employed in the pursuit of useful knowledge, in honorable actions and the practice of virtue; in which he who labors to improve himself from his youth, will in age reap the happiest fruits of them; not only because these never leave a man, not even in the extremest old age; but because a conscience bearing witness that our life was well spent, together with the remembrance of past good actions, yield an unspeakable comfort to the soul."

And may I suggest in conclusion that when old age does come to you, think of that little couplet:

"Old age, on tiptoe, lays her jeweled hand  
Lightly in mine—Come tread a stately measure,  
Most gracious partner, nobly poised and bland."

I shall now read the Resolution and deliver to you the autographed original.

At the Alumni Day dinner on June 15, 1945, Dr. George Earl, representing the General Alumni Association, presented Mr. Coffey with a beautiful scroll upon which was inscribed the following citation:

For twenty-five years a devoted servant of the University of Minnesota, as Dean of the Department of Agriculture and as President; a faithful and untiring worker in carrying forward its program of education and service; a sound interpreter to the alumni of the University activities, a true friend of rural people from one end of the state to the other; an agricultural specialist with an understanding of the common man's problems; and best of all, a most human person whose warmth of personality and geniality drew inevitably to him all those whose good fortune it has been to meet and know him.

Out of deep appreciation for all that he has done, and in profound admiration for all that he is, this expression of friendship and loyalty is presented to him by the General Alumni Association of the University of Minnesota.

William F. Lasby	
Instructor .....	1908-1910
Assistant Professor of Prosthetics .....	1910-1912
Associate Professor .....	1912-1919
Professor .....	1919-1927
Acting Dean and Professor, College of Dentistry .....	1927-1929
Dean and Professor, School of Dentistry .....	1929-1945
Joseph M. Thomas	
Professor of Rhetoric, Head of the Department of Rhetoric and Public Speaking .....	1909-1920
Assistant Dean of the Senior College, Science, Literature, and the Arts; Professor of Rhetoric; Head of the Department of Rhetoric and Public Speaking .....	1920-1921
Assistant Dean, Professor of English, and Chairman, Department of English .....	1921-1927
Professor of English and Assistant Dean .....	1927-1945
Amos Schumpert Wells	
Assistant, Histology, Medical School .....	1904-1905
Assistant, Prosthesis, Dental School .....	1905-1906
Instructor in Dental Anatomy and Prosthetic Technics .....	1906-1907
Instructor in Crown and Bridge Work .....	1907-1910
Clinical Professor in Crown and Bridge Work .....	1910-1912
Associate Professor .....	1912-1919
Professor, School of Dentistry .....	1919-1945
Arch Hodge Logan	
Assistant Professor of Clinical Medicine, Mayo Foundation .....	1915-1918
Associate Professor .....	1918-1945
John C. Brown	
Instructor in Zoology and Comparative Anatomy .....	1901-1907
Assistant Professor of Animal Biology .....	1907-1910
Assistant in Ophthalmology and Otolaryngology .....	1919-1923
Instructor .....	1923-1932
Assistant Professor .....	1932-1938
Clinical Assistant Professor .....	1938-1945
Ned L. Huff	
Assistant in Botany .....	1905-1906
Instructor in Botany .....	1906-1910
Assistant Professor, Department of Botany .....	1910-1945
George A. Montelius	
Instructor .....	1920-1923
Assistant Professor .....	1923-1931
Resigned .....	1931-1942
Research Fellow, Project for Study of Congenital Absence of Teeth, Graduate School .....	1942-1943
Assistant Professor and Research Fellow, School of Dentistry .....	1943-1945
William H. Richards	
Instructor in Carpentry and Pattern Work .....	1907-1909
Instructor in Industrial Woodworking and Pattern Practice .....	1909-1912
Instructor, Mechanical Department, College of Engineering .....	1912-1927
Assistant Professor, Mechanical Engineering, Institute of Technology .....	1927-1945

Harlow C. Richardson	
Instructor, Department of English.....	1921-1928
Assistant Professor of English and Associate Director of Summer Session .....	1928-1930
Assistant Professor of English, Science, Literature, and the Arts, to Director, Engineering English .....	1930-1945
David William Boland	
Instructor in Music, School of Agriculture, and Leader of Band and Orchestra .....	1925-1926
Instructor .....	1926-1945
1945-46	
Gustav Bachman	
Instructor in Pharmacy .....	1902-1912
Assistant Professor .....	1912-1916
Associate Professor .....	1916-1919
Professor .....	1919-1946
John Myron Bryant	
Professor and Head, Department of Electrical Engineering.....	1928-1946
Albert J. Chesley	
Associate Professor of Preventive Medicine and Public Health.....	1922-1931
Professor .....	1931-1939
Clinical Professor .....	1939-1946
Hal Downey	
Scholar in Zoology .....	1901-1903
Assistant .....	1903-1904
Instructor .....	1904-1907
Assistant Professor .....	1907-1913
Associate Professor .....	1913-1917
Professor .....	1917-1929
Professor of Anatomy .....	1920-1946
Dunham Jackson	
Professor of Mathematics .....	1919-1946
Earle Grenville Killeen	
Professor of Music .....	1922-1946
Willis Storrs Lemon	
Instructor in Medicine, Mayo Foundation.....	1918-1920
Assistant Professor .....	1920-1921
Associate Professor .....	1921-1934
Professor .....	1934-1946
John Charnley McKinley	
Assistant in Anatomy .....	1915-1917
Instructor in Pathology and Bacteriology.....	1917-1918
Teaching Fellow, Department of Medicine.....	1918-1920
Instructor .....	1920-1921
Assistant Professor .....	1921-1925
Associate Professor .....	1925-1929
Professor .....	1929-1933
Professor and Head .....	1933-1946
Professor Emeritus .....	1946-
Charles Franklin Shoop	
Instructor in Mechanical Engineering.....	1905-1908
Instructor in Experimental Engineering.....	1908-1909
Assistant Professor .....	1909-1919
Associate Professor .....	1919-1925
Professor .....	1925-1936
Professor of Mechanical Engineering .....	1936-1946

Samuel Edward Sweitzer	
Clinical Assistant in Dermatology.....	1905-1912
Clinical Instructor .....	1912-1913
Assistant Professor .....	1913-1917
Associate Professor .....	1917-1931
Professor .....	1931-1946
Albert Cedric Army	
Assistant Instructor, Agricultural College and School, and Assistant Agriculturist, Minnesota Experiment Station .....	1909-1912
Assistant Professor, Division of Agronomy and Farm Management.....	1912-1916
Associate Professor, Division of Agronomy and Plant Genetics.....	1916-1946
Lillian Cohen	
Assistant in Chemistry .....	1902-1903
Instructor .....	1903-1918
Assistant Professor .....	1918-1927
Associate Professor .....	1927-1946
Isaac William Geiger	
Instructor in Chemistry .....	1916-1918
Assistant Professor .....	1918-1924
Associate Professor .....	1924-1946
Gertrude Vaile	
Associate Professor of Sociology and Associate Director Training Course of Social and Civic Work.....	1930-1935
Associate Professor of Sociology and Associate Director of Graduate Course in Social Work .....	1935-1942
Associate Professor of Sociology and Associate Director of School of Social Work .....	1942-1946
Otto Samuel Zelner	
Assistant Professor of Civil Engineering .....	1910-1923
Associate Professor .....	1923-1946
William Henry Livers	
Instructor and Manager Duluth Office, General Extension Division.....	1931-1932
Instructor .....	1937-1938
Instructor and Resident Manager, Duluth Office.....	1942-1945
Assistant Professor and Head of Minneapolis and Duluth Offices .....	1945-1946
Shirley Putnam Miller	
Teaching Fellow in Anatomy .....	1920-1921
Instructor .....	1921-1927
Assistant Professor .....	1927-1946
Carlotta Myrul Brown	
Instructor in Millinery, Department of Agriculture.....	1916-1936
Instructor in Home Economics .....	1936-1946
Adah Georgina Grandy	
Instructor in English .....	1924-1946
Albert Gustav Schulze	
Instructor in Obstetrics and Gynecology.....	1919-1938
Clinical Instructor .....	1938-1946

## CHANGES IN THE FACULTIES

## RESIGNATIONS, 1944-45

- Captain John W. Gates, professor of naval science and tactics, effective December 10, 1944.
- Edward G. Jennings, professor Law School, effective June 15, 1945. To go into law practice with the firm of Covington, Burling, Rubles, Acheson and Shorb in Washington, D.C.
- Colonel Harry L. King, professor of military science and tactics, effective at close of 1944-45. Retired by the U. S. Army.
- Alfred A. Pagenkopf, professor School of Dentistry, effective January 31, 1945.
- Dr. George W. Reynolds, professor School of Dentistry, effective June 15, 1945. Moved to Pasadena, California.

- Harold K. Wilson, professor of agronomy and plant genetics, effective June 30, 1945, to become head of the department of agronomy at Pennsylvania State College.
- John Bardeen, associate professor of physics, effective at close of 1944-45, to accept a position in the research division of the Bell Telephone Laboratories.
- Margaret L. Brew, associate professor of home economics, effective at close of 1944-45, to accept a position with the Bureau of Human Nutrition and Home Economics in Washington, D.C.
- Raymond R. Henry, clinical associate professor School of Dentistry, effective at close of 1944-45, to devote all his time to his dental practice.
- Joseph M. Little, associate professor School of Dentistry, effective June 15, 1945, to devote full time to his private dental practice.
- Charles E. McLennan, associate professor of obstetrics and gynecology, effective September 30, 1944, to become head of the department of obstetrics and gynecology at the University of Utah.
- Clarence E. Lund, associate professor and assistant to the director, mechanical engineering, effective September 30, 1944, to accept a position with Seeger Refrigerator Company of St. Paul.
- Carl J. Potthoff, associate professor of biological studies General College, effective at close of 1944-45, to go into private practice in California.
- B. Frederic Skinner, associate professor of psychology, effective June 15, 1945, to accept a position at the University of Indiana.
- Gustav Swanson, associate professor of entomology and economic zoology, effective October 27, 1944, to accept the position as assistant director of the division of wildlife research, United States Department of Interior, Chicago.
- Thomas I. Taylor, associate professor of inorganic chemistry, effective at close of 1944-45, to accept a position as professor of physical chemistry at University of Iowa.
- Samuel A. Weisman, clinical associate professor of medicine, effective September 1, 1944. Moved to Los Angeles, California.
- John S. Abbott, clinical assistant professor of surgery, effective December 1, 1944, to accept a position with the Veterans' Administration.
- Edward W. Aiton, assistant professor—assistant state leader 4-H Club Rural Youth, agricultural extension, effective October 1, 1944, to accept a position with the United States Department of Agriculture, Washington, D.C.
- John A. Anderson, assistant professor at the West Central School and Experiment Station, effective September 15, 1944. Moved to California.
- Borghild C. Behn, assistant professor School of Public Health, effective June 15, 1945. Moved to Texas.
- Tobias L. Birnberg, clinical assistant professor of pediatrics, effective June 30, 1945. Moved to California.
- Rufus J. Christgau, assistant professor at Northwest School and Experiment Station, effective at close of 1944-45, to be vocational adviser in division of vocational rehabilitation of the Veterans' Administration.
- Arthur F. Dahlberg, assistant professor at the North Central School and Experiment Station, effective December 2, 1944, to accept a position as assistant supervisor of agricultural education in the high schools of northern Minnesota.
- Laura Draper, clinical assistant professor, School of Public Health, effective October 1, 1944, to become director of public health nursing of the Territory of Hawaii.
- Marion L. Faegre, assistant professor parental education Institute of Child Welfare, effective June 15, 1945, to accept position as senior child welfare analyst, Children's Bureau, United States Department of Labor, Washington, D.C.
- John T. Flanagan, assistant professor of English, effective at close of 1944-45, to accept a position at Southern Methodist University, Dallas, Texas.
- Captain John S. Harvey, assistant professor military science and tactics, effective at close of 1944-45.
- Fred H. Hayes, clinical assistant professor School of Dentistry, effective at close of 1944-45, to devote all his time to his dental practice.
- Alwyn R. Holst, assistant professor and head of Center for Continuation Study, effective at close of 1944-45, to accept a position at Hamline University, St. Paul.
- Eldred M. Hunt, assistant professor—extension horticulturist, agricultural extension, effective October 13, 1944, to accept a position as secretary of the Minnesota Horticultural Society.
- Norton C. Ives, assistant professor—extension agricultural engineer, agricultural extension, effective August 15, 1944, to accept a position at Iowa State College.

- John T. Litchfield, Jr., assistant professor of pharmacology, effective June 15, 1945, to become head of the department of pharmacology in the research laboratories of the American Cyanamid Company, Stamford, Connecticut.
- Captain Martin B. McKneally, assistant professor military science and tactics, effective January 15, 1945.
- Hubert J. Meessen, assistant professor of German, effective at close of 1944-45, for a position at the University of Wisconsin.
- Siegfried Mickelson, assistant professor of journalism, effective June 15, 1945, to accept a position in the News Bureau of WCCO, Minneapolis.
- Helen P. Mudgett, assistant professor of history, General Extension Division, effective at close of 1944-45, to continue her work as regional director of the Institute for American Democracy.
- Hazel B. Nohavec, assistant professor of music in College of Education, effective at close of 1944-45, to be married.
- Floyd C. Olson, assistant professor agricultural biochemistry, effective June 30, 1945, to take position as chemist in the biochemical laboratory of Archer-Daniels Midland Company of Minneapolis.
- Philip M. Schroeder, assistant professor of military science and tactics, effective at close of 1944-45.
- Harold H. Shepard, assistant professor of entomology and economic zoology, effective January 31, 1945, to accept position at Cornell University.
- Agnes Rast Snyder, assistant professor of music, effective at close of 1944-45.
- Afif I. Tannous, assistant professor of sociology, effective at close of 1944-45, in order to remain with the United States Department of Agriculture in the Office of Foreign Agricultural Relations, Washington, D.C.
- Louis H. Winer, clinical assistant professor of medicine, effective at close of 1944-45. Moved to California.
- Maurice D. Woolf, counselor Student Counseling Bureau and assistant professor of educational psychology, effective June 30, 1945, for a position at Kansas State College.
- Hedvig Ylvisaker, assistant professor of social studies General College, effective June 15, 1945, to accept position with Marketing Research Division of *Time, Inc.*
- Elmer W. Ziebarth, assistant professor and acting manager of radio broadcasting, effective at close of 1944-45 to join staff of WCCO in Minneapolis.

## RESIGNATIONS, 1945-46

- William S. Carlson, dean of admissions, effective June 30, 1946, to accept the presidency of the University of Delaware.
- George O. Burr, professor of physiological chemistry, effective at close of 1945-46, to accept position as director of biochemical section of Hawaiian Sugar Corporation in Honolulu.
- Charles A. Griffith, clinical professor, School of Dentistry, effective at close of 1945-46.
- George H. Montillon, professor of chemical engineering, effective June 15, 1946, in order to accept a permanent position with TVA.
- Clarence P. Oliver, professor of zoology, effective June 15, 1946, to accept a position at the University of Texas.
- Arnold E. Osterberg, professor of physiological chemistry, Mayo Foundation, effective December 31, 1945, to join staff of Abbott Laboratories, North Chicago, Illinois.
- William L. Prosser, professor of law, effective at close of 1945-46, to go into practice of law.
- Lynn H. Rumbaugh, professor of physics, effective at close of 1945-46, to continue his work in the Naval Ordnance Laboratory, Washington, D.C.
- Laurence E. Schmeckeber, professor and chairman Department of Fine Arts, effective at close of 1945-46, to accept position as director of the Cleveland School of Art.
- George J. Stigler, professor, School of Business Administration, effective at close of 1945-46, to accept position as professor of economics at Brown University.
- William D. Vehe, professor, School of Dentistry, effective at close of 1945-46, to devote all his time to his dental practice.
- Colonel Theodore W. Wrenn, professor of military science and tactics, effective April 30, 1946.
- Melvin W. Binger, associate professor of medicine, Mayo Foundation, effective March 31, 1946, to practice medicine in Tennessee.
- Charles T. Boehnlein, associate professor aeronautical engineering, effective at close of 1945-46, to accept a commission in the Navy.

- Aaron H. Chute, associate professor, School of Business Administration, effective at close of 1945-46, to accept professorship of marketing at the University of Toledo.
- Eva G. Donelson, associate professor of home economics, effective April 5, 1946, to accept a position at Ohio State University.
- Charles A. Evans, associate professor of bacteriology, effective at close of 1945-46.
- Ruth B. Freeman, associate professor, School of Public Health, effective at close of 1945-46, to accept a position with American Red Cross.
- Milton Friedman, associate professor, School of Business Administration, effective at close of 1945-46, to accept a position at the University of Chicago.
- Verne C. Fryklund, associate professor of trade and industrial education, effective October 4, 1945, to accept the presidency of Stout Institute, Menomonie, Wisconsin.
- Harold P. Klug, associate professor of inorganic chemistry, effective October 31, 1945, to accept a position as administrative fellow at Mellon Institute, Pittsburgh, Pennsylvania.
- Emerson P. Schmidt, associate professor, School of Business Administration, effective at close of 1945-46, to continue his work as economist, United States Chamber of Commerce, Washington, D.C.
- Joseph R. Starr, associate professor of political science, effective February 28, 1946, to remain in Europe as civilian member of Allied Military Government in Germany.
- Garvin L. von Eschen, associate professor of aeronautical engineering, effective June 15, 1946, to accept a position at Ohio State University.
- Harland G. Wood, associate professor of physiology, effective at close of 1945-46, to accept a position at Western Reserve University.
- Curtis E. Avery, director of Bureau of Veterans Affairs and assistant professor of English, effective at close of 1945-46, to accept position as registrar and professor of English at University of Oregon.
- George M. Baggs, assistant professor of aeronautical engineering, effective March 15, 1946.
- Oscar Bjorndahl, assistant professor of dentistry, effective June 15, 1946, to devote full time to his dental practice.
- Howard H. Campaigne, assistant professor of mathematics, effective at close of 1945-46, to accept a civil service position in Naval Communications.
- Grace Christensen, assistant professor of physical education for women, effective at close of 1945-46, to be married.
- William G. Clark, assistant professor of zoology, effective March 15, 1946, to accept a position at University of Southern California.
- James E. Curtis, assistant professor-assistant director of University High School, effective March 15, 1946, to accept headship of Teacher Training in Physical Education at Stanford University.
- Paul L. Cusick, assistant professor of ophthalmology, Mayo Foundation, effective April 1, 1946, to enter private practice.
- Mervin G. Danielson, assistant professor of military science and tactics, effective December 15, 1945.
- Watson Dickerman, assistant professor and head of correspondence study instruction, effective October 31, 1945, to accept a position at the University of California.
- George F. Ekstrom, assistant professor of agricultural education, effective at close of 1945-46, to accept a position at the University of Missouri.
- Millard S. Everett, assistant professor of philosophy, effective June 15, 1946, to accept a position at Roosevelt College, Chicago, Illinois.
- Arthur R. Ford, assistant professor of mechanical engineering, effective at close of 1945-46, to remain with Naval Aircraft factory, Philadelphia Navy Yard.
- John G. Goodeve, assistant professor of military science and tactics, effective October 15, 1945. Separation from the Service.
- Palmer H. Goulson, assistant professor at the West Central School and Experiment Station, effective September 15, 1945, to attend a school in Chicago for the profession of chiropody.
- Rose Green, assistant professor, School of Social Work, effective at close of 1945-46.
- Fred L. Greenwood, assistant professor of biochemistry, effective at close of 1945-46, to accept a position at Tufts College, Medford, Massachusetts.
- Phillip Hallock, clinical assistant professor of medicine, effective October 31, 1945, to establish a practice in Los Angeles, California.
- Clarence J. Hemming, assistant professor of poultry husbandry at the West Central School of Agriculture, effective June 1, 1946.

- Merlin T. Henderson, assistant professor of agronomy and plant genetics, effective September 15, 1945, to accept a position as associate professor of agronomy at Pennsylvania State College.
- Margaret Heyse, assistant professor of nursing, effective at close of 1945-46, to accept a position at Wayne University, Detroit.
- E. Parker Lesley, assistant professor of fine arts, effective at close of 1945-46.
- Victor Lorber, assistant professor of physiology, effective at close of 1945-46, to accept a position at Western Reserve University, Cleveland, Ohio.
- Harry B. Macey, assistant professor of surgery, Mayo Foundation, effective February 28, 1946, because of health.
- David G. Mandelbaum, assistant professor of anthropology, effective June 15, 1946, to accept a position at the University of California.
- Herbert E. Miller, assistant professor, School of Business Administration, effective June 15, 1946, to accept a position at the University of Michigan.
- Earl W. Nelson, clinical assistant professor, School of Dentistry, effective April 15, 1946. Moving to California.
- Morris Newman, assistant professor of electrical engineering, effective at close of 1945-46.
- Sverre Norborg, assistant professor of philosophy, effective December 15, 1945, to do other work than teaching.
- Ralph G. Peterson, clinical assistant professor of dentistry, effective at close of 1945-46.
- Lieutenant Milton A. Rotenberg, assistant professor of military science and tactics, effective April 15, 1946. Discharged from service.
- Carl W. Sharsmith, assistant professor of botany, effective at close of 1945-46, to devote full time to writing and work in Yosemite Park, California.
- Eric G. Sharvelle, assistant professor of plant pathology and botany, effective May 23, 1946, to accept a position at Purdue University.
- E. Neil Shawhan, assistant professor of mathematics and mechanics, effective March 1, 1946, to accept a position in Physical Research and Development Laboratory of Sun Oil Company.
- Lorissa Sheldon, assistant professor-assistant dining hall manager, home economics, effective December 22, 1945, to accept a position at University of Iowa.
- Henry L. Smith, assistant professor, School of Journalism, effective June 15, 1946. Leaving the teaching field.
- Hamilton A. Stewart, assistant professor of animal husbandry, effective August 15, 1945, to accept a position at North Carolina State College, Raleigh, North Carolina.
- Ralph R. Sullivan, clinical assistant professor of dermatology, effective October 31, 1945, to accept a position with School of Public Health, University of Michigan, Ann Arbor, Michigan.
- Ian W. Tervet, assistant professor of plant pathology and botany, effective at close of 1945-46, to accept a position at the University of Nebraska.

## APPOINTMENTS, 1944-45

*Professors*

- Anderson C. Hilding as clinical professor of otolaryngology, Division of Ophthalmology and Otolaryngology.  
B.S. 1915, M.B. 1918, M.D. 1919, M.A. 1922, Ph.D. 1929, University of Minnesota.
- Captain John T. Tuthill, Jr., as professor of naval science and tactics.

*Associate Professors*

- Albert W. Anderson as professor of mechanical engineering.  
B.S. Mech. Eng. 1930, North Dakota Agricultural College; M.S. Mech. Eng 1937, Oregon State College.
- Russell M. Cooper as associate professor and chairman of General Studies, College of Science, Literature, and the Arts.  
B.A. 1928, Cornell College; M.A. 1929 and Ph.D. 1934, Columbia University; graduate of Institute of International Studies at Geneva, Switzerland, 1932-33
- A. Orville Dahl as associate professor of botany.  
B.S. 1932, M.S. 1933, Ph.D. 1938, University of Minnesota.
- William H. Marshall as associate professor of entomology and economic zoology.  
B.S. 1933, University of California; M.F. 1935 and Ph.D. 1943, University of Michigan.



Robert P. Sharp as associate professor of geology and mineralogy.

B.S. 1934, M.S. 1935, California Institute of Technology; M.A. 1936 and Ph.D. 1938, Harvard University.

(On leave for 1944-45 for military purposes.)

Ernst Simonson as associate professor of physiological hygiene and physiology.

M.D. 1924, University of Greifswald, Germany.

Leon C. Snyder as associate professor-extension horticulturist, Agricultural Extension.

B.S. 1930, M.S. 1931, Ph.D. 1935, University of Washington.

Commander James W. Whaley as associate professor of naval science and tactics.

Graduate of Naval Academy, Annapolis, in 1935.

#### *Assistant Professors*

Evan R. Allred as assistant professor of agricultural engineering.

B.S. in Civil Engineering, 1939, Utah State Agricultural College; M.S. in Agricultural Engineering, 1941, University of Minnesota.

Bernard V. Bealde as assistant professor-state club agent, Agricultural Extension.

B.S. 1928, University of Minnesota.

Oscar Bjorndahl as assistant professor, School of Dentistry.

D.D.S. 1925, University of Minnesota.

Josef M. Brozek as assistant professor laboratory of physiological hygiene.

B.S. 1932, Masaryk Gymnasium, Pilsen, Czechoslovakia; Ph.D. 1937, Charles University, Prague, Czechoslovakia.

Captain John G. Goodeve as assistant professor of military science and tactics.

Palmer H. Goulson as assistant professor at the West Central School and Experiment Station.

B.S. 1942, University of Minnesota.

Arthur W. Friend as clinical assistant professor of anesthesiology.

B.A. 1927, M.D. 1929, Queens University, Kingston, Ontario, Canada.

Alwyn R. Holst as assistant professor and head of the Center for Continuation Study.

B.A. 1920, Hamline University; M.A. 1934, University of Minnesota.

Daniel A. Listiak as assistant professor, School of Dentistry.

D.D.S. 1932 and M.S.D. 1941, University of Minnesota.

Lt. Milton A. Rotenberg as assistant professor of military science and tactics.

B.A. 1928, University of Michigan; J.D. 1936, John Marshall Law School, Chicago.

Walter L. Slatter as assistant professor of dairy husbandry.

B.S. 1935, Ohio State University; M.S. 1936, Iowa State College.

Raynard C. Swank as assistant professor of library instruction.

B.A. 1934, Wooster College; B.S. 1937, Western Reserve University; Ph.D. 1944, University of Chicago.

The following as assistant professors of naval science and tactics:

Lt. Commander Brent M. Abel

Lt. Arthur H. Meinhold

Lt. George C. Bliss

Lt. Commander Roger F. Miller

Lt. Truman L. Bradley

Lt. Harold B. Simpson

Lt. Clayton F. Everett

Lt. Richard H. Tresselle

Lt. Davis W. Gregg

Lt. Morrell F. Trimble

Lt. Charles V. Hume

Lt. Edward R. Wepman

Lt. Frank B. Lawson

#### APPOINTMENTS, 1945-46

##### *Professors*

William H. Crawford as dean and professor, School of Dentistry.

D.D.S. 1923, University of Minnesota.

William Lee Nunn as director of the Department of University Relations.

B.A. 1922, Oglethorpe University; M.A. 1927, Columbia University.

Robert H. Cameron as professor of mathematics, College of Science, Literature, and the Arts.

B.A. 1929, M.A. 1930, Ph.D. 1932, Cornell University.

Donald W. Hastings as professor and head of neuropsychiatry.

B.A. 1931, M.A. 1932, M.D. 1934, University of Minnesota.

Stefan E. Warschawski as professor of mathematics and mechanics, Institute of Technology.

Ph.D. 1930, University of Basel, Switzerland; Post-doctorate work at University of Goettingen.

Herbert S. Wells as professor of biophysics, Baruch Foundation.

B.A. 1941, Stanford University; M.D. 1925, Johns Hopkins University.

Colonel Theodore W. Wrenn as professor of military science and tactics.

#### *Associate Professors*

Russell C. Brinker as associate professor of civil engineering.

B.S. in Civil Engineering 1929, Lafayette College (Easton, Pennsylvania); M.S. in Civil Engineering 1933 and C.E. 1939, University of Minnesota.

(Formerly connected with University of Minnesota but resigned in 1941.)

Henry B. Clark, Jr. as clinical associate professor, School of Dentistry.

B.S. 1931; M.B. 1933 and M.D. 1934; D.D.S. 1936, University of Minnesota.

Milton Friedman as associate professor, School of Business Administration.

B.A. 1932, Rutgers University; M.A. 1933, University of Chicago; Ph.D. 1945, Columbia University.

James M. Hayes as clinical associate professor of surgery.

B.S. 1904, Carleton College; M.D. 1910 and M.S. 1921, University of Minnesota.

(Formerly on staff, 1921-43.)

Alfred Hoff as clinical associate professor of medicine.

B.S. 1908, M.D. 1910, University of Minnesota.

Philip D. Jordan as associate professor of history.

B.S. 1927, M.S. 1928, Northwestern University; Ph.D. 1935, University of Iowa.

Commander Hylan B. Lyon as associate professor of naval science and tactics.

Graduate of United States Naval Academy.

George H. McCune as associate professor of social studies in General College.

B.Litt. 1928, Grove City College (Grove City, Pa.); M.A. 1937, University of Pittsburgh; Ph.D. 1942, University of Minnesota.

(Formerly on staff of University of Minnesota 1938-43.)

William J. Micheels as associate professor of trade and industrial education.

B.S. 1932, Stout Institute; M.A. 1938, Ph.D. 1941, University of Minnesota.

(Formerly on staff of University of Minnesota.)

A. Glenn Richards, Jr. as associate professor of entomology and economic zoology.

B.A. 1929, University of Georgia; Ph.D. 1932, Cornell University.

#### *Assistant Professors*

William C. Bell as assistant professor of geology and mineralogy.

B.A. 1934, M.A. 1936, University of Montana; Ph.D. 1939, University of Michigan.

Paul D. Boyer as assistant professor of agricultural biochemistry.

B.S. 1939, Brigham Young University; M.S. 1941 and Ph.D. 1943, University of Wisconsin.

S. Allan Challman as clinical assistant professor of neuropsychiatry.

B.A. 1925, M.B. 1929, M.D. 1930, University of Minnesota.

Richard H. Daggy as assistant professor of entomology and economic zoology.

B.S. 1934, M.S. 1938, Ph.D. 1941, University of Minnesota.

Lt. Mervin G. Danielson as assistant professor of military science and tactics.

Alexander G. Dumas as clinical assistant professor of neuropsychiatry.

B.S. 1916, St. Thomas College; M.D. 1921, Creighton University (Omaha, Nebraska)

Elwin R. Duncan as assistant professor—extension specialist soils, Agricultural Extension.

B.S. 1939, M.S. 1943, Iowa State College.

Major Clyde R. Eisenschmidt as assistant professor of military science and tactics.

B.S. 1942, United States Military Academy.

Gerald B. Fitzgerald as assistant professor of physical education and athletics (recreational consultant).

B.S. 1930, University of Notre Dame; M.A. 1934, University of Minnesota.

Richard G. Guilford as assistant professor of social work.

B.A. 1932, Carleton College; M.A. 1939, University of Chicago.

Richard A. Hamilton as assistant professor of horticulture at the North Central School and Experiment Station.

B.S. 1937, North Dakota Agricultural College; M.S. 1940, Ohio State University.

- C. Irene Hayner as assistant professor of library instruction.  
B.A. 1917, Cornell University; B.L.S. 1924, New York State Library School; M.A. 1940, University of Michigan.
- Major James W. Heatwole as assistant professor of military science and tactics.  
B.S. Chem. Eng. 1940, Georgia School of Technology.
- William S. Howell as assistant professor of speech.  
B.S. 1935, M.A. 1938, Ph.D. 1942, University of Wisconsin.
- Milan A. Johnston as assistant professor of mechanical engineering.  
B.C.E. 1937, M.S. in C.E. 1942, University of Minnesota.
- Jean W. Lambert as assistant professor of agronomy and plant genetics.  
B.S. 1940, University of Nebraska; M.S. 1942, Ohio State University.
- Erich O. Mader as assistant professor of plant pathology and botany.  
B.S. 1926, College of Viticulture, Pomology, Horticulture and Research Institute, Geisenheim, Rhein, Germany; Ph.D. 1936, Cornell University.
- Margaret P. Martin as assistant professor, School of Public Health.  
B.S. 1937, M.S. 1939, Ph.D. 1944, University of Minnesota.
- Helen H. Mathies as extension home furnishing specialist-assistant professor, Agricultural Extension.  
B.S. 1923, University of Minnesota; M.A. 1933, Columbia University.
- Harlan E. McClure as assistant professor of architecture.  
B.A. 1933, B.Arch. 1937, George Washington University; M.Arch. 1940, Massachusetts Institute of Technology.
- John W. Medlin as assistant professor of mechanical engineering.  
B.S. 1941, University of Texas; M.S. 1945, University of Wisconsin.
- Huntington Miller as assistant professor and program director of extension classes.  
B.A. 1929, Yale University; LL.B. 1933, Yale School of Law.
- Robert E. Moore as assistant professor of English.  
B.A. 1940, Washington College (Chestertown, Maryland); Ph.D. 1943, Yale University.
- Thomas D. O'Brien as assistant professor of chemistry.  
B.S. 1935, M.S. 1938, George Washington University; Ph.D. 1940, University of Illinois.
- Roger B. Page as assistant professor and administrative assistant, College of Science, Literature, and the Arts.  
B.A. 1938, University of Richmond.
- Mellie F. Palmer as clinical assistant professor, School of Public Health.  
B.S. 1922, Certificate in Public Health Nursing, 1923, University of Minnesota; C.P.H. 1931, Massachusetts Institute of Technology.
- Allan F. Schirmer as assistant professor of music.  
B.Music, 1926, Northwestern University; B.A. 1931, Denison University (Granville, Ohio); M.S.M. 1937, Union Theological Seminary, New York City.
- Edward Schons as clinical assistant professor of radiology.  
M.D.C.M. 1938, Hamline University.
- Lorissa Sheldon as assistant professor of home economics.  
B.S. 1932, North Dakota State College; M.S. 1938, Iowa State College.
- Lt. Donald M. Snyder as assistant professor of naval science and tactics.  
B.S. 1939, Morningside College (Sioux City, Iowa)
- Edward B. Stanford as assistant professor and assistant university librarian.  
B.A. 1932, Dartmouth College; B.S. Lib. Sc. 1934, University of Illinois; M.A. 1939, Williams College; Ph.D. 1942, University of Chicago.
- Sherwood R. Steadman as clinical assistant professor, School of Dentistry.  
B.S. 1929, Princeton University; D.D.S. 1932, University of Minnesota; M.S. 1934, University of Illinois.
- Lt. John R. Weddle as assistant professor of military science and tactics.  
B.S. 1941, Kansas State College.
- William L. Williams as assistant professor of anatomy.  
B.S. 1935, Wofford College (Spartanburg, South Carolina); M.A. 1939, Duke University; Ph.D. 1941, Yale University.
- Robert W. Winslow as assistant professor of public school music, College of Education.  
B.Music 1934, Eastman School of Music; M.Ed. 1939, University of Rochester; M.A. 1941 and D.Ed. 1944, Teachers College, Columbia University.

## PROMOTIONS AND TRANSFERS, 1944-45

- Acting Dean to Dean, School of Business Administration* (beginning March 1, 1945)  
Richard L. Kozelka
- Assistant Dean Junior College, Science, Literature, and the Arts, and Professor of Mathematics to Professor of Mathematics*  
William H. Bussey
- Professor and Chairman of Physics to Assistant Dean of Senior College, College of Science, Literature, and the Arts and Professor and Chairman of Physics*  
J. William Buchta
- Associate Professor and Chairman General Studies to Assistant Dean of Junior College, College of Science, Literature, and the Arts and Associate Professor of Political Science and Chairman of the Department of General Studies*  
Russell M. Cooper
- Acting Chief to Chief of Department*  
William F. Geddes (College of Agriculture, Forestry, and Home Economics—agricultural biochemistry)  
Clarence E. Mickel (College of Agriculture, Forestry, and Home Economics—entomology and economic zoology)
- Professor of Electrical Engineering to Professor and Assistant to the Dean and Administrative Assistant*  
Elmer W. Johnson
- Professor to Professor and Acting Administrative Assistant Mines and Metallurgy*  
Thomas L. Joseph
- Associate Professor to Professor*  
John O. Christianson (School of Agriculture)  
Samuel T. Coulter (College of Agriculture, Forestry, and Home Economics—dairy husbandry)  
Hiram E. Essex (Mayo Foundation—experimental medicine)  
William H. Feldman (Mayo Foundation—experimental medicine)  
Theodore H. Fenske (Superintendent of West Central School and Experiment Station)  
John W. Gruner (College of Science, Literature, and the Arts—geology and mineralogy)  
Richard L. Kozelka (School of Business Administration)  
Alfred O. C. Nier (College of Science, Literature, and the Arts—physics)  
Arnold E. Osterberg (Mayo Foundation)  
Ella J. Rose (College of Education—home economics)  
George M. Schwartz (College of Science, Literature, and the Arts—geology and mineralogy)  
Lawrence D. Steefel (College of Science, Literature, and the Arts—history)  
George J. Stigler (School of Business Administration)  
George A. Thiel (College of Science, Literature, and the Arts—geology and mineralogy)
- Clinical Associate Professor to Clinical Professor*  
Walter A. Fansler (Medical School—surgery)  
Erling S. Platou (Medical School—pediatrics)
- Assistant Professor to Associate Professor*  
John M. Adams (Medical School—pediatrics)  
Axel B. Algren (Institute of Technology—Engineering Experiment Station)  
Richard T. Arnold (Institute of Technology—chemistry)  
John Bardeen (College of Science, Literature, and the Arts—physics)  
Paul M. Burson (Department of Agriculture—agricultural extension)  
Thomas H. Canfield (Department of Agriculture—animal and poultry husbandry)  
Helen G. Canoyer (School of Business Administration)  
Loyst C. Caverley (Institute of Technology—electrical engineering)  
Robert G. Cerny (Institute of Technology—architecture)  
Donald W. Cowan (Medical School—School of Public Health)  
Donald L. Dailey (Department of Agriculture—superintendent of North Central School and Experiment Station)  
Harry A. Doeringsfeld (Institute of Technology—mathematics and mechanics)  
Ernestine C. Donaldson (School of Business Administration)  
Carl J. Eide (Department of Agriculture—plant pathology and botany)

Charles A. Evans (Medical School—bacteriology)  
 Edwin H. Ford (College of Science, Literature, and the Arts—journalism)  
 Willard W. Green (Department of Agriculture—animal and poultry husbandry)  
 Harold L. Harris (Department of Agriculture—bulletin editor)  
 Helen Hart (Department of Agriculture—plant pathology and botany)  
 Mykola H. Haydak (Department of Agriculture—entomology and economic zoology)  
 Frank J. Heck (Mayo Foundation)  
 Robert G. Hinckley (Medical School—neuropsychiatry)  
 Edgar A. Hines (Mayo Foundation)  
 Robert E. Hodgson (Department of Agriculture—superintendent of Southeast Experiment Station)  
 Reynold A. Jensen (Medical School—pediatrics and neuropsychiatry)  
 Paul C. Johnson (Department of Agriculture—agricultural extension)  
 Sidney Larson (Institute of Technology—electrical engineering)  
 Earl C. Latham (College of Science, Literature, and the Arts—political science)  
 Philip W. Manson (Department of Agriculture—agricultural engineering)  
 Forrest E. Miller (Institute of Technology—mathematics and mechanics)  
 Charles V. Netz (College of Pharmacy)  
 Norville C. Pervier (Institute of Technology—chemistry)  
 Charles W. Rucker (Mayo Foundation)  
 Edward H. Rynearson (Mayo Foundation)  
 Ernest B. Sandell (Institute of Technology—chemistry)  
 Karl Sollner (Rockefeller Foundation Fund)  
 Arthur E. Stoppel (Institute of Technology—chemistry)  
 Alice F. Tyler (College of Science, Literature, and the Arts—history)  
 Garvin L. von Eschen (Institute of Technology—aeronautical engineering)  
 John M. Waugh (Mayo Foundation)  
 James F. Weir (Mayo Foundation)  
 Harold T. Widdowson (College of Education—trade and industrial education)  
 Arthur N. Wilcox (Department of Agriculture—horticulture)  
 Marvin M. D. Williams (Mayo Foundation)

*Clinical Assistant Professor to Clinical Associate Professor*

E. Dyer Anderson (Medical School—pediatrics)  
 Joe W. Baird (Medical School—anesthesiology)  
 Rudolph W. Delton (School of Dentistry)  
 George D. Estes (School of Dentistry)  
 William A. Hanson (Medical School—surgery)  
 Lucy Heathman (Medical School—public health)  
 Roy M. Jernall (School of Dentistry)  
 E. Mendelssohn Jones (Medical School—surgery)  
 George W. Lundberg (School of Dentistry)  
 Stanley R. Maxeiner (Medical School—surgery)  
 Lester C. McCarthy (School of Dentistry)  
 Chauncey A. McKinlay (Medical School—medicine)  
 Martin Nordland (Medical School—surgery)  
 Roscoe C. Webb (Medical School—surgery)  
 Robert L. Wilder (Medical School—pediatrics)  
 Oswald S. Wyatt (Medical School—pediatrics)  
 Harry B. Zimmerman (Medical School—surgery)

*Lecturer to Associate Professor*

Clifford N. Wall (College of Science, Literature, and the Arts—physics)

*Instructor to Assistant Professor*

George M. Baggs (Institute of Technology—aeronautical engineering)  
 Howard H. Campaigne (College of Science, Literature, and the Arts—mathematics)  
 Thomas H. Canfield (Department of Agriculture—poultry husbandry)  
 Ashton C. Cuckler (College of Science, Literature, and the Arts—zoology)  
 Richard A. Graves (School of Business Administration)  
 Fred L. Greenwood (Department of Agriculture—biochemistry)  
 Clement H. Griffith (Department of Agriculture—North Central School and Experiment Station)  
 F. Lloyd Hansen (General Extension Division—embalming)  
 Robert E. Hebbel (Medical School—pathology)

- Albert C. Heine (Department of Agriculture—West Central School and Experiment Station)  
 Clarence J. Hemming (Department of Agriculture—West Central School and Experiment Station)  
 Austin F. Henschel (Laboratory of Physiological Hygiene)  
 Robert Jenness (Department of Agriculture—biochemistry)  
 Nathan Lifson (Medical School—physiology)  
 Rodney C. Loehr (College of Science, Literature, and the Arts—history)  
 Victor Lorber (Medical School—physiology)  
 Curtis J. Lund (Medical School—obstetrics and gynecology)  
 Edward J. Meehan (Institute of Technology—chemistry)  
 Esther P. McKowen (Department of Agriculture—agricultural extension)  
 Charles H. McLaughlin (College of Science, Literature, and the Arts—political science)  
 Herbert E. Miller (School of Business Administration)  
 Carl G. Morlock (Mayo Foundation)  
 Helen P. Mudgett (Extension Division—history)  
 Thomas Murphy (Institute of Technology—mechanical engineering)  
 Ralph G. Nichols (Department of Agriculture—rhetoric)  
 Edmund A. Nightingale (School of Business Administration)  
 Hazel B. Nohavec (College of Education)  
 Herald K. Palmer (Institute of Technology—mechanical engineering)  
 Robert L. Parker (Mayo Foundation)  
 Ralph G. Peterson (School of Dentistry)  
 Thomas L. Pool (Mayo Foundation)  
 Carl W. Sharsmith (College of Science, Literature and the Arts—botany)  
 E. Neil Shawhan (Institute of Technology—mathematics and mechanics)  
 Charles G. Snyder (Department of Agriculture—agricultural engineering)  
 Hamilton A. Stewart (Department of Agriculture—animal husbandry)  
 James M. Stickney (Mayo Foundation)  
 Richard L. Varco (Medical School—surgery)  
 Theodore S. Weir (Department of Agriculture—horticulture)  
 Douglas H. Yock (School of Dentistry)
- Clinical Instructor to Clinical Assistant Professor*  
 Jacob S. Blumenthal (Medical School—medicine)  
 Harry W. Christianson (Medical School—surgery)  
 Donald W. Dostal (School of Dentistry)  
 George Eitel (Medical School—surgery)  
 Walter L. Hoffman (Medical School—ophthalmology)  
 Pearl Shalit (Medical School—public health)  
 Charles E. Stanford (Medical School—ophthalmology)
- Wright County Agricultural Agent to Assistant Professor—Assistant State Leader 4-H Club and Rural Youth Work*  
 Paul J. Moore (Department of Agriculture—agricultural extension)
- Research Associate to Assistant Professor*  
 Floyd C. Olson (Department of Agriculture—biochemistry)
- Lecturer to Assistant Professor*  
 Henry L. Smith (College of Science, Literature, and the Arts—journalism)
- Research Fellow to Assistant Professor*  
 Walter O. Lundberg (Hormel Research Foundation)
- Clinical Assistant to Clinical Assistant Professor*  
 Max W. Alberts (Medical School—surgery)

## PROMOTIONS AND TRANSFERS, 1945-46

- Professor of Chemical Engineering to Assistant Dean of the Graduate School and Professor of Chemical Engineering*  
 Ralph E. Montonna
- Director of Admissions and Records—Associate Professor to Dean of Admissions and Professor*  
 William S. Carlson

*Acting Assistant Dean to Assistant Dean*

Donald W. Cowan (Medical School)

*Professor of Mechanical Engineering to Dean of Admission and Records and Professor*

Robert E. Summers

*Professor of Dairy Husbandry to Associate Director of Agricultural Experiment Station and Professor of Dairy Husbandry*

Harold C. Macy

*Professor of Mathematics and Mechanics to Professor and Head of Civil Engineering*

Lorenz G. Straub

*Associate Professor to Professor*

Ernst C. Abbe (College of Science, Literature, and the Arts—botany)

Gertrude M. Baker (Physical Education for Women)

Acting Director to Director of Department of Physical Education for Women

Guy L. Bond (College of Education)

Theodore Brameld (College of Education)

Ralph H. Brown (College of Science, Literature, and the Arts—geography)

Alburey Castell (College of Science, Literature, and the Arts—philosophy)

Virgil S. Counseller (Mayo Foundation)

Samuel N. Dicken (College of Science, Literature, and the Arts—geography)

Claude F. Dixon (Mayo Foundation)

Samuel Eddy (College of Science, Literature, and the Arts—zoology)

Gerald T. Evans (Medical School—medicine)

Carl A. Herrick (Institute of Technology—mathematics and mechanics)

James T. Hillhouse (College of Science, Literature, and the Arts—English)

Robert E. Hodgson (Department of Agriculture—Southeast Experiment Station)

Frank H. Kaufert (Department of Agriculture—forestry)

C. Frederick Koelsch (Institute of Technology—chemistry)

Howard P. Longstaff (College of Science, Literature, and the Arts—psychology)

Lennox Mills (College of Science, Literature and the Arts—political science)

Frederick P. Moersch (Mayo Foundation)

Elio D. Monachesi (College of Science, Literature, and the Arts—sociology)

Horace T. Morse (General College)

Isabel Noble (Department of Agriculture—home economics)

Clarence P. Oliver (College of Science, Literature, and the Arts—zoology)

Ernest S. Osgood (College of Science, Literature, and the Arts—history)

Lynn H. Rumbaugh (College of Science, Literature, and the Arts—physics)

Carl F. Schlotthauer (Mayo Foundation)

William J. Simon (School of Dentistry)

Laurence Schmeckebier (College of Science, Literature, and the Arts—fine arts)

Mark J. Thompson (Department of Agriculture—Northeast Experiment Station)

Frederick A. Willius (Mayo Foundation)

*Clinical Associate Professor to Clinical Professor*

Lewis W. Thom (School of Dentistry)

*Lecturer to Professor*

George J. Schroeffer (Institute of Technology—civil engineering)

*Assistant Professor to Professor*

Edgar L. Piret (Institute of Technology—chemical engineering)

*Assistant Professor to Associate Professor*

G. Lester Anderson (College of Education)

Melvin W. Binger (Mayo Foundation)

Emmert M. Brackney (College of Science, Literature, and the Arts—Romance languages)

Margaret L. Brew (Department of Agriculture—home economics)

Phillip W. Brown (Mayo Foundation)

Randolph M. Brown (Department of Agriculture—forestry)

Spencer B. Cleland (Department of Agriculture—agricultural extension)

Alice Clendenning (College of Science, Literature, and the Arts—sociology)

Walter B. Cline (College of Science, Literature, and the Arts—anthropology)

Edward N. Cook (Mayo Foundation)

Robert V. Cram (College of Science, Literature, and the Arts—classics)

Ralph F. Crim (Department of Agriculture—agricultural extension)

William H. Dankers (Department of Agriculture—agricultural extension)  
 Robert M. Douglass (Department of Agriculture—agricultural extension)  
 Monica K. Doyle (College of Science, Literature, and the Arts—sociology)  
 Thomas J. Dry (Mayo Foundation)  
 Raymond S. Dunham (Department of Agriculture—Northwest School and Experiment Station)  
 Frances Dunning (Department of Agriculture—home economics)  
 Daniel C. Dvoracek (Department of Agriculture—agricultural extension)  
 John L. Emmett (Mayo Foundation)  
 Arthur E. Engebretson (Department of Agriculture—agricultural extension)  
 Jacques Fermaud (College of Science, Literature, and the Arts—Romance languages)  
 Eunice Flock (Mayo Foundation)  
 C. Stacy French (College of Science, Literature, and the Arts—botany)  
 Howard Gilkinson (College of Science, Literature, and the Arts—speech)  
 Alrik Gustafson (College of Science, Literature, and the Arts—Scandinavian)  
 Ruth Harrington (School of Nursing)  
 Cecilia Hauge (School of Nursing)  
 Fordyce R. Heilman (Mayo Foundation)  
 John L. Heller (College of Science, Literature, and the Arts—classics)  
 Allan Hemingway (Medical School—physiology)  
 Julia F. Herrick (Mayo Foundation)  
 Horton C. Hinshaw (Mayo Foundation)  
 Alan Holske (College of Science, Literature, and the Arts—German)  
 Elizabeth Jackson (College of Science, Literature, and the Arts—English)  
 Tom B. Jones (College of Science, Literature, and the Arts—history)  
 Hadow M. Keith (Mayo Foundation)  
 Arthur Kirschbaum (Medical School—anatomy)  
 Harold P. Klug (Institute of Technology—inorganic chemistry)  
 Daniel A. Listiak (School of Dentistry)  
 Curtis J. Lund (Medical School—obstetrics and gynecology)  
 Walter O. Lundberg (Hormel Institute)  
 Charles K. Maytum (Mayo Foundation)  
 John R. McDonald (Mayo Foundation)  
 Chester McNelly (Department of Agriculture—agricultural extension)  
 William E. Morris (Department of Agriculture—agricultural extension)  
 Charles K. Otis (Department of Agriculture—agricultural engineering)  
 Benjamin S. Pomeroy (Department of Agriculture—veterinary medicine)  
 Louis W. Rees (Department of Agriculture—forestry)  
 Edward B. Tuohy (Mayo Foundation)  
 Elmer G. Wakefield (Mayo Foundation)  
 Franklin G. Wallace (College of Science, Literature, and the Arts—zoology)  
 Harold G. Worman (School of Dentistry)  
 Henry G. Zavoral (Department of Agriculture—agricultural extension)

*Clinical Assistant Professor to Clinical Associate Professor*

James K. Anderson (Medical School—surgery)  
 Karl W. Anderson (Medical School—medicine)  
 Joseph O. Baker (School of Dentistry)  
 George S. Bergh (Medical School—surgery)  
 L. Haynes Fowler (Medical School—surgery)  
 Charles Peterka (School of Dentistry)  
 Fred C. Thiers (School of Dentistry)  
 Walter H. Ude (Medical School—radiology and physical therapy)  
 Harold C. Wittich (School of Dentistry)

*Lecturer to Associate Professor*

John B. Wolf (College of Science, Literature, and the Arts—history)

*Instructor to Assistant Professor*

Richard C. Adams (Mayo Foundation)  
 Cyrus P. Barnum, Jr. (Medical School—physiological chemistry)  
 B. Marsden Black (Mayo Foundation)  
 Lyle A. Brecht (School of Dentistry)  
 Howard B. Burchell (Mayo Foundation)  
 Grace Christensen (Physical Education for Women)



Kenneth E. Clark (College of Science, Literature, and the Arts—psychology)  
 Russell M. Cornell (Institute of Technology—civil engineering)  
 Alfred E. Cronk (Institute of Technology—aeronautical engineering)  
 James E. Curtis (College of Education)  
 Clarence A. Good (Mayo Foundation)  
 Bertha Handlan (College of Education)  
 Dorothy H. Heilman (Mayo Foundation)  
 Merlin T. Henderson (Department of Agriculture—agronomy and plant genetics)  
 John A. Henry (Institute of Technology—mathematics and mechanics)  
 Jerome Jackman (Extension Division—business law)  
 Nanna Jelstrup (Department of Agriculture—West Central School and Experiment Station)  
 Edward S. Judd (Mayo Foundation)  
 Miles S. Kersten (Institute of Technology—civil engineering)  
 Robert R. Kierland (Mayo Foundation)  
 Walter F. Kvale (Mayo Foundation)  
 Adolph O. Lee (Institute of Technology—mechanical engineering)  
 Leah M. Lewis (Extension Division—art)  
 William H. Livers (Extension Division—English)  
 George B. Logan (Mayo Foundation)  
 William R. Lovelace (Mayo Foundation)  
 Paul E. Meehl (College of Science, Literature, and the Arts—psychology)  
 Kenneth P. Miller (Department of Agriculture—North Central School and Experiment Station)  
 Lloyd H. Mousel (Mayo Foundation)  
 Robert E. Nylund (Department of Agriculture—horticulture)  
 Arthur M. Olsen (Mayo Foundation)  
 Edith M. Parkhill (Mayo Foundation)  
 Harry T. Priest (Institute of Technology—mechanical engineering)  
 Grace M. Roth (Mayo Foundation)  
 Herbert W. Schmidt (Mayo Foundation)  
 Thomas H. Seldon (Mayo Foundation)  
 Taito Soine (College of Pharmacy)  
 Afif I. Tannous (College of Science, Literature, and the Arts—sociology)  
 Jan H. Tillisch (Mayo Foundation)  
 Ramona L. Todd (Medical School—public health)  
 Maurice N. Walsh (Mayo Foundation)  
 Harry M. Weber (Mayo Foundation)  
 Elmer W. Ziebarth (Extension Division—radio)

*Clinical Instructor to Clinical Assistant Professor*

J. Richards Aurelius (Medical School—radiology and physical therapy)  
 George S. Bergh (Medical School—surgery)  
 Chauncey N. Borman (Medical School—radiology and physical therapy)  
 Edward P. Burch, II (Medical School—ophthalmology)  
 Woodard Colby (Medical School—pediatrics)  
 Lyman R. Critchfield (Medical School—pediatrics)  
 Cyrus O. Hansen (Medical School—radiology and physical therapy)  
 Malcolm B. Hanson (Medical School—radiology and physical therapy)  
 Douglas P. Head (Medical School—medicine)  
 Frank G. Hedenstrom (Medical School—pediatrics)  
 Earl C. Henrikson (Medical School—surgery)  
 George X. Levitt (Medical School—medicine)  
 Emanuel S. Lippman (Medical School—pediatrics)  
 Oscar Lipschultz (Medical School—radiology and physical therapy)  
 Axel P. Lund (School of Dentistry)  
 Robert L. Meller (Medical School—neuropsychiatry)  
 Harold H. Noran (Medical School—neuropsychiatry)  
 Lillian Nye (Medical School—pediatrics)  
 Edwin F. Robb (Medical School—pediatrics)  
 Robert Rosenthal (Medical School—pediatrics)  
 David Siperstein (Medical School—pediatrics)  
 Alexander Stewart (Medical School—pediatrics)  
 Viktor Wilson (Medical School—pediatrics)

*Lecturer to Assistant Professor*

Harold B. Allen (College of Science, Literature, and the Arts—English)  
 Eric R. Bentley (College of Science, Literature, and the Arts—English)  
 John Rood (College of Education—art education)

*Research Fellow to Assistant Professor*

Olaf C. Soine (Department of Agriculture—Northwest School and Experiment Station)

*Anoka County Agricultural Agent to Assistant Professor-District Supervisor 4-H Club Work*

Glen J. Johnson

*Watonswan County Home Demonstration Agent to Assistant Professor-Assistant Home Demonstration Leader*

Evelyn R. Morrow (Department of Agriculture—agricultural extension)

*Assistant County Agricultural Agent Marshall County to Instructor-District Supervisor 4-H Club Work*

Burton W. Kreitlow

*Clinical Assistant to Clinical Instructor*

Harry F. Bayard (Medical School—surgery)  
 Kenneth Bulkley (Medical School—surgery)  
 Aaron Friedell (Medical School—pediatrics)  
 Alice H. Fuller (Medical School—pediatrics)  
 Wendell H. Hall (Medical School—medicine)  
 Hermina Hartig (Medical School—pediatrics)  
 Arthur E. Karlstrom (Medical School—pediatrics)  
 Gjert M. Kelby (Medical School—radiology and physical therapy)  
 Elizabeth Lowry (Medical School—pediatrics)  
 Alfred J. Ouellette (Medical School—pediatrics)  
 Francis X. Roach (Medical School)

*Teaching Assistant to Instructor*

Esther E. Shuler (College of Science, Literature, and the Arts—Romance languages)  
 Elmer L. Thomas (Department of Agriculture—dairy husbandry)

*Research Assistant to Clinical Instructor*

David State (Medical School—surgery)

*Medical Fellow to Clinical Instructor*

Rodney F. Kendall (Medical School—medicine)

## LEAVES OF ABSENCE, 1944-45

Eugen Altschul, visiting professor, School of Business Administration, continuation of leave without salary for 1944-45, for work with WPB, Washington, D.C.

Anne D. Blitz, dean of women, with salary May 15 to September 15, 1945, due to illness.

Charles W. Boardman, professor of general education, sabbatical furlough from January 1 to March 15, 1945, to visit some of the outstanding secondary schools in the United States.

Charles D. Creevy, assistant dean and professor of surgery, leave for 45 per cent time without salary October 16, 1944 to June 30, 1945, to devote his time in caring for Dr. Ernest Meland's practice.

Edwin H. Ford, associate professor of journalism, leave with salary for winter quarter of 1944-45 due to illness.

Raymond E. Johnson, clinical professor, School of Dentistry, without salary, for the fall quarter of 1944-45, due to illness.

Stanley V. Kinyon, professor, Law School, half-time leave without salary for 1944-45, to serve with Doherty, Rumble, Butler, and Sullivan in St. Paul.

Clifford Kirkpatrick, professor of sociology, leave without salary May 1 to June 15, 1945, to undertake confidential work for the War Department.

J. Charnley McKinley, professor and head of neuropsychiatry, with salary June 1 to September 15, 1945, due to illness.

Harold S. Quigley, professor of political science, without salary May 21-31, 1945, to attend the San Francisco Conference as a special representative for KSTP.

George W. Reynolds, professor, School of Dentistry, continuation of leave without salary for 1944-45 due to illness.

- Maurice C. Tanquary, professor of entomology and economic zoology, leave with salary September 16 to October 25, 1944 due to illness (deceased October 25, 1944).
- George M. Schwartz, professor of geology and mineralogy, without salary for the fall quarter of 1944-45, for work for the United States Geological Survey.
- Dora V. Smith, professor of general education, without salary for the fall quarter of 1944-45, for additional time in California following the annual meeting of teachers of English to visit various schools.
- George J. Stigler, professor in School of Business Administration, continuation of leave without salary for the fall quarter of 1944-45 to conduct special research work for the National Bureau of Economic Research and the Statistical Research Group of Columbia University, Division of War Research, in New York City.
- Robert Penn Warren, professor of English, without salary for 1944-45, to serve as consultant in poetry, Library of Congress, Washington, D.C.
- Gertrude M. Baker, acting director and associate professor, Physical Education for Women, sabbatical furlough for 1944-45 for graduate study at Columbia University.
- Charles T. Boehnlein, associate professor of aeronautical engineering, without salary for 1944-45, for service in the United States Navy.
- Arthur M. Borak, associate professor, School of Business Administration, without salary for winter and spring quarters of 1944-45 to serve as senior price analyst in the Price Division of the Office of Price Administration, St. Paul.
- Theodore Brameld, associate professor of general education, without salary for the fall quarter of 1944-45, to serve with the Julius Rosenwald Fund in order to make a study of the treatment of minority groups in school systems of the United States.
- Ralph H. Brown, associate professor of geography, sabbatical furlough for the fall quarter of 1944-45 for further research in past geography of selected United States regions to complete a book.
- Helen G. Canoyer, associate professor, School of Business Administration, without salary for 1944-45, to prepare and edit a series of manuals on various retail store operations which will be used for training men in service as part of their preparation for return to civilian life.
- A. Hamilton Chute, associate professor, School of Business Administration, continuation of leave without salary for 1944-45, to serve with the Compliance Branch of the Office of Distribution in the War Food Administration as special assistant to the chief, Accounts and Audits Division, Washington, D.C.
- John G. Darley, director of Student Counseling Bureau and associate professor of psychology, without salary for 1944-45, for service with the United States Navy.
- William P. Dunn, associate professor of English, one-third time leave without salary for 1944-45, on account of illness.
- Howard K. Gray, associate professor of surgery, Mayo Foundation, without salary for 1944-45 for service with the United States Naval Reserve.
- Harold L. Harris, bulletin editor and associate professor, Department of Agriculture, without salary April 1, 1945 to March 31, 1946, to manage country newspaper work in the interest of his health.
- Lura C. Hutchinson, associate professor Division of Library Instruction, without salary for 1944-45, on account of injury.
- Joseph M. Little, associate professor School of Dentistry, without salary January 1 to March 31, 1945, for vacation trip.
- Howard P. Longstaff, associate professor of psychology, without salary April 24 to June 15, 1945, to serve as a bombing research analyst in the European Theater of Operations for the United States Strategic Bombing Survey.
- Ralph A. Piper, associate professor of physical education for men, without salary September 23, 1944 to June 30, 1945, to accept a commission in the United States Army in Physical Reconditioning Program under the Office of the Surgeon General.
- B. Frederic Skinner, associate professor of psychology, sabbatical furlough for 1944-45 to complete a manuscript.
- Alan E. Treloar, associate professor of public health, without salary January 1 to June 30, 1945, to serve as statistical consultant on an army project under the direction of the National Defense Research Committee and the Quartermaster General of the Army.
- James S. Webb, associate professor of electrical engineering, without salary October 1, 1944 to June 15, 1945, for research work for the United States Government.
- Robert L. Wilder, clinical associate professor of pediatrics, without salary August 1, 1943 to June 30, 1945, for service in the United States Army.
- Neal R. Amundson, assistant professor of mathematics and mechanics, without salary for 1944-45, to accept a fellowship at Brown University.

- Elizabeth Atkins, assistant professor of English, one-third time leave without salary for the spring quarter of 1944-45 to work on a new course in humanities to be offered to navy students.
- Margaret L. Brew, assistant professor of home economics, without salary for 1944-45, to complete work for Doctor's degree at University of Chicago.
- William G. Clark, assistant professor of zoology, without salary for 1944-45, to accept a position on an OSRD project at University of Southern California.
- Herbert G. Croom, assistant professor at the West Central School and Experiment Station, without salary July 17, 1944 to June 30, 1945, for service in the United States Navy.
- Lillian Cottrell, mental hygienist, Students' Health Service and assistant professor of neuropsychiatry, sabbatical furlough for 1944-45, for further study and research in the field of psychiatry and mental hygiene at University of Pennsylvania.
- James A. Cuneo, assistant professor of Romance languages, without salary for 1944-45, to return to Argentina to settle an estate.
- Daniel C. Dvoracek, assistant professor-extension economist marketing, agricultural extension, continuation of leave without salary July 1 to December 31, 1944, for work as senior extension economist, United States Department of Agriculture, Washington, D.C.
- C. Stacy French, assistant professor of botany, without salary September 16 to December 15, 1944, for work on a penicillin project on the Farm Campus.
- Roy H. Giberson, assistant professor-district club agent, agricultural extension, leave for 75 per cent time without salary April 1 to November 10, 1945, on account of illness.
- Dale Harris, assistant professor Institute of Child Welfare, without salary for 1944-45 for service with the United States Marines.
- Fred H. Hayes, clinical assistant professor, School of Dentistry, without salary September 15, 1944 to June 30, 1945, on account of illness.
- Charlotte S. Henry, assistant professor and psychiatric social worker neuropsychiatry, with salary February 1-28, 1945, on account of illness.
- Elizabeth Jackson, assistant professor of English, leave for one-third time without salary for the fall quarter of 1944-45, because the advanced classes would not be offered until winter quarter.
- Edward S. Loye, assistant professor of mathematics and mechanics and acting administrative assistant, without salary for 1944-45 for military service.
- Esther P. McKowen, assistant professor-assistant state home demonstration leader, agricultural extension, with salary March 27 to April 19 and May 2-8, 1945, on account of illness.
- Herbert E. Miller, assistant professor, School of Business Administration, without salary for winter and spring quarters of 1944-45, to accept a temporary appointment at University of Iowa to re-establish his resident status and qualify for taking the examination for a CPA certificate in state of Iowa.
- O. William Muckenhirn, assistant professor of electrical engineering, without salary for 1944-45, to participate in a governmental war program (Division of War Research at the United States Navy Radio and Sound Laboratory).
- Thomas E. Murphy, assistant professor of mechanical engineering, without salary for 1944-45, for service in the United States Navy.
- Carl L. Nordly, assistant professor of physical education for men, without salary January 16 to May 21, 1945, to serve on the staff of the Commanding General of the European Theater as civilian consultant for the Special Services Division of the Armed Forces.
- Edgar L. Piret, assistant professor of chemistry, continuation of leave for half time without salary for 1944-45, to continue work with Minnesota Mining and Manufacturing Company.
- Louis W. Rees, assistant professor of forestry, continuation of half-time leave without salary October 1 to December 31, 1944, to serve as an agent for the Lake States Forest Experiment Station.
- Jalmar H. Simons, clinical assistant professor of obstetrics and gynecology, without salary September 1 to November 5, 1944, on account of illness.
- Ian W. Tervet, assistant professor of plant pathology and botany, continuation of leave without salary July 1, 1944 to June 30, 1945, to continue work on Emergency Plant Disease Survey.
- Marjorie H. Thurston, assistant professor of rhetoric, with salary for fall quarter of 1944-45 on account of illness.

- Hugh L. Turrittin, assistant professor of mathematics and mechanics, without salary for 1944-45, for position with Army Air Corps Operational Analysis Division, New York City.
- Arthur G. Tyler, assistant professor of agricultural engineering, with salary April 4 to May 31, 1945, on account of illness.
- Ralph W. Wayne, assistant professor-extension dairyman, agricultural extension, without salary April 16-26, 1945 and May 16, 1945 to May 15, 1946, to serve as agricultural specialist on the Foreign Economics Administration Mission to Denmark.
- Douglas H. Yock, assistant professor, School of Dentistry, without salary April 1 to June 15, 1945, to serve in the United States Navy Dental Corps.
- Thomas Ziskin, clinical assistant professor of medicine, without salary October 1, 1944 to June 30, 1945, for military service.

## LEAVES OF ABSENCE, 1945-46

- Joseph W. Beach, professor and chairman English, without salary for the spring quarter of 1945-46, to serve as lecturer at the University of Washington.
- William S. Cooper, professor of botany, sabbatical furlough for the winter quarter of 1945-46, to acquire knowledge of the vegetation of southern Florida toward the preparation of a book on the forest geography of North America and to continue preparation of research for publication dealing with the geology and plant ecology of the coastal dunes of Oregon.
- Samuel N. Dicken, professor of geography, without salary for the fall and winter quarters of 1945-46, to serve as instructor for the Armed Forces in the European Area.
- George Filipetti, professor, School of Business Administration, without salary for the fall and winter quarters of 1945-46, to join the faculty of the Army University Center at Fontainebleau, France.
- Frederic B. Garver, professor, School of Business Administration, leave on half salary for winter quarter of 1945-46 due to illness.
- Dunham Jackson, professor of mathematics, leave for one-half time without salary for winter quarter of 1945-46 due to illness.
- Frank H. Kaufert, professor and assistant chief of forestry, without salary July 1 to August 4, 1945, to prepare articles for publication on three War Production Board and Army-Navy financed projects.
- T. Raymond McConnell, dean and professor College of Science, Literature, and the Arts, leave for 75 per cent time without salary July 1-31, 1945, to teach at the summer session of the University of Chicago.
- Errett W. McDiarmid, librarian and professor, without salary November 26 to December 8, 1945, to consult with the regents of the University of the State of New York and the New York State Department of Education regarding the survey of public library service in New York.
- J. Charnley McKinley, professor and head of neuropsychiatry, without salary for 1945-46 on account of illness.
- Lowry Nelson, professor of rural sociology, without salary for 1945-46, to serve as rural sociologist with the United States Department to make a study of rural life in the Caribbean area.
- Alfred O. C. Nier, professor of physics, continuation of leave without salary September 16 to October 31, 1945, for national defense research work.
- Walter H. Peters, professor and chief of animal and poultry husbandry, with salary March 19 to May 18, 1946, on account of illness.
- Ruth Raymond, professor of art education, sabbatical furlough for fall and winter quarters of 1945-46 for study, research, and writing.
- Dora V. Smith, professor of general education, leave for half time without salary for the spring quarter of 1945-46 to serve as director of a Curriculum Commission in English to make a nation-wide study at all levels of instruction.
- John T. Tate, research professor of physics, continuation of leave without salary July 1 to December 31, 1945 to complete the direction of war research projects.
- Charles T. Boehnlein, associate professor of aeronautical engineering, continuation of leave without salary for 1945-46 for service with United States Navy.
- Arthur M. Borak, associate professor, School of Business Administration, without salary for 1945-46 to serve on the faculty of the Army University Center at Fontainebleau, France.
- Helen G. Canoyer, associate professor, School of Business Administration, continuation of leave for the fall and winter quarters of 1945-46, to complete a project for the Department of Commerce on the practices of business on retail store location.

- A. Hamilton Chute, associate professor, School of Business Administration, without salary for the fall and winter quarters of 1945-46, to serve on the faculty of the Army University Center at Fontainebleau, France.
- Robert V. Cram, associate professor of classics, with salary April 12 to June 15, 1946, on account of illness.
- Samuel N. Dicken, associate professor of geography, sabbatical furlough for the spring quarter of 1945-46 to write a book on regional life in the Central Northwest.
- Marcia Edwards, associate professor and assistant dean, College of Education, without salary June 10-22, 1946, to participate in guidance workshop at University of Utah.
- Ruth Harrington, associate professor, School of Nursing, with salary June 1-30, 1946, to make a detailed study of nursing education in Cleveland through the United States Public Health Service.
- Gladstone B. Heisig, associate professor of chemistry, without salary for the fall and winter quarters of 1945-46 to serve on the faculty of a University Study Center in England or France for the army education program for troops in the European Theater of Operations.
- Reynold A. Jensen, associate professor of pediatrics and neuropsychiatry, without salary September 16-30, 1945, to conduct a series of lectures and clinics at University of Utah.
- Evron M. Kirkpatrick, associate professor of political science, without salary for 1945-46, to accept a position with the Office of Strategic Services in connection with the coordination of the research program of that agency.
- Frances M. Money, director and associate professor social service, University of Minnesota Hospitals, without salary August 1 to October 31, 1945, on account of illness of her father.
- Skuli Rutford, associate professor-assistant director, agricultural extension, with salary May 1 to September 30, 1946, to consult with agricultural officials and technicians relative to current problems in the collaborative programs between the United States and the Central and South American Republics.
- Otto H. Schmitt, associate professor of zoology, continuation of leave without salary for 1945-46 to continue research work on the national defense program under the Office of Scientific Research and Development.
- Helen M. Starr, associate professor physical education for women, without salary for winter quarter of 1945-46 to work for Doctor's degree at Ohio State University.
- Franklin G. Wallace, associate professor of zoology, without salary for half time March 16 to June 15, 1946, to serve as consultant in parasitology at Veterans' Hospital.
- Evan R. Allred, assistant professor of agricultural engineering, without salary August 1, 1945 to June 30, 1946, for military service.
- Francis A. Appel, assistant professor of English, without salary for spring quarter of 1945-46, for a tour of midwestern universities and colleges on a fellowship to make a detailed study of the trends in the teaching of English.
- Elizabeth Atkins, assistant professor of English, with salary November 16, 1945 to June 15, 1946 on account of illness.
- William C. Bell, assistant professor of geology and mineralogy, without salary from September 15 to December 15, 1945, for service with United States Army Air Forces.
- Eva L. Blair, assistant professor-extension nutritionist, agricultural extension, sabbatical furlough October 1, 1945 to August 31, 1946 for graduate study towards a Doctor's degree.
- Paul D. Boyer, assistant professor agricultural biochemistry, without salary August 1, 1945 to June 30, 1946, for military service.
- Ashton C. Cuckler, assistant professor of zoology, without salary for the fall quarter of 1945-46 for work with the Italian Medical Nutrition Mission of United Nations Relief and Rehabilitation Administration.
- James A. Cuneo, assistant professor of Romance languages, continuation of leave without salary for the fall and winter quarters of 1945-46, to remain in Argentina settling an estate.
- James E. Curtis, assistant professor and assistant director University High School, continuation of leave without salary for the fall quarter of 1945-46 for military service.
- Roy H. Giberson, assistant professor-state club agent, agricultural extension, without salary May 1-31, 1946, on account of illness.
- Alrik Gustafson, assistant professor of Scandinavian, sabbatical furlough for 1945-46, to write a biography of August Strindberg as a Guggenheim fellow.
- John A. Henry, assistant professor of mathematics and mechanics, without salary for 1945-46, to regain health and complete work on textbook in analytical geometry.

- Fred L. Kildow, assistant professor of journalism, without salary for the fall and winter quarters of 1945-46, to serve on the faculty of one of the United States War Department courses of instruction in journalism in the European Theater.
- Dorothy Kurtzman, assistant professor of nursing and superintendent of nursing projects, with salary April 8 to June 15, 1946, for rest and recuperation.
- Marie Lien, assistant professor of art education, without salary for spring quarter of 1945-46, for research and writing.
- Robert E. Nylund, assistant professor of horticulture, without salary September 1, 1945 to June 30, 1946, for military service.
- Ralph G. Peterson, assistant professor, School of Dentistry, without salary March 16 to June 15, 1946, in order to devote more time to his private practice.
- Henry L. Taylor, assistant professor, Sugar Research Foundation, with salary April 8 to June 15, 1946, on account of illness.
- Ralph W. Wayne, assistant professor-extension dairymen, agricultural extension, without salary July 1, 1945 to May 15, 1946, to continue to serve as agricultural specialist on the Foreign Economics Administration Mission to Denmark (see 1944-45 list).
- Eves E. Whitfield, assistant professor, agricultural extension, with salary December 5-27, 1945, on account of illness.

## DEATHS

With deep regret and a profound sense of personal loss the following deaths are recorded during the biennium:

- Max W. Alberts, clinical assistant professor of surgery, June 11, 1945.
- Robert Glenn Allison, clinical assistant professor of radiology, March 20, 1946.
- Frederic King Butters, professor of botany, August 1, 1945.
- Peter Christianson, professor emeritus of metallurgy, May 17, 1945.
- Richard Williams Cragg, assistant professor pathologic anatomy, Mayo Foundation, February 18, 1946.
- Charles V. Firth, scientist, Mines Experiment Station, December 2, 1945.
- Edwin L. Gardner, clinical associate professor of medicine, January 29, 1946.
- Rodney B. Harvey, professor of plant pathology and botany, November 4, 1945.
- Max Harold Hoffman, clinical assistant professor of medicine, August 22, 1944.
- Walter J. A. Huchthausen, assistant professor of architecture, killed in action in Germany April 2, 1945.
- Lura C. Hutchinson, associate professor of library instruction, June 14, 1945.
- Forrest Rhinehart Immer, professor of agronomy and plant genetics and associate director of the Agricultural Experiment Station, February 2, 1946.
- Jerome Jackman, assistant professor of business law, General Extension Division, July 9, 1945.
- Fred C. Lang, professor of civil engineering, November 19, 1945.
- Harry C. Lawton, associate professor, School of Dentistry, January 29, 1946.
- John Van Sickle Martenis, associate professor emeritus of mechanical engineering, July 14, 1944.
- Leslie E. McMillan, Blue Earth County agricultural agent, agricultural extension, November 17, 1945.
- Ernest Lawrence Meland, clinical assistant professor of surgery, December 3, 1944.
- Colonel Kent Nelson, associate professor of military science and tactics, November 11, 1944.
- Horace Newhart, professor emeritus of ophthalmology and otolaryngology, July 9, 1945.
- Virgil R. Ohlen, instructor School of Dentistry, November 25, 1945.
- Thomas Sadler Roberts, director and professor of the Museum of Natural History, April 19, 1946.
- Harold Eugene Robertson, professor of pathologic anatomy, Mayo Foundation, March 8, 1946.
- Carlyle M. Scott, professor emeritus of music, August 2, 1945.
- Walter Dewitt Shelden, professor emeritus of medicine, Mayo Foundation, February 13, 1946.
- Charles Peter Sigerfoos, professor emeritus of zoology, November 26, 1944.
- Maurice C. Tanquary, professor of apiculture, Division of Entomology and Economic Zoology, October 25, 1944.
- Anthony L. Underhill, associate professor of mathematics, January 18, 1945.
- Fred R. von Borgersrode, professorial lecturer, College of Education, March 9, 1946.
- Frank Keller Walter, librarian and professor emeritus, October 28, 1945.
- Ralph W. Warnock, clinical instructor in medicine, October 1, 1944.

## DIVISIONS OF ACADEMIC ADMINISTRATION

### DEAN OF STUDENTS

*Student Activities Bureau*—The following table summarizes the increased volume of service to students and student organizations performed by this bureau in the transition from a war period to a postwar student program. At the present time there are 260 officially active student organizations, recognized by the Senate Committee on Student Affairs as compared with 263 in the year 1942-43.

	1944-45	1945-46
Speaker approvals .....	86	93
Poster approvals .....	278	447
Post-office approvals .....	419	747
Social party approvals .....	365	654
Eligibility certifications .....	1,620	1,903
New organizations recognized .....	16	42
Organizations declared inactive .....	13	6

Group work as a systematic, professional service is relatively new on the college level, although deans of men and of women have for decades served as advisers with regard to program matters and organizational affairs. In this bureau we are formulating and systematizing an adaptation of certain phases of social group work from community experiences. Through consultations and conferences, both individual and group, students are helped to maintain the quality of their activity programs on a high educational level closely integrated with the major educational objectives of the institution itself. Serious attempts have been made within the past two years to bring student activities, including the three veterans' organizations, more in line with the emerging general education program in the undergraduate colleges. During the biennium, 1944-46, a total of 7,772 conferences with students and student groups were held as compared with a total of 2,884 during the preceding biennium.

The financial situation of student organizations is increasingly improved as indicated by an ending balance on June 20, 1946, of \$48,390.44 as compared with \$34,967.86 on the corresponding period for the preceding year. A total of \$208,448.47 was deposited during the current year as compared with \$131,019.08. Investments through the Group Organization Investment Trust Fund for the two years of the biennium were \$41,168.81 for 1945-46 and \$34,243.81 for the preceding year. The amount of securities held in custody for student organizations was \$13,589.00, approximately twice the amount in 1943-44.

The staff increased the program of individualized and formalized social adjustment counseling of individuals, handling 429 cases during this biennium.

During the biennium, the following amounts of money were raised by and through the Campus Chest in cooperation with other student organizations for charitable and welfare purposes:

	1944-45	1945-46
Red Cross .....		\$1,822.10
Christmas Seals .....	\$ 619.65	707.08
War Bonds .....	27,303.65	
Food for Freedom Drive .....		7,974.40
St. Paul Community Chest .....	367.01	222.08
Minneapolis Community Chest .....	734.02	650.38

Significant developments during the biennium include the drafting and submission for a general student referendum of a new basic charter for student organizations and student activities; the establishment of a leadership seminar; the development of evaluative criteria through which student leaders may check and determine the effectiveness of their organization's program; the establishment of a system of financial audits for academic and professional fraternities; the continuation of religious coordination; more effective coordination of all professional group work on the campus including dormitories, student unions, YMCA and YWCA; and the reactivation of almost all inactive fraternities.

*Bureau of Loans and Scholarships*—In the year 1944-45 a total of 399 students were given financial counseling and financial assistance, representing a total of 442 scholarships, loans, and counseling cases. These students filed 477 applications for financial assistance: 195 loans, 282 scholarship applications. A total of 273 applications were approved involving \$20,059.10 granted to 184 students. Of this total 106 students were granted \$11,606.75 in loans and 86 students were granted \$8,452.35 in scholarships, 8 students re-



ceiving both loans and scholarships. In each case extensive investigations were made of the student's personal, scholastic, and financial resources. Through the efforts of the bureau staff \$5,462.37 in additional new gifts were made to the University for its loans and scholarships funds.

In the year 1945-46, 508 students were interviewed and counseled, representing 522 loans, scholarships, and application cases. These students filed 455 applications for financial assistance, 243 for loans, and 212 for scholarship applications. A total of 321 applications were approved, involving \$27,063.84. A total of 153 students received loans totaling \$14,534.15 and 114 students received scholarship assistance to the amount of \$12,529.69. In addition 6 students were granted \$925 in loans from non-university sources, and 18 students additionally were granted \$1,960 in scholarships fund. Twelve students were granted a total of \$1,542.08 from non-university sources. During the year the staff of the bureau was instrumental in obtaining a total of \$10,142.61 principal in new loan funds and \$19,246.96 new trust scholarship funds.

A new service to student veterans was established involving supplementary advice and assistance with respect to financial aspects of governmental insurance and the purchasing of houses.

*Adviser to Foreign Students*—The number of foreign students resident in the University has increased from an all time low of 86 during the preceding biennium to a total of 174 in 1944-45 and 268 in 1945-46. Special English classes have been provided during the current year in addition to the special instruction and assistance in enunciation provided by the Speech Clinic. The president of the University was assisted in arrangements for a special foreign students luncheon conducted by the Minneapolis Rotary Club. During the year a special survey was made of the foreign student programs provided by twelve middlewestern universities and this information was summarized for the president's special committee on foreign students.

In cooperation with the director of the Housing Bureau special facilities for housing accommodations were obtained with great difficulty. During the year special local studies were made of the work of the foreign student adviser for the special president's committee which has now recommended a program more adequately geared to the needs for this special and important group of students.

*Student Housing*—The residential status of each student enrolled in the University the fall quarter of the corresponding years was as follows:

	1944-45		1945-46	
	Men	Women	Men	Women
Parents' homes*	1,412	2,974	1,642	2,886
Commuters	70	114	137	202
Dormitories	86	1,252	65	1,427
Fraternities and sororities	325	286	462	285
Cooperative houses		141		109
Apartments	97	111	602	378
Relatives' homes	35	117	83	179
Employers' homes	5	19	69	56
Friends' homes	13	66	64	113
Approved rooming houses	639	845	996	1,061
Unapproved rooming houses	94	175	48	116
	2,776	6,100	4,168	6,812

\* In Minneapolis or St. Paul.

Beginning with the fall quarter of 1944 the staff of the Housing Bureau was increased, and the entire program of the bureau was radically changed. Instead of the former listing of available rooms, an aggressive and continuous solicitation campaign has been developed. A pre-inspection and solicitation system makes more certain that the rooms that students live in are acceptable. Preliminary analyses of statistical data on hand indicate what is clear from first hand observation that the student body formerly concentrated in southeast Minneapolis is now dispersed over the metropolitan area of St. Paul and Minneapolis. This spreading has introduced many serious problems with respect to communication, added cost of transportation, and close supervision of households.

Analysis of the types of student residences indicates some significant trends. Since 1941-42 the percentage of non-Twin City students has increased from 43.56 per cent to 58.78 per cent of the student body. The percentage of students living in privately owned residential rooming houses has decreased from 21 per cent in 1941-42 to 18.7 in 1945-46. Other types of residences have remained approximately the same except for a marked increase in the percentage living in dormitories (from 9.5 per cent to 13.5 per cent) and apartments (from 1.7 to 9.0 per cent) between 1941 and 1945.

The change in the type of service from a listing service to a placement service involving personal interviews and conferences has resulted in marked increase of volume of work in the Housing Bureau. In the year 1944-45 a total of 4,093 interviews was held with students, and during the second year of the biennium this figure increased to 16,144. Correspondingly in the two years 108 and 1,612 interviews were held with householders. The number of approved rooming houses, approximately 400 for the past several years, has increased to a total of 1,098 during the year 1945-46, with a corresponding increase in student capacity from 2,358 to 4,105. It is gratifying to know that the large increase in the number of rooming houses has been principally in those classified as "A" and "B" quality. During the first year of the biennium, there were 97 "A", 149 "B", 124 "C", and 25 "D" houses. During the second year of the biennium there were 183 "A", 265 "B", 185 "C", and 31 "D."

A full-time staff has been established on the farm campus as a special branch of the Housing Bureau. Special attention has also been given during the biennium to the housing problems of foreign students, Negro and Nisei students, and physically handicapped students. Some limited service has been given to faculty in securing family housing.

*Student Conduct*—The number of students involved in disciplinary situations and given rehabilitation counseling increased from 171 in the first year of the biennium to 361 in the second year of the biennium. During the two years of the preceding biennium, the corresponding figures were 159 and 214. In addition to these individual student cases, there were disciplinary incidents involving 11 student organizations and 4 non-students in 1944-45; the corresponding figures for 1945-46 were 28 and 29. During the current biennium the individual cases were divided: 101 men and 70 women, in 1944-45, and 215 men and 146 women in 1945-46.

Of the 171 students involved in disciplinary incidents during the year 1944-45, a total of 30 participated in more than one disciplinary incident during the current or preceding years. The corresponding figure for the year 1945-46 is 56 individuals out of the total of 361. An intensive and extensive analysis is being made with respect to disciplinary techniques, methods, and policies.

*Speech Clinic*—During the year 1944-45 a full-time clinician, specialized in problems of the hard of hearing, was added to the staff to provide service for cases of special disability among veteran students and others. A second staff member was added to work with cases of aphasia. The clinic now provides a reasonably well-rounded staff for dealing with the various types of specialized hearing and speech disabilities.

During the biennium speech examinations were given to 3,098 new students in 1944-45 and 6,161 in 1945-46. A total of 162 students were given extensive clinical remedial services during the first year of the biennium and 158 during the second year. In addition to the regular speech examination, 556 other examinations were provided in the year 1944-45 for juniors in the College of Education, qualifying for teacher's certificates.

*Student Counseling Bureau*—Some phases of the essential services of the bureau are summarized in the following table:

	1944-45	1945-46
Total number of cases .....	2,902	3,179
Number of counseling interviews .....	6,082	5,553
Case reports to other counselors .....	2,548	1,273
Case consultations .....	174	21
Group testing cases .....	34,910	69,444
Number of psychological tests administered .....	78,611	127,837
Number of tests scored .....	95,625	149,083

The above table indicates that the counseling case load has returned to the level reached in the year 1938-39. The clinic for reading disabilities has been broadened to include other basic educational skills, such as assistance to students having repeated difficulties learning foreign languages. In 1944-45, 288 student cases were given assistance in the university educational skills clinic, and in the next year of the biennium 223 cases were cared for in addition to the above case load. The total case load, including the non-students, for the biennium 1942-44, was 6,091 cases and for the biennium 1944-46 it was 6,081. Special readers' services were extended to blind students in cooperation with the state department of rehabilitation.

Individual cases were handled for special and regular admissions testing for the Board of Admissions and the admissions committees of the colleges to the extent of 8,711 cases for the biennium 1944-46 and 4,553 for the preceding biennium. In addition 188,634 tests were given to groups of students during this biennium, and 186,358 for the preceding biennium. One of the most significant changes in the bureau services involved the testing of nearly all ninth-grade students in the high schools of the state of Minnesota in co-

operation with the Association of Minnesota Colleges, and the high schools of the state. This will provide basic data for the sound educational and vocational guidance of students at an earlier age than is afforded by the use of the tests administered during the senior year of high school.

The bureau extended other services through the faculty-student contact desk, chiefly involving the collection of various types of personal and personnel data for counseling uses. During the biennium 1944-46, a total of 60,527 uses were made involving 82,269 separate services.

*Counseling Veterans*—During the first year of the biennium 514 student veterans were enrolled in the University. The staff of the Bureau of Veterans Affairs devoted 1,515 interviews to counseling them and issued 2,447 requisitions for books and supplies. During the fall quarter of the year 1945-46, 1,594 student veterans were enrolled, and in the winter quarter this had increased to 6,251 in day school in addition to 228 special veterans enrolled at mid-quarter time; 975 veterans were enrolled in the extension division and 99 veterans in the continuation center program. A total of 32 per cent of the veterans were married, and of the married veterans, 69 per cent had no children, 26 per cent had one child, 3 per cent had two children; and the others had three or more children. During the winter quarter 282 veterans cancelled their registration officially, principally to take full-time jobs or because of factors referred to as poor health. The staff of the bureau conducted 10,101 interviews and issued 23,013 requisitions for books and supplies.

During the spring quarter of 1945-46, 9,128 veterans were enrolled with approximately the same distribution by class as in the winter quarter. Approximately the same distribution obtained with respect to marital status. Nonresidents decreased from 13 per cent nonresidents to 9 per cent. During the spring quarter, 330 veterans formally cancelled their registration from the University. The staff conducted a total of 8,503 interviews and issued 16,551 requisitions. During the year a total of 28,635 interviews was conducted with veterans and 43,807 requisitions were issued.

The program of the bureau continues to be essentially that established during 1944-45: first, orientation and induction interviews for the new veterans at the time of admission to college; secondly, continued counseling and assistance at any time the veteran desires and needs assistance supplementary to that offered by the colleges; and thirdly, exit interviewing to those veterans who are dissatisfied and wish to leave the University; and fourth, the issuance of vouchers for necessary books and supplies.—EDMUND G. WILLIAMSON, *dean*.

#### UNIVERSITY OF MINNESOTA LIBRARY

At the beginning of the biennium 1944-46, the University Library contained 1,302,769 accessioned volumes. Net additions for the two years were: 1944-45, 34,088; 1945-46, 37,985. Thus the total holdings of the University Library amounted to 1,374,842 as of June 30, 1946. Among notable additions to the library were these: the C. C. Webber collection of western Americana presented to the University by Mrs. C. C. Webber; the A. J. Russell library of American literature, purchased from Mr. Russell prior to his death; the Frank K. Walter collection of American humor, purchased from Mr. Walter; the library of the late Frederic K. Butters presented to the University by Mr. Butters and Mr. Lee I. Smith; the library of the late Harlow Gale, presented by Mr. Samuel Gale.

The second year of the biennium brought the end of the war and with it a resumption of exchange relations with many countries abroad. As a result the flow of foreign materials into the library has begun again, and the library is well on its way to acquiring foreign materials to fill the gaps on its shelves for the years 1941-45. Many materials normally subscribed for have been saved for us and other items are being secured through exchange with libraries abroad, through purchase from dealers whose stocks were not destroyed, and through the Library of Congress Cooperative Acquisition Project. This project, now in force for some months, has already resulted in the acquisition of foreign materials, principally from Germany.

A decided upswing in recorded circulation indicates the effect of increased enrollment on library use: 1942-43, 538,470; 1943-44, 449,208; 1944-45, 436,623; 1945-46, 561,578.

While the above figures are solely from the Circulation Department where the bulk of library materials are handled, reports from other departments indicate increased use ranging from 30 per cent to 146 per cent. It is interesting to note that during the spring quarter of 1946, the library experienced the heaviest recorded use of material it has ever known.

During the year 1945-46 an extensive reorganization of the Catalog Department resulted in a great increase in the number of volumes handled by the department.

Personnel changes during the period 1944-46 have been numerous. The serious shortage of librarians has resulted in frequent resignations and changes due to better salaries and opportunities elsewhere. And yet the library has been able, in the main, to fill vacant positions reasonably soon. The year 1945 marked the retirement of Miss Jessie L. Arms as chief catalog librarian, to be succeeded by Mr. Raynard C. Swank. Mr. Edward B. Stanford assumed in 1946 the new post of assistant university librarian.

The biennium of 1944-46 has been marked by progress. Serious problems, however, are faced in the years ahead. Arrearages of book and other materials need to be processed and assimilated into the library's usable resources. The need for additional book stacks is rapidly becoming acute. Reading room space, adequate for an enrollment of 8,000, will be entirely inadequate for an enrollment of 20,000 or more.

But the greatest need of the University Library is for an adequate staff to handle the acquisition, processing and care of library materials and to assist students and staff in the use of the resources of the library.—ERRETT W. MCDIARMID, *librarian*.

### OFFICE OF ADMISSIONS AND RECORDS

The various stages of World War II are reflected in the enrollment figures. From the prewar peak in 1939-40 collegiate enrollment declined to a wartime low in 1943-44. During these years war training and Army and Navy programs were established and reached their maximum enrollment in 1943-44. With the end of the war in the biennium 1944-46, collegiate enrollment increased with the return of veterans, first gradually and then sharply to above the prewar high. Concurrently, enrollment in war training and Army and Navy programs declined, and by the end of the biennium nearly all of these courses had been discontinued. The University is now in a period of expanding collegiate enrollment at a level considerably above prewar figures.

The tables show enrollment in the various colleges, in the Summer Session, in the Extension Division, in contract courses, and in subcollegiate units.

The net grand total of collegiate enrollments including the Graduate School and the Summer Session, excluding duplicate registrations, Table I, was 13,273 in 1944-45—an increase of 5 per cent from the previous year, and 25,484 in 1945-46—an increase of 92 per cent for the second year of the biennium. This increase reflects larger net total enrollments for both the Summer Session and the academic year in all curricula. Collegiate enrollment in 1945-46 including Summer Session was 17 per cent above the peak of 21,812 in 1939-40.

Collegiate enrollment exclusive of Summer Session was 10,896 in 1944-45—an increase of 11 per cent from the previous year and 22,703 in 1945-46—an increase of 108 per cent for the second year of the biennium. The ratio of men to women was 31 per cent men, 69 per cent women in 1944-45, and 60 per cent men, 40 per cent women in 1945-46 compared to 64 per cent men, 36 per cent women in 1939-40. Collegiate enrollment in 1945-46 exclusive of Summer Session was 30 per cent above the peak of 17,526 in 1939-40.

The Summer Session enrollment in 1944 was 5,172, a decrease of 1 per cent from the previous year and 6,155 in 1945, an increase of 19 per cent for the second year of the biennium. The increase in 1945 was due to accelerated curricula; the normal Summer Session group (teachers and others attending for the summer only) actually declined.

Tables IIA and IIB show the collegiate enrollment by quarters. The time of impact of the return of veterans is indicated in these tables. The year 1944-45 was normal in the sense that the largest attendance was in the fall quarter, followed by successively smaller enrollments winter and spring quarters. The situation reversed in 1945-46 with enrollment starting at a high level in the fall, 29 per cent over fall 1944, and increasing successively winter and spring to 18,081, 120 per cent over spring 1945.

The enrollment in the subcollegiate Schools of Agriculture, University High School, Nursery School and Kindergarten, Table III, was 1,589 in 1944-45, an increase of 12 per cent over the previous year and 1,815 in 1945-46, an increase of 14 per cent for the second year of the biennium. Agricultural short course attendance decreased 28 per cent from 7,073 in 1943-44 to 5,093 in 1945-46.

Enrollment in evening extension classes, extension short courses, and correspondence study courses, Table IVA, increased from 11,503 in 1943-44 to 18,584 in 1944-45 and to 21,706 in 1945-46, a net gain of 89 per cent for the biennium. Evening extension enrollment increased each year whereas correspondence study course enrollment increased sharply in 1944-45 from the previous year and declined slightly in 1945-46. The high

level of Correspondence Study enrollment was primarily due to courses taken by service men and women on active duty in the Armed Forces in this country and abroad. Extension short course enrollment was about the same in 1944-45 as in the previous year and declined slightly in 1945-46.

The number of students enrolled in the Center for Continuation Study, Table IVB, increased 50 per cent from 2,035 in 1943-44 to 3,061 in 1944-45 and 12 per cent to 3,441 in 1945-46. The relatively low enrollment in 1943-44 was due to the facilities of the Center having been used for Armed Forces Training Programs.

Table IVC summarizes enrollment in contract courses. Engineering, Science, Management War Training reached an enrollment peak of 3,382 in 1942-43, declined to 3,332 in 1943-44, to 2,678 in 1944-45, and was discontinued July, 1945. Enrollments in Army and Navy programs reached a peak of 9,994 in 1943-44 and declined to 3,367 in 1944-45, to 1,773 in 1945-46. By July, 1946 most of these programs had been discontinued. Table IVD shows enrollments in the Medical School and in the School of Dentistry.

The large increases noted in collegiate and extension students resulting primarily from the return of veterans to the campus appear again in Table V and more than offset losses in subcollegiate and contract course students. Table V shows the University to have provided instruction to 55,348 individuals during 1945-46, an increase of 9,760 or 21 per cent over the prewar peak of 45,588 in 1940-41. Comparative registration figures are presented in Table VI.

The University conferred 2,581 degrees in 1944-45 compared with 2,390 degrees in 1943-44, an increase of 8 per cent. These figures include the Bachelors degrees, professional degrees, and advanced degrees, as well as the two-year Associate degrees conferred by the General College and the College of Science, Literature, and the Arts and the two and three-year diplomas conferred on graduates in Dental Hygiene and Nursing, respectively. A summary of degrees conferred appears in Table VIIA.

Certificates issued by the University, Table VIIB, increased from 2,731 in 1943-44 to 2,881 in 1944-45 and decreased to 477 in 1945-46. The decrease was entirely in Engineering, Management, War Training certificates.

The numbers of students admitted from high school to the various colleges for each year of the biennium are shown in Tables VIIIA and VIIIB. The number of entering freshmen increased from 2,178 in 1943-44 to 2,917 in 1944-45 and to 6,326 in 1945-46.

The numbers of students admitted with advanced standing from other colleges and universities for each year of the biennium are shown in Tables IXA and IXB. The number of advanced standing students entering increased from 791 in 1943-44 to 940 in 1944-45 and to 2,226 in 1945-46.

Tables XA and XB show the geographical distribution of collegiate students for each year of the biennium.

TABLE I. COLLEGIATE STUDENTS BY COLLEGES AND SCHOOLS, 1944-46

College or School	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>General College</b>								
Second year	40	114	154	151	208	359	205	.....
First year	189	362	551	564	494	1,058	507	.....
Adult specials	5	5	10	11	7	18	8	.....
Totals	234	481	715	726	709	1,435	720	.....
<b>University College</b>								
Seniors	6	36	42	26	47	73	31	.....
Juniors	15	29	44	30	39	69	25	.....
Sophomores	1	10	11	6	8	14	3	.....
Freshmen	1	3	4	2	2	4	.....	.....
Adult specials	1	4	5	6	1	7	2	.....
Totals	24	82	106	70	97	167	61	.....
<b>Science, Literature, and the Arts</b>								
Seniors	49	261	310	166	326	492	182	.....
Juniors	91	467	558	334	606	940	382	.....
Sophomores	245	982	1,227	1,300	1,196	2,496	1,269	.....
Freshmen	477	1,177	1,654	2,197	1,464	3,661	2,007	.....
Adult specials	88	132	220	747	223	970	750	.....
Totals	950	3,019	3,969	4,744	3,815	8,559	4,590	.....

TABLE I.—Continued

College or School	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Institute of Technology</b>								
Seniors	60	3	63	119	9	128	65	.....
Juniors	80	9	89	297	12	309	220	.....
Sophomores	124	24	148	776	25	801	653	.....
Freshmen	426	33	459	2,136	50	2,186	1,727	.....
Adult specials	14	3	17	154	6	160	143	.....
Totals	704	72	776	3,482	102	3,584	2,808	.....
<b>Agriculture, Forestry, and Home Economics</b>								
Seniors	18	178	196	83	142	225	29	.....
Juniors	8	87	95	57	114	171	76	.....
Sophomores	49	185	234	241	222	463	229	.....
Freshmen	62	189	251	298	151	449	198	.....
Adult specials	13	14	27	100	31	131	104	.....
Totals	150	653	803	779	660	1,439	636	.....
<b>Law</b>								
Seniors	10	.....	10	25	2	27	17	.....
Juniors	12	4	16	57	3	60	44	.....
Sophomores	12	.....	12	43	4	47	35	.....
Freshmen	35	8	43	226	7	233	190	.....
Adult specials	6	1	7	13	.....	13	6	.....
Totals	75	13	88	364	16	380	292	.....
<b>Medicine</b>								
Interns	16	8	24	145	8	153	129	.....
Seniors	6	4	10	103	8	111	101	.....
Juniors	9	5	14	90	8	98	84	.....
Sophomores	17	6	23	69	16	85	62	.....
Freshmen	51	12	63	79	16	95	32	.....
Adult specials	.....	1	1	1	1	2	1	.....
Totals	99	36	135	487	57	544	409	.....
<b>Medical Technology</b>								
Seniors	.....	85	85	.....	89	89	4	.....
Juniors	.....	66	66	.....	79	79	13	.....
Totals	.....	151	151	.....	168	168	17	.....
<b>Physical Therapy</b>								
Adult specials	1	17	18	6	32	38	20	.....
Totals	1	17	18	7	34	41	23	.....
<b>Public Health</b>								
Adult specials	.....	3	3	4	14	18	15	.....
Totals	.....	3	3	5	15	20	17	.....
<b>Nursing</b>								
Third year	.....	250	250	.....	364	364	114	.....
Second year	.....	351	351	.....	370	370	19	.....
First year	.....	532	532	.....	300	300	232	.....
Affiliated	.....	387	387	.....	551	551	164	.....
Adult specials	.....	5	5	.....	22	22	17	.....
Totals	.....	1,525	1,525	.....	1,607	1,607	82	.....
<b>Public Health Nursing</b>								
Seniors	.....	85	85	.....	102	102	17	.....
Juniors	.....	31	31	.....	17	17	.....	14
Sophomores	.....	32	32	.....	63	63	31	.....
Adult specials	.....	31	31	.....	69	69	38	.....
Totals	.....	179	179	.....	251	251	72	.....
<b>Dentistry</b>								
Seniors	65	1	66	78	2	80	14	.....
Juniors	51	1	52	85	1	86	34	.....
Sophomores	62	1	63	26	.....	26	.....	37
Freshmen	14	1	15	54	3	57	42	.....
Adult specials	1	.....	1	8	1	9	8	.....
Totals	193	4	197	251	7	258	61	.....

## THE PRESIDENT'S REPORT

TABLE I.—Continued

College or School	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Dental Hygiene								
Second year		27	27		32	32	5	
First year		38	38		64	64	26	
Adult specials					1	1	1	
Totals		65	65		97	97	32	
Pharmacy								
Seniors	4	4	8	10	3	13	5	
Juniors	1	1	2	14	11	25	23	
Sophomores	8	14	22	24	13	37	15	
Freshmen	17	12	29	99	11	110	81	
Adult specials	2		2	5	1	6	4	
Totals	32	31	63	152	39	191	128	
Education								
Seniors	24	328	352	87	357	444	92	
Juniors	27	252	279	117	257	374	95	
Sophomores	8	139	147	65	161	226	79	
Freshmen	42	134	176	143	119	262	86	
Adult specials	41	147	188	151	119	270	82	
Totals	142	1,000	1,142	563	1,013	1,576	434	
Business Administration								
Seniors	31	38	69	119	41	160	91	
Juniors	56	76	132	455	92	547	415	
Adult specials	8	3	11	111	10	121	110	
Totals	95	117	212	685	143	828	616	
Graduates (including Mayo Foundation)	850	537	1,387	2,018	667	2,685	1,298	
Total academic year	3,549	7,985	11,534	14,333	9,497	23,830	12,296	
Less duplicates	142	496	638	640	487	1,127	489	
Net totals academic year	3,407	7,489	10,896	13,693	9,010	22,703	11,807	
Summer Session								
First term	1,289	3,226	4,515	1,753	3,708	5,461	946	
Second term	1,008	2,125	3,133	1,291	2,404	3,695	562	
Totals	2,297	5,351	7,648	3,044	6,112	9,156	1,508	
Less duplicates	907	1,846	2,753	1,166	2,149	3,315	562	
Net total Summer Session	1,390	3,505	4,895	1,878	3,963	5,841	946	
Mayo Foundation (graduates)	257	20	277	280	34	314	37	
Net total Summer Session (including Mayo Foundation)	1,647	3,525	5,172	2,158	3,997	6,155	983	
Grand totals, collegiate	5,054	11,014	16,068	15,851	13,007	28,858	12,790	
Less duplicates	996	1,799	2,795	1,388	1,986	3,374	579	
Net grand totals, collegiate	4,058	9,215	13,273	14,463	11,021	25,484	12,211	

TABLE IIA. COLLEGIATE ENROLLMENT BY QUARTERS, 1944-45

College or School	First Term, Summer Session, 1944			Second Term, Summer Session, 1944			Fall			Winter			Spring			Total Individual Registration*		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
General College .....	26	30	56	19	16	35	170	389	559	170	377	547	141	370	511	249	506	755
University College .....	7	15	22	3	11	14	21	55	76	21	59	80	21	71	92	27	90	117
Science, Literature, and the Arts .....	365	789	1,154	300	479	779	763	2,599	3,362	700	2,459	3,159	656	2,289	2,945	1,189	3,562	4,751
Institute of Technology .....	317	26	343	261	22	283	564	63	627	551	55	606	465	41	506	828	79	907
Agriculture, Forestry, and Home Economics .....	21	137	158	15	45	60	107	586	693	107	566	673	92	531	623	141	680	821
Law .....	35	8	43	35	8	43	56	13	69	61	11	72	61	10	71	82	15	97
Medicine and Interns .....	69	25	94	69	25	94	98	36	134	96	35	131	92	32	124	128	46	174
Medical Technologists .....	.....	31	31	.....	18	18	.....	140	140	.....	138	138	.....	107	107	.....	159	159
Nursing and Affiliates .....	.....	943	943	.....	853	853	.....	1,124	1,124	.....	1,219	1,219	.....	1,163	1,163	.....	1,909	1,909
Physical Therapy .....	1	10	11	.....	9	9	.....	10	10	1	14	15	.....	6	6	1	21	22
Public Health .....	.....	3	3	2	3	5	.....	1	1	.....	3	3	.....	2	2	2	8	10
Public Health Nursing .....	.....	142	142	.....	123	123	.....	117	117	.....	109	109	.....	111	111	.....	310	310
Dentistry .....	29	2	31	29	2	31	172	3	175	189	4	193	186	2	188	202	4	206
Dental Hygienists .....	.....	27	27	.....	25	25	.....	65	65	.....	55	55	.....	45	45	.....	68	68
Pharmacy .....	17	9	26	17	9	26	32	29	61	28	28	56	26	24	50	43	36	79
Education .....	90	579	669	50	242	292	127	782	909	99	740	839	94	716	810	225	1,509	1,734
Business Administration .....	30	52	82	25	38	63	63	90	153	66	90	156	74	88	162	110	156	266
Graduates (including Mayo Founda- tion) .....	539	418	957	440	217	657	662	366	1,028	665	386	1,051	648	378	1,026	1,128	895	2,023
Totals .....	1,546	3,246	4,792	1,265	2,145	3,410	2,835	6,468	9,303	2,754	6,348	9,102	2,556	5,986	8,542	4,355	10,053	14,408
Less duplicates .....	17	25	42	2	8	10	30	80	110	77	264	341	73	270	343	297	838	1,135
Net totals .....	1,529	3,221	4,750	1,263	2,137	3,400	2,805	6,388	9,193	2,677	6,084	8,761	2,483	5,716	8,199	4,058	9,215	13,273

\* This represents a net count of individuals with all duplicates deducted.



TABLE IIB. COLLEGIATE ENROLLMENT BY QUARTERS, 1945-46

College or School	First Term, Summer Session, 1945			Second Term, Summer Session, 1945			Fall			Winter			Spring			Total Individual Registration*		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
General College .....	41	41	82	31	22	53	251	568	819	380	565	945	560	543	1,103	749	733	1,482
University College .....	13	20	33	10	16	26	23	70	93	42	72	114	55	72	127	77	109	186
Science, Literature, and the Arts .....	438	899	1,337	336	467	803	1,674	3,082	4,756	2,761	3,003	5,764	3,883	3,011	6,894	4,987	4,392	9,379
Institute of Technology .....	270	31	301	241	27	268	1,017	69	1,086	2,239	76	2,315	2,961	77	3,038	3,586	108	3,694
Agriculture, Forestry, and Home Economics .....	42	122	164	16	45	61	207	572	779	539	559	1,098	676	548	1,224	794	728	1,522
Law .....	50	8	58	36	7	43	96	11	107	207	10	217	322	11	333	378	19	397
Medicine and Interns .....	90	37	127	90	37	127	91	33	124	227	33	260	420	47	467	502	64	566
Medical Technologists .....	0	26	26	0	5	5	0	131	131	0	142	142	0	102	102	0	176	176
Nursing and Affiliates .....	0	1,173	1,173	0	1,166	1,166	0	1,202	1,202	0	1,098	1,098	0	1,021	1,021	0	2,079	2,079
Physical Therapy .....	0	18	18	0	18	18	0	15	15	6	29	35	6	28	34	7	38	45
Public Health .....	0	12	12	0	0	0	4	7	11	9	38	47	4	8	12	5	26	31
Public Health Nursing .....	0	107	107	0	71	71	0	131	131	0	130	130	0	186	186	0	333	333
Dentistry .....	188	3	191	187	3	190	148	3	151	226	4	230	221	5	226	320	10	330
Dental Hygienists .....	0	18	18	0	15	15	0	83	83	0	73	73	0	67	67	0	103	103
Pharmacy .....	5	6	11	5	6	11	39	32	71	97	33	130	127	31	158	152	43	195
Education .....	138	660	798	58	242	300	157	672	829	288	710	998	438	752	1,190	694	1,610	2,304
Business Administration .....	53	32	85	40	23	63	145	96	241	367	106	473	598	117	715	720	162	882
Graduates (including Mayo Founda- tion) .....	705	529	1,234	521	268	789	929	452	1,381	1,368	446	1,814	1,375	440	1,815	2,344	1,121	3,465
Totals .....	2,033	3,742	5,775	1,571	2,438	4,009	4,781	7,229	12,010	8,756	7,127	15,883	11,646	7,066	18,712	15,315	11,854	27,169
Less duplicates .....	35	81	116	8	18	26	46	92	138	212	248	460	378	253	631	852	833	1,685
Net totals .....	1,998	3,661	5,659	1,563	2,420	3,983	4,735	7,137	11,872	8,544	6,879	15,423	11,268	6,813	18,081	14,463	11,021	25,484

\* This represents a net count of individuals with all duplicates deducted.

TABLE III. SUBCOLLEGIATE STUDENTS, 1944-46

School or Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Central School of Agriculture</b> (three-year course)								
Seniors .....	9	15	24	23	15	38	14	.....
Juniors .....	40	23	63	76	49	125	62	.....
Freshmen .....	96	33	129	101	46	147	18	.....
Unclassed .....	6	9	15	47	9	56	41	.....
Totals .....	151	80	231	247	119	366	135	.....
Intermediate .....	1	4	5	4	4	8	3	.....
Total school registration .....	152	84	236	251	123	374	138	.....
<b>Northwest School of Agriculture</b> (three-year course)								
Seniors .....	73	31	104	76	31	107	3	.....
Juniors .....	77	27	104	75	35	110	6	.....
Freshmen .....	95	34	129	98	26	124	.....	5
Unclassed .....	3	.....	3	4	1	5	2	.....
Totals .....	248	92	340	253	93	346	6	.....
Intermediate .....	37	26	63	38	20	58	.....	5
Total school registration .....	285	118	403	291	113	404	1	.....
<b>West Central School of Agriculture</b> (three-year course)								
Seniors .....	71	30	101	54	39	93	.....	8
Juniors .....	89	35	124	90	42	132	8	.....
Freshmen .....	126	50	176	94	34	128	.....	48
Unclassed .....	3	14	17	5	10	15	.....	2
Totals .....	289	129	418	243	125	368	.....	50
Intermediate .....	19	8	27	34	13	47	20	.....
Total school registration .....	308	137	445	277	138	415	.....	30
<b>North Central School of Agriculture</b> (three-year course)								
Seniors .....	6	.....	6	14	.....	14	8	.....
Juniors .....	11	.....	11	48	.....	48	37	.....
Freshmen .....	58	.....	58	33	.....	33	.....	25
Unclassed .....	2	.....	2	3	.....	3	.....	1
Totals .....	77	.....	77	98	.....	98	21	.....
Intermediate .....	8	.....	8	11	.....	11	3	.....
Total school registration .....	85	.....	85	109	.....	109	24	.....
University High School .....	150	182	332	157	199	356	24	.....
Nursery School and Kindergarten .....	50	38	88	78	79	157	69	.....
Net totals, schools .....	1,030	559	1,589	1,163	652	1,815	226	.....

TABLE III—Continued

School or Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
<b>Short Courses</b>								
Central School of Agriculture								
Agricultural Men's Conference	51		51					51
American Society Agricultural Engineers	29	1	30					30
Animal Nutrition	99	2	101	116		116	15	
Beekeepers' Short Course	16	44	60	64	23	87	27	
Boy Scouts of America	133		133					133
Butter Manufacturers' Symposium	70		70	75		75	5	
Cheesemakers' Short Course	46		46	46		46		
Crop Improvement Day				175		175	175	
Dairy Fieldmen's Conference	108		108	113		113	5	
Dry Milk Short Course	161		161					161
Editors' Short Course				149	13	162	162	
Electricity in Agriculture				47	6	53	53	
Elevator Sidelines Short Course				40		40	40	
Farmers' and Homemakers' Week	893	545	1,438					1,438
Farm Bureau Women's Short Course		189	189		173	173		16
Farm Help Training Sessions	751		751					751
Farm Managers' Association	74	8	82	110	1	111	29	
Field Inspectors' Short Course				18		18	18	
Flock Selecting and Pullorum Testing Agents' Short Course	172	19	191	197	19	216	25	
Florists' Short Course				123	5	128	128	
4-H Horse Meeting	5	7	12					12
4-H Tractor Maintenance Short Course	69		69	46		46		23
Grain Handling Short Course				51		51	51	
Hardwood Lumber Short Course				28		28	28	
Home Experience Day					49	49	49	
Horticulture	103	230	333	159	244	403	70	
Income Tax	331	43	374	353	39	392	18	
Livestock Breeding Association				275		275	275	
Minnesota Beekeepers' Association	65	21	86	38	7	45		41
Potato Marketing Clinic				67	10	77	77	
Resort Training Short Course				32		32	32	
Rose Growers' Day				29	28	57	57	
Seed and Weed Inspectors' Short Course	16		16	37		37	21	
Swine Feeders' Day	555	6	561	317		317		244
Veterinary Short Course	113		113	113	2	115	2	
Welding and Forge Work	4		4					4
Totals	3,864	1,115	4,979	2,818	619	3,437		1,542
<b>Northwest School of Agriculture</b>								
4-H Club				240	381	621	621	
Women's Camp					152	152	152	
Totals				240	533	773	773	
<b>West Central School of Agriculture</b>								
4-H Club	761	855	1,616	246	204	450		1,166
Women's Week		202	202		178	178		24
Totals	761	1,057	1,818	246	382	628		1,190
<b>North Central School of Agriculture</b>								
4-H Club	200	229	429	110	154	264		165
Totals	200	229	429	110	154	264		165
Total short courses	4,825	2,401	7,226	3,414	1,688	5,102		2,124
Less duplicates	13	2	15	9		9		6
Net totals short courses	4,812	2,399	7,211	3,405	1,688	5,093		2,118
Grand totals, schools and short courses	5,842	2,958	8,800	4,568	2,340	6,908		1,892
Less duplicates	20	15	35	18	8	26		9
Net grand totals, schools and short courses	5,822	2,943	8,765	4,550	2,332	6,882		1,883

TABLE IVA. EXTENSION STUDENTS, 1944-46

Department or Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
General Extension	2,281	5,046	7,327	5,213	5,441	10,654	3,327	
Extension Short Courses								
Advanced Practical Speaking	11		11					11
Applied Mortuary Science	19	1	20	48	3	51	31	
Beginning Practical Speaking	7	1	8	13		13	5	
Bible as Literature	1	9	10	2	13	15	5	
Contemporary Russian				6	9	15	15	
Dental Short Course	67		67	25		25		42
Income Tax Accounting for Lawyers	8		8					8
Income Tax Law	2		2					2
Interior Decorating	25	15	40					40
Investment, Security Market, Financial Analysis				33	4	37	37	
Nursing Extension		188	188		138	138		50
Milton					1	1		1
Our World and Our Times				10	25	35	35	
Practical Writing	1	2	3					3
Sociology for Lawyers	12	2	14					14
Total short courses	153	218	371	137	193	330		41
Less duplicates	2		2	2		2		
Net totals, short courses	151	218	369	135	193	328		41
Correspondence Study	8,758	2,351	11,109	8,536	2,488	11,024		85
Grand totals, extension	11,190	7,615	18,805	13,884	8,122	22,006	3,201	
Less duplicates	78	143	221	190	110	300	79	
Net grand totals, extension	11,112	7,472	18,584	13,694	8,012	21,706	3,122	

TABLE IVB. CENTER FOR CONTINUATION STUDY, 1944-46

Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Alcohol and Neurotic Education	5	9	14					14
Alumnae Club Institute	15	195	210	5	166	171		39
Anesthesiology	52	5	57	36	1	37		20
Assessors' School	52	2	54	77	5	82	28	
Atomic Energy				38	10	48	48	
Bankers' Conference	215	4	219	226	1	227	8	
Basic Sciences				97		97	97	
Cancer Control					29	29	29	
Cancer Diagnosis and Treatment	81	1	82					82
Cancer Education	2	72	74	1	146	147	73	
Child Care Institute	15	34	49	11	55	66	17	
Church Music Institute	22	65	87	48	90	138	51	
Clinical Dietetics		47	47		53	53	6	
Community Service for Veterans	15	20	35					35
County Superintendents' Work Institute				29	39	68	68	
Dental Course	21		21	30		30	9	
Education and Rural Life	20	21	41					41
Emotional Health Institute				13	100	113	113	
Employment Relations	44	21	65					65
Engineers' Role in Industrial Relations	39		39					39
Family Welfare Association				7	23	30	30	
Federal Personnel Management Conference				30	12	42	42	
Finance Officers	28	5	33	29	7	36	3	
Folk Art Conference	28	27	55					55
Handicapped Child		91	91					91
Higher Education Workshop	17	9	26	18	16	34	8	
Home Economics Workshop		49	49					49
Horticulture Workshop				15		15	15	
Hospital Administration	29	22	51	13	44	57	6	
Income Tax Institute for Public Accountants and Tax Practitioners	64	2	66	65	5	70	4	
Industrial Nursing		79	79		51	51		28
Industrial Relations	92	6	98	39	6	45		53
Institute for Chronic Alcoholism				56	18	74	74	
Institute for County Highway Engineers				85		85	85	
Institute for County Welfare Executives	44	40	84					84
Institute on Municipal Airport Policies	33		33	25		25		8

TABLE IVB—Continued

Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Institute on Cultural Aspects of Soviet Russia				7	22	29	29	
Institute on Environmental Sanitation				78		78	78	
Institute on the H. S. Girls' Program: Today in Health, Physical Education and Recreation					20	20	20	
Institute on National Government Reorganization				1	50	51	51	
Institute for Probation and Parole Workers	44	18	62					62
Institute on Reconversion and Social Work				16	50	66	66	
Institute in Resort Operation				54	50	104	104	
Institute in Rural Medical Service				16	8	24	24	
Institute in Social Welfare				10	66	76	76	
Institute in Speech Correction				3	46	49	49	
Institute on State Aid Revisions				62	6	68	68	
Institute on Youth Leadership				21	22	43	43	
Intercultural Relations Workshop				3	13	16	16	
Internal Medicine	44	1	45					45
Junior Red Cross Institute	4	58	62	5	40	45		17
Kenny Technique	8		8					8
Kenny Technique for Physicians	27		27					27
Leadership Training Institute				1	57	58	58	
Legal Course in Estate and Inheritance Taxation				69	2	71	71	
Marching Band Institute				49	11	60	60	
Medical Aspects of Rehabilitation	41	17	58					58
Medical Record Librarian		42	42					42
Medical Social Service		29	29		15	15		14
Medicine				44	1	45	45	
Mining Symposium	147		147	168		168	21	
Minnesota Schools Curriculum Study Institute				12	36	48	48	
Music in Industry Institute	43	7	50					50
Nurse Anesthetists		110	110					110
Nurse Trainers		18	18					18
Nursing School Administration		41	41					41
Ophthalmology	87		87					87
Orthopedic Nursing					75	75	75	
Otolaryngology				53		53	53	
Pathology of Diseases of the Skin				9	1	10	10	
Pharmaceutical	26	11	37	43	12	55	18	
Postgraduate Legal Course in Income Taxation	88	5	93					93
Plumbing School				9		9	9	
Plumbing and Sewer School				1		1	1	
Psychotherapy in General Practice				24	1	25	25	
Recent Advances in Pediatrics				72	1	73	73	
Safety Education Institute				15	2	17	17	
Seminar on Counseling and Placement of Nurses					20	20	20	
Sewer School				28		28	28	
Soviet Russia and the Postwar Business	11	43	54					54
Speakers Institute on Race Relations	8	35	43					43
Staff Education		32	32					32
Surgery	110		110	41		41		69
Readjustment of Veterans and War Workers Unions	44	11	55					55
Techniques of Home Building				37	2	39	39	
Tuberculosis Control					86	86	86	
Ward Administration		130	130		54	54		76
Water School				23		23	23	
Water, Plumbing, and Sewer Schools				6		6	6	
Water and Sewer Schools				2		2	2	
Workshop in Hospital Administration	6	22	28					28
Totals	1,671	1,456	3,127	1,975	1,646	3,621	494	
Less duplicates	38	28	66	94	86	180	114	
Net totals	1,633	1,428	3,061	1,881	1,560	3,441	380	

TABLE IVC. CONTRACT COURSES, 1944-46

Course	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Engineering, Science, and Management								
War Training	2,253	425	2,678					2,678
Army Specialized Training Program								
Foreign Area and Language								
German	34		34					34
Japanese	325		325	546		546	221	
Norwegian and Swedish	99		99					99
Japan and Southwest Pacific	10		10	6		6		4
Pre-Professional	143		143	5		5		138
Provost Marshal—Basic Language	58		58	1		1		57
Navy Training Program								
Electrician's Mates	1,000		1,000					1,000
Navy College Training Program	914		914	658		658		256
Medical School (Army and Navy)	548		548	412		412		136
School of Dentistry (Army and Navy)	236		236	87		87		149
Technical Aides				12	45	57		57
Totals	3,367		3,367	1,728	45	1,773		1,594
Less duplicates								
Net totals	3,367		3,367	1,728	45	1,773		1,594
Grand totals	5,620	425	6,045	1,728	45	1,773		4,272
Less duplicates								
Net grand totals	5,620	425	6,045	1,728	45	1,773		4,272

TABLE IVD. DETAIL OF MEDICAL SCHOOL AND SCHOOL OF DENTISTRY, 1945-46  
Army and Navy

	Men	Women	Total		Men	Women	Total
Medicine				Dentistry			
Interns	116		116	Seniors	49		49
Seniors	125		125	Juniors	22		22
Juniors	65		65	Sophomores	10		10
Sophomores	68		68	Freshmen	6		6
Freshmen	38		38	Total	87		87
Total	412		412				

TABLE V. SUMMARY, 1944-46

Division	Year 1944-45			Year 1945-46			Gain	Loss
	Men	Women	Total	Men	Women	Total		
Collegiate students	4,058	9,215	13,273	14,463	11,021	25,484	12,211	
Subcollegiate students	5,822	2,943	8,765	4,550	2,332	6,882		1,883
Totals	9,880	12,158	22,038	19,013	13,353	32,366	10,328	
Less duplicates	3	7	10	13	3	16	6	
Net totals	9,877	12,151	22,028	19,000	13,350	32,350	10,322	
Extension	11,112	7,472	18,584	13,694	8,012	21,706	3,122	
Center for Continuation Study	1,633	1,428	3,061	1,881	1,560	3,441	380	
Contract Courses	5,620	425	6,045	1,728	45	1,773		4,272
Grand totals	28,242	21,476	49,718	36,303	22,967	59,270	9,552	
Less duplicates	1,006	1,264	2,270	2,712	1,210	3,922	1,652	
Net grand totals	27,236	20,212	47,448	33,591	21,757	55,348	7,900	

TABLE VI. COMPARATIVE REGISTRATION FIGURES, 1944-46

Instructional Unit	1944-45			1945-46			Gain		Loss	
	Men	Wom- en	Total	Men	Wom- en	Total	Men	Wom- en	Men	Wom- en
General College .....	234	481	715	726	709	1,435	492	228	.....	.....
University College .....	24	82	106	70	97	167	46	15	.....	.....
Science, Literature, and the Arts	950	3,019	3,969	4,744	3,815	8,559	3,794	796	.....	.....
Institute of Technology .....	704	72	776	3,482	102	3,584	2,778	30	.....	.....
Agriculture, Forestry, and Home Economics (including schools of agriculture and agricultural short courses) .....	5,792	3,391	9,183	5,112	2,722	7,834	.....	.....	680	669
Law .....	75	13	88	364	16	380	289	3	.....	.....
Medicine (including Medical Technology, Nursing, Physical Therapy, Public Health Nurs- ing, and Public Health) .....	100	1,911	2,011	499	2,132	2,631	399	221	.....	.....
Dentistry (including Dental Hy- giene) .....	193	69	262	251	104	355	58	35	.....	.....
Pharmacy .....	32	31	63	152	39	191	120	8	.....	.....
Education (including High School, Nursery School, and Kindergarten) .....	342	1,220	1,562	798	1,291	2,089	456	71	.....	.....
Business Administration .....	95	117	212	685	143	828	590	26	.....	.....
Graduate School .....	850	537	1,387	2,018	667	2,685	1,168	130	.....	.....
Summer Session (net) .....	1,647	3,525	5,172	2,158	3,997	6,155	511	472	.....	.....
Totals .....	11,038	14,468	25,506	21,059	15,834	36,893	10,021	1,366	.....	.....
Less duplicates .....	1,161	2,317	3,478	2,059	2,484	4,543	898	167	.....	.....
Net totals .....	9,877	12,151	22,028	19,000	13,350	32,350	9,123	1,199	.....	.....
Extension										
General Extension .....	2,281	5,046	7,327	5,213	5,441	10,654	2,932	395	.....	.....
Short Courses and Nursing Ex- tension .....	151	218	369	135	193	328	.....	.....	16	25
Correspondence Study .....	8,758	2,351	11,109	8,536	2,488	11,024	.....	137	222	.....
Totals .....	11,190	7,615	18,805	13,884	8,122	22,006	2,694	507	.....	.....
Less duplicates .....	78	143	221	190	110	300	112	.....	.....	33
Net totals .....	11,112	7,472	18,584	13,694	8,012	21,706	2,582	540	.....	.....
Center for Continuation Study .....	1,633	1,428	3,061	1,881	1,560	3,441	248	132	.....	.....
Contract courses .....	5,620	425	6,045	1,728	45	1,773	.....	.....	3,892	380
Summary:										
Totals, resident students .....	9,877	12,151	22,028	19,000	13,350	32,350	9,123	1,199	.....	.....
Totals, extension students .....	11,112	7,472	18,584	13,694	8,012	21,706	2,582	540	.....	.....
Totals, Center for Continua- tion Study .....	1,633	1,428	3,061	1,881	1,560	3,441	248	132	.....	.....
Totals, contract courses .....	5,620	425	6,045	1,728	45	1,773	.....	.....	3,892	380
Grand totals .....	28,242	21,476	49,718	36,303	22,967	59,270	8,061	1,491	.....	.....
Less duplicates .....	1,006	1,264	2,270	2,712	1,210	3,922	1,706	.....	.....	54
Net grand totals .....	27,236	20,212	47,448	33,591	21,757	55,348	6,355	1,545	.....	.....

TABLE VIII. DEGREES CONFERRED, 1944-46

College and Degree	Year 1944-45			Year 1945-46		
	Men	Women	Total	Men	Women	Total
<b>Science, Literature, and the Arts</b>						
B.A. <i>summa cum laude</i> .....		5	5		6	6
B.A. <i>magna cum laude</i> .....	5	24	29	6	21	27
B.A. <i>cum laude</i> .....	9	38	47	13	35	48
B.S. <i>magna cum laude</i> .....		1	1	1		1
B.S. <i>cum laude</i> .....	1	5	6	14	1	15
B.A. ....	61	150	211	73	191	264
B.S. ....	16	26	42	118	6	124
B.S. in library science .....				2	11	13
Associate in liberal arts .....	1	5	6	7	6	13
<b>Institute of Technology</b>						
Bachelor of aeronautical engineering with high distinction .....	1		1			
Bachelor of aeronautical engineering with distinction .....	11		11	6		6
Bachelor of aeronautical engineering .....	41		41	38	2	40
Bachelor of agricultural engineering .....				3		3
Bachelor of architecture with distinction .....	2		2	1		1
Bachelor of architecture .....	5		5	4		4
Bachelor of civil engineering with high distinction .....	1		1			
Bachelor of civil engineering with distinction .....	5		5	5		5
Bachelor of civil engineering .....	29		29	6		6
Bachelor of electrical engineering with high distinction .....	4		4	5		5
Bachelor of electrical engineering with distinction .....	11		11	12		12
Bachelor of electrical engineering .....	33		33	68		68
Bachelor of mechanical engineering with high distinction .....	2		2	3		3
Bachelor of mechanical engineering with distinction .....	7		7	18		18
Bachelor of mechanical engineering .....	47		47	62		62
Bachelor of chemistry with distinction .....	2		2	1		1
Bachelor of chemistry .....	5	1	6	6	1	7
Bachelor of chemical engineering with high distinction .....	2		2	3		3
Bachelor of chemical engineering with distinction .....	11		11	3	1	4
Bachelor of chemical engineering .....	35		35	12	1	13
Bachelor of physics with high distinction .....	1	1	2	1		1
Bachelor of physics with distinction .....	1		1			
Bachelor of physics .....	2		2			
Bachelor of metallurgical engineering with distinction .....	2		2			
Bachelor of metallurgical engineering .....	2		2			
Bachelor of mining engineering .....	1		1			
Bachelor of science in naval technology with high distinction .....				8		8
Bachelor of science in naval technology with distinction .....	3		3	19		19
Bachelor of science in naval technology .....	17		17	107		107
<b>Agriculture, Forestry, and Home Economics</b>						
Master of forestry .....				4		4
B.S. with distinction (agriculture) .....				3		3
B.S. (agriculture) .....	6		6	12	2	14
B.S. (food technology) .....				2		2
B.S. with high distinction (science specialization) .....		1	1			
B.S. with distinction (science specialization) .....		1	1			
B.S. (science specialization) .....	3	2	5	1	1	2
B.S. (technical agriculture) .....	2		2			
B.S. with distinction (wild life management) .....				1		1
B.S. (wildlife management) .....	2		2	1		2
B.S. (forestry) .....	5		5	5		5
B.S. with high distinction (home economics) .....		1	1		2	2
B.S. with distinction (home economics) .....		11	11		8	8
B.S. (home economics) .....		55	55		60	60
<b>Agriculture and Education</b>						
B.S. (agricultural education) .....	1		1	2		2
B.S. with high distinction (home economics education) .....					1	1
B.S. with distinction (home economics education) .....						
B.S. (home economics education) .....		4	4		8	8
B.S. (home economics and nursery school education) .....		34	34		34	34
B.S. (home economics and nursery school education) .....		2	2			



TABLE VIIA—Continued

College and Degree	Year 1944-45			Year 1945-46		
	Men	Women	Total	Men	Women	Total
<b>Law</b>						
Bachelor of laws .....	10	2	12	17	3	20
B.S. in Law .....	10		10	15	2	17
<b>Medicine</b>						
Master of public health .....	1	2	3	2	3	5
Doctor of medicine .....	224	11	235	122	6	128
Bachelor of medicine .....	244	11	255	111	4	115
B.S. (medicine) .....	177	6	183	73	8	81
B.S. with distinction (medical technology) .....		16	16		11	11
B.S. (medical technology) .....		40	40		51	51
B.S. (X-ray technology) .....		3	3		5	5
B.S. with high distinction (public health nursing) .....					1	1
B.S. with distinction (public health nursing) .....		14	14		14	14
B.S. (public health nursing) .....		62	62		70	70
Graduate in nursing .....		172	172		235	235
<b>Dentistry</b>						
Doctor of dental surgery .....	80		80	152	2	154
Graduate dental hygienists .....		14	14		33	33
<b>Pharmacy</b>						
B.S. in Pharmacy .....	13	7	20	4	1	5
<b>Education</b>						
Master of education .....	2	4	6	13	3	16
B.S. with high distinction .....		13	13		9	9
B.S. with distinction .....	2	41	43	7	45	52
Bachelor of science .....	27	212	239	34	195	229
B.S. in library science .....				1	5	6
<b>School of Business Administration</b>						
B.B.A. with distinction .....	2	2	4	2	2	4
B.B.A. .....	23	35	58	66	36	102
B.S. in economics with distinction .....		1	1			
B.S. in economics .....	1	1	2	3	2	5
<b>University College</b>						
B.A. magna cum laude .....	1	2	3	1		1
B.A. cum laude .....	1	2	3	1	4	5
Bachelor of arts .....	2	14	16	8	19	27
B.S. magna cum laude .....	1		1		1	1
B.S. cum laude .....	1		1	1	2	3
Bachelor of science .....	2	5	7	3	6	9
<b>General College</b>						
Associate in arts .....	9	35	44	36	54	90
<b>Graduate School</b>						
Master of arts .....	46	63	109	70	81	151
M.A. in public administration .....	1	1	2			
Master of business administration .....	1		1	1		1
Master of laws .....	1		1		1	1
Master of science .....	19	22	41	23	17	40
M.S. in aeronautical engineering .....	2		2	3		3
M.S. in agricultural engineering .....	1		1			
M.S. in chemical engineering .....				1		1
M.S. in civil engineering .....	1		1			
M.S. in mechanical engineering .....				1		1
Mechanical engineer .....	1		1			
M.S. in anesthesiology .....				1		1
M.S. in dental surgery .....				1		1
M.S. in dermatology and syphilology .....	4		4	4		4
M.S. in medicine .....	10		10	9		9
M.S. in neurology and psychiatry .....	2		2	1		1
M.S. in obstetrics and gynecology .....				1		1
M.S. in ophthalmology .....				2		2
M.S. in orthopedic surgery .....	1		1	3		3
M.S. in pathology .....				1		1
M.S. in pediatrics .....	1	1	2		1	1
M.S. in physical medicine .....	1		1	1		1
M.S. in proctology .....	2		2			
M.S. in psychometrics .....				1	2	3
M.S. in radiology .....				2		2
M.S. in surgery .....	11		11	8		8
M.S. in urology .....	1		1	2		2
Doctor of philosophy .....	53	7	60	37	11	48
Ph.D. in cancer biology .....				1		1
Ph.D. in medicine .....	1		1			
Ph.D. in neurology and psychiatry .....	1		1			
Ph.D. in otolaryngology and rhinology .....	1		1			
Ph.D. in pathology .....	1		1			
Ph.D. in surgery .....				1		1
<b>Totals</b> .....	<b>1,391</b>	<b>1,190</b>	<b>2,581</b>	<b>1,503</b>	<b>1,343</b>	<b>2,846</b>

TABLE VII. CERTIFICATES CONFERRED, 1944-46

School, Division, or Course	Year 1944-45			Year 1945-46		
	Men	Women	Total	Men	Women	Total
Central School of Agriculture .....	14	19	33	20	17	37
Applied Mortuary Science .....	12	.....	12	2	.....	2
Child Care .....	.....	.....	.....	.....	47	47
Engineering, Science, and Management War Training .....	2,104	316	2,420	.....	.....	.....
Extension .....	1	1	2	4	1	5
Kenny Technicians .....	1	46	47	.....	3	3
Library .....	1	5	6	.....	.....	.....
North Central School of Agriculture .....	10	.....	10	11	.....	11
Northwest School of Agriculture .....	79	54	133	90	42	132
Physical Therapy .....	.....	16	16	1	17	18
Public Health Nursing .....	.....	50	50	.....	78	78
Social Work .....	6	14	20	.....	.....	.....
University High School .....	21	41	62	34	36	70
West Central School of Agriculture .....	45	25	70	44	30	74
Totals .....	2,294	587	2,881	206	271	477
Certificates of Good Standing .....	207	6	213	73	1	74

TABLE VIII. STUDENTS ADMITTED FROM HIGH SCHOOLS, 1944-45

Entrants From	General College	S., L., and A.	Institute of Technology	Agriculture, Forestry, and Home Economics	Nursing	Dental Hygiene	Pharmacy	Education	Total
St. Paul public schools .....	98	176	37	33	16	.....	1	19	380
Other Minnesota high schools .....	97	348	92	85	167	13	14	38	854
Minnesota private schools .....	35	75	21	15	3	2	1	3	155
Totals from Minnesota .....	415	1,151	262	199	223	19	20	116	2,405
Other states .....	50	219	56	40	103	3	4	13	488
Foreign countries .....	4	9	4	4	3	.....	.....	.....	24
Grand totals .....	469	1,379	322	243	329	22	24	129	2,917

TABLE VIII. STUDENTS ADMITTED FROM HIGH SCHOOLS, 1945-46

Entrants From	General College	S., L., and A.	Institute of Technology	Agriculture, Forestry, and Home Economics	Nursing	Dental Hygiene	Pharmacy	Education	Total
St. Paul public schools .....	210	440	180	47	14	3	3	20	917
Other Minnesota high schools .....	181	1,029	562	207	64	15	37	85	2,180
Minnesota private schools .....	69	218	82	22	3	3	3	11	411
Totals from Minnesota .....	835	2,918	1,329	368	103	26	65	189	5,833
Other states .....	25	283	87	29	14	2	2	25	467
Foreign countries .....	3	10	7	5	.....	.....	.....	1	26
Grand totals .....	863	3,211	1,423	402	117	28	67	215	6,326

TABLE IXA. SUMMARY OF STUDENTS ADMITTED WITH ADVANCED STANDING, 1944-45

Entrants From	General College	University College	S., L., and A.	Institute of Technology	Agriculture	Law	Medicine	Medical Technology	Physical Therapy	Public Health	Nursing	Public Health Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business Administration	Totals
Institutions in Minnesota	1	3	180	17	35	3	12	4	.....	.....	10	12	1	5	7	60	22	372
Institutions in other states	.....	1	266	55	37	6	3	13	3	.....	29	37	16	4	3	52	16	541
Institutions in foreign countries	.....	.....	13	5	1	1	1	1	.....	.....	.....	1	3	.....	.....	1	.....	27
Totals	1	4	459	77	73	10	16	18	3	.....	39	50	20	9	10	113	38	940

TABLE IXB. SUMMARY OF STUDENTS ADMITTED WITH ADVANCED STANDING, 1945-46

Entrants From	General College	University College	S., L., and A.	Institute of Technology	Agriculture	Law	Medicine	Medical Technology	Physical Therapy	Public Health	Nursing	Public Health Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business Administration	Totals
Institutions in Minnesota	5	7	388	157	96	53	12	2	3	1	9	32	5	3	15	115	80	983
Institutions in other states	5	8	524	208	83	42	20	8	15	5	19	48	26	6	10	106	65	1,198
Institutions in foreign countries	.....	.....	17	9	2	1	.....	.....	.....	.....	.....	1	8	.....	.....	3	4	45
Totals	10	15	929	374	181	96	32	10	18	6	28	81	39	9	25	224	149	2,226

TABLE XA. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF UNIVERSITY STUDENTS OF COLLEGIATE GRADE  
(OTHER THAN SUMMER SESSION), 1944-45

	General College	University College	S., L., & A.	Institute of Technology	Agriculture	Law	Medicine	Medical Technology	Public Health	Physical Therapy	Nursing	Public Health Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business Administration	Graduate	Duplicates	Total
Counties in Minnesota																				
Hennepin	370	58	1,779	309	263	36	46	44	2	2	512	35	44	13	15	483	84	354	213	4,449
Ramsey	183	16	672	143	127	13	28	16			112	12	18	11	7	162	35	157	98	1,716
Other Minnesota counties	111	21	913	186	315	26	37	55		7	555	54	72	31	35	329	58	227	207	3,032
Totals	664	95	3,364	638	705	75	111	115	2	13	1,179	101	134	55	57	974	177	738	518	9,197
Other states	49	11	580	123	93	12	20	35		5	344	76	60	10	6	163	34	542	117	2,163
Foreign countries	2		25	15	5	1	4	1	1		2	2	3			5	1	107	3	174
Grand totals	715	106	3,969	776	803	88	135	151	3	18	1,525	179	197	65	63	1,142	212	1,387	638	11,534

TABLE XB. SUMMARY OF GEOGRAPHICAL DISTRIBUTION OF UNIVERSITY STUDENTS OF COLLEGIATE GRADE  
(OTHER THAN SUMMER SESSION), 1945-46

	General College	University College	S., L., & A.	Institute of Technology	Agriculture	Law	Medicine	Medical Technology	Public Health	Physical Therapy	Nursing	Public Health Nursing	Dentistry	Dental Hygiene	Pharmacy	Education	Business Administration	Graduate	Duplicates	Total
Counties in Minnesota																				
Hennepin	780	84	3,916	1,523	422	146	143	47	6	5	558	48	53	26	66	628	322	699	406	9,472
Ramsey	402	30	1,519	629	218	64	75	19	1	5	139	22	33	17	28	243	152	290	170	3,886
Other Minnesota counties	189	33	1,981	946	623	117	223	68	3	6	523	63	83	40	80	473	249	530	350	6,230
Totals	1,371	147	7,416	3,098	1,263	327	441	134	10	16	1,220	133	169	83	174	1,344	723	1,519	926	19,588
Other states	61	19	1,098	454	161	53	96	33	9	25	386	114	80	14	17	227	99	963	182	3,909
Foreign countries	3	1	45	32	15		7	1												
Grand totals	1,435	167	8,559	3,584	1,439	380	544	168	20	41	1,607	251	258	97	191	1,576	828	2,685	1,127	23,830

## COFFMAN MEMORIAL UNION

From the point of student utilization of Coffman Union facilities, the past two years have marked all time highs and lows. The absence of servicemen trainees and the low civilian student enrollment during 1944-45 marked the ebb in Union affairs while the flow of returning veterans in 1945-46 produced unprecedented student demands for services and activity opportunities.

The readjustments necessary in this precipitate shift to postwar conditions has been accomplished without undue stress or strain. The Union faces the next biennium ready to continue its efforts to solve the problems of a changing educational environment.

*Finances*—In spite of fluctuating wartime enrollments and corresponding financial income, the Union has maintained its original plan for amortization of the bonded indebtedness. The current year will see the last of this commitment discharged. With the prospect of additional funds now being available, some of the plans for essential Union expansion can be promulgated.

*Building Utilization*—War conditions unquestionably disrupted many well-established student affiliations and relationships which has, at least temporarily, resulted in a marked increase in student use of the Union building and participation in its program. This intensity of participation has been, unfortunately, modified by the overcrowding and inadequacy of the present building. With more adequate facilities, the Union would unquestionably find itself with almost unlimited student participation. The continued increase in enrollment will intensify the acute space shortages. Additional accommodations must be provided.

Because of war conditions during the past five years, the normal amount of refurbishing and general building repair work was drastically curtailed. Now that materials and labor will soon be available, it has been agreed that a major renovating program will be undertaken.

The need for a new building to house student leisure time life on the Farm Campus has been recognized. Definite plans are now in the process of formulation for this essential project.

As soon as a solution to the problem of adding new space to the present Coffman Union building is agreed upon, it is imperative that this work be undertaken. For example, the congestion at mealtime is extremely serious and calls for a remedy.

*Union Art Crafts Workshop*—An outstanding development in the Union within the past two years has been the creation of the Union Art Crafts Workshop. During the year 1945-46, over 1,000 students completed projects in the room while several thousands more made casual use of the area.

*National Association of College Unions*—The University of Minnesota Union Board and Union director served as the local planning committee for the first postwar conference of the Association of College Unions held here on April 11, 12, and 13 of 1946. A total of 129 delegates attended. This was the third conference to be held at Minnesota in 25 years.

In the field of national contact work, the Union has, in the two-year period, received a total of 140 inquiries regarding Union facilities and policies from 105 different colleges making plans for new buildings or expansion of existing facilities. Twenty colleges have sent representatives to study this building and its organization.

*Union Staff*—Although frequent staff changes continue to be a disrupting influence, there has been some improvement noted during the past year, particularly among the part-time student employees.

The addition of a full-time assistant to the director, a second social hostess and a recreation worker in the program area during the last year will do much toward improving operating and program activities.

*Union Board*—The Union Board has continued its excellent contribution in furthering student government in the Union. Following, by constitutional provision, the ratio of men on the Board has changed from three in 1944 to ten in the spring of 1946. An expansion of its House Committee during the biennium has provided for increased student democracy in the formulation and execution of Union building operating policy. Among the many outstanding tasks performed by the Board during the past biennium were the promotion and planning for the Conference of the National Association of College Unions, the Union Fifth Anniversary celebration, the resumption of Snow Week program and the inauguration of a new annual Spring Name Band Dance.

*Farm Union*—The Farm Union has continued efforts to expand its facilities and services. The addition of two new rooms, that of the office to house student activity groups and the photography workshop has materially improved the Union facilities. In

addition to drafting a new constitution and by-laws, the Board has developed an enlarged and effective committee system.

A new building, costing approximately \$750,000 and located near the Home Economics building, has been recommended by the Board.

*Program Report*—The leisure time student activities planned by the Union's thirty-five committees during the past biennium have been naturally affected by a number of factors arising from a changing student body and its needs. The shift from servicemen to civilian male student; from low enrollment to large; from a scarcity of men to a surplus; the presence of a large number of married students; all have had their affect upon Union activities. Friday night co-ed programs, designed for the escortless girl, have given way to date dances and girls are showing increased interest in the self-improvement programs such as Charm, Inc. now that their normal social life can be resumed. An outing for married students at which a dozen children were an integral part of the attendance, gives some indication of what the immediate future holds.

Among the major innovations during the past two years have been the introduction of special classes in social skills; noticeably in dancing and bridge. The addition of an annual spring name band dance was introduced at the veterans' request, while the resumption of Snow Week marks the return to the normal prewar activities level.

During the past year, Miss Margaret Nelson, program consultant, completed an extensive study of the "Effectiveness of Union Committee Participation." Personal interviews were arranged with 420 committee members. In determining the values of committee participation as expressed by the student, the survey revealed that "meeting new people" and "making new friends" were considered the greatest values from such service.

The recommendations based on results of the survey are: (1) More intensive guidance of committee chairmen, (2) acceptance by the Union Board of its responsibility to insure democratic procedures in committee placement.

As an indication of the increase in acceptance of students of Union activities, the total participation figures for the year 1945-46 equaled 104,261 and compared with a total of 63,273 during 1944-45.

*Future Development*—The most pressing needs of the Union at present are primarily physical—for facilities to provide adequately for students in numbers of 20,000 to 22,000. Equally vital is the need for the realization of plans for a new students' social center on the Farm Campus. The Union Board is now in the process of formulating a fifteen-year expansion program which would include the following: redecoration and refurbishing major areas of Coffman Union, \$100,000; expansion of Coffman Memorial Union, \$300,000; construction of a new Farm Union, \$500,000; establishment of a Union Outings Center, \$100,000; installation of Air Conditioning in several of the present building areas, \$90,000; remodeling and equipping Art Crafts Workshop, \$10,000. Estimated total expansion costs, \$1,100,000.

The predicted enrollments of 20,000 or more students will assure funds for the amortization of the entire cost within ten to fifteen years.

The Union looks forward to the next biennium as an era of growth and progress.—  
G. RAY HIGGINS, *director*.

## STUDENTS' HEALTH SERVICE

*General Health*—The general health conditions on the campus have been extremely favorable except for an epidemic of mild influenza which occurred in the fall of 1945. There continued to be a somewhat higher incidence of illness among the Army and Navy groups on the campus than among the civilian students, although this was much less than in the preceding biennium. Two deaths have occurred among university students: one in 1945, caused by a malignant tumor; and one in 1946 from an acute yellow atrophy of the liver.

*Army and Navy Students*—In June, 1945, the Navy Department requested the University to provide complete medical service for the Navy trainees on the campus, as had been done for the Army. Prior to this time the Navy had provided its own medical officers and sick bay. No special health problems occurred in either the Army or Navy groups. The routine immunizations, inspections and reports required for these men increased the work of the staff out of proportion to the number of students involved. All Army and Navy groups were discontinued June 30, 1946.

*Health Problems of Veterans*—The large numbers of veterans returning to the campus have brought many special health problems. Numbers of these students have emotional problems of sufficient severity to require psychiatric assistance. This has in-

creased greatly the load in the mental hygiene division of the Health Service. Some of the veterans have malaria and other tropical diseases for which diagnostic facilities and care must be provided if they are to pursue their educational work with as little interruption as possible.

The medical care of the veterans has brought many added administrative responsibilities. Numerous reports must be sent to the Veterans' Administration on medical care received by the veterans. Veterans attending the University under Public Law 16 are entitled by the Veterans' Administration to complete medical care for any illnesses. In order to save the time of these students the Veterans' Administration has made a contract with the University under which these rehabilitation veterans may receive complete medical care at the Health Service without any cost of the student. The Health Service bills the Veterans' Administration for costs not covered by the incidental fee.

Students attending school under Public Law 346, the G.I. Bill, must pay for such special services, as do all other students, unless special authorization is obtained in each case from the Veterans' Administration. Obtaining this authorization for each individual is time-consuming, and the reports which must be made after the care has been given are voluminous.

In January, 1945, the Veterans' Administration made a contract with the University for the Health Service to provide medical services in connection with the Veterans' Counseling Service of the University. A physician assigned to this service reviews the medical history and vocational objective of the veteran, determining the medical feasibility for the particular vocational objective.

*Personnel and Space Problems*—Like the rest of the University, the Health Service has been confronted with personnel and space problems to care for the sudden increase in students which occurred in 1945-46. It has not been possible to find full-time staff members as yet, but through additional part-time physicians the needs of the students have been met.

Plans are under way for physical expansion of the Health Service in connection with the Mayo Memorial Building. This, however, does not provide for the immediate need to care for the large number of students.

*Health Examinations*—The largest number of complete physical examinations ever given by the Health Service was done in 1945-46. This was due to the fact that large numbers of new students entered the University in each of the three quarters of this year. A total of over 10,000 physical examinations was done in 1945-46—almost twice the number ever done in any preceding year.

TABLE I. NUMBER OF COMPLETE PHYSICAL EXAMINATIONS GIVEN

Year	Entrance	Periodic	Total
1936-37	5,408	3,342	8,750
1937-38	5,036	2,854	7,890
1938-39	5,245	3,759	9,004
1939-40	5,369	4,171	9,540
1940-41	5,865	3,415	9,280
1941-42	5,865	2,973	8,838
1942-43	5,944	2,977	8,921
1943-44	4,859	1,782	6,641
1944-45	5,982	1,730	7,712
1945-46	10,508	2,543	13,051

TABLE II. VISITS TO THE HEALTH SERVICE (MAIN CAMPUS) FOR MEDICAL ATTENTION

Year	Number of Visits	Average Number of Visits
1936-37	54,956	3.91
1937-38	55,969	4.06
1938-39	58,260	3.85
1939-40	53,212	3.48
1940-41	54,962	3.16
1941-42	51,322	3.27
1942-43	43,530	3.14
1943-44	45,896	4.65
1944-45	39,622	4.51
1945-46	56,864	4.20

*Medical Care*—Over 96,000 visits were made by students to the Health Service dispensary on the main campus for medical care and advice during this biennium. These figures include the visits of the Army and Navy men.

*Hospital Care*—In 1944-45 the number of patients hospitalized was low, as there was no epidemic during that year. In 1945-46, 1,918 patients were hospitalized, with a total of 7,901 hospital days provided. During this year an epidemic of mild influenza occurred. The average length of stay per patient in the hospital continues to range between  $4\frac{1}{2}$  and 5 days.

TABLE III. STUDENT HOSPITAL CARE (MAIN CAMPUS)

Year	Number of Patients	Rate per 1,000 Students	Number of Hospital Days	Average Stay	Comments
1936-37	1,246	88.6	5,983	4.8	Mild influenza
1937-38	1,046	75.8	5,560	5.3	No epidemic
1938-39	1,405	92.9	7,353	5.2	Moderate epidemic
1939-40	1,225	80.0	6,134	5.0	No epidemic
1940-41	1,302	74.9	5,928	4.6	Moderate epidemic
1941-42	1,248	79.7	5,232	4.2	No epidemic
1942-43	1,800	118.4	8,687	4.8	No epidemic (Army during 3 months of period)
1943-44	2,261	190.2	11,228	5.0	Influenza epidemic
1944-45	1,282	146.0	6,205	4.8	No epidemic
1945-46	1,918	141.8	7,901	4.1	Mild influenza

*Mental Hygiene*—During the biennium a total of 803 new students have been interviewed in the mental hygiene unit, which is almost double the number interviewed during any other comparable period. In 1944-45 only 10 per cent of the students interviewed in the mental hygiene clinic were veterans, while in 1945-46, 34 per cent of the students interviewed were veterans. More psychiatric help will have to be obtained if we are to care adequately for the emotional problems of students.

*Tuberculosis Control*—The over-all case-finding program, consisting of a tuberculin test and/or chest X ray of all new students, has been continued. A total of 34 cases of active tuberculosis was found in University students during this biennium.

*Dietitian Service*—Because of lack of space it has not been possible to reinstitute the special diet table which had to be discontinued at the beginning of the war. In the meantime a graduate dietitian has been added to the staff of the Health Service, who is available for consultation service on dietary problems for students referred to her by the physicians of the Health Service.

*Other Special Services*—All of the other special services, such as the allergy clinic, refraction service, and consultation service in all of the medical specialties, have been continued and expanded during the past year to meet the needs of the increased number of students.

*Farm Campus*—Tables IV and V show the number of students given medical attention and hospitalization at the Farm Campus Health Service. The decrease in the enrollment of the school and college and the absence of any major epidemic account for the decrease in the number of students at the Farm Campus Health Service.

TABLE IV. FARM CAMPUS HEALTH SERVICE: OUT-PATIENT DEPARTMENT

Year	Medical Attention	Total Immunizations	Total Services Rendered
1936-37	4,702	1,771	6,473
1937-38	4,426	2,009	6,435
1938-39	4,743	1,840	6,583
1939-40	5,150	1,567	6,717
1940-41	4,210	1,501	5,711
1941-42	3,260	960	4,220
1942-43	2,047	696	2,743
1943-44	2,343	1,128	3,471
1944-45	1,556	795	2,351
1945-46	1,164	1,003	2,167

*Faculty Examinations*—The required physical examinations of all new members of the academic staff and those promoted to positions implying tenure have continued. During the biennium 216 members of the faculty were examined. Of these, 190 received their examinations at the Health Service, and 26 were examined by private physicians. There



TABLE V. STUDENT HOSPITAL CARE (FARM CAMPUS)

Year	Number of Patients	Number of Hospital Days	Average Stay	Comments
1936-37	272	1,108	4.1	No epidemic
1937-38	260	1,296	5.0	Mild influenza
1938-39	256	1,089	4.3	Mild influenza
1939-40	238	1,039	4.4	No epidemic
1940-41	308	1,397	4.5	Influenza, mumps
1941-42	51	215	4.2	No epidemic
1942-43	166	721	4.3	No epidemic
1943-44	458	1,895	4.1	Influenza epidemic
1944-45	60	197	3.2	No epidemic
1945-46	137	713	5.2	Mild influenza

were no rejections because of physical disability. A total of 883 individuals applying for positions on the regular payroll on the non-academic staff were given medical examinations in the Health Service during this biennial period. Twenty-two of these were found to have physical disabilities which would prohibit employment for the particular type of work for which they were applying.

*Housing Inspection*—The Health Service has the responsibility for the inspection of all student rooming houses for health and safety factors. The large influx of students has brought a tremendous increase in the inspection service. Active working contact is maintained with the City Fire and Health Departments which control many of the hazards brought to their attention by our inspectors. Excellent cooperation has been obtained from the householders to make improvements which would eliminate health hazards. The percentage of student residences classified as "A" or "B" has been steadily increasing. All food-handlers employed on the campus have been given an annual medical examination and periodic inspections. Weekly inspections have been made of all university kitchens, cafeterias, et cetera, and weekly samples of water taken from all swimming pools for bacteriological examinations.—RUTH E. BOYNTON, *director*.

### THE UNIVERSITY OF MINNESOTA PRESS

An outstanding event of the biennium was the establishment of the Waite Fund given to the University Press by Mr. George B. Leonard, a former University of Minnesota regent, in honor of Judge Edward F. Waite. The fund of \$10,000 is to be used in support of publication of books in the field of race relations broadly conceived. The first book to be published on the fund was Alice L. Sickels' *Around the World in St. Paul*. This book has been widely publicized and has received two awards for its contribution to better understanding among peoples. Five additional volumes, supported in whole and in part by the fund, are in preparation. *The Soviet Union and Its Asiatic Minorities* by Elizabeth Bacon is scheduled for early 1947.

Three Regional Writing Fellowship books have been published, two others are in press, and four or five additional volumes are nearing completion. The series of research bulletins on the Community Basis for Postwar Planning, studies of Red Wing, Minnesota, has been completed. Nine have already been issued and the two final numbers are in press.

An innovation has been the publication of an annual volume of contemporary poetry. The first was Professor Joseph Warren Beach's *Beginning with Plato* published in the fall of 1944; this was followed in 1945 by Arnold Stein's *Perilous Balance*; in press for 1946 is Mildred Louise Boie's *Better Than Laughter*. As poetry is almost always published at a financial loss, we hope very much to find a donor who will make it possible for us to continue the series unbroken.

Cooperation with the State Department of Health has resulted in the publication of two very successful pamphlets on sex hygiene by Marion L. Faegre of the U. S. Children's Bureau, and a volume of teaching units is in press.

In 1946 the University of Minnesota Press became a full participating member of the United States International Book Association, organized with governmental support to secure wider distribution of American books on the continent of Europe. We have also become members of the American Book Publishers Council which is the newly reorganized trade association of the American book publishing industry. We have revived our quarterly newsheet, "Minnesota Books and Authors."

Members of the staff have given much service to other departments of the University, in many cases without remuneration: the Graduate School, the Library, the Program of American Studies, and the Inaugural Committee among others. Members of the staff have also appeared frequently on the programs of local radio stations and before clubs.

*Plans*—The year 1947 will be the twentieth year of operation of the University Press. We expect to issue a complete catalog and a brief history of our twenty years of publishing. We have scheduled for publication during that year popular and semi-popular books in many fields and several volumes of major research. Among these are the *Biology of Human Starvation* edited by Dr. Ancel Keys and *Magna Carta: Its Influence on the Rule of Law, 1300 to 1642* by Professor Faith Thompson.

*Problems*—The fundamental problems remain what they have been for many years, inadequate financial support and working quarters. During the first year of the biennium we continued the upward trends in production and sales so marked since 1940. The end of the rationing of paper and other materials was followed by increases in price and decreases in supply to the smaller printers and publishers and constant delays in production. Publishing costs rose.

The salary adjustments within the University have helped to reduce the turnover in the Press staff, our most serious problem in the preceding biennium, but together with other increases in prices and wages, these adjustments have increased our cost of doing business. These increased costs in turn, combined with a slowing down of both production and sales, have sent up our overhead so that we ended the year with expenditures in excess of income.

This circumstance forces renewed consideration of the anomalous position of the Press in the organization of the University of Minnesota. Its function is educational in the broadest sense. It cannot be conducted on a strictly commercial, self-supporting basis. Budgetary support to carry a part of the staff salaries and to subsidize important but unprofitable books is an immediate necessity if the Press is to maintain its enviable place in American education.

BOOKS PUBLISHED July 1, 1944-June 30, 1946

- Understanding Ourselves.* Marion L. Faegre. Published: September 12, 1944. Price: \$.50. iv plus 44 pages. Paper. Edition, 10,000.
- Your Own Story.* Marion L. Faegre. (Reprint.) Issued: September 12, 1944. Price: \$.50. ix plus 52 pages. 5½ x 7. Paper. Edition, 5,000.
- From Pushkin to Tolstoy.* Konstantin Reichardt. Published: September 15, 1944. Price: \$1.75. 72 pages. 8½ x 11. Paper. Edition, 500.
- A Short History of Canada for Americans.* A. L. Burt. (Revised edition.) Published: September 15, 1944. Price: \$3.00. 326 pages. 6 x 9. Cloth. 111 illustrations. Maps. Edition: 5,000.
- Sanctuaries of Civilization.* Errett W. McDiarmid. Published: September, 1944. Price: Free. 16 pages. 6 x 9. Paper. Edition, 10,000.
- Reptiles and Amphibians of Minnesota.* W. J. Breckenridge. Published: October 16, 1944. Price: \$2.50. 202 pages. 6 x 9. Cloth. 97 illustrations. Edition, 1,500.
- The Faith and Fire within Us. An American Credo.* Elizabeth Jackson. Published: October 16, 1944. Price: \$2.00. viii plus 180 pages. 5½ x 8¾. Cloth. Edition, 5,000.
- Geology and Underground Waters of Southern Minnesota.* (Bulletin No. 31 of the Geological and Natural History Survey of Minnesota.) George A. Thiel. Published: October 18, 1944. Price: \$1.00. xviii plus 506 pages. Paper. Edition, 750.
- Snowshoe Country.* Florence and Francis Lee Jaques. Published: September 12, 1944. Price: \$3.00. viii plus 110 pages. 7½ x 10¼. 46 illustrations. Cloth. Edition, 10,000.
- Beginning with Plato.* Joseph Warren Beach. Published: November 17, 1944. Price: \$2.00. iv plus 92 pages. 5½ x 8½. Cloth. Edition, 1,000.
- A Romantic View of Poetry.* Joseph Warren Beach. Published: November 17, 1944. Price: \$2.00. iv plus 143 pages. 5½ x 8½. Cloth. Edition, 1,000.
- Music Master of the Middle West.* Leola Nelson Bergmann. Published: November 22, 1944. Price: \$2.50. viii plus 230 pages. 5½ x 8½. Cloth. 5 illustrations. Edition, 3,000.
- Food of My Friends.* Virginia Safford. Published: December 15, 1944. Price: \$3.00. 300 pages. 5½ x 8½. Cloth. 72 illustrations. Edition, 10,000.
- Child Care and Training.* Marion L. Faegre and John E. Anderson. (6th Revised Edition—1st Reprint.) Issued: March 12, 1945. Price: Trade, \$2.50; Text, \$2.00. vi plus 314 pages. 5½ x 8½. 23 halftones. Cloth. Edition, 5,000.
- Report of the Dight Institute for the Year 1943-44.* C. P. Oliver. Published: April, 1945. Price: Free. 24 pages. 6 x 9. Edition, 1,200.
- Your Own Story.* Marion L. Faegre. Issued: April, 1945. (2nd Reprint.) Price: \$.50. ix plus 52 pages. 5¼ x 7. Zinc etchings. Paper. Edition, 10,000.
- Out of School Youth in Red Wing.* (No. 2 in The Community Basis for Postwar Planning.) Charles Boardman. Published: April 19, 1945. Price: \$.50. 28 pages. 6 x 9. Paper. Edition, 1,500.
- The Impact of the War on Community Leadership and Opinion in Red Wing.* (No. 3 in The Community Basis for Postwar Planning.) F. Stuart Chapin. Published: April 19, 1945. Price: \$.50. 26 pages. 6 x 9. Paper. Edition, 1,500.
- The Diets of High School Students and Factors Influencing Food Habits.* (No. 4 in The Community Basis for Postwar Planning.) Clara M. Brown. Published: April 19, 1945. Price: \$.50. 10 pages. 6 x 9. Paper. Edition, 1,500.
- Guaranteed Annual Wages.* Jack Chernick and George C. Hellickson. Published: June 2, 1945. Price: \$2.50. x plus 146 pages. 5½ x 8½. Cloth. Edition, 20,000.
- Program of American Studies.* Tremaine McDowell. Published: June, 1945. Price: Free. 8 pages. 6 x 9. Paper. Edition, 5,000.
- The Impact of the War on the Schools of Red Wing.* (No. 5 in The Community Basis for Postwar Planning.) Nelson L. Bossing and Leo J. Brueckner. Published: June 6, 1945. Price: \$.50. 118 pages. 6 x 9. Paper. Edition, 1,500.

- Snowshoe Country.* Florence and Francis Lee Jacques. (1st Reprint.) Published: June 18, 1945. Price: \$3.00. viii plus 110 pages. 7½ x 10¼. 46 illustrations. Cloth. Edition, 10,000.
- Cango Country.* Florence and Francis Lee Jacques. (3rd Printing.) Published: July 27, 1945. Price: \$2.00. viii plus 78 pages. 7½ x 10¼. 14 illustrations. Edition, 5,000.
- Improve Your Reading: A Manual of Remedial Reading Exercises.* Frances Triggs. (2nd Printing.) Issued: August, 1945. Price: \$1.00. 127 pages. 6 x 9. Paper. Edition, 2,000.
- Toward a Democratic New Order.* Dr. David Bryn-Jones. Published: September 22, 1945. Price: \$3.50. viii plus 288 pages. 6 x 9. Cloth. Edition, 3,000.
- Bulletin of the Friends of the University Library.* Errett W. McDiarmid. Published: September 22, 1945. Price: Free. 12 x 9. Paper. Edition, 1,500.
- Your Own Story.* Marion L. Faegre. (3rd Reprinting.) Issued: September, 1945. Price: \$.50. ix plus 52 pages. 5½ x 7. Zinc etchings. Paper. Edition, 10,000.
- America Is West: An Anthology of Middlewestern Life and Literature.* Edited by John T. Flanagan. Published: October 13, 1945. Price: Trade, \$3.75; Text, \$3.00. xiv plus 677 pages. 6 x 9. 12 illustrations. Cloth. Edition, 20,000.
- Understanding Ourselves.* Marion L. Faegre. (1st Reprint.) Issued: October 23, 1945. Price: \$.50. ix plus 52 pages. 5½ x 7. Paper. Edition, 10,000.
- Perilous Balance.* Arnold Stein. Published: November 15, 1945. Price: \$1.50. viii plus 49 pages. 5½ x 8½. Cloth. Edition, 1,000.
- Of Brooks and Books.* Lee E. Grove. Published: November 15, 1945. Price: \$2.50. ix plus 85 pages. 5¼ x 8¼. Cloth. 3 illustrations. Edition limited to 1,500 numbered copies.
- Around the World in St. Paul.* Alice L. Sickels. Published: November 26, 1945. Price: \$3.00. x plus 262 pages. 5¼ x 8½. Cloth. 32 pages of illustrations. Edition, 5,000.
- A Psychiatric Primer for the Veteran's Family and Friends.* Alexander G. Dumas and Grace Keen. Published: November 26, 1945. Price: \$2.00. vi plus 214 pages. 5½ x 8½. Cloth. 27 illustrations. Edition, 7,000.
- The Indoor Gardener.* Daisy T. Abbott. (3rd Printing.) Issued: February 11, 1946. Price: \$1.50. ix plus 150 pages. Cloth. 5¼ x 8¼. Edition, 5,000.
- Art in Red Wing.* (No. 6 in The Community Basis for Postwar Planning.) Laurence Schmeckebier. Published: March 15, 1946. Price: \$1.00. viii plus 88 pages. 6 x 9. Paper. 80 illustrations. Edition, 2,000.
- Red Wing Churches During the War.* (No. 7 in The Community Basis for Postwar Planning.) Lowry Nelson. Published: March 15, 1946. Price: \$.50. iii plus 21 pages. 6 x 8. Paper. Edition, 1,500.
- The Teaching Staff and Postwar Education in Red Wing.* (No. 8 in The Community Basis for Postwar Planning.) Wesley Peik. Published: March 15, 1946. Price: \$.50. iii plus 32 pages. 6 x 9. Paper. Edition, 1,500.
- Democracy for All.* Helen P. Mudgett. (2nd Printing.) Issued: April 23, 1946. Price: \$.50. 88 pages. Paper. Edition, 10,000.
- Singin' Yankees.* Philip D. Jordan. Published: May 20, 1946. Price: \$3.50. xiv plus 306 pages. 5½ x 8½. Cloth. 12 illustrations. Edition, 3,000.
- Attack Transport.* Lt. Comdr. Lawrence Marsden. Published: June 12, 1946. Price: \$2.50. ix plus 202 pages. 5½ x 8¼. Cloth. 26 illustrations. Edition, 3,000.
- Red Wing and Its Daily Newspaper.* (No. 9 in The Community Basis for Postwar Planning.) Ralph Nafziger and Thomas Barnhart. Published: June 19, 1946. Price: \$.50. vi plus 58 pages. 8½ x 11. Paper. Edition, 1,500.
- Minnesota Books and Authors.* Published: June, 1946. Price: Free. 8 pages. 8½ x 11. Paper. Edition, 5,000.

## REPRINT TESTS, July 1, 1944-June 30, 1946

- Food Score Cards.* Clara M. Brown. Published: October 25, 1944. Price: Set of 53 cards 25 cents; packet of 50 identical cards 25 cents. Edition, 2,000.
- The Minnesota Multiphasic Personality Inventory.* Starke R. Hathaway and J. Charnley McKinley. Published: November 3, 1944. Price: \$15.00. Edition, 200.
- Minnesota Speed of Reading Test for College Students (Form A).* Alvin C. Eurich. Published: November 4, 1944. Price: \$2.75 per hundred; specimen set 35 cents. Edition, 10,000.
- The Minnesota Multiphasic Personality Inventory. (Revised Group Form.)* Starke R. Hathaway and J. Charnley McKinley. Published: November 6, 1944. Price: \$25.00. Edition, 100.
- The Minnesota Multiphasic Personality Inventory.* Starke R. Hathaway and J. Charnley McKinley. (Record and Profile Sheets.) Published: February 19, 1945. Price: \$20.00 per five hundred. Edition, 20,000.
- Minnesota Speed of Reading Test (Form A).* Alvin C. Eurich. Published: February 19, 1945. Price: \$2.75 per hundred; specimen set 35 cents. Edition, 10,000.
- The Hunt-Minnesota Test for Organic Brain Damage.* Howard F. Hunt. (500 Manuals 8½ x 11. 500 each of 17 small cards, 12,500 record forms.) Published: March 21, 1945. Price: \$5.00 per set. Edition, 500.
- Minnesota Check List for Food Preparation and Serving.* Clara M. Brown and others. Published: April 21, 1945. Price: \$1.00 per hundred; specimen set 10 cents. Edition, 5,000.
- Keys for Form A of *Minnesota Reading Examination for College Students.* Melvin E. Haggerty and Alvin C. Eurich. Published: November 2, 1945. Price: 10 cents each. Edition, 200.
- Keys for Form B of *Minnesota Reading Examination for College Students.* Melvin E. Haggerty and Alvin C. Eurich. Published: November 2, 1945. Price: 10 cents each. Edition, 150.
- Examiners' Manuals for *Minnesota Reading Examination for College Students.* Melvin E. Haggerty and Alvin C. Eurich. Published: February 19, 1946. Price: 15 cents each. Edition, 500.
- Minnesota Speed of Reading Test for College Students. (Form B.)* Alvin C. Eurich. Published: April 2, 1946. Price: \$2.75 per hundred; specimen set 35 cents. Edition, 5,000.
- Minnesota Home Status Index.* Alice M. Leahy. Published: April 18, 1946. Price: \$2.00 per hundred; specimen set 10 cents. Paper. Edition, 5,000.
- Minnesota Rating Scale for Personal Qualities and Abilities.* Clara M. Brown. Published: April 18, 1946. Price: \$1.00 per hundred; specimen set 10 cents. Edition, 10,000.
- Keys for Form A of *Minnesota Reading Examination for College Students.* Melvin E. Haggerty and Alvin C. Eurich. Published: May 13, 1946. Price: 10 cents each. Edition, 400.
- Keys for Form B of *Minnesota Reading Examination for College Students.* Melvin E. Haggerty and Alvin C. Eurich. Published: May 13, 1946. Price: 10 cents each. Edition, 300.

*The Minnesota Multiphasic Personality Inventory.* (Record Sheets.) Starke R. Hathaway and J. Charnley McKinley. Published: May 15, 1946. Price: \$20.00 per five hundred. Edition, 20,000.

*Check List for Food Preparation and Serving.* Clara M. Brown. Published: May 20, 1946. Price: \$1.00 per hundred; specimen set 10 cents. Edition, 5,000.

*The Minnesota Multiphasic Personality Inventory.* (Record and Profile Sheets.) Starke R. Hathaway and J. Charnley McKinley. Published: June, 1946. Price \$20.00 per five hundred. Edition, 20,000.

MARGARET S. HARDING, *director.*

## THE UNIVERSITY GALLERY

During the first part of this biennium, wartime restrictions and effects of a society still geared to war curtailed many of our important activities and expanded others. The war has curtailed, in many respects, the extent to which we could have been of service to teachers and others throughout the state. The loan of exhibition and study materials to schools and organizations outside the University still is discontinued due to lack of staff to handle and assemble the materials, but we have kept our reference room and study files open for students and practice teachers. After November, 1945, a full-time position was established in the reference room; therefore, a more active service was created.

That our objective has been met is evidenced by the fact that the University Gallery is known by a larger and more diversified cross section of the students than heretofore.

*Exhibitions*—Fewer exhibitions were displayed in 1944-46 than previously, but they were larger in scale and remained for longer periods of time. This was necessary because of the skeleton staff available to assemble and dismantle the exhibitions. Listed below are exhibitions which were indirectly related to the war effort and peace program:

Our Navy in Action	Russian Art Exhibition
Aleutian Paintings	The Story of Flags
Swedish Arts and Crafts	The Victors and the Vanquished
Emblems of Unity and Freedom in America	The Holy Land
British Arts and Crafts	

Other exhibitions were largely educational and are listed as follows:

Tobacconists Figures and Signs	Are Clothes Modern
I Remember That	John Rood in Retrospect
The Debt of Art to Nature	Hints and Ideas for Your Home
Egyptian and Peruvian Textiles	California Water Colors
Romantic Painting in America	National Serigraphic Society
Old Master Drawings	The American Craftsman
Nineteenth Century Railroad Stations	Gelatones
Built in the U.S.A.	Twelfth Annual Student Show
Cuban Painting Today	Academic Costumes
Eleventh Annual Student Show	Josef Albers Prints

*Acquisitions*—The following additions were made to our collection:

	Purchased	Loan	Gift
Prints (reproductions) .....	100	1	9
Ceramics .....	30	0	2
Graphics (drawings, etchings, engravings, lithographs, silk screen prints) .....	12	2	0
Oils .....	0	1*	1
Textiles .....	40	0	7

\* Oil painting temporarily loaned by Mr. Wulling, assumed to be a genuine "Titian."

*Endowment*—An anonymous gift was given us in 1939-40 amounting to \$2,500. We have added our earnings from various sources to this sum each year, and with interest accruing the total is now \$4,740.70.

*Major Needs*—What we need most for greater efficiency and accomplishment is a pooling together of our work storage and exhibition areas. As operation exists today, we are dispersed on all floors of Northrop Auditorium. The ideal situation is a new building, but we look forward with new hope that if the first floor of Northrop Auditorium is remodeled, our main gallery will take its place on the first floor to meet the visitors.—WILLIAM SALTZMAN, *acting director.*

## CONVOCATIONS

1944-45

Attractions	Date	Attractions	Date
President W. C. Coffey	October 5, 1944	Music Department	February 1, 1945
Terista and Emilio Osta	October 12, 1944	Andre Michalopoulos	February 8, 1945
Carroll Binder	October 19, 1944	Carl Taylor	February 15, 1945
William Stout	October 26, 1944	Richard Hooper	February 21, 1945
Wing-Tsit Chan	November 2, 1944	Kirtley Mather	March 1, 1945
Lester Granger	November 9, 1944	Austen West	March 8, 1945
Premier Stuart Garson	November 16, 1944	Abram Chasins	April 5, 1945
Max Gene Nohl	November 30, 1944	Boris Stanfield	April 12, 1945
Emil Lengyel	December 7, 1944	Alice Marble	April 19, 1945
John Booth	January 4, 1945	Dr. Herbert Graf	April 26, 1945
Baron Van Der Elst	January 11, 1945	Asher Christensen	May 3, 1945
Henry C. Wolfe	January 18, 1945	Ava Hamilton	May 10, 1945
George Grim	January 25, 1945		

1945-46

President J. L. Morrill	October 4, 1945	Newton Bell	January 24, 1946
George Grim	October 8, 1945	Gladys Miller	January 31, 1946
All-University Convocation	October 11, 1945	Dr. W. J. Breckenridge	February 7, 1946
Strawbridge Ballet	October 18, 1945	Felix Morley	February 14, 1946
James Wick	October 25, 1945	Gerhart Segar	February 21, 1946
Dean J. W. Buchta	November 1, 1945	Frank Jewett	February 28, 1946
Gregor Ziemer	November 8, 1945	Jubilee Singers (Fisk)	March 7, 1946
John Mulholland	November 15, 1945	Sydney Montague	April 4, 1946
Hubert Liang	November 29, 1945	Virginia Kirkus	April 11, 1946
John Kood	December 6, 1945	Ernesto Montenegro	April 14, 1946
Bartalmi	January 10, 1946	Edward Johnson	May 2, 1946
Carola Goya (Special evening)	January 10, 1946	Iva Kitchell	May 9, 1946
Music Department	January 17, 1946		

## MINNESOTA MUSEUM OF NATURAL HISTORY

The Museum of Natural History during the biennium, has passed a regrettable milestone in the death of its director, Dr. Thomas S. Roberts. His wise and determined direction, together with his influence with philanthropic citizens, particularly Mr. James Ford Bell, has seen it develop from a delapidated, ill-kept collection in 1915 to the present splendidly exhibited sampling of the natural history of the state. Recognition of the museum's work came in the form of three new members being added to the permanent staff. The staff gave two courses in the curriculum of the Extension Division, "Wild Game of Minnesota" and "Birds of Minnesota."

*Attendance*—This report disregards the thousands of people who have used the museum auditorium for non-museum purposes but includes only those who have entered the exhibit spaces of the building. The museum attendance increased from 35,910 in 1944-45 to 52,910 in 1945-46, making a total for the biennium of 88,820. The winter Sunday lecture series during November to March, inclusive, brought 27 per cent of the total attendance, the 1944-45 figure being 10,079, the 1945-46, 14,309.

*Lectures*—The museum's lecture service reached 169 audiences with a total attendance of 38,972. Of these 66 lectures in the museum were attended by 19,087 persons. The marked annual increase in attendance at the winter Sunday afternoon lectures was gratifying.

*Exhibits*—During the biennium three major and two minor exhibits were completed. The moose group was financed anonymously; the sandhill crane group was given by Mrs. Lillian M. Berthel in memory of her late son, Russell M. Berthel; the swallow-tailed kite group was given by George M. Sutton in memory of his mother, Mrs. Lola M. Sutton. The smaller starling and snowy owl exhibits were completed with museum funds.

*Gifts*—\$10,000 was received from the Citizens Aid Fund for the completion of several major museum projects; \$2,000 was received from Mrs. Lillian M. Berthel for the crane group; bonds, which sold for \$1,718.05, were received from Mr. P. D. McMillan for the building of an elk group; \$1,500 was donated by a group of Dr. Roberts' friends for a whistling swan group; and Mr. James F. Bell's monthly contributions for special museum expenses totaled \$1,800. The museum's collections were increased by gifts from 49 individuals as follows: birds, 43; mammals, 65; reptiles, 18; amphibians, 3; bird egg sets, 1; shells, 26; books, 34; numerous pamphlets; and a portfolio of 109 excellent watercolor paintings of flowers.

*Publications*—The book "Reptiles and Amphibians of Minnesota," by W. J. Breckenridge, was published by the University of Minnesota Press in August, 1944. Bimonthly articles by Dr. T. S. Roberts and Museum Assistant George Rysgaard for the *Audubon*

*Magazine* and bimonthly articles for the *Minnesota Conservation Volunteer*, by W. J. Breckenridge were continued throughout the biennium.

*Field Work*—Three major field trips into northwestern Minnesota resulted in the securing of a bull moose and a bull elk together with accessories for these exhibits and the accessories for a whistling swan group.

*Future*—All present programs of the museum are to be continued with numerous additions in the direction of rendering the museum's materials and services of greater use to the public and to other university departments. One weakness of the museum is the too static nature of the exhibits. Plans are being developed to adapt certain spaces for temporary exhibits to inject a greater element of change into the halls. Plans are afoot to gain greatly expanded use of our constantly enlarging series of wildlife motion pictures by adding sound commentaries and distributing these through the General Extension Division's film loan service.—WILLIAM J. BRECKENRIDGE, *director*.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

During the biennium the Reserve Officers' Training Corps (ROTC) was discontinued and the war-born Army Specialized Training Program (ASTP) became the only medium for military training on the campus. Following the end of the war, the Basic Course, ROTC, was reactivated at the beginning of the fall quarter, 1945, and the ASTP gradually curtailed to complete discontinuance effected June 29, 1946.

*Army Specialized Training Program*—At the beginning of the biennium, July, 1944, the ASTP had been in operation for five consecutive quarters, and had enrolled a total of 6,262 students during that period. The program during the period 1944-46 included Preprofessional, Foreign Area and Language, Dentistry, and Medical curricula. Students undergoing this specialized training had been inducted into the Army prior to enrollment in the program, and were transferred to specific army assignments upon completion. At the beginning of the fall term, 1944, students were received who were under draft age, but had been enlisted in the Army Enlisted Reserve Corps for pre-induction training. These students were integrated into the ASTP curricula, but reported separately as students of the Army Specialized Training Reserve Program (ASTRP).

The Foreign Area and Language curriculum included courses in Japanese, Norwegian, German, French, and Swedish languages, economics, and history. All foreign courses with the exception of Japanese were discontinued at the end of the winter quarter, 1945.

The preprofessional curriculum included pre dental and premedical courses. These courses were discontinued at the end of the fall quarter, 1944.

The Army Specialized Training Program as administered at the University of Minnesota contributed immeasurably to the successful prosecution of the war and provided the individual students with specialized knowledge of great personal value and future value to the nation. With few exceptions, the ASTP graduates were given responsible assignments in which they applied their training received at the University and further broadened their professional knowledge.

TABLE I—ASTP STRENGTH BY QUARTERS

Quarter	Pre-professional	Foreign Area and Language	Dentistry	Medicine	Total
Summer, 1944	138	206	205	289	838
Fall, 1944	84	70	3	223	380
Winter, 1945	*	196	*	220	416
Spring, 1945	*	178	*	219	397
Summer, 1945	*	276	*	156	432
Fall, 1945	*	374	*	150	524
Winter, 1946	*	166	*	150	316
Spring, 1946	*	50	*	1	51

\* Preprofessional and dentistry courses discontinued at end of fall quarter, 1944.

TABLE II. ASTRP STRENGTH BY QUARTERS

Quarter	Foreign Area and Language	Quarter	Foreign Area and Language
Fall, 1944	90	Fall, 1945	122
Winter, 1945	87	Winter, 1946	88
Spring, 1945	68	Spring, 1946	19
Summer, 1945	10		

Note: ASTRP students were enrolled in the Foreign Area and Language Course only.

*Reserve Officers Training Corps*—The Elementary Course, ROTC, a branch immaterial course, applicable to the Army as a whole, was reactivated at the beginning of the fall term, 1945. Continuation of the Selective Service Act prevented a large enrollment in this program. It is planned to reactivate the Advanced Course, ROTC, at the beginning of the fall term, 1946, offering Elementary Course credit to students with prior military service. A new program of instruction for the entire ROTC curriculum has been prepared by the War Department. Subjects offered will encompass new doctrine and techniques developed during the war and are specifically designed for the collegiate level. A striking departure of the new policy will be utilization of civilian instructors of the institution staff where practicable. A substantial increase in monetary allowances paid Advanced Course students and the inauguration of payments to Elementary Course students are additional features of the new program.

*Expansion of the ROTC*—It has long been recognized that the specialized training offered in the Signal Corps and Anti-Aircraft branches represented at the University, leading to a reserve commission in those branches, excludes enrollment of large groups of students by colleges due to entrance prerequisites, the technical nature of the courses, and the personal interests of the student.

A War Department board of officers made a survey of the University in January, 1946, to determine if other branches of the service could be supported and recommended establishment of the following additional units: Air Corps Chemical Warfare, Corps of Engineers, Infantry, Dental Corps, Medical Corps, Quartermaster Corps, Ordnance Department, and Transportation Corps. This recommendation was based on the supposition that the entire Armory would be made available to the Department of Military Science and Tactics. As a result of this, a representative of the Transportation Corps visited the campus in July, 1946, and expressed the desire of the War Department to establish a Transportation Corps unit prior to the fall term, 1946.

The professor of Military Science and Tactics has requested an increase in the current quota of forty-three Advanced Course students. Interest manifested by the students indicates that this quota is inadequate for the University of Minnesota.

*Faculty*—Colonel R. A. Ericson, CAC, a former student of the University and an instructor in the Military Department from 1929-36 replaced Colonel T. W. Wrenn, Inf., as professor of Military Science and Tactics.

*Major Problems*—The one major problem of this department continues to be the lack of classroom and equipment storage space for an expanded program. As the years pass, less and less space in the old Armory Building is being made available to the ROTC. Up to twelve years ago, about 50 per cent of the space in the Armory had been available to the ROTC, but the transfer of the Aeronautical Engineering Department to this building and the addition of the Department of Naval Science and Tactics has reduced the space available to the ROTC to about 25 per cent. It should be obvious that such a condition precludes an ROTC program at the University of Minnesota comparable in size to those in effect in other large universities. The War Department has surveyed the University, and contingent on the availability of space, has recommended the establishment of many additional and desirable ROTC units. The new postwar ROTC program offers much to University of Minnesota students which will be denied them unless increased facilities are made available.—R. A. ERICSON, *Colonel, C.A.C., P.M.S.&T.*

## DEPARTMENT OF NAVAL SCIENCE AND TACTICS

*History*—The Naval Reserve Officers' Training Corps was authorized by the Act of March 4, 1925, which provided for the establishment and maintenance in civil educational institutions of naval training, leading to commissions as naval reserve officers of qualified graduates. The unit at this University was established in the summer of 1939 and instruction was started in the fall quarter of the 1939-40 academic year.

*Purpose*—The purpose of the NROTC was to provide systematic training and instruction in essential naval subjects for university students in order to further the plan for national defense. This mission was accomplished by:

1. Qualification of selected students for appointment as ensigns in the Naval Reserve or second lieutenants in the Marine Corps Reserve, thus assisting in meeting the demands for increased commissioned personnel in time of national emergency;
2. Education of students who fail to complete the entire course so that they will be of value to the Navy in time of national emergency in proportion to the time spent in the corps; and
3. Increased dissemination of knowledge concerning the Navy and the Marine Corps, their purpose, ideals, achievements, and handicaps, thereby gaining increased public interest in the maintenance of adequate naval defense.

*Organization*—The head of the Department of Naval Science and Tactics is a captain in the Navy. He is assisted by officers and chief petty officers selected by the Bureau of Naval Personnel.

*Training*—In addition to completing the required classroom and drill curricula students were given a practical cruise.

*Enrollment*—The quota of this unit was 270. During the war years the V-12 program absorbed the NROTC and the quota was removed. The V-12 program terminated on June 30, 1946, and at that time this program reverted to its original status.

*New Program*—On August 13, 1946, by Public Law 729, a new program was started commonly called the Holloway Plan. This program changes the mission of the Naval Reserve Officers' Training Corps from that given above to that of supplying fully qualified officers to the fleet. The students under this program will receive compensation and benefits from the Navy Department as follows: (a) tuition fees and books paid; (b) retainer pay of \$600 per annum. In return they will obligate themselves to make three summer cruises and accept a commission in the Regular Navy or Marine Corps to serve for a minimum of two years of active duty. There is a quota of sixty such students allowed for the fall term of 1946.

*Old Program*—In addition to the Holloway Plan Program, students under the original program mentioned above are allowed up to the current total quota which is 220.

*Naval Academy Appointments*—Three regularly enrolled students of the unit may be nominated each year to take the entrance examination for the United States Naval Academy. Two students won such appointments in 1943-44.

*Graduates*—Graduates of the University of Minnesota NROTC unit have served in all theaters of war and on all types of naval vessels. Because of the education and training received at this University, these men and others like them were an important element of the naval personnel.—W. C. Holt, *Captain, U. S. Navy, professor of Naval Science and Tactics.*

#### BOARD OF ADMISSIONS

During the biennium, the board further studied the matter of admitting students whose education had been interrupted by service in the armed forces and also the matter of giving college credit for service experiences. The board concurred in the recommendation of the Relations Committee to the Senate that the University admit students whose services in the armed forces had interfered with the completion of their senior year in high school. Subject-matter deficiencies which may have resulted from such interruption should not handicap veterans in their applications for admissions. The board also concurred in recommending that those former officers in the Army and Army Air Force who present evidence of having secured a commissioned grade, be allowed 18 credits for R.O.T.C. (advanced military drill).

The use of the General Educational Development Tests was greatly expanded in connection with veterans. Those veterans meeting the minimum requirements on these examinations were given credit in social studies, natural sciences, English and composition literature. Thus it would be possible for a veteran to secure a total of 36 college credits on the basis of learning or study in these four areas which took place in the armed forces or elsewhere prior to college entrance.

Further studies were made of the scholastic achievements of those students who were admitted without high school graduation or with subject-matter deficiencies. The results confirmed earlier findings that these two groups of students were achieving more satisfactorily than the majority of students entering under the usual admission procedures. The number of students admitted without having graduated from the usual precollege high school curriculum increased greatly during the past two years.

The subcommittee of the Board prepared a statement on "Methods of Admitting Students to the University of Minnesota" for the orientation and use by high school administrators and counselors. The statement was submitted to a number of representative high school principals to determine if the document clearly stated the University's procedures for admitting high school graduates and non-graduates. A revised statement was printed and distributed. Toward the end of the biennium, the Board of Regents placed limitations on the enrollment of nonresident undergraduates and temporarily some of the procedures developed and recommended by the board during the past several years have been suspended.—EDMUND G. WILLIAMSON, *chairman.*



## DEPARTMENT OF CONCERTS AND LECTURES

**Convocations and Special Lectures**—During the past biennium convocations were held each Thursday morning in Cyrus Northrop Memorial Auditorium while the University was in session. These programs were open to the student body, faculty, and general public. Attendance averaged about 1,500 for each attraction. No admission is charged. The director of the department endeavored to bring the foremost educators and most prominent speakers in specialized fields to the University of Minnesota. They lectured on a variety of subjects of current interest, including discussions of World War II, problems of permanent peace, domestic and economic theories, discussions of scientific trends, art, music, and sports.

During 1944-45, the following appeared on the campus of the University of Minnesota: President W. C. Coffey, Teresita and Emilio Osta, Bob Shaw, William B. Stout, Wing-Tsit Chan, Lester Granger, Premier Stuart S. Garson, Max Gene Nohl, Emil Lengyel, Chancellor Ernest O. Melby, John Booth, Baron Josef Van Der Elst, Henry C. Wolfe, George Grim, Andre Michalopoulos, Carl C. Taylor, Kirtley F. Mather, Austen West, Reverend Vincent J. Flynn, Abram Chasins, Boris Stanfield, Alice Marble, Dr. Herbert Graf, Asher N. Christensen, Ava Hamilton, Howard Pierce Davis.

In 1945-46, the following were presented: President J. L. Morrill, George Grim, Major J. A. Edmison, Edwin Strawbridge Ballet, James L. Wick, Mei Yi-Pao, Dean J. William Buchta, Gregor Ziemer, T. Z. Koo, John Mulholland, Hubert Liang, President Lawrence Gould, Britt Trio, Bartalini, Carola Goya, Newton Bell, Gladys Miller, Ernest White, University Symphony, President Felix Morley, Rulka Langer, Frank B. Jewett, Dr. Stefan Osusky, Fisk Jubilee Singers, Dr. Howard L. Bevis, Sydney Montague, Virginia Kirkus, Señor Ernesto Montenegro, Governor Thye, Edward Johnson, Iva Kitchell.

**University Artists Course**—During the past biennium the Department of Concerts and Lectures succeeded in bringing some of the foremost concert artists to the stage of Cyrus Northrop Memorial Auditorium for the enjoyment of university students and faculty, as well as other music lovers of the Upper Midwest. The following artists appeared during 1944-45, under the auspices of the University Artists Course:

Helen Jepson and Charles Kullman, opera singers  
 American Ballad Singers, Songs of America  
 Vladimir Horowitz, pianist  
 Budapest String Quartet, chamber music  
 Donald Dickson, baritone  
 Mischa Elman, violinist  
 Lily Pons, soprano

Near capacity crowds enjoyed the brilliant concerts presented by the following artists during 1945-46:

James Melton, tenor  
 Chicago Symphony Orchestra, Désiré Defauw, conductor  
 Fritz Kreisler, violinist  
 Anne Brown-Todd Duncan, joint recital  
 Nadine Conner, soprano  
 Artur Rubinstein, pianist.

—JAMES S. LOMBARD, *director*

## DIVISIONS OF BUSINESS ADMINISTRATION

### BUILDINGS AND GROUNDS

#### LAND

During 1944-46, additions were made to the Main campus by the purchase of the following properties in Hennepin County:

- North 31', front and rear of Lot 3 and South 9½' of East 132' of Lot 4, Block 19, St. Anthony City—6,369 sq. ft.
- West 40' of East 80' of Lots 6 and 7, Block 19, St. Anthony City—5,280 sq. ft.
- South 33' of West 45' of Lot 7 and North ½ of Lot 8, Block 19, St. Anthony City—6,885 sq. ft.
- South 33' of Lot 8, Block 19, St. Anthony City—5,445 sq. ft.
- East 40' of Lots 6 and 7, Block 19, St. Anthony City—5,280 sq. ft.
- Front 41' of rear 123' of Lots 9 and 10, Block 19, St. Anthony City—5,412 sq. ft.
- East 42' of Lot 3, Block 45, St. Anthony City—6,930 sq. ft.
- Lots 3, 4, 5, 6, 7, 8 and the North 100' of Lots 1 and 2, Block 34, St. Anthony City—78,540 sq. ft.
- Lots 2, 3, 4, 5, 6, 7, 8, and 9, Block 5, Mill Company's Addition to the Town of St. Anthony Falls—87,120 sq. ft.
- Blocks 1, 2, 3, and 4, Hallowell's Addition to Minneapolis—589,503 sq. ft.
- All of Block 9, Cole and Week's Addition to Minneapolis—66,440 sq. ft.
- Lots 4 and 5 and the Northeasterly 50.6 feet of Lot 6 in Subdivision of Block J, Tuttle's Addition to St. Anthony, now in the City of Minneapolis—19,900 sq. ft.
- Lots 1, 2, 3, Block 3, including adjoining part of 8th Street S.E. vacated, except street, Mower's Addition to Minneapolis—8,159 sq. ft.
- Southwesterly 59 feet of the Northeasterly 118 feet of Lots 4, 5, and 6, Block 3, Mower's Addition to Minneapolis—7,080 sq. ft.
- The rear or Northeasterly 59 feet of Lots 4, 5, and 6, Block 3, Mower's Addition to Minneapolis—7,080 sq. ft.
- Lots 7 and 8, except street, in Block 3, Mower's Addition to Minneapolis—4,031 sq. ft.
- Lot 9, Block 4, Mower's Addition to Minneapolis—6,594 sq. ft.
- Lot 10, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 11, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 12, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 13, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 14, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 15, Block 4, Mower's Addition to Minneapolis—6,437 sq. ft.
- Lot 16, Block 4, Mower's Addition—6,594 sq. ft.
- Lots 1 to 8, Block 4; part 8th Street vacated; part Block 1, Mower's Addition—76,230 sq. ft.

Additions were made to the Farm campus by the purchase of the following properties in Ramsey County:

- South 690 feet of E½ of W½ and South 690 feet of W49½ feet of W½ of E½ of NE¼ of NE¼, Sec. 20, Tp. 29, R. 23—approx. 6 acres.
- Westerly ½ of following described land in Sec. 17, Tp. 29, R. 23: Commencing at the Southeast corner of said Sec. 17; thence Westerly on the South boundary line of said Sec. 17 466.69 feet to point of beginning; thence Northerly and parallel to the Easterly boundary of said Sec. 17, 80 rods more or less to the Northerly boundary line of the SE¼ of the SE¼ of said Sec. 17; thence Westerly on said Northerly boundary line 32 rods more or less to the Northwest corner of land formerly owned by Jane D. Gibbs; thence Southerly and on a line parallel to the Easterly boundary line of said Sec. 17, 80 rods more or less to Southerly boundary line of said Sec. 17; thence Easterly on said Southerly boundary line 32 rods more or less to point of beginning, containing 8 acres more or less—approximately 8 acres.

Additions were made to the Forest Experiment Station at Cloquet by the purchase of the following property in Carlton County:

- The S½ of the NE¼ of Sec. 29, Tp. 49, R. 17—approx. 160 acres.

The following property adjoining the Flour Exchange Building was purchased:

- Parts of Lots 7 and 8, Block 66, Town of Minneapolis—12,090 sq. ft.

Addition was made to the Northeast Experiment Station, Duluth, by the purchase of the following property:

- W½ of NE¼ of NW¼ of NE¼ and the W½ of SE¼ of NW¼ of NE¼, Sec. 25, Tp. 51, R. 14, St. Louis County—10 acres.

#### LAND IMPROVEMENTS

*Main Campus*—The Cooperative Cottages, formerly located on Beacon Street, were moved to the areas just east and west of Sanford Hall. Beacon Street was vacated and the land formerly occupied by the houses and the street was graded and fenced for an addition to the Athletic Fields.

The Cooperative Cottages which were placed east of Sanford Hall occupied ground formerly used as pharmaceutical gardens. To replace these gardens, the area between the

Psychology Building and the Music Building was utilized, and the gardens located there are very attractive.

Considerable grading was done on the properties bounded by 27th Avenue S.E. and 29th Avenue S.E. and by East Hennepin on the north and the railroad tracks on the south, in order to make the site available for the housing of veteran students.

#### BUILDINGS AND TUNNELS

*Main Campus*—An addition to house 200 nurses was made to Powell Hall. This was a part of a project to house Cadet Nurses to provide classrooms, and in the Hospital proper to provide new kitchen and cafeteria equipment at a total cost of \$420,000.

The source of funds: Federal Works Agency .....	\$231,000
War Training Funds .....	135,000
University Dormitory Funds .....	54,000
	<hr/>
	\$420,000

A great many trailers and quonset huts to house married veteran students were placed on the 27th Avenue S.E. site.

*Farm Campus*—A small Seed Corn Building was constructed on a site just east of and connecting to the Seed Storage Building.

A heating tunnel was constructed leading easterly from the Veterinary Building to the Poultry Buildings.

*Northwest School and Station, Crookston*—A new dormitory for girls was constructed at this station. The building is approximately 152 feet by 40 feet, and 3 stories high. It is of fireproof construction and will house 120 girls.

The source of funds: State Appropriation .....	\$150,000
University Dormitory Funds .....	35,000
	<hr/>
	\$185,000

*North Central School and Station, Grand Rapids*—A large two-story house located in the city of Grand Rapids was purchased and moved to the North Central School. The inside of this house was then remodeled to provide housing for members of the staff at the station.

*West Central School and Station, Morris*—The heating tunnel leading from the men's dormitory to the Physical Education Building was completely rebuilt. The original tunnel was of very poor construction and had caved in so that a complete new tunnel had to be installed.

#### IMPROVEMENTS AND ALTERATIONS

*Main Campus*—The 13 Cooperative Cottages which were moved from Beacon Street to the sites east and west of Sanford Hall were all thoroughly reconditioned and make a very attractive addition to the campus.

Nicholson Hall (formerly the Minnesota Union Building) was completely remodeled to provide office and classroom space on the first and second floors, and the ground floor houses the Book Store, the University Press, and certain facilities for the University Theatre. A small auditorium seating 500 students is also provided.

A new roof was installed on Burton Hall.

The following buildings were painted on the outside: Pillsbury Hall, Cooke Hall, Mines Experiment Station, Institute of Child Welfare, Law Building, Sanford Hall.

All the water lines in the School of Mines Building were replaced with copper.

*Farm Campus*—The Home Building was completely revamped in order to provide housing for male students.

A new storm sewer carrying most of the storm water from all the buildings was constructed. This storm sewer drains the water from the campus to a low area south of Commonwealth Avenue.

The following buildings were painted on the outside: Gymnasium, Green Hall, Snyder Hall, also most of the sheds.

During the war years it was impossible to obtain much urgently needed material for keeping buildings in shape. Also, there has been a continual shortage of labor. During these years, all the buildings on each campus show signs of deterioration. It is hoped that when men and material are again available, sufficient funds may be appropriated to thoroughly renovate the buildings inside and out.—WILLIAM F. HOLMAN, *supervising engineer*.

SUMMARY OF CASH GIFTS

1944-45

Description	Number	Amount	Total
<b>1. Loan Funds</b>			
New .....	1	\$ 1,000.00	
Additions to previous gifts .....	2	510.41	
		<hr/>	\$ 1,510.41
<b>2. Scholarship Funds</b>			
New .....	14	\$ 15,363.45	
Additions to previous gifts .....	19	11,712.14	
		<hr/>	\$ 27,075.59
<b>3. Fellowship Funds</b>			
New .....	5	\$ 19,850.00	
Additions to previous gifts .....	12	12,975.00	
		<hr/>	\$ 32,825.00
<b>4. Prizes</b>			
New .....	3	\$ 2,500.00	
Additions to previous gifts .....	29	3,979.00	
		<hr/>	\$ 6,479.00
<b>5. Research Funds</b>			
New .....	30	\$463,343.75	
Additions to previous gifts .....	38	136,367.36	
		<hr/>	\$ 599,711.11
<b>6. Miscellaneous Funds</b>			
New .....	9	\$ 75,096.25	
Additions to previous gifts .....	15	795,606.76	
		<hr/>	\$ 870,703.01
			<hr/>
			\$1,538,304.12

SUMMARY OF CASH GIFTS

1945-46

Description	Number	Amount	Total
<b>1. Loan Funds</b>			
New .....	4	\$ 6,598.00	
Additions to previous gifts .....	5	581.09	
		<hr/>	\$ 7,179.09
<b>2. Scholarship Funds</b>			
New .....	18	\$ 15,800.00	
Additions to previous gifts .....	29	15,794.00	
		<hr/>	\$ 31,594.00
<b>3. Fellowship Funds</b>			
New .....	24	\$ 87,237.00	
Additions to previous gifts .....	14	43,179.76	
		<hr/>	\$ 130,416.76
<b>4. Prizes</b>			
New .....	3	\$ 507.00	
Additions to previous gifts .....	28	4,206.00	
		<hr/>	\$ 4,713.00
<b>5. Research Funds</b>			
New .....	43	\$336,450.00	
Additions to previous gifts .....	48	191,701.05	
		<hr/>	\$ 528,151.05
<b>6. Miscellaneous Funds</b>			
New .....	12	\$441,997.40	
Additions to previous gifts .....	18	737,516.17	
		<hr/>	\$1,179,513.57
			<hr/>
			\$1,881,567.47

CASH GIFTS, 1945-46

LOAN FUNDS—NEW

		Year Established
\$ 3,000.00	From the United States Army through the American Broadcasting Company for sponsored recruiting program in broadcast of Indiana and Wisconsin football game .....	1946
2,398.00	From Fred W. Reed to establish a loan fund for Negro students.....	1946
1,000.00	To establish a loan fund for needy students.....	1946
	\$750.00 The Joel Foundation .....	1946
	250.00 Mrs. Charles Winton Memorial Fund .....	
200.00	For a loan fund in the library from the H. W. Wilson Company.....	1946
<hr/>		
\$ 6,598.00		

## THE PRESIDENT'S REPORT

LOAN FUNDS—ADDITIONS TO PREVIOUS GIFTS		Year
		Established
\$ 200.00	Class of 1902 Loan Fund .....	1928
200.00	Faculty Women's Club Emergency Loan Fund .....	1942
131.09	General Student Loan Fund .....	1922
	\$75.41 Anonymus	
	50.00 Anonymus	
35.00	Dr. Nellie Welch Nelson Home Economics Student Fund .....	1929
	\$25.00 Camp Fire Girls in St. Paul	
	10.00 Miss Cecilia Nelson and Mrs. John Blackmer	
15.00	William A. O'Brien Loan Fund .....	1939
\$ 581.09		

SCHOLARSHIP FUNDS—NEW		Year
		Established
\$ 3,025.00	For a scholarship in honor of the late John P. Coughlin for loans to deserving students .....	1946
	\$3,000.00 Minnesota Editorial Association	
	25.00 Mr. John E. Allen	
2,500.00	From the All-University Council for an "All-University Council Scholarship Fund" to aid deserving and needy students, both graduate and undergraduate, in any college or department of the University .....	1946
2,000.00	From the Flour City Ornamental Iron Company for a scholarship in architecture .....	1945
1,315.00	For scholarships for the Intercultural Workshop, held at the University July 31 to August 31, 1945 .....	1945
	\$1,015.00 National Conference of Christians and Jews, Inc.	
	300.00 Minnesota Jewish Council	
1,200.00	Custody of a scholarship fund to be turned over to Mr. Baruch Blum to cover board, lodging, and tuition .....	1946
1,200.00	From the Radio Corporation of America for two scholarships of \$600 each under the RCA scholarship plan .....	1945
1,000.00	From the Kaufman Foundation for a scholarship in music of \$250 a year for four years .....	1946
900.00	From Minnesota and Ontario Paper Company for the "Mando Graduate Scholarship Fund" for study of different methods of disposing of slash in logging operations in Northern Minnesota .....	1946
500.00	From the Academy of Time, Inc., through the Benrus Watch Company, for a scholarship for the study of time .....	1946
500.00	From the Flox Company, Incorporated for a fund to be used for scholarships and loans in the Department of Chemical Engineering .....	1945
500.00	For an "All University Scholarship Fund," a general scholarship fund to aid deserving and needy students, both graduate and undergraduate, in any college or department of the University .....	1945
	\$250.00 Anonymus	
	250.00 Mr. A. W. B. Kjosness	
300.00	From the Minneapolis Junior Chamber of Commerce to establish a scholarship to aid two young men during 1946-47 .....	1946
250.00	From the Minnesota Federation of Women's Clubs, transferring the Oscar Mather Scholarship Fund, originally bequeathed to them, to the University of Minnesota .....	1946
200.00	From the American Society of Civil Engineers for a scholarship in Civil Engineering .....	1946
200.00	From the Rite-Way Products Company, Incorporated, for a scholarship in the College of Agriculture, Forestry, and Home Economics .....	1945
100.00	Annually from W. Atlee Burpee Company for a scholarship in the College of Agriculture, Forestry, and Home Economics .....	1946
60.00	From Barbara M. Clark to establish a memorial scholarship in honor of Walter R. Strubel, to be used for assistance to needy students .....	1945
50.00	From Mr. Herman Miller for two scholarships of \$25 each for students in the School of Agriculture at Crookston, Minnesota, who have made outstanding records in 4-H Club Work in Polk County .....	1946
\$ 15,800.00		

SCHOLARSHIP FUNDS—ADDITIONS TO PREVIOUS GIFTS		Year
		Established
\$ 3,521.00	Watumull Foundation Scholarships .....	1945
1,981.25	"B" Scholarship and Loan Fund .....	1944
	\$1,000.00 The Cornelius Company	
	981.25 (50 shares Electric Bond and Share Common Stock) Anonymus	
1,175.00	WNAX Agricultural Scholarship .....	1944
1,105.00	Sears Roebuck Agricultural Scholarships .....	1937
1,000.00	Lura C. Hutchinson Scholarship .....	1945
1,000.00	George T. Slade Scholarship .....	1942
700.00	Medical Social Work Fund .....	1929
	\$500.00 Minnesota Association for Crippled Children and Disabled Adults	
	200.00 Mayo Properties Association	
600.00	Mando Scholarships .....	1945
525.00	Law Faculty Scholarship Fund .....	1925
	\$500.00 Anonymus	
	25.00 Roy A. Hendrickson	

	Year Established	
500.00	Presser Foundation Scholarship.....	1930
488.00	Methodist Church Scholarship.....	1944
475.00	Pharmaceutical Institute Post Graduation Scholarships.....	1941
400.00	American Foundation for Pharmaceutical Education Scholarships.....	1944
319.30	Rockefeller Foundation—British Medical Students Scholarships.....	1942
300.00	National Hillel Commission Scholarship.....	1944
250.00	Consolidated Vultee Aircraft Corporation Scholarship.....	1943
250.00	Grace Ellis Ford Scholarship.....	1931
225.00	Minnesota State Pharmaceutical Association Scholarship.....	1917
200.00	Mary Farrell Coffman Scholarship.....	1945
200.00	Arthur C. Melamed Scholarship Fund.....	1944
100.00	Northwest Daily Press Association Scholarship.....	1935
100.00	Alpha Tau Delta Scholarship.....	1935
100.00	Marion L. Vannier Scholarship.....	1929
75.00	Leora E. Cassidy Scholarship.....	1944
50.00	Theta Sigma Phi Scholarship.....	1939
50.00	Phi Upsilon Omicron Scholarship.....	1926
50.00	Home Economics Association Scholarship.....	1924
44.45	Dean E. E. Nicholson Scholarship Fund for Returning Military Service Students.....	1942
	\$37.50 Alpha Chi Omega.....	
	4.78 Mrs. Thomas J. Young.....	
	2.17 John E. Eckstein.....	
10.00	Maria Sanford Memorial Scholarship.....	1936
	\$10.00 Minneapolis College Women's Club.....	

\$ 15,794.00

FELLOWSHIP FUNDS—NEW

\$ 25,000.00	\$5,000 annually for five years, from the Ebin Foundation for fellowship to aid young physicians of superior qualifications to obtain graduate training.....	1945
10,000.00	From Minneapolis-Honeywell Regulator Company for one or more research fellowships under the direction of Professor Henry E. Hartig and Professor Frank B. Rowley.....	1946
5,000.00	\$1,000 a year for five years, from the Westinghouse Educational Foundation for a graduate fellowship in mechanical engineering.....	1946
4,500.00	From E. I. du Pont de Nemours and Company for a 1946-47 post-doctoral fellowship in chemistry.....	1946
4,200.00	From Merck and Company for a fellowship in organic chemistry.....	1945
3,600.00	From Central Soya Company for a research fellowship on soybeans.....	1946
3,500.00	\$1,750 a year for two years, from Physicians and Hospitals Supply Company and Ulmer Pharnacal Company for a research fellowship in chemotherapy.....	1946
3,195.00	From the Norwegian Lunch Club (Torske Klubben) for a fellowship to aid graduate students from Norway.....	1945
3,000.00	\$1,500 a year for two years, from the Standard Oil Company for a fellowship under the direction of Dr. Lorenz G. Straub.....	1945
2,800.00	From E. I. du Pont de Nemours and Company for a 1946-47 postgraduate fellowship in chemistry.....	1946
2,800.00	From E. I. du Pont de Nemours and Company for a 1946-47 postgraduate fellowship in chemical engineering.....	1946
2,500.00	From Quaker Oats Company for a research fellowship in methods of preventing the heating and spoilage of corn in storage.....	1946
2,400.00	To support a fellowship in pediatrics at the St. Paul Children's Hospital.....	1945
	\$1,200.00 Ramsey County Chapter of the National Foundation of Infantile Paralysis.....	
	1,200.00 St. Paul Children's Hospital.....	
2,196.00	For two fellowships of \$1,098 each plus tuition from St. Barnabas Hospital under the program of affiliating hospitals.....	1946
2,000.00	From the Veliscol Corporation for a research fellowship on the control of potato insects.....	1946
2,000.00	Annually from Midland Cooperative Wholesale for two graduate fellowships of \$1,000 each without exemption from tuition, in the fields of business administration and economics.....	1946
1,400.00	From the Standard Oil Company for a graduate fellowship in chemical engineering.....	1946
1,200.00	From Monsanto Chemical Company for a fellowship in organic chemistry under the direction of Dr. C. F. Koelsch.....	1946
1,200.00	From Parke, Davis and Company for a fellowship in organic pharmaceutical chemistry.....	1946
1,098.00	From the Charles T. Miller Hospital for a fellowship under the program of affiliating hospitals.....	1946
1,098.00	Plus tuition from Northwestern Hospital for a fellowship under the program of affiliating hospitals.....	1946
1,000.00	Plus fees and tuition not to exceed \$500, from Carbide and Carbon Chemicals Corporation for a fellowship in organic chemistry under the direction of Professor C. F. Koelsch.....	1946
800.00	From American Foundation for pharmaceutical education for a graduate fellowship in pharmacy.....	1946
750.00	From E. J. Longyear Company for a graduate fellowship in economic geology.....	1946

\$ 87,237.00

## THE PRESIDENT'S REPORT

## FELLOWSHIP FUNDS—ADDITIONS TO PREVIOUS GIFTS

	Year Established	
\$ 19,751.00	Minneapolis General Hospital Fellowships for 1945-46.....	1945
4,400.00	(Plus tuition) Allied Chemical and Dye Corporation Fellowship.....	1941
4,000.00	W. M. Welch Manufacturing Company Postdoctorate Fellowship in Chemistry.....	1942
2,700.00	Swift and Company Nutrition Fellowship.....	1945
1,700.00	Miller Hospital Fellowships.....	1941
	\$1,200.00 Miller Hospital	
	500.00 Dr. Frank E. Burch	
1,638.76	McConnon and Company Industrial Fellowships.....	1943
1,500.00	American Potash Institute Incorporated Fellowship.....	1940
1,500.00	Consolidated Vultee Aircraft Corporation Fellowship.....	1943
1,400.00	McConnon and Company Industrial Fellowship—Entomology and Economic Zoology.....	1945
1,400.00	Washburn Home Fellowship.....	1939
1,200.00	Firestone Fellowship.....	1934
750.00	Harriet Walker Hospital Association Fellowship.....	1939
740.00	Abbott Laboratories Fellowship in Chemistry.....	1945
500.00	Minnesota State Pharmaceutical Association Graduate Fellowship.....	1931
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\$ 43,179.76		

## PRIZES—NEW

	Year Established	
\$ 257.00	Chemistry Faculty Prize for a School of Chemistry bookshelf.....	1946
200.00	From C. H. Johnston, Architects and Engineers, to establish a prize in archi- tectural designs.....	1946
50.00	From Mr. A. E. Adams for promoting livestock interest among students at the West Central School and Station, Morris.....	1946
<hr/>		
\$ 507.00		

## PRIZES—ADDITIONS TO PREVIOUS GIFTS

\$ 3,180.00	4-H Club Fund.....	1931
	\$2,000.00 Federal Cartridge Company	
	580.00 Northern States Power Company	
	200.00 G. R. Watkins Company	
	150.00 Twin City Seed Company	
	150.00 General Mills Incorporated	
	100.00 Pioneer Hi-Bred Corn Company	
300.00	Frederick J. Wulling Trust Fund to endow the "Wulling Key".....	1932
175.00	John S. Pillsbury Prize (Debate).....	1888
100.00	Frank H. Peavey Prize.....	1901
75.00	Lambda Alpha Psi Prize.....	1922
75.00	Louise M. Powell Prize.....	1928
75.00	American Society of Mechanical Engineers.....	1931
54.00	American Society of Civil Engineers Northwestern Prize.....	1924
50.00	Gargoyle Club Prize in Architecture (books).....	1931
50.00	Charles Lathrop Pack Prize in Forestry.....	1924
25.00	Chi Omega Prize—Pi Beta Chapter.....	1927
15.00	Kappa Epsilon Award.....	1937
10.00	Louise C. Ball Essay Contest.....	1936
10.00	Alpha Chi Sigma Twin City Alumni Association Prize (books).....	1926
7.00	Pi Tau Sigma Prize (handbook).....	1913
5.00	Eta Kappa Nu Prize (handbook).....	1931
	Lehn and Fink Medal.....	1923
	Phi Delta Junior Scholarship Award (bracelet).....	1939
	Phi Lambda Upsilon Prize (Zeta Chapter) (membership).....	1941
	Philip W. Pillsbury Shelf of Home Economics Books.....	1945
	Rho Chi Award (membership and magazine subscription).....	1939
	University Business Women's Club Scholarship Key.....	1939
	Wulling Club Key.....	1932
	Alpha Kappa Gamma Prize (gold key) (Dentistry).....	1937
	Alpha Kappa Psi Junior Scholarship Medallion.....	1937
	Aeronautical Science Prize (University of Minnesota Student Branch of Insti- tute of Aeronautical Science) (two-year membership and books).....	1938
	Delta Sigma Pi Scholarship Key.....	1935
	Dean E. M. Freeman Medal for Student Leadership.....	1930
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\$ 4,206.00		

## RESEARCH FUNDS—NEW

	Year Established	
\$ 72,700.00	From the Rockefeller Foundation to establish a research on intergovernmental relations over a five-year period under the direction of Professor William Anderson (Political Science).....	1946
25,000.00	From Mrs. Charles M. Drew for the establishment of a research laboratory in the Variety Heart Hospital (Medicine).....	1946
22,000.00	To establish a fund to supplement the investigative work of the Department of Obstetrics and Gynecology (Medicine).....	1945
	\$21,133.73 Harriet Walker Hospital Association	
	866.27 Mrs. Gilbert M. Walker	

	Year Established
20,000.00 From the estate of C. C. Bausman to establish an endowment for research in Plant Pathology (Agriculture) .....	1946
16,450.00 From the American Cancer Society to establish a cancer research program under the direction of Dr. A. O. C. Nier (Medicine).....	1946
13,800.00 From the American Cancer Society to establish a research on isotopic tracer studies of biochemical problems basic to the physiology of normal and malignant cells (Medicine) .....	1946
11,000.00 From the Life Insurance Medical Research Fund to establish a research on hypertension under the direction of Dr. Maurice Visscher (Medicine).....	1946
10,800.00 From the John and Mary R. Markle Foundation to establish a research on porphyrin metabolism as related to nervous and endocrine function under the direction of Dr. C. J. Watson (Medicine).....	1945
10,000.00 From the American Cancer Society to establish a research on mammary cancer in mice under the direction of Dr. J. J. Bittner (Medicine).....	1946
10,000.00 From the Josiah Macy Jr. Foundation to establish a research on the role of thermo-osmosis in relation to physiology and medicine under the direction of Dr. M. B. Visscher (Medicine).....	1946
10,000.00 From the Verd-A-Ray Corporation to establish a research on visual functions and visual fatigue in man (Medicine).....	1945
8,000.00 From the Elsa U. Pardee Foundation for cancer research (\$4,000 each to Dr. R. G. Green and Dr. J. J. Bittner) (Medicine).....	1946
8,000.00 From the American Cancer Society to establish a research on genetics of human cancer under the direction of Dr. C. P. Oliver (Medicine).....	1946
7,500.00 From the American Dairy Association to establish a research on metabolic habits and fat metabolism under the direction of Dr. Ancel Keys (Medicine).....	1946
7,200.00 From the John and Mary R. Markle Foundation to establish a research on the occurrence of gastric ulcer under the direction of Dr. O. H. Wangensteen (Medicine).....	1946
7,200.00 From the Life Insurance Medical Research Fund to establish a research on spontaneous glomerulonephritis under the direction of Dr. Arthur Kirschbaum (Medicine).....	1946
6,500.00 From the American Cancer Society to establish a research in antigenic analysis of the rabbit virus papilloma cancer complex under the direction of Dr. R. G. Green (Medicine).....	1946
6,500.00 From the American Cancer Society to establish a research in fractionation and chemical characterization of the mammary tumor milk agent in mice under the direction of Dr. C. P. Barnum (Medicine).....	1946
6,000.00 From the William J. Stange Company for research on suitable nordihydroguaiaretic acid synergists (Pharmacy).....	1945
6,000.00 From Land O' Lakes Creameries Incorporated to establish a research on milk dryer design (Agriculture).....	1945
6,000.00 From the International Cancer Research Foundation to establish a fund for support of cancer studies under the direction of Dr. C. P. Barnum (Medicine).....	1945
5,300.00 To establish a research on cancer under the direction of Dr. J. J. Bittner (Medicine).....	1946
\$5,000.00 Minnesota Cancer Society	
250.00 Minnesota Cancer Society and Field Army	
50.00 W. N. Cardozo	
5,000.00 From the American Cancer Society to establish a research in genetic influences related to the genesis of mammary cancer in mice under the direction of Dr. J. J. Bittner (Medicine).....	1946
5,000.00 From the Economics Laboratory Incorporation to establish a research on the effect of detergents and germicides upon normal skin (Medicine).....	1945
4,700.00 From the National Cancer Institute to establish a research on cancer under the direction of Dr. O. H. Wangensteen (Medicine).....	1946
3,500.00 From the Paraffined Carton Research Council to establish a research on the packaging of butter (Agriculture).....	1945
3,000.00 From the Iron Range Resources and Rehabilitation Commission to establish a research on vegetable crops (Agriculture).....	1946
2,500.00 From the Research Corporation (Frederick Gardner Cottrell Research) to establish a research on gases and vapors under the direction of Dr. John T. Tate (Technology).....	1946
2,500.00 From the Research Corporation (Frederick Gardner Cottrell Research) to establish a research on isotopes under the direction of Dr. A. O. C. Nier (Technology).....	1946
2,000.00 From the National Dairy Council for research on milk products (Agriculture).....	1945
1,800.00 From the Smith, Kline and French Laboratories for support of research on "blood clotting in vivo" under the direction of Dr. W. P. Larson (Medicine).....	1945
1,500.00 From the Acme White Lead and Color Works to establish a research on the control of potato insects and diseases (Agriculture).....	1945
1,500.00 From the Federation of Paint and Varnish Production Clubs to establish a research on the chemistry of film formation, film properties, and film deterioration (Technology).....	1946
1,450.00 From the United States Public Health Service to establish a research on cancer under the direction of Dr. Arthur Kirschbaum (Medicine).....	1946
1,200.00 From the Nutrition Foundation Incorporated to establish a research on fats under the direction of Dr. Ralph T. Holman (Medicine).....	1946
1,000.00 From Donald P. Ordway and Mrs. Marion Sherman Ordway to establish a fund for surgical research under the direction of Dr. O. H. Wangensteen (Medicine).....	1946



	Year Established	
1,000.00	From the John and Mary R. Markle Foundation to establish a research on carbon dioxide fixation by intact mammalian muscles, under the direction of Dr. Victor Lorber and Dr. Nathan Lifson (Medicine).....	1945
1,000.00	From General Mills, Incorporated to establish a research on factors influencing the quality of home produced cakes (Agriculture).....	1945
500.00	From the American Medical Association to establish a research on brucellosis under the direction of Dr. Wesley W. Spink (Medicine).....	1946
500.00	From Dr. N. Logan Leven to establish a fund for surgical research under the direction of Dr. O. H. Wangenstein (Medicine).....	1946
500.00	From Merck and Company to establish a research on enterohepatitis in turkeys (Agriculture).....	1946
250.00	From the Winthrop Chemical Company to establish a research on various therapeutic agents for the treatment of epilepsy under the direction of Dr. A. B. Baker (Medicine).....	1946
100.00	An anonymous donation to establish a fund for psychiatric research under the direction of Dr. Robert G. Hinckley (Medicine).....	1945
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\$336,450.00		
<b>RESEARCH FUNDS—ADDITIONS TO PREVIOUS GIFTS</b>		
\$ 70,000.00	National Foundation for Infantile Paralysis Research on Physiological Problems of Infantile Paralysis (Medicine).....	1944
20,000.00	Joslyn Research Fund (Technology).....	1937
12,500.00	National Foundation for Infantile Paralysis Instructional Fund (Medicine).....	1943
8,100.00	Jane Coffin Childs Memorial Fund for Medical Research—Leukemia in Mice (Medicine).....	1941
7,500.00	Minnesota and Ontario Paper Company Research (Technology).....	1940
6,500.00	Minnesota Medical Foundation Endowment Fund (Medicine).....	1940
5,000.00	Jane Coffin Childs Memorial Fund for Medical Research (Medicine).....	1941
5,000.00	Jane Coffin Childs Memorial Fund for Medical Research—Gastric Carcinoma (Medicine).....	1945
4,326.00	Frank E. Burch Research Fund in Ophthalmology (Medicine).....	1943
	\$2,660.00 (160 acres of land in North Dakota from Dr. Frank E. Burch)	
	750.00 Mrs. Alfred Pillsbury	
	600.00 Dr. Frank E. Burch	
	300.00 Mrs. Edward P. Burch	
	16.00 Dr. R. L. Schmidtke	
3,800.00	John and Mary R. Markle Foundation for Nutritional Studies (Medicine).....	1943
3,800.00	National Foundation for Infantile Paralysis Sewage and Water Research (Medicine).....	1944
3,000.00	John and Mary R. Markle Foundation Research on Intraocular Virus Infection (Medicine).....	1943
3,000.00	General Education Board, Farm Work Simplification Fund (Agriculture).....	1943
2,700.00	Minnesota Medical Foundation—Research on Diuretic Effects of Organic Acids (Medicine).....	1945
2,500.00	Virus Disease and Cancer Research (formerly Fox Breeders' Distemper Research) (Medicine).....	1926
2,500.00	Parents' Institute Child Welfare Research (Child Welfare).....	1944
2,500.00	Flora Rosenblatt Fund for Cancer Research (Medicine).....	1944
2,000.00	American Dairy Association Research on Milk Products (Medicine).....	1941
2,000.00	Fairbanks, Morse and Company Research (Agriculture).....	1944
2,000.00	Augustus L. Searle Fund for Surgical Research (Medicine).....	1940
1,935.00	Horace Newhart Research Fund in Otolaryngology (Medicine).....	1945
	\$1,000.00 Dr. Lawrence R. Boies	
	500.00 Miss Grace Newhart	
	400.00 Mrs. Anne H. Newhart	
	25.00 Mr. and Mrs. Edgar Zelle and Mrs. Louis A. Nippert	
	10.00 Miss Margaret A. Adair	
1,800.00	Josiah Macy Jr. Foundation Research on Fracture Healing (Medicine).....	1943
1,600.00	Central Fibre Corporation Research to Improve Quality of Flax Straw (Agriculture).....	1937
1,500.00	American Potash Institute Incorporated Research on Crop Growth (Agriculture).....	1941
1,375.00	American Dry Milk Institute Research (Agriculture).....	1942
1,300.00	Owen H. Wangenstein Fund for Surgical Research (Medicine).....	1938
	\$500.00 Mrs. L. Heck	
	250.00 Alex G. Tankenoff Foundation	
	250.00 Mr. R. R. Rathbun	
	100.00 Dr. G. W. Clifford	
	100.00 Mr. Charles J. Upin	
	100.00 Dr. Owen H. Wangenstein	
1,000.00	American Philosophical Society—Astronomy Research (Astronomy).....	1940
1,000.00	Central Fibre Corporation Research (Agriculture).....	1937
1,000.00	Tennessee Corporation Plant Nutrition Research (Agriculture).....	1943
1,000.00	Experimental Medical Research Fund from the Dietene Company (Medicine).....	1942
1,000.00	Milk Distributors' Research Fund (Agriculture).....	1936
1,000.00	Berenice Moriarty Fund for Surgical Research (Medicine).....	1945
1,000.00	National Live Stock and Meat Board Research (Agriculture).....	1943
1,000.00	Rohm and Haas Company Incorporated Research on Potato Insects (Agriculture).....	1941

		Year Established
850.05	Lightning and Transient Research Fund (Technology).....	1943
600.00	American Society of Heating and Ventilating Engineers Research (Technology).....	1936
530.00	Minnesota and Ontario Paper Company Insulation Board Research (Technology).....	1944
500.00	Ciba Pharmaceutical Products Incorporated Research on Hormonal Factors in Undescended Testis (Medicine).....	1945
500.00	Robert A. Cooper Fund for Surgical Research (Medicine).....	1945
500.00	Middle West Soil Improvement Committee Research (Agriculture).....	1940
500.00	Dr. and Mrs. Henry B. Zimmerman Fund for Surgical Research (Medicine).....	1945
500.00	Convulsive Disorders in Children (Medicine).....	1941
385.00	Rheumatic Fever Research (Medicine).....	1945
	\$375.00 Harry Doust	
	10.00 American War Mothers, Chapter 2	
250.00	Archaeological Research Fund (Anthropology).....	1940
	\$100.00 Mr. G. Nelson Dayton	
	100.00 F. H. Peavy and Company	
	50.00 Mrs. George Chase Christian	
210.00	Minnesota Medical Foundation Research on Human Undernutrition (Medicine).....	1945
100.00	Sigma Xi Research Fund (Graduate School).....	1936
20.00	George H. Christian Memorial Cancer Institute (Medicine).....	1944
	\$10.00 Mrs. W. Lueck	
	10.00 A. B. Libby	
20.00	Floyd B. Olson Cancer Memorial Foundation Research (Medicine).....	1937
	\$10.00 Mr. F. K. Faust	
	10.00 Minneapolis Grandmothers Club	
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\$191,701.05		

MISCELLANEOUS GIFTS—NEW

\$250,000.00	\$50,000 annually for five years, from W. K. Kellogg Foundation to provide financial assistance in the development of a comprehensive program in post-graduate medical education.....	1945
150,000.00	From Mayo Properties Association, the income to be used for the support of the Mayo Professorship of Public Health.....	1946
20,000.00	From United States Public Health Service to provide funds for the completion of the second, third, and fourth volumes of "Global Epidemiology".....	1946
20,000.00	\$10,000 a year for two years, from Mr. Algot F. Johnson and other friends of the University to promote the public and athletic relations of the University.....	1946
500.00	Annually from the Duluth Clinic Foundation for a lectureship or professorship in the Medical School, to be used to bring to the campus a distinguished guest lecturer each year.....	1946
500.00	From Dr. E. T. Bell for the Department of Pathology budget.....	1946
378.00	For a fund to serve as a memorial to the late Professor Frederic K. Butters.....	1945
	\$100.00 Donald B. Lawrence	
	100.00 Dr. and Mrs. R. G. Allison	
	50.00 Edward King	
	50.00 C. A. Weatherby	
	25.00 Miss Olga Lakela	
	20.00 Margaret K. Groerer	
	15.00 Dr. J. W. Opie	
	10.00 R. M. Tryon, Jr.	
	6.00 Linnaean Club	
	2.00 Richard and Doris Arnold	
350.00	From the Julius Rosenwald Fund for one-half the salary of Dr. Sterling Brown, a Negro poet, author, and instructor, in the 1946 Summer Session.....	1946
100.00	From Hospital Auxillary of the Faculty Women's Club for the purchase of water pitchers for the use of patients in the Hospitals.....	1946
94.40	From the staff of Department of Bacteriology and Immunology for a fund for the support of the Henrici Memorial Library.....	1945
50.00	From Advanced Class of 1946 West Central School and Station for a public address system.....	1946
25.00	From Mr. Lyle F. Griggs to be used in any manner the University of Minnesota Hospitals may desire.....	1945
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\$441,997.40		

MISCELLANEOUS—ADDITIONS TO PREVIOUS GIFTS

\$724,592.23	From the United States Public Health Service	
	\$548,444.23 Nurse Cadets.....	1944
	82,735.50 Postgraduate Training in Public Health Nursing.....	1943
	64,492.50 Postgraduate Nursing Education.....	1943
	18,000.00 Public Health Training Center.....	1936
	10,920.00 Nurse Anesthetists.....	1942
4,218.05	Minnesota Museum of Natural History Special Collections Fund.....	1942
	\$1,718.05 P. D. McMillan	
	1,500.00 A Group of Friends	
	1,000.00 Lillian N. Berthel	
1,800.00	Minneapolis General Hospital Pediatrics Directorship (for 1945-46).....	1935

## THE PRESIDENT'S REPORT

1,200.00	Minnesota Jewish Council 4-H Club Fund.....	1942
1,050.00	Vance Memorial Fund.....	1945
1,035.00	Twin City Jewish-American Lectureship Fund.....	1933
	\$100.00 Charles Lee	
	100.00 Harry Glickman	
	50.00 Arthur Brin	
	50.00 Peter B. Juster	
	50.00 Joseph L. Linoff	
	50.00 Josiah E. Brill	
	50.00 J. G. Cohen	
	50.00 Leo B. Harris	
	50.00 Boulevard Frocks, Incorporated	
	50.00 Charles H. Bernstein	
	50.00 Amos S. Deinard	
	50.00 Samuel H. Maslon	
	50.00 Ben N. Berger	
	50.00 I. S. Joseph	
	50.00 Professor I. M. Kolthoff	
	50.00 Myer S. Cohen	
	50.00 Edmond R. Ruben	
	50.00 Israel Friedman	
	25.00 Irving M. Naiditch	
	10.00 Dean T. C. Hlegen	
1,000.00	Booth Memorial Hospital Fund.....	1940
595.00	William Harvey Emmons Fund.....	1944
	\$500.00 Dr. Theodore W. Bennett	
	50.00 R. C. Gebhardt	
	25.00 John Figueiredo	
	20.00 Jeffery D. Frautschy	
384.67	School of Agriculture Electric Organ Fund.....	1940
	\$137.03 Class of 1946	
	91.24 Class of 1945	
	65.00 Class of 1947	
	25.00 Norman L. Mattice	
	10.00 Mr. and Mrs. Robert Durkee	
	10.00 S. J. Ranelius and Mrs. Alva Ranelius Walker	
	10.00 Carl L. Hanson	
	5.00 Mrs. Katherine C. Arvig	
	5.00 Mrs. A. H. Gates	
	5.00 P. Oscar Storlie	
	5.00 Malvin Tande	
	5.00 Mr. and Mrs. Joseph A. Nowotny	
	5.00 Mr. and Mrs. Waldo Luedtke	
	2.00 Joseph Sendelbach	
	1.40 Mr. and Mrs. Lewis H. Babbitt	
	1.00 Betty J. Bursch	
	1.00 Charles Annexstad	
	1.00 James A. Henson	
325.00	Robert Meyer Clinical Associate Professorship Fund.....	1940
	\$165.00 Anonymous	
	100.00 Modern Medicine Publications	
	60.00 Dr. L. L. Friedman	
300.00	Frederick J. Wulling Trust Fund.....	1930
281.20	Endowment Fund of the School of Nursing.....	1936
262.95	Class of 1889 Memorial Fund.....	1919
200.00	Leo G. Rigler Lectureship in Radiology.....	1944
	\$100.00 Dr. Herman H. Jensen	
	100.00 Dr. G. M. Kelby	
200.00	Judd Lectureship in Medicine and Surgery.....	1933
31.77	John Miller Memorial Fund.....	1945
	\$29.35 Class of 1943	
	2.42 Class of 1939	
25.00	William Hodson Memorial Fund.....	1943
15.30	Fine Arts Fund.....	1939
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\$737,516.17		

## MISCELLANEOUS—GIFTS

Collection of stone implements of the Ainu, of Hokkaido, Japan, from Robert R. Berg for the Anthropology Department

Miscellaneous war surplus equipment and materials from General Mills, Incorporated, to the Department of Physics

One model AKW stereoscopic wide field microscope from the Telex Company of St. Paul for the Department of Zoology

Book binding equipment from Mrs. George Hardenburg, St. Paul, to the Department of Art Education

Material valued at approximately \$200 from the Western Electric Company to the Department of Electrical Engineering

Costumes and fans from Miss Dorothy Benner for the University Theatre

Chinese opium pipe from Neal Schwartau, Red Wing, Minnesota, for the College of Pharmacy

One Super Six Hydra-Lift complete with attachments from the Super Six Sales Company of

- Minneapolis for the Division of Agricultural Engineering  
 Cap, gown, and hood from Mrs. Elbert L. Carpenter  
 Welding machine from the Lincoln Electric Company for the Department of Mechanical Engineering  
 Recording of "On a Note of Triumph" from Columbia Broadcasting Company, Incorporated  
 For the Herbarium of the Department of Botany:  
 100 biological specimens from various parts of the world and several hundred copies of pamphlets written by Robert S. Williams, from Miss J. Ruth Williams  
 136 specimens collected in Massachusetts and 125 specimens collected in Cook County, Minnesota, from John DeQ. Briggs and Marjorie W. Briggs, St. Paul  
 For the Department of Aeronautical Engineering:  
 Gift of a Cyclone 14 Engine from the Wright Aeronautical Corporation  
 Engine parts from a large Diesel engine from the Nordberg Manufacturing Company of Milwaukee, Wisconsin  
 For the University Gallery:  
 Textile "Finnish Hop" from Mrs. Virginia Demetrios  
 Painting by Frank Russell Green, and the loan of a painting attributed to Titian, from Dean Emeritus Frederick J. Wulling  
 Copy of Rembrandt's "Syndics of the Drapers" by B. Pothast from Mrs. Archie Walker, Minneapolis

## MISCELLANEOUS—BOOKS

- For the University Library:  
 827 volumes of literature, travel and the arts, and fiction from the estate of Miss Justine Long, St. Paul, Minnesota  
 326 volumes of literature, philosophy, and reference material from George G. Whitney, Minneapolis, Minnesota  
 252 volumes of English, French and German history, literature, and art from Mrs. Richard M. Elliott  
 187 volumes of Americana from Mrs. C. C. Weber  
 91 volumes in the fields of astronomy and thermodynamics from Dean Emeritus O. M. Leland  
 75 volumes of books and periodicals, 392 issues of contemporary periodicals, also fiction and textbooks from Miss Eleanor Leerskov  
 50 books, 27 periodicals, 3 pamphlets, 666 picture cards published in Germany during 1940-43; 10 volumes of American fiction, 110 United States Army publications, 59 religious tracts, and 87 miscellaneous periodicals from Pfc. Stanley Wenberg, Minneapolis, Minnesota  
 37 volumes of philosophy and Scandinavian literature from Mrs. David F. Swenson  
 11 filing cabinets of research materials in social and economic problems, and 385 legislative texts and reports from Mr. Ray P. Chase, Minneapolis, Minnesota  
 Collection of books from the library of the late Professor F. K. Butters and Professor Lee I. Smith  
 2 books from James F. Lincoln Arc Welding Foundation, Cleveland, Ohio, to the Main Engineering Library  
 2 volumes of records and autobiographies from the Class of 1894  
 Dr. Horace Newhart's Medical Library from Mrs. Anne H. Newhart, for the Division of Otolaryngology  
 Bound copies of *Journal of Bacteriology* from 1916 to 1938, from Mrs. C. P. Fitch to the Library of Veterinary Division, University Farm  
 For the Law Library:  
 379 volumes of court reports and 18 volumes of the *Minnesota Law Review* from Messrs. Briggs, Gilbert, Morton and Macartney, St. Paul  
 293 volumes of laws, statutes, texts, digests, insurance commissioner reports and proceedings of insurance associations from St. Paul Fire and Marine Insurance Company, St. Paul  
 205 numbers of the *Minnesota Law Review* from Faegre and Benson, Minneapolis  
 155 volumes of the *Northwestern Reporter* from Grant W. Anderson, Minneapolis  
 56 volumes of statutes, session laws, and ordinances from Henry W. Norton, Minneapolis  
 43 numbers of the *Minnesota Law Review* and 34 volumes of texts, decisions, statutes, and proceedings from Bowen and Bowen, Minneapolis  
 41 volumes of Minnesota Reports and 2 volumes of Minnesota Session Laws from Julius C. Coller, II  
 1 set of reorganization proceedings of the Chicago Great Western Railroad Company from Messrs. Winston, Strawn and Shaw, Chicago, Illinois  
 1 set of legal proceedings from P. L. Solether, Minneapolis  
 Material concerned with the Japanese government of the Philippines during the Japanese occupation, from Lieutenant Colonel Carl E. Erickson  
 Portfolio of posters illustrative of English law and justice, from Miss Frances Montgomerie, St. Paul  
 Preliminary drafts of the Revised Uniform Negotiable Instruments Act, together with comments thereon, from William L. Prosser, Minneapolis  
 Senate Document 92 of the 70th Congress, consisting of some 80 volumes, from Messrs. Stinchfield, Mackall, Crouse and Moore, Minneapolis  
 Briefs and records of the Supreme Court of the State of Minnesota from the Honorable Harry H. Peterson  
 Briefs and records of the Eighth Circuit Court of Appeals from the West Publishing Company  
 Books and legal periodicals from the following:  
 Dorsey, Colman, Barker, Scott and Barber, Minneapolis  
 Mr. S. J. Buckley, West Publishing Company  
 Thompson, Hessian and Fletcher, Minneapolis  
 Mr. Harlan B. Strong, Minneapolis  
 Chicago and Northwestern Railway Company, Law Department, Chicago, Illinois  
 Mr. James L. Ketland, Vice President and General Counsel, Minneapolis, St. Paul and Sault Ste Marie R. R. Company, Minneapolis

## ASSIGNMENT OF APPLICATIONS FOR PATENTS

Serial No. 592,265, Stabilized Nordihydroguaiaretic Acid Solution, Professor Ole Gisvold  
 Serial No. 624,604, Plant Extracts and Methods of Producing Same, Professor Ole Gisvold  
 Serial No. 639,433, Plant Extracts and Process of Producing Same, Professor Ole Gisvold  
 Canadian Serial No. 524,065, corresponding to United States No. 529,426, Process of Preparing  
 Fibers and Yards, Professor Ralph E. Montonna, et al.  
 Serial No. 615,322, Method and Apparatus for Determining Leaks, Professor Alfred O. C. Nier  
 Serial No. 624,249, Penicillium Mold, Mr. Clyde M. Christensen  
 Serial No. 647,431, Antioxidant, Dr. Walter O. Lundberg

## PATENTS RECEIVED

No. 2,372,132, Chromans and Intermediates and Processes of Producing Same, Application Serial  
 No. 435,398, Professor Lee Irvin Smith and Mr. Henry C. Miller  
 No. 2,363,092, Methods of Making 6, 10, 14-Trimethyl-pentadecanone-2, Application Serial No.  
 453,280, Professor Lee Irvin Smith and Mr. Joseph A. Sprung  
 No. 2,376,286, Processes of Making Long Chain Intermediates, Application Serial No. 526,127,  
 Professor Lee Irvin Smith and Mr. George F. Rouault  
 No. 2,388,579, Processes of Making Heterocyclic Compounds, Application Serial No. 524,442,  
 Professor Lee Irvin Smith and Mr. John A. King  
 No. 2,397,212, Process of Producing Tocopherol-like Compounds, Application Serial No. 471,611,  
 Professor Lee Irvin Smith  
 No. 2,382,475, Methods for Producing Plant Extracts, Application Serial No. 490,149, Professor  
 Ole Gisvold  
 Canadian No. 430,198, corresponding to United States Patent Application Serial No. 479,132,  
 Improvement in Antioxidants, Professor Walter M. Lauer  
 Mexican No. 44,497, corresponding to United States Application Serial No. 479,132, Improve-  
 ments in or Relating to Processes of Producing Plant Extracts and the Products Resulting Therefrom,  
 Professor Walter M. Lauer  
 Canadian No. 426,582, Canadian Application No. 488,002, corresponding to United States Serial  
 No. 231,386, Improvements in Methods and Apparatus for Gasifying Lignite, Professor Lloyd H. Reyer-  
 son and Mr. Donald C. Gernes

## A BRIEF SUMMARY OF FINANCIAL OPERATIONS

The data which follow constitute a brief summary of the financial report for the year  
 ended June 30, 1946. The complete annual financial report is published separately and is  
 available on request.

## SOURCES OF INCOME, JULY 1, 1944 to JUNE 30, 1945

## FROM THE STATE

<i>The Legislative Maintenance Appropriation</i> .....	\$ 3,890,000.00
For the general support of instructional, research, and administrative departments, and maintenance of buildings and grounds, including the Department of Agriculture and the Agricultural Schools and Experiment Stations.	
<i>The 23/100 Mill Tax</i> .....	254,268.71
The standing direct property tax for the general support of the University.	
<i>The State's share of the cost of indigent patients at the University of Minnesota Hos- pitals</i> .....	245,000.00
<i>The Special Projects administered and carried on by the University for the general benefit of the people of the State</i> .....	428,132.12
These special projects include Agricultural Extension, County Agents, Beneficiation of Manganiferous Ores, Beneficiation of Low-Grade Ores, Soils Survey, Dairy Manufacturing, Medical Research, Livestock Sanitary Board, Crop Breeding and Testing, Child Welfare, Psychopathic Hospital Maintenance, Mastitis Control, Potato Research, General Research, and Minnesota Institute of Research.	

## FROM THE FEDERAL GOVERNMENT

<i>Instruction, Research, and Extension</i> .....	752,632.29
This income is divided: for instruction, \$138,926.39; for agricultural research, \$147,422.23; for agricultural extension, \$466,283.67.	
<i>Armed Forces—Instruction and Research</i> .....	1,308,490.04

## FROM THE PERMANENT UNIVERSITY FUND

.....	463,220.81
The principal of the fund, amounting to \$18,045,898.69 on June 30, 1945, was de- rived from land set aside by the Federal Government and 10 per cent of the occu- pational tax on iron ore. The income is used for general university support.	

## FROM THE SWAMP LAND FUND

.....	74,147.13
The principal of the fund was derived from land set aside by the State of Minnesota. The University participates in the income.	

FROM FEES AND RECEIPTS .....	3,215,360.19
This income is divided: student tuition fees \$1,250,956.27; counties' share of indigent hospital patients, \$257,152.71; other hospital receipts, \$518,578.67; dental infirmary receipts, \$95,815.49; other departmental receipts such as laboratory fees, sales of livestock and agricultural products, \$1,091,657.05; miscellaneous receipts for plant extension, \$1,200.00.	
FROM SELF-SUPPORTING SERVICE ENTERPRISES AND REVOLVING FUNDS .....	3,910,625.12
The University operates dormitories and dining halls, cafeterias, a printing department, a laundry, garages, bookstores, cold storage plant, Army and Navy housing and feeding, and other enterprises and revolving funds, for the purpose of rendering service to the student body and of reducing the cost of general university operations.	
FROM TRUST FUNDS .....	2,918,881.79
The trust funds include gifts and donations for scholarships, prizes, and income from endowments for teaching, research, and the care of the sick. Of this amount, \$371,825.79 was used for plant extension.	
FROM INTERCOLLEGIATE ATHLETICS .....	264,015.69
TOTAL RECEIPTS .....	\$17,724,773.89
<i>Free Unencumbered Balance, July 1, 1944</i> .....	11,032.34
	<u>\$17,735,806.23</u>

EXPENDITURES, JULY 1, 1944 to JUNE 30, 1945

FOR ADMINISTRATION OF THE UNIVERSITY .....	\$ 348,230.95
The expenses of the offices of the President, the Vice Presidents, the Comptroller, the Dean of Students, the Dean of Women, the Director of Admissions and Records, and other general administrative offices.	
FOR THE GENERAL UNIVERSITY .....	710,331.55
The expenses of the library, general bulletins and publications, lectures and convocations, the storehouses, truck service, and intercampus trolley, the employment bureau, and other services of an all-university character.	
FOR INSTRUCTION AND RESEARCH .....	7,653,366.39
The expenses of college instruction and re-search, Agricultural Schools and Experiment Stations, the University of Minnesota Hospitals, Summer Session, Agricultural and General Extension (General Fund, \$5,461,417.22; Federal Funds, \$739,218.24 exclusive of \$10,839.71 Federal Funds included in General University total; Special State Appropriations, \$425,382.34; Armed Forces War Training Programs \$1,027,348.59).	
FOR PHYSICAL PLANT OPERATIONS .....	928,868.70
The expenses of maintaining and operating the buildings and other improvements on the land of the Main Campus and the Farm Campus (General Fund, \$927,845.97; Special State Appropriation, \$1,022.73).	
FOR PHYSICAL PLANT EXTENSION .....	675,558.49
Purchase of land and real estate, \$235,492.35; Mayo Memorial Fund, \$30,526.39; Cadet Nurses School and Residence, \$313,019.31; additions to Hospital, \$20,743.07; Seed Corn Processing Building, \$40,546.10; Grand Rapids tunnel, \$10,806.13; additions to dormitories, \$13,559.21; and miscellaneous, \$10,865.93.	
FOR SELF-SUPPORTING SERVICE ENTERPRISES AND REVOLVING FUNDS .....	3,390,438.34
The operating and capital expenditures for dormitories and dining halls, cafeterias, printing department, Army and Navy housing and feeding, and other self-supporting enterprises and revolving funds.	
FOR TRUST FUND PURPOSES .....	2,208,632.54
Scholarships, fellowships, prizes, and trust fund expenditures for teaching and research, care of the sick and other trust purposes.	
FOR INTERCOLLEGIATE ATHLETICS .....	201,185.94
The operating expenses of intercollegiate athletics and that part of the physical education expense paid from receipts of intercollegiate athletics.	
TRANSFERS AND ADJUSTMENTS .....	610,558.61
Redemption of Union building certificates \$40,000.00; Flour and Corn Exchange buildings depreciation \$45,000.00; trust fund endowment increase \$39,184.80; athletic contingent reserve \$1,500.00; outstanding obligations and allotments increase \$1,443,652.90; war training reserve \$688,178.92; and other reserves \$270,600.17.	
<i>Total Expenditures, Transfers, and Adjustments</i> .....	\$16,727,171.51
<i>Reserved for 1945-46 operations in accordance with 1945 Legislative Appropriation</i> .....	1,000,000.00
<i>Free Unencumbered Balance, June 30, 1945</i> .....	8,634.72
	<u>\$17,735,806.23</u>

## A FEW INTERESTING FACTS ABOUT THE UNIVERSITY

## STUDENTS

	1941-42	1942-43	1943-44	1944-45
Collegiate .....	19,378	17,230	12,633	13,273
Non-Collegiate .....	16,930	17,295	23,806	17,871
Extension .....	11,345	10,232	11,503	18,584

## STAFF—ALL FUNDS—1944-45

Academic Staff* .....	2,035
Civil Service Staff* .....	2,144

## COLLEGES

Departments	Departments
Science, Literature, and the Arts .....	25
Institute of Technology .....	13
Department of Agriculture .....	30
Medical School .....	17
School of Dentistry .....	1
Law School .....	1
College of Pharmacy .....	1
College of Education .....	9
Graduate School .....	11
Business Administration .....	1
Library Instruction .....	1
University College .....	1
General College .....	1

## LAND—June 30, 1945

	Acres	Value
Main Campus—Minneapolis .....	140.73	\$4,271,230.77
Farm Campus—St. Paul .....	688.89	654,055.89
Crookston .....	915.89	142,650.97
Grand Rapids .....	454.60	34,095.00
Excelsior .....	229.89	41,271.22
Morris .....	823.82	61,137.53
Waseca .....	597.30	70,752.50
Duluth .....	272.74	41,344.00
Cloquet .....	3,502.09	62,444.78
Total .....	7,625.95	\$5,378,982.66

## BUILDINGS—June 30, 1945

	Major		Minor†	
	Number	Value	Number	Value
Main Campus .....	62	\$20,513,718.53	42	\$ 257,369.49
Farm Campus .....	30	3,199,187.07	137	292,581.48
Branch Stations				
Crookston .....	9	528,711.10	45	164,724.98
Morris .....	10	643,668.23	22	145,608.22
Duluth .....	1	29,520.00	21	52,724.56
Grand Rapids .....	2	156,617.49	65	86,258.19
Itasca .....			24	30,335.56
Waseca .....			48	57,002.60
Excelsior .....			29	73,531.97
Cloquet .....			34	46,363.83
Totals .....	114	\$25,071,422.42	467	\$1,206,500.88

## EQUIPMENT—June 30, 1945

	Total	Livestock	Books and	
			Museum Collections	Other
Main Campus .....	\$ 8,249,724.52		\$4,601,061.40	\$3,648,663.12
Department of Agriculture .....	1,566,141.42	\$120,296.54‡	361,693.86	1,084,151.02
Trust Funds .....	1,517,933.52		782.29	1,517,151.23
Service Enterprises .....	281,872.12			281,872.12
	\$11,615,671.58	\$120,296.54	\$4,963,537.55	\$6,531,837.49

## ENDOWMENT—June 30, 1945

	Value
For General Purposes .....	\$18,045,898.69
Unassigned Funds Operating Temporarily as an Endowment .....	171,523.50
For Student Aid—Scholarships, Prizes, and Loans .....	757,914.67
Educational Purposes .....	5,546,562.45
Other Purposes .....	2,098,444.36
Endowment—Subject to Annuity .....	534,832.86
	\$27,155,176.53
Student Loan Funds—Cash Available .....	270,183.45
Notes Receivable .....	216,536.40
Total .....	\$27,641,896.38

\* Reduced to a full-time basis.

† Valuation \$25,000 and under.

‡ As of June 30, 1944.

W. T. MIDDLEBROOK, *vice president.*

## CIVIL SERVICE PERSONNEL

*Labor Relations*—Before the close of the last biennium, Governor Thye appointed Mr. Gallagher of Waseca, Minnesota, as impartial investigator to conduct hearings and make recommendations with respect to certain matters on appeal to the Board of Regents. These hearings were conducted during the period July 5, 1944, ending July 13, 1944. The matters under investigation included seven individual grievances, changes in rules and regulations, and changes in wage scales for various classes under the service group (9000 Group under old classification plan) and were appealed by Public Buildings Service Employees Union, Local 113. Also before the investigator was an individual grievance and a request for changes in wage rates for operating engineers and firemen appealed by the International Union of Operating Engineers, No. 34. Between the time of the appointment of the investigator and the actual hearings, certain matters relating to a "Wildcat" strike conducted by employees of Local 113 on the Farm Campus also appeared on the agenda. Under date of September 1, Mr. Gallagher reported his recommendations on all the above matters excepting the changes in Civil Service rules and the changes in wage schedules as requested by Public Buildings Service Employees Union. With respect to the latter, Mr. Gallagher recommended that the University employ Public Administration Service to study wages and changes in Civil Service rules, inasmuch as the same organization was conducting a wage survey for the State of Minnesota.

Local 113 protested that the impartial investigator should make findings with respect to changes in Civil Service Rules and wage schedules, and accordingly, Mr. Gallagher submitted recommendations with respect to these matters under date of October 30, 1944. The Board of Regents took favorable action with respect to all recommendations of Mr. Gallagher excepting certain of those relating to rule changes and his recommendation of a \$15 a month flat increase for all employees in those classes concerned in the request of the Union. The proposed changes in Civil Service rules, with some modification, were subject to public hearings and later approved by the Board of Regents. The Union would not accept these changes until all parts of Mr. Gallagher's report were accepted and, consequently, they have never been put into effect.

In view of Mr. Gallagher's earlier recommendation that Public Administration Service be engaged to conduct a wage survey and the fact that this study had already started with early indications that a flat increase would not solve the problem, the Regents were unwilling to accept Mr. Gallagher's recommendation of a flat \$15 increase. Public Administration Service, in their report of the wage survey to the Regents on December 4, 1945, indicated the need for a complete study of the classification system prior to effecting any changes in rate schedules. The Regents authorized this further study and announced that any changes in wage rates and classifications as ultimately determined by Public Administration Service would be put into effect as of January 1, 1945, even though they would not be ultimately determined until July 1, 1945. These retroactive pay increases for the period January 1, 1945, to July 1, 1945, amounting to an average of 18 per cent were granted to all University Civil Service employees the latter part of August of the same year.

As a result of the Regents' action regarding the recommended \$15 increase, the Executive Committee of the Public Buildings Service Employees Union, Local 113, was authorized by its members to declare a strike against the University between the dates December 26, 1944, to January 2, 1945. Upon the invitation of Governor Thye, the Board of Regents met with union representatives in the Governor's Office on December 29, 1944, to discuss the three main issues involved, namely: (1) wages; (2) hours; and (3) union recognition.

During the course of the conference, it was agreed that no strike would be called subject to the following general conditions:

1. That the same group would meet within thirty days to review wage schedules and hours established as a result of the classification survey.
2. That the Regents adopt a recognition clause expressing the policy that they would be willing to recognize Public Buildings Service Employees Union, Local 113, as the authorized representative of University employees who are members of the union and of any other employees who designate this Union as their representative.

Subsequent meetings with the union representatives were held on the campus as the classification study progressed, granting them an opportunity to present data and informing them of current proposals with respect to wages and hours. Also, a letter was sent to Local 113 granting the recognition they requested. As a consequence, the strike threat ultimately disappeared.

The resolution of January 18, 1944, of the Board of Regents involving a nine-month trial period for handling appeals in the grievance machinery involving an impartial in-



vestigator was not renewed following the lapse of the time indicated. At present, therefore, the grievance machinery as indicated in Civil Service Rules now holds. Since July 1, 1944, some twenty-eight grievances have been received by the director, all for Public Buildings Service Employees Union, Local 113. The Union appealed eleven cases to the Board of Regents which were heard initially by the Labor Committee and, of these, ten were denied by the Board of Regents and one was withdrawn by the Union.

As a result of a resolution from the University Employees Advisory Union Council requesting the A. F. of L. State Federation to negotiate with the University a labor relations plan similar to that in effect at the University of Illinois, a special committee of the Board of Regents and university administrative officials met with Mr. Olson, president of the State Federation, and Union representatives, to discuss the Illinois Plan. Following this meeting, the University received under date of March 26 a signed collective bargaining agreement involving a new Union organization called the University Employees Trade Union Council. The special committee appointed by the Board of Regents again met with Mr. Olson and representatives of the Trade Union Council. At this meeting the chairmen of the committee indicated their willingness to go along with most of the features of the Illinois Plan, and it was mutually agreed that a committee from the University would meet with a committee from the Union to negotiate an agreement which was not to be in the form of a signed collective bargaining agreement but rather to be worked out in Civil Service Rules. Up to the close of this biennium, three meetings have been held but as yet no tangible results have been attained. These conferences will continue in the next biennium.

*New Civil Service Classification and Pay Plan*—The most significant accomplishment during this biennium was the formulation of a new Civil Service Classification and Pay Plan. This plan was authored by Public Administration Service who were first commissioned by the Board of Regents to do the pay survey. However, in their preliminary report to the Regents on December 8, 1944, they recommended that a more extensive study be made of the university position classification plan as the only sound basis for a revision of the pay plan. This further study was authorized by the Regents, and the final classification and pay plan was formally approved by the Regents on September 22, 1945, after the holding of public hearings and the consideration of all appeals by the Civil Service Committee.

Members of the Civil Service Department staff worked very closely with Public Administration Service. Meetings were held with administrative officers and the Civil Service Committee to advise them of the progress of the survey and to seek their advice on policy matters. The most important provisions of the new plan are as follows:

1. The establishment of approximately 375 classes initially (which have now expanded to 452) with detailed class specifications for each class.
2. The establishment of a pay plan which provides a five-step pay range for each class with cost-of-living adjustment geared to the composite cost-of-living adjustment indices of the Bureau of Labor Statistics for the cities of the state.
3. The reduction to a forty-four hour week of all classes working a forty-eight hour week schedule.
4. Standardization of vacation leave for all classes at one and one-fourth days per month permitting an additional one-half day per month leave in lieu of overtime for certain supervisory and professional classes as designated by the Civil Service Committee.

*Classification*—Upon the adoption of a new Civil Service Classification Plan, new procedures were adopted to expedite the operation of the plan and to maintain and develop a position classification service to provide effective and prompt service to the administration and departments in matters relating to the establishment of new positions, the allocation of positions, the reclassification of positions, and the establishment of new classes essential to the needs of the University.

In the postwar period, almost coincidental with the adoption of the classification plan, the University became immediately confronted with the necessity of establishing a number of new departments and numerous positions involving specialized activity and technical services requiring the establishment of new classes. The process of setting up these new classes involves, in some instances, the study of proposed or existing organizations, administration, and function of departments in order to provide appropriate classes and allocations in accordance with the position requirements of the department.

In allocation of positions in a period of rapidly rising living costs and serious recruitment shortages the classification office is confronted with an increasing number of requests which, significantly, are more closely related to pay rates than to classification. This problem is further extended by the urgency of retaining or securing employees in view of competitive salaries and other conditions.

Work processed through this office, during the period January 1, 1944, through September 30, 1946, is indicated below. It must be pointed out that these figures do not include

a substantial number of allocations made principally in cases of first-level positions by the Employment Bureau in its referral service.

	Number
New classes established .....	62
Reclassifications .....	137
New positions established .....	185
"On-the-job" audits .....	141
"On-the-job" interviews .....	237
Office interviews .....	218
Reaudits .....	66

*Summary*—A strong foundation for an overall university personnel program has now been firmly established by virtue of a sound classification and pay plan. Much time and energy have been devoted in attempting to maintain this plan in face of rapidly changing conditions. This, we believe, has been accomplished, but only at the expense of not being able to expand the whole personnel program. In our plans for the next biennium, this department must overhaul the present employee merit rating system and develop an adequate training program. While the first of these is largely procedural in its major aspects, there still remains the necessity of training supervisors and department heads in sound rating procedures. The second, developing a training program, is a project that will require considerable preparation and planning, not only on the part of this office but also on the part of department heads and administrative officers. Integrating our present Regent Scholarship plan and the Graduate School Privileges for Civil Service employees into a well-developed training program will accomplish untold savings for the University in the form of increased employee efficiency and higher employee morale.—HEDWIN C. ANDERSON, *director*.

#### EMPLOYMENT BUREAU

Among the university departments the Employment Bureau, during the past biennium, has perhaps experienced the greatest of the wartime and postwar effects. The wartime stresses and strains in employment remained in evidence during the first half of the biennium. An anticipated unlimited postwar labor market, to relieve the University's needs, proved to be very short lived. The major problem, therefore, was one of how to continue obtaining personnel to maintain University operations in the face of the limited labor market coupled with rapid employee turnover.

The 1945 Classification and Pay Plans extended limited relief to the employee turnover and recruitment problems. With a tightening of the labor market the Bureau, together with the classification office, soon experienced numerous requests for position reclassifications to relieve the turnover factor and retain present incumbents. This was the primary result among the evidence which indicated the rapidly developing employment crisis during the closing months of the biennium. Other contributing factors to that rapidly approaching crisis were the enlargement and reorganization of departments and reassignments of duties in positions due to increased enrollments.

*Recruiting for University Positions*—Recruitment, broad in scope, with cognizance of errors and limitations having occurred, was, however, remarkably well conducted. While the number of vacancies maintained a constant high average due to employee turnover, the volume of applicants interviewed and tested during the first biennium period was typical of the wartime limitations. Except for a brief postwar period immediately following VE and VJ days, which brought both applicant quantity and quality, the Bureau's biennium had a continued problem of applicant quality rather than quantity. However, the quantity also continued to decrease during the latter half of the biennium. With limited numbers eligible, candidates with below standard qualifications were given the opportunity to prove themselves in positions.

The recruitment program involved recourse to radio and newspaper advertising, both locally and out-state, contacts with commercial employment agencies, United States Employment Service, commercial and trade schools, high schools, clubs, and leagues.

Constant contact was maintained with the local U. S. Employment Service, first for the purpose of making every effort to conform closely to requests and regulations of the Manpower Commission during the wartime portion of the biennium and secondly, to recruit valued employees through this source as well as to secure well-trained returning servicemen and women.

Coordinated activities continued by the Employment Bureau with the Twin Cities' high schools resulted in a proportionate quantity and of reasonably high caliber, though young and inexperienced, applicants. This group proved successful particularly in the clerical, technician, and laboratory attendant positions.

Servicemen's wives served as another excellent, though limited, source of applicants. The policy of granting employment to close relatives of university employees was continued as a source of recruitment. Appointments for well-qualified individuals and for critical situations were made on a temporary and miscellaneous payroll basis.

*Certifications*—Certifications and personnel actions (regular payroll—Table I and miscellaneous payroll—Table II) totaled 22,591 for 1944-46 as compared to 17,108 during the previous biennium. This involved investigation and clearance of qualifications, employment records, pensions, and examinations for new appointments, reinstatement, promotion, transfer, demotion, or change in status for the respective employee.

Excluded from the above totals are the teaching and research assistants, administrative and research fellows and agricultural extension employees. This group equalled 2,021 certifications for the biennium (Table III). The above totals point clearly to the significant increases in the employment activities during the biennium and these facts are also equally well-correlated in all other statistics.

Significant facts are that within the regular payroll (Table I) there were 782 appointments during the second year as compared to 435 for the first. Likewise, resignations show a decided increase during 1945-46 over the previous year. Under the miscellaneous payroll (Table II) we note a total of 8,034 appointments for 1945-46, a decided increase over 5,309 for 1944-45. These facts and totals are significant and indicative of the employee turnover, new positions to be filled, etc., resulting in the voluminous employment program among the non-academic staff.

TABLE I. CIVIL SERVICE CERTIFICATIONS AND PERSONNEL ACTIONS  
Regular Payroll, 1944-46

	1944-45			1945-46		
	Men	Women	Total	Men	Women	Total
Appointments .....	63	372	435	188	603	791
Promotions .....	27	103	130	29	87	116
Transfers .....	4	38	42	.....	17	17
Demotions .....	.....	2	2	1	3	4
Retirements .....	1	1	2	9	4	13
Resignations .....	42	249	291	138	361	499
Resignations from military leave .....	1	2	3	1	1	2
Military leaves of absence .....	8	6	14	26	6	32
Non-military leaves of absence .....	22	137	159	24	160	184
<b>Total</b> .....	<b>168</b>	<b>910</b>	<b>1,078</b>	<b>416</b>	<b>1,242</b>	<b>1,658</b>
<b>Total for the biennium</b> .....				<b>2,736</b>		
<b>Total for the previous biennium</b> .....				<b>2,669</b>		
<b>Increase</b> .....				<b>67</b>		

TABLE II. CIVIL SERVICE CERTIFICATIONS AND PERSONNEL ACTIONS  
Miscellaneous Payroll, 1944-46

	1944-45				1945-46			
	Student	High School Student	Non-student	Total	Student	High School Student	Non-student	Total
Appointments .....	2,312	785	2,212	5,309	4,281	210	3,543	8,034
Change of status .....	3,440	37	728	4,205	769	64	1,474	2,307
<b>Total</b> .....	<b>5,752</b>	<b>822</b>	<b>2,940</b>	<b>9,514</b>	<b>5,050</b>	<b>274</b>	<b>5,017</b>	<b>10,341</b>
<b>Total for the biennium</b> .....					<b>19,855</b>			
<b>Total for the previous biennium</b> .....					<b>14,439</b>			
<b>Increase</b> .....					<b>5,416</b>			

TABLE III. PERSONNEL ACTIONS—REGULAR PAYROLL, 1944-46  
For Teaching and Research Assistants, Administrative and Research Fellows,  
Agricultural Extension Workers

	1944-45	1945-46
Appointments .....	487	773
Change of status .....	36	51
Resignation from military leave .....	2	15
Terminations .....	120	229
Military leave of absence .....	93	158
Non-military leave of absence .....	42	15
Total .....	780	1,241
Total for the biennium .....	2,021	
Total for the previous biennium .....	854	
Increase .....	1,267	

Table III, which includes statistics on Agricultural Extension employees and limited academic appointees, shows similar increases in appointments and terminations as in other areas noted above. Also, the total personnel actions for this group results in similar increases.

It is interesting to note the number of promotions and transfers which have occurred in the past two biennium periods. During the 1944-46 period, which was comparable to 1942-44, we find a total of 246 promotions and 59 transfers having been made to better serve the interests of the University. This was offered rapid advancement to numbers of employees into more responsible positions. However, during the latter months it was necessary to recruit new employees from outside the university service for promotional positions due to the limited number of qualified applicants for promotion and due to the number of well-qualified incumbents who preferred to remain in positions which they enjoyed and felt a responsibility.

Resignations increased tremendously during the last half of the biennium. Such increase during this post-war period was accounted for by reasons such as marriage, returning to homes in other localities, seeking other employment following the war, returning to maintain own homes, etc. Resignations following military leaves of absence were for purposes of accepting other employment in which they had acquired experience and training or sought more lucrative returns.

*Student Employment and Placement*—University student employment, maintained as a program of financial support to students, has during the biennium provided assistance to the extent of estimated earnings of \$518,785 with employment in 4,646 positions. (Tables IV and V.)

TABLE IV. PLACEMENTS OF STUDENTS IN JOBS, 1944-46

Employer	1944-45	1945-46	Biennial Total
University .....	1,689	1,971	3,660
Non-University .....	325	661	986
Total 1944-46 .....	2,014	2,632	4,646
Previous Biennium (1942-44) Placements			
University .....			2,758
Non-University .....			1,081
Total .....			3,839

TABLE V. STUDENT EMPLOYMENT--PLACEMENTS AND EARNINGS, 1944-46

	Vacancies				Placements				Earnings		
	Men		Women		Men		Women		1944-45	1945-46	Total
	1944-45	1945-46	1944-45	1945-46	1944-45	1945-46	1944-45	1945-46			
Athletic events .....	221	89	36	172	87	29		\$ 2,110.00	\$ 2,545.80	\$ 4,655.80	
Custodial .....	116	102	59	112	98	55	83	31,954.20	27,763.57	59,717.77	
Food service .....	125	202	205	104	187	163	121	31,679.92	44,073.05	75,752.97	
Laboratory .....	77	64	90	24	77	63	86	20,800.20	12,434.20	33,234.40	
Manual labor .....	165	316		129	295			17,510.20	23,887.42	41,397.62	
Office .....	178	318	672	890	158	302	584	88,883.87	118,952.19	207,836.06	
Sales .....	51	66	93	93	20	46	58	8,711.88	7,883.42	16,595.30	
Skilled .....	64	95	51	31	60	94	49	15,927.60	18,079.11	34,006.71	
Miscellaneous .....	95	164	157	128	70	131	117	21,239.98	24,348.77	45,588.75	
Totals .....	1,092	1,416	1,327	1,423	902	1,303	1,112	1,329	\$238,817.85	\$279,967.53	\$518,785.38
Total placements of students by the Employment Bureau during the biennium .....									4,646		
Total student earnings for the biennium .....									\$518,785.38		

Profitable returns were experienced during this period both by students in the form of increased financial aid while attending school and by the University and other employers in providing a critically needed source of employees in a time of extreme labor shortage. This was well borne out in the facts that university student employment increased in total by more than 700 placements over the previous biennium and resulted in a very sizeable increase financially from the \$288,677 earned in the previous period. This earnings increase unquestionably was the result of higher pay rates for students through the University's pay plan effective July 1, 1945, the unlimited number of hours that students could work and by utilizing more students even though their qualifications did not meet all departmental requirements for the position.

The employment emphasis both off and on campus occurred mainly in food service and office work for both men and women and in manual labor and to some extent in more skilled work for men. An increasingly greater number of part-time employees were utilized to fill jobs that in normal times would have been taken by full-time non-student help. This was particularly true for the university positions in that student placements increased by more than 800 placements during the biennium while the off-campus placements decreased slightly. An attempt on the part of householders to alleviate the shortage of domestic help resulted in numerous board and room opportunities for students. During this period, however, there was an increasing reluctance on the part of students to take advantage of such opportunities, since more attractive cash positions afforded greater freedom and more opportunity for participation in student activities.

*Tests and Examinations*—The Employment Bureau testing program was continued intact during the biennium with the exception that examinations were waived for service and other groups where a recruitment factor and willingness and ability to perform satisfactorily on the job were of importance. Of the total 5,055 persons tested with 11,975 tests administered (Table VI) the largest number of tests given were for clerical, fiscal, and technical groups. Due to the limited number of recruits greater emphasis was placed on overall evaluation of an applicant's potentialities for particular positions. Lists of eligible and available applicants and of candidates for promotion were constantly exhausted so that it was not possible to maintain and have available candidates for positions as they became vacant.

TABLE VI. TESTING PROGRAM  
Number of Persons Tested and Tests Administered, 1944-46

Year	Persons Tested	Tests Administered
1944-45	1,688	4,316
1945-46	3,367	7,659
Total	5,055	11,975

A revision of the testing program is definitely a need. This revision should incorporate such projects as a rechecking and revision of tests for applicability to present classifications of all positions and a program of testing applicants for all types of positions from an aptitude, theory, and practical standpoint.

Physical examinations were administered to a total of 880 employees—300 in 1944-45 and 580 in 1945-46. These examinations were for appointments to regular payroll positions and for such miscellaneous payroll employees as was deemed necessary to determine their physical fitness for, or continuance of, employment.

It appears imperative that serious consideration be given toward establishing a program of examining both full-time miscellaneous and regular payroll employees to determine physical fitness of all employees for positions. This procedure would unquestionably serve as an excellent safety measure as well as eliminate considerable capital outlay for industrial accidents on the job.—HEDWIN C. ANDERSON, *director of Civil Service Personnel*.

# THE WORK OF THE UNIVERSITY

## COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

*Enrollment*—At the beginning of the biennium, the enrollment in the college, which was approximately 3,300, had risen somewhat from its lowest point during the war, but by the spring quarter of 1946 it had jumped to 6,760. The prewar peak for any one quarter was an enrollment of 5,002 for the fall quarter of 1936. This rapid increase in enrollment during 1945-46 was especially difficult to handle because many members of the faculty had carried an abnormally heavy load during the time when several military training programs were being conducted in the college and because many of those on wartime leave had not returned.

*Staff*—The contributions to the war made by members of the faculty of the college were significant and in numerous instances distinguished. Many of those who remained on the campus made important direct contributions, and practically all gave indirect, though none-the-less valuable, service. Fortunately, most of the faculty who were on leave have returned to their positions. There were some serious losses, however, and there is constant danger of depletion in the ranks of able young faculty members in competition with industry, government, and other universities with better salary scales. The most important postwar problem in the college is that of holding our present staff and strengthening it through new appointments. This cannot be accomplished without more adequate salaries and more satisfactory conditions for scholarly work.

*Student Counseling*—Early in 1945 a special committee of which Professor Donald G. Paterson was chairman made a series of proposals for providing counseling service for a greatly expanded student body, the majority of whom would be veterans with particular, but not abnormal, educational, vocational, and personal problems. Since 1940 all freshmen had been assigned to faculty counselors (sophomores had been advised when they requested assistance). It was apparent that many more advisers would be necessary in the near future and that the counseling program would demand more administrative direction than theretofore.

As means of meeting the problem, the committee recommended that (1) a coordinator of faculty counseling should be appointed to the administrative staff of the Junior College to take the lead in planning and conducting a program of student counseling, (2) clinical fellows or graduate student apprentices should be appointed to supplement the work of faculty counselors, and particularly to give attention to veterans, advanced standing freshmen, and sophomores, (3) professional schools to which students transfer at the end of the Junior College period should be asked to assign members of their faculty for counseling preprofessional students, and (4) counseling, either of Junior College, Senior College, or graduate students should be recognized as a normal function of faculty members.

These recommendations were approved by the faculty, and on January 1, 1946 Mr. Roger Page was appointed as administrative assistant to serve as coordinator of faculty counseling and student advising in the Junior College. Counseling "interns" were first appointed at the beginning of the winter quarter, and ten of these assistants were at work during the spring quarter.

Dean J. W. Buchta and major advisers in the Senior College have worked out a plan in which the student and his adviser, on admission to the Senior College, work out a complete program for the degree. This projected program, together with other significant information about the student, is entered on a folder which will contain his essential personnel records during residence in the Senior College, and which can be transferred with the student to the professional or graduate school, or to a placement office.

*Junior College Curriculum*—The college made rapid progress during the biennium in developing a comprehensive plan of general education. A Committee on General Education, with Dean Russell M. Cooper as chairman, was appointed in the fall of 1944 and has met regularly since.

Working through appropriate subcommittees, the committee encouraged new courses especially designed for the purposes of general education, in the following broad academic fields: communication, the humanities, the social sciences, and the natural sciences, and sponsored courses dealing directly with important phases of personal and social adjustment, such as those concerned with family life and vocational orientation. These courses are offered under the auspices of the new Department of General Studies.

The fullest offering to date is in the humanities, in which courses are given in "Humanities in the Modern World," "The European Heritage: from Homer to Molière," and "Humanities in the United States." The course in communication is being developed experimentally. Five courses in family life were planned for first offering in 1946-47.

*Senior College Curriculum*—The committee on general education expects also to give special attention in the near future to courses of general significance in the Senior College. Already Senior College sections of the courses in the humanities have been arranged. A Senior College divisional course has also been announced in "Science and Civilization."

The program in American Studies, conducted under the auspices of an interdepartmental committee of which Professor Tremaine McDowell is chairman, was inaugurated in 1945 and has already become well established at home and favorably known elsewhere. The program has extended upward into the Graduate School, which has recently announced that both the M.A. and Ph.D. degrees may be secured at the University of Minnesota in American Studies.

The first series of lectures in American Studies was successfully conducted in 1945-46, and an ambitious program of courses with distinguished guest teachers and lecturers was announced for the summer of 1946. Other activities of the program include public lectures and exhibitions on American themes in cooperation with various organizations.

As an outgrowth of the programs conducted in the college during the war for the military services, a new program in foreign area studies was established during the biennium as an addition to the curriculum already offered in international relations. Curricula were announced in the following areas: Western Europe, Central Europe, Russia, the Far East, and Latin America. Like the program in American Studies, the one in area studies was begun at the undergraduate level, but has since been extended to the Graduate School for the M.A. and Ph.D. degrees.

These new plans for concentration in the Senior College are really only special cases of the "liberal arts major," which is one of the most significant educational innovations ever made in the college. This provision makes it possible for a student, with approval, to arrange a program of studies around a central purpose which may not be appropriately served by a major in a particular department. The trend toward interdepartmental majors tailor-made for individual student's goals is certain to grow at both undergraduate and graduate levels.

*Teacher Education*—Such programs as those in the humanities, American studies, and area curricula, and other divisional or functional majors that may later be adopted, represent significant advances in the education of teachers. The need for broader training of secondary school teachers has long been apparent. The liberal arts colleges, too, have come to recognize the value of breadth of background as well as specialized education, for college teachers. Advanced degrees in American studies and foreign area programs offer an opportunity for broader graduate education.

As a means of giving prospective college teachers experience in a program of general education, a plan has been approved for the appointment of part-time instructors who, as "interns," so to speak, will teach in the Department of General Studies under the supervision of the staff members in charge of the several fields.

*Experimental Sections in Modern Languages*—Stimulated by the way in which the languages were taught in the military training programs in area studies, the departments of German and Romance Languages have organized several experimental sections in which speaking is emphasized and more intensive work is done than in the more conventional language course.

*Administrative Organization*—The Center for Training in Public Administration, which from its organization operated under a policy-making advisory committee directly responsible to the president of the University, has become a division of the Department of Political Science with Professor Lloyd Short as director.

On recommendation of a committee appointed by the dean of the college, of which Dean T. C. Blegen was the chairman, the Department of Linguistics and Comparative Philology was re-established with Professor Konstantin Reichardt as chairman.

*Administrative Personnel*—During the biennium Professor W. H. Bussey asked to be relieved of his duties as assistant dean for the Junior College in order to devote full time to the Department of Mathematics. Dean J. M. Thomas of the Senior College reached retirement age. Dean Bussey and Dean Thomas gave outstanding service to the college both in teaching and in administrative work.

Russell M. Cooper, who had come to the college as chairman of the Department of General Studies and associate professor of political science, was appointed to succeed



Dean Bussey, and Professor J. W. Bucht, chairman of the Department of Physics, became assistant dean for the Senior College.

*The Next Biennium*—As the enrollment in the college continues to mount, the great problem will be to maintain the quality of undergraduate teaching and the integrity of its graduate instruction. That this should be accomplished is of crucial importance to the University, for in providing the foundations of professional education, and in conducting instruction and research in the disciplines fundamental to all the applied fields of study, the college is at the very heart of the University.

Two constituent units of this college are the professional Schools of Journalism and Social Work, which are outstanding in their respective fields among the universities of the entire country.

#### SCHOOL OF JOURNALISM

*Educational Policy*—During the past two years the School of Journalism continued to subscribe to a basic policy which has guided its activities over the past decade. The school's conception of the preparation of young men and women for careers in journalism means a good liberal education, a knowledge of the techniques and procedures necessary to successful professional practice in the fields of the communication agencies, and a thorough understanding of the social implications and responsibilities of their professional tasks.

The Minnesota school is, in effect, a "school of communication" since it prepares young men and women to deal with major channels by which information and ideas are conveyed to the public. Students may prepare themselves for service on the newspapers and magazines, with the publishing houses, with the rural and specialized press, with radio stations and radio chains, with the press associations, and in the business management, advertising, and circulation phases of journalism. A few students have prepared themselves for work as polling and public opinion analysts. The graduate offerings of the School of Journalism have attracted an increasing number of newspapermen who have availed themselves of opportunities for research.

During the biennium the school participated more actively than ever before in the "general education" program of the College of Science, Literature, and the Arts. Selected journalism courses were added to the curriculum in American Studies and the Latin-American sequence. In cooperation with the College of Agriculture, Forestry, and Home Economics, the school formally implemented a program for those who wish to prepare for branches of journalism relating to agriculture.

*Research*—The research division of the School of Journalism, the first of its kind to be established in an American university, completed more than two years of work at the close of the biennium. In this period more than fifty fundamental and applied studies on problems of polling, content analysis, reader-interest, and consumer attitudes have been completed under the immediate direction of Mr. Ralph O. Nafziger, research director, and his staff.

During the biennium the school continued to receive a group of Latin-American journalists assigned here, first by the Office of Inter-American Affairs and latterly by the state department.

*School Services to Press and Communication Agencies*—The school continued throughout the biennium to give service to newspapers, press associations, radio stations, and other agencies in state and region. In cooperation with the University Department of Agriculture, it resumed the annual Editors' Short Course in May, 1946, after a single wartime suspension in 1945. It gave counsel on many occasions to individual newspapers, magazines, and radio stations and participated in the annual meetings of the Inland Daily Press Association, the Northwest Daily Press Association, the Minnesota Editorial Association, and the Northwest Radio Newswriters' Association. A staff member restyled the typography of the Rochester (Minnesota) *Post-Bulletin*, winner of the national N. W. Ayer award for excellence in newspaper typography.—RALPH D. CASEY, *director*.

#### SCHOOL OF SOCIAL WORK

The School of Social Work, a graduate professional school, now in its thirtieth year of operation, had its beginnings in 1917 when the Training Course for Social and Civic Work, a five-year course, was established by action of the Board of Regents. The school is a charter member of the American Association of Schools of Social Work, organized in 1919, an association which now numbers 44 graduate professional schools of social work. In 1935, the Minnesota school went on a two-year graduate basis for the Master's degree in social work, and by action of the Board of Regents was named the Graduate Course in Social Work. In 1942 the Board of Regents acted to establish the present designation, School of Social Work.

The School of Social Work is the only graduate professional school in the northwest area of the United States, since there is no other school of this type in Iowa, Montana, North Dakota, South Dakota, or Wisconsin. The School of Social Work has been one of the largest units in the Graduate School for over a decade, although it is only a medium sized school, considering the larger enrollments of similar schools at Columbia, Chicago, Pennsylvania, and Western Reserve universities.

A two-year graduate program leads to a Master's degree in the Graduate School under Plan A or Plan B. Since its establishment approximately 450 students have completed the undergraduate social and civics course and over 1,100 students from this and other universities have entered training for social work at the graduate level. These men and women now occupy positions as professional social workers throughout the country in private and public social agencies.

The school has developed a close working relationship with public and private social welfare agencies of the Twin Cities area. Also the faculty of the school renders a continuous service to the community over and above the responsibility of teaching and supervising graduate students. These services include technical consultative services to social agencies on social work problems; consultative services to civil service and merit system agencies and the like.

In June, 1946, Miss Gertrude Vaile retired after service since 1930 as associate director of the school, and was succeeded by Mr. John C. Kidneigh, formerly assistant regional director of Region VIII of the Social Security Administration and a specialist in welfare administration and in community organization.—F. STUART CHAPIN, *director*.

T. R. MCCONNELL, *dean*.

### THE INSTITUTE OF TECHNOLOGY

During the first year of the biennium the enrollment of students in the Institute of Technology continued to drop, owing to the war, to a low of about one fifth of normal. Suddenly in January, 1946 this trend was reversed. In the winter quarter our enrollment went back to about normal and in the spring quarter of 1946 it went up to over 3,000 which would be about twenty-five per cent above the prewar peak. The trend continues upward.

The distribution has changed considerably as will be seen from the enrollment chart. Electrical Engineering has had the largest gain; Mechanical Engineering second. Some departments have not yet recovered prewar enrollment but are expected to do so in the coming fall quarter.

ENROLLMENT FOR THE INSTITUTE OF TECHNOLOGY

Department	Fall Quarter 1940-41	Fall Quarter 1943-44	Fall Quarter 1944-45	Spring Quarter 1945-46
Aeronautical Engineering .....	546	216	109	417
Agricultural Engineering .....	38	4	7	26
Architecture .....	107	25	42	223
Chemical Engineering (including Business) .....	413	213	87	305
Chemistry .....	106	49	58	96
Civil Engineering .....	217	56	43	286
Electrical Engineering .....	313	140	90	706
Interior Architecture .....	8			
Mechanical Engineering .....	404	128	70	643
Mines and Metallurgy .....	154	35	11	93
Physics (industrial) .....	30	12	11	37
Prebusiness .....	25	3	8	42
Miscellaneous .....	32	16	72	83
Technical Aide .....				50
Total .....	2,393	897	608	3,007

Naturally this large increase has placed a heavy strain upon all of our facilities, including staff. So far it has been possible to meet the staff requirements but as the wave of new students rolls up into the upper years it will become increasingly difficult to provide adequate instruction. Classroom, drawing room, laboratory and shop space are also inadequate to meet the increases.

The wartime curricula have all come to an end but in an attempt to meet the supposed needs of returning veterans two-year terminal curricula of vocational character were adopted in the Institute of Technology. A much smaller number of students than was anticipated has sought these courses.

A new five-year curriculum will be required of freshmen except veterans entering the Institute of Technology in the fall of 1946. This curriculum is designed to give a broader training and will include subjects in the biological, humanistic and social fields, evenly distributed over the five years.

During the biennium retirements have been unusually heavy. In 1945 Professor William Richards retired after thirty-eight years of service in mechanical engineering. In June 1946, Professor J. M. Bryant retired as head of electrical engineering. Professor Lillian Cohen retired as associate professor of chemistry after forty-four years of service; Professor I. W. Geiger as associate professor of analytical chemistry after thirty years of service; Professor C. H. Shoop as professor of mechanical engineering after forty-one years of service and Professor Otto S. Zelner as associate professor of civil engineering after thirty-six years of service. Under present conditions it is very difficult to find replacements for these staff members, not all of whom have as yet been replaced. Deferral continues to be a problem in the case of younger staff members and students.

*Engineering Experiment Station*—During the past two years the Engineering Experiment Station has experienced some difficulty in maintaining an adequate research staff. While the present outlook is brighter, there are still problems due to the heavy enrollment of students in the institute and the degree to which the research program of the Experiment Station is connected with the educational program in the various divisions.

Eighteen bulletins and technical papers on original research sponsored by the station have been issued in the last two years. At present there are twenty-one active research projects in progress.

Special grants for research have been made by the Graduate School for the problems of warmth of clothing, fuel conservation, atmospheric dust, low temperature freezing units, dampening of flame and internal combustion engines.

Research funds for the cooperative programs have been furnished by the cooperating industry or other contracting sponsor. Small grants have been received from other industries. The total research budget of the Experiment Station has been approximately \$20,000 a year, of which \$10,000 has been furnished by the University and the remainder by associations and industries. The largest single project during the past year has been the determination of thermal properties of soils supported by the U. S. Army Engineers.

*Mines Experiment Station*—During the past year the employment situation at the Mines Experiment Station has improved considerably. We have added one scientist and one associate scientist to our technical staff, but the death of Mr. C. V. Firth, who had been on the technical staff of the station for twenty-two years, was a severe blow to us. We have not been able to fill this position.

The research work of the Experiment Station for the past year has been largely connected with taconite beneficiation and iron powder metallurgy. Most of the mining companies and many of the steel companies are deeply interested in taconite beneficiation and many tons of this type of rock have been shipped to us for experimental purposes. Most progress has been made in the agglomerating process. The original agglomerating process developed at the station has been taken over for further experimental practice by Pickands Mather and Company at Hibbing, which now has a furnace in operation. The new agglomerating method upon which we have been working will, if successful, be a great improvement over the original process.

The process for producing iron powder from the Mesabi carbonate slate type of taconite, developed by Mr. Firth, has been taken over by Continental Machines Company, Inc., of Minneapolis, which is constructing a five-ton iron powder plant near Aurora, Minnesota on the Mesabi Range. This plant is being financed by the Iron Range Resources and Rehabilitation Commission at a cost of about \$650,000.

In addition to our own research, the Experiment Station carries on state service work for the mining industry. During the last year 676 samples of ore were received and reports were prepared and sent to the parties submitting the samples. In connection with this and other investigations, approximately 17,000 chemical assays were required.

*North Central Experiment Station of the United States Bureau of Mines*—The reserves of high-grade ore in the Lake Superior region are becoming depleted. Beneficiation of low-grade ores must be developed if Minnesota is to continue to supply more than half of all the iron ore used in the United States.

Laboratory tests show that magnetizing of hematite ores followed by fine grinding and magnetic concentration is an effective method for concentrating nearly all low-grade hematite ores. Results of tests in a 500-pound batch-type rotary kiln are practically the same as those obtained in the small laboratory apparatus. The finely pulverized concentrates obtained from magnetic concentration of magnetized low-grade ores must be agglomerated before being used in an iron blast furnace. Such material is difficult to sinter

but is suitable for forming into glomerules or balls. Gaseous reduction of these glomerules is part of the investigation being conducted by the Bureau of Mines on the production of critical and essential minerals and the conservation of the natural mineral resources of the country.

Three alloy-steel shaft-type furnaces were constructed and used in studying the reduction of iron oxide glomerules passed continuously through the shafts at different temperatures and at varying rates of feed. Reduction was accomplished by use of hot hydrogen or hot water-gas.

*Minnesota Tax Commission*—In 1943 the Minnesota Legislature in its bill appropriating funds for the University added a clause requiring the School of Mines and Metallurgy to do all the ore estimating for the Department of Taxation without cost to the department. Heretofore this work had been done under an agreement between the Minnesota Tax Commission and the Board of Regents. This work has been carried on continuously since 1909.

During the biennium, ending August 31, 1944, the School of Mines and Metallurgy has examined and reported on one hundred and three properties. These reports involved an aggregate tonnage of 406,919,321 tons of merchantable iron and manganiferous iron ore. This tonnage showed a net increase of 70,492,183 tons over previous estimates. In addition to the merchantable grades of ore, the school reported 4,138,289 tons of material of a quality and nature not being utilized at this time.—SAMUEL C. LIND, *dean*.

## DEPARTMENT OF AGRICULTURE

*Agricultural Experiment Station*—The problems which confronted the Agricultural Experiment Station during the preceding biennium continued to be perplexing during 1944-46. With the close of hostilities in Europe and in the Pacific, members of the staff who had been in the service began to return to their former posts. However, the resumption of normal activities was not quite accomplished even at the end of the biennium. There was still a shortage of trained personnel to attack the manifold problems which had arisen under wartime conditions or which confronted the Experiment Station as post-war problems. During the war very few individuals were being trained to fill vacancies calling for thorough scientific training and unusual research talent.

Projects, inactive or dormant during the war, were revived as promptly as possible, others were extended, to meet new demands. Many projects remained active even under the stress of war. By the fall of 1945 the staff began to resemble the prewar group.

The Experiment Station was besieged during the biennium with requests for information and advice on problems which had arisen because of the special conditions imposed by war, especially demands for increased production of all agricultural products. The regional and national approach to agricultural research became more necessary, expedient, and in most cases more logical, on problems common to a considerable area. The armed forces called upon the station to assist in solving problems relating to the processing, packaging, and storage of food for the frigid, temperate, and tropical zones. As the result of the successful prosecution of such research, these cooperative studies are being continued in the post-war period with the Army and Navy furnishing funds to supplement those already provided by the state and federal governments.

Private industry has called upon the Agricultural Experiment Station for assistance in solving many perplexing problems. Most of these studies complement or supplement the projects already undertaken by the Experiment Station. Increasing financial grants from industry are being made to the University.

Cooperative research with the Minnesota State Departments of Agriculture, and of Conservation, U. S. Department of Agriculture and other state or federal agencies has continued.

The Central Experiment Station, assisted materially by the branch stations, has brought forth new knowledge for the advancement of agriculture in state and nation. Each investigator has contributed and it is difficult to single out special accomplishments. A few examples illustrate the diversity of activities.

The business operations of a number of cooperative cheese factories were studied. Unusual competitive difficulties had arisen to make it difficult for the smaller factories to make adequate returns to their patrons. Consolidation was recommended and accomplished. Observation on farm work simplification revealed facts useful in reducing the labor costs and enabling farmers to produce greater yields with reduced manpower.

Pasture management experiments pointed to higher yields with rotational grazing. This was extremely important when it was necessary to expand production of livestock

and livestock products with a minimum of labor. Research on the use of selective herbicides and improved cultural practices has contributed methods for the control of noxious weeds. During the biennium there was continued progress in the development of improved varieties of cereal and forage crops. These new varieties were introduced to the farmers of the state largely on the basis of increased disease resistance and greater yielding ability. The new varieties of rye, barley, wheat, oats, flax, and corn as well as other crops were introduced by the plant breeders and plant pathologists cooperating effectively throughout the period. Striking results were obtained in studying the chromosome behavior and inheritance of characters, including sterility, in corn. These fundamental studies show the way toward a method for developing homozygous lines more rapidly for plant breeding purposes.

The crossing of inbred lines of swine continues to give encouraging results. Essentially a new breed, in fact two new breeds, of hogs have been developed. They show increased vigor, more rapid growth rate, greater fertility, survivability of offspring, better feed utilization, and finer carcass characteristics. Crossbred sheep have shown a superior degree of performance and the foundations for new lines have been laid. The poultry geneticists have likewise developed hybrid poultry by a practical breeding procedure which improves the economic quality of chickens.

Biochemical studies of the changes resulting from the heat treatment of skim milk have served as a guide in the commercial production of non-fat milk solids for the baking industry.

The heating of grain in storage has been found to be due primarily to the proliferation of molds on seeds in storage at or above a certain moisture content. Fungistatic agents applicable to stored grain reduced the damage, loss of vitality, chemical deterioration, and heating of moist grain in storage and transit. Elevator operators and millers have been given methods for the protection of grain and flour.

A lack of vitamin E in the diet of cattle was shown to have no effect on breeding efficiency, but the sudden death of cattle on a vitamin E deficient ration has been attributed to a cardiac abnormality resulting from the shortage. Better milking procedures have been developed so that the time required for milking may be reduced, milk production increased, the sanitary quality enhanced, and the incidence of mastitis materially reduced.

New methods have been developed for the manufacture and packaging of dry whole milk and dry ice cream mix. They have been widely adopted by the industry because a way has been shown for providing a dry product of superior keeping quality in all climates and for considerable periods of time.

Several new types of insecticides, including the well-known DDT, have been used in extensive trials on fruits, vegetables, cereals, and forage crops. Fundamental studies of the structure and permeability of the insect cuticle have been undertaken, particularly to demonstrate how insecticides actually work.

Studies on the nutritive value, culinary quality and utilization of Minnesota fruits and vegetables, as well as the effect of cooking, freezing, and storage, have yielded results which will benefit all consumers. Methods and devices for the home freezing and dehydration of foods have been developed.

Several new and superior varieties of potatoes have been developed and distributed to the growers in Minnesota as a result of the studies in potato breeding. Likewise new varieties of apples, crabapples, strawberries, and other fruits and vegetables have been developed and introduced.

Each year new cereal and forage crop diseases appear in the state. The causative agents have been discovered in a number of instances and satisfactory controls introduced. Extensive studies have been made of new fungicides to control diseases of cereals, forage crops, fruits and vegetables, and trees. A very useful fruit spray-timing service has been made available as a result of experiments conducted during the past few years. The continued cooperation between the plant breeder and the plant pathologist has made possible a successful search for disease-resistant varieties of many plants.

Experiments with fertilizers have continued, and increased production of farm crops has been demonstrated in cooperation with farmers in the state.

Practices which will materially reduce the expense of retesting of cattle for Bang's disease have been developed. Extensive studies of the use of the sulfonamides for domestic animals have provided bases for proper dosage and maximum benefits for the guidance of veterinarians and owners. Studies on disease of swine have been carried out to indicate the source of the difficulty and to recommend methods for their control.

As in former years the branch experiment stations have played an important role in supporting the research program of the Central Station. All of these stations, among other

things, have been active in the testing, increase, and distribution of new crops; the management of pastures, and the investigation of rotation practices, soil fertility, and use of fertilizers. At Duluth, Grand Rapids, and Crookston, particularly, emphasis has been placed on development and testing of new and improved varieties of potatoes as well as studying methods of disease and insect control with insecticides and fungicides. The Duluth station has continued its variety testing, disease control and fertilization studies on apples, berries, and vegetables adaptable to the northeastern region of the state. The culture of raspberries and blueberries was investigated at Grand Rapids along with other studies on fruit and truck crops. Improved Guernsey herds have been developed at Duluth and Grand Rapids. Holstein herds at Morris and Crookston, and a Milking Shorthorn herd at Waseca. The Grand Rapids station has had a considerable share in the development of the now famous Minnesota No. 1 breed of swine. At Waseca, Duluth, Crookston, and Morris there has been concurrent progress in the development of the various inbred strains and of highly efficient Minnesota No. 2 strain of crossbred hogs which has been attracting wide attention. Considerable progress has been made, especially at Crookston, Waseca, Morris, and Grand Rapids, on the crossbreeding of sheep to secure improved varieties for Minnesota farmers. At Crookston, outstanding results have been secured in the inbreeding and crossbreeding of poultry. The Waseca station has been investigating the culture of hickory, butternut, walnut, and chestnut varieties adaptable to southern Minnesota. As in former years, the fruit-breeding station at Excelsior has been developing new and improved fruit varieties to withstand the rigorous winter of Minnesota. The forest experiment station at Cloquet has served as a center for observation on culture, disease control, and utilization of forest trees for the protection of the valuable natural resources of the state.

The Experiment Station has continued to publish results of its research in bulletins, both general and technical and in many scientific periodicals so that the information has become available to millions of people. Further than this the members of the staff have contributed widely to the farm press and other journals so that the latest information is being widely disseminated among the people who will profit most from the fruits of research.

*Agricultural Extension Division*—The years 1944-46 have been outstanding from the standpoint of agricultural production. Record crops have been produced throughout the state in each of these years. Livestock and dairy production have maintained their wartime rates. Markets have been satisfactory and farmers generally have prospered notwithstanding increased operating costs. During such a period there is a widespread demand for scientific information to improve production practices and reduce operating costs. In all of these programs, Agricultural Extension, through county extension agents and the state specialist staff, has had an important part. In 1945 county agents made an average of 564 farm visits throughout the year and contacted an average of 15,389 people per county in group meetings. Personal calls at the office and telephone inquiries averaged 3,962 for all county agent offices.

As in the past years, Extension work has been directed towards problems of major importance to the majority of farmers. One of the most important of these is soil conservation. There is a growing consciousness on the part of Minnesota farmers that the heavy drain on soil fertility caused by intense cropping practices of the war years must be corrected. The agents in the field and the specialist staff in soils, crops, and farm management have spent a major portion of their time in working with farmers to develop programs to rebuild soil fertility through the use of soil conservation practices, crop rotations, pasture renovation and improvement, fertilizers, and cultural practices. A 6-point soil fertility and management program has been put into effect for the entire state.

During the two years of the biennium there has been a marked demand for assistance in rural home modernization. The major time of the county home demonstration agents, the home economics specialists, and agricultural engineers has been devoted to this work. It is now evident that the next forward move in the improvement of the living standards on Minnesota farms will be home modernization.

Interest in 4-H club work continues on a high plane, both on the part of young people eligible for participation in this program and on the part of adults, both rural and urban who serve as local leaders. During 1945, 42,199 boys and girls were enrolled in 4-H club work. This is 22.7 per cent of the rural farm youth from 10 to 20 years of age based on the 1940 census. As soon as additional 4-H club agents are available it is anticipated that this number will be increased substantially. During 1945, 4,459 farm men and women served without pay as local 4-H leaders.

Another noticeable movement that is taking place in Extension work with farm youth is with the group beyond 4-H club age. These young people from 20 to 30 years of age are showing an increased interest in the educational programs of extension and are organizing county groups to avail themselves of further training. During the past year 34 counties had such groups, and numerous other counties are now in the process of organization.

The extension service continues to have the responsibility for the recruitment, training, and placement of agricultural labor, and Congress has continued appropriations for this purpose. During 1945, 67,281 placements were made to alleviate critical farm labor shortages. One important aspect of this program has been the direct placement of 2,809 boys and girls from the larger cities of the state on farms during the summer months. With few exceptions these young people have given a good account of themselves.

The Bankhead-Flannagan Act, which substantially increased federal appropriations for extension work, was passed by the 79th Congress and approved June 6, 1945. These new funds became available on July 1, 1945. The act authorizes an increase in the appropriations for a period of three successive years when they reach their maximum. Approximately 90 per cent of these new funds will be used for the expansion of county personnel.

While funds are now available for the expansion of county work, the recruitment of trained personnel has been a most difficult problem. At the present time there are employed in Minnesota 91 county agents, 3 assistant agents, 43 home demonstration agents, and 68 4-H club agents either on a permanent or temporary basis.

Plans for the expansion of the county staff have necessitated some strengthening of the supervisory organization. The state is divided into three state supervisory districts, each in charge of a district supervisor of county agent work. Additional supervisors of home demonstration work and 4-H club work have been added to each of the three districts.

*College of Agriculture, Forestry, and Home Economics*—During the war period men enrolled in the College of Agriculture, Forestry, and Home Economics neither expected nor received deferment from military service. As a consequence, registration of men continued to decline throughout the war period, reaching a low in the spring quarter of 1944-45 when the number fell below one hundred. In the fall quarter, 1945-46, shortly after the end of the war, there was an upswing in the number of men in the college. There was a further increase in the winter quarter and by the spring quarter the number exceeded six hundred. All the indications are that the registration of men in the college will continue to increase.

No complete record of the military service of students, former students, and graduates of the College of Agriculture, Forestry, and Home Economics is available. The information that is available is impressive. The devotion of these young men to their duties and responsibilities as citizens in a free society will always remain an inspiration to the staff of the college and to future generations of its students.

Many members of the staff also made a significant contribution to the war effort either through services in the armed forces or in various war agencies. Practically all of these have now returned to the campus and have resumed their college duties.

Throughout the years the College of Agriculture, Forestry, and Home Economics has developed many fine traditions and activities, such as the honor system, Recognition Assembly, Christmas Assembly, and others. The traditions and activities greatly enriched student life on the Farm Campus and contributed significantly to the education of our students. When the men left the campus there appeared to be some likelihood that these traditions might become greatly weakened. Fortunately, however, the college came through the war period without any significant losses in traditions and activities. This was due almost entirely to the ingenuity, enterprise, and ability of the young women in Home Economics who remained on the campus. To them the college owes much.

During the biennium a special committee of the faculty made a careful study of the relationship between high school rank, ACE ratings and other test data, and ultimate success in the College of Agriculture, Forestry, and Home Economics. This study clearly showed that students who graduated from high school in the lower 25 per cent of their class have little probability of graduating from the college. Accordingly, the College of Agriculture, Forestry, and Home Economics, through appropriate faculty action, now admits directly only those students in the upper three fourths of their graduating class. Others will be given individual consideration on the basis of their ACE test scores and other scores on appropriate tests.

This same committee also made a careful study of the procedures and practices of placing students on probation and dropping them from the college. It was found that existing procedures permitted students with records so low as to practically preclude the possibility of graduation, to remain in college longer than could be justified educationally or from the standpoint of the individual student's best interests. As a result, the faculty, through appropriate action, strengthened and improved materially the probation and dropping procedures of the college.

The war years had a profound effect on the educational program of the college. It would be idle to deny that there were both spiritual and material losses. These years did, however, furnish an opportunity to re-evaluate the college program and to plan for happier days. The college is adequately prepared to meet many of the inevitable vicissitudes of the post-war period.

*Schools of Agriculture*—At the University Farm School of Agriculture the minimum age for entrance was raised progressively from 15, where it was placed in 1943, to 16 in 1944, and to 17 in 1946. The faculty agreed that an older group of students was much more satisfactory and significant. Those not yet seventeen may be considered if they have satisfactorily completed the work of two years of high school, or pass an entrance examination. There is an increase in the number of high school graduates enrolling in this school. These are usually graduated in two six-month school years. A very significant step has been taken in 1946 in effecting an understanding with the State Department of Education whereby the teachers of agriculture in the high schools will direct to the School of Agriculture those high school graduates who plan to farm and who do not plan to go through a four-year college course for a degree. The enrollment during the biennium 1944-46 was as follows: 1944-45, 293; 1945-46, 374. With a return of older and more mature students, there is a corresponding increase in the number taking the Rural Builders Course which was established in the fall of 1943. This is also true of the course in Home Management and Practical Nursing.

The Northwest School of Agriculture at Crookston had a total enrollment of 407 in 1944-45, and of 419 in 1945-46 of whom 28 per cent were women students. There is a real need for the new women's dormitory now under construction, which may become available in the winter quarter 1946-47. The average age of entering freshmen was 14.5 years, of the seniors 17.2 years. The latter is a somewhat older group than in recent years due to the return of war veterans. A total of 235 students was enrolled in home project work in 1944, and 207 in 1945, with a high percentage of completion, viz. 99 per cent in the last year. Certified grain, and other crops, and livestock produced under these projects represented a value in the range of \$20,000. As heretofore the staff of the school participated in the programs of the Red River Valley Shows, women's camp at the school, 4-H Club camps, field and crops days, and other events. Incidentally, the Northwest School and Station in November, 1945, celebrated the fiftieth anniversary of its founding.

At the West Central School of Agriculture at Morris a total of 445 students registered in 1944-45 and in the interest of effective instruction the total registration was reduced to 415 the second year of this biennium. The addition of dormitory facilities especially for men, and an increase in teaching staff are desirable.

With the mechanization of farms, accelerated by the war, there has been a noticeable increase in interest in agricultural engineering, and this department of the school has assumed a more important place than at any time heretofore. A revised curriculum in agricultural engineering has been worked out, based on the experiences of the past years, which will give the students more training in farm mechanics, field machinery, applied electricity, and advanced shop practice than has been possible heretofore. During the biennium, changes were made in the graduation requirements set up for girls, to the end that a girl might specialize in business training in the last two years of a four-year course.

At the North Central School of Agriculture, Grand Rapids, there was an increase in enrollment in 1945-46, reaching 109, a record for the school, and more than double that of 1942-43. Here, as in the instance of the other schools, added dormitory and classroom space would result in service to more students. Critical personnel problems in these several schools arose during the biennium. The work of these institutions was maintained at a high level, however, both in teaching and research.

About the beginning of the biennium a commission composed of President Emeritus Farrell of Kansas State College, President Jackson of South Dakota State College, and Dean Kildee of Iowa State College brought in a final report of its study of the Schools of Agriculture operated by the University of Minnesota. The Regents of the University then authorized the appointment of a joint committee of the State Department of Educa-



tion and of the university faculty to extend this study to include vocational agricultural education at the subcollegiate level in Minnesota. The Board of Regents received the report of this joint committee at its meeting on July 12, 1946.

*Agricultural Short Courses*—During the fiscal year 1944-45, twenty-three short courses and conferences were held, though many which would have been conducted under normal conditions were cancelled because of the war. The 1945 Farm and Home Week was again cancelled as in 1944, due to the exigencies of the war and the lack of housing, food service, and classroom facilities at University Farm. The radio program which was conducted in 1944 as a sort of substitute for Farm and Home Week was not resumed.

During the fiscal year 1945-46, thirty-three short courses and conferences were conducted. Included in this number were some which had not been held since before the war. Among the new short courses conducted during the fiscal year 1945-46 were the following: Electricity in Agriculture Short Course, Elevator Sidelines Short Course, Grain Handling Short Course, Hardwood Lumber Grading Short Course, Potato Marketing Clinic, Resort Workers' Short Course, and the Red Cross Safety Seminar. Farm and Home Week for 1946 was not held because of lack of adequate housing, food service, and classroom facilities.

Approximately 5,700 people participated in the short courses and conferences held during the fiscal year 1945-46. This did not include some five hundred at the Swine Feeders Days conducted at Worthington and Owatonna.

At the present time ten correspondence study courses are being given by the University Department of Agriculture. A very successful extension night class in Dairy Bacteriology was given by the Dairy Division.

During the biennium, 56 short courses and conferences were held, including 13 new ones. These 56 courses and conferences had a total attendance of approximately 8,700.

Short courses held during the biennium included Animal Nutrition, Beekeepers, Butter-makers, Cheesemakers, Crop Improvement, Dry Milk, Editors, Electricity in Agriculture, Elevator Sidelines, Farm Bureau Women, Farm Income Tax, Flock Selecting and Pullet Testing, Florists, Grain Handling, Hardwood Lumber Grading, Home Experience, Horticulture, Livestock Breeders, Potato Marketing, Red Cross Safety, Resort Workers, Rose Growers, Swine Feeders, Tractor Maintenance, Veterinary, Weed and Seed Inspectors, and Welding and Forge.

In addition, conferences were conducted in the interest of Adult Education, Dairy Fieldmen, Farm Bureau, 4-H Club Members, 4-H Horse Program, Future Farmers of America, High School Home Economics Clubs, Minnesota Beekeepers, Minnesota Extension Workers, Minnesota Farm Managers, Radio Workers, Teachers of Agriculture, and Twin City Farmers.—CLYDE H. BAILEY, *dean and director*.

### THE MEDICAL SCHOOL

For the Medical School this biennium, which included the final year of the war and the first postwar year, constituted a period of difficult adjustments and unprecedented teaching loads. The acceleration of the medical curriculum, started in 1941, was continued; classes in medicine, nursing, medical technology, physical therapy and public health nursing were larger than ever before; during the second year of the biennium discharged medical officers in overwhelming numbers returned to the campus requesting graduate and postgraduate work in preparation for civilian medical practice; the reduced teaching staff of the war years was augmented during the second year of the biennium by the return of faculty members from military service. This was helpful but inadequate to meet increasing needs. Recruitment of new faculty members has been practically impossible. In spite of these difficulties the high standards of the Medical School in education and in research were continued and, at least in some areas, new levels of accomplishment were attained.

*The Medical School Program*—On July 1, 1941 the Medical School inaugurated an accelerated program of instruction in order to prepare physicians as rapidly as possible for service with the armed forces. This program required all medical students to be in school for four instead of three academic quarters in each calendar year. On July 1, 1943 medical and premedical students who were physically qualified for military service were placed on active duty in the Army's Specialized Training Program or the Navy's V-12 College Program. During the first year of this program the freshman and sophomore Army medical students were housed in barracks and took their meals at an Army mess in Coffman Memorial Union. This arrangement was a handicap to effective study and was discontinued on July 1, 1944. Subsequent to this date both Army and Navy students were

given allowances for quarters and meals and allowed to make their own living arrangements. Under these programs students who failed to make normal progress toward graduation were immediately ordered to other military duty.

The Army and Navy programs were open to all physically qualified male students in the Medical School at the time of their inauguration and 80 per cent of the places in subsequent entering classes were taken by students who had received their premedical training under the AST and V-12 programs.

These Army and Navy programs constituted an interesting educational experiment in that all financial barriers to the study of medicine were removed. This made it possible for some able students to enter the Medical School who under normal conditions would not have had the financial resources to study medicine. The Navy V-12 program was discontinued at the end of the fall quarter December, 1945 and the AST program at the end of the winter quarter, March, 1946. Upon the termination of these programs the students who had been in them were placed on an inactive status and permitted to continue their medical studies as civilians.

During this biennium classes were admitted to, and graduated from, the Medical School in September, 1944, July, 1945, and March, 1946. The graduation of three classes during this two-year period occurred as a result of the accelerated course and represented a contribution by this Medical School of 100 extra physicians specifically educated for war service. The civilians in the classes admitted in September, 1944, and July, 1945, consisted of women and of men disqualified for military service. The increase in the number of women students admitted to Medical School during the war years is of interest: 5 in 1941, 6 in 1942, 5 in 1943, 6 in January, 1944, 11 in September, 1944, 14 in 1945, and 13 in 1946. Reports indicate that these veterans are doing a better quality of Medical School work than would have been predicted from their premedical academic records.

*Medical Faculty*—One of the important contributions of the Medical School to the war was the service rendered by 160 members of the faculty of the rank of instructor and above as medical officers in the Army and Navy. Although the majority of these were part-time clinical members of the faculty, this number included a number of full-time teachers and investigators, such as Dr. Gaylord Anderson, professor and director of the School of Public Health, who served during the war as chief of the Division of Medical Intelligence in the Office of the Surgeon General of the Army.

In order to insure a minimum teaching staff during the war certain members of the medical faculty were listed as "essential" with the Procurement and Assignment Service. This made them ineligible for service with the armed forces. The Army and Navy training programs conducted by the Medical School enabled these members of the teaching staff to make a direct contribution to the war effort. In addition to their teaching, research and administrative duties various members of the medical faculty carried special war-related appointments and assignments. Among these were the following: Dr. Harold S. Diehl, dean of the Medical Sciences served as a member of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists, Nurses, Veterinarians, and Sanitary Engineers. This was the division of the War Manpower Commission responsible for the distribution of medical and health personnel among the armed forces and the civilian population. Dr. Diehl also served as chairman of the subcommittee on the Allocation of Medical Personnel; as a member of the Medical Advisory Committee of the American Red Cross and as a member of the American Medical Association Committee on National Emergency Medical Service.

Dr. Cecil Watson, professor of medicine, served as director of medical research on the "atomic bomb project," as a member of the Medical Committee of the National Research Council, and as special consultant on liver disease to the Surgeon General of the Army.

Dr. Wesley Spink, associate professor of medicine, served as special consultant to the Surgeon General of the Army on streptococcal diseases, and as a member of the War Department's Commission on Respiratory Diseases.

Dr. Owen H. Wangenstein, professor of surgery, served as a member of the Committee on Blood Substitutes of the National Research Council and as director of the Blood Donor Center of the Hennepin County Chapter of the American Red Cross.

Dr. Maurice Visscher, professor of physiology, served as a member of the Committee on Clinical Investigation of the National Research Council.

Dr. Ancel Keys, professor of physiological hygiene, served as special consultant on nutrition to the Secretary of War; head mission officer, Office of Lend-Lease Administration; advisory board member, Research and Development Division, Military Planning Branch, Office of the Quartermaster General, U. S. Army; and secretary of the confer-

ence, and of the working committee, on Working Efficiency and High Temperatures, National Research Council.

Dr. Alan Treloar, professor of biostatistics, served as director of research in Climatic Research Laboratories, Quartermaster Corps.

The end of the war brought the gradual return of the members of the medical faculty who had been on leave of absence for war service. This has been helpful but the dearth of young scientists who normally would have been trained during the years of the war will be a serious handicap to both teaching and research work for years to come. Serious also is the shortage of teachers qualified to provide instruction for the discharged medical officers who are flocking to the campus for graduate and postgraduate work.

The medical faculty suffered a sudden and serious loss in 1945 as a result of the incapacitating illness of Dr. J. C. McKinley, who had served as a member of the faculty since 1920 and as professor and head of the Department of Neuropsychiatry since its establishment in 1935. As a successor to Dr. McKinley we were fortunate in obtaining Dr. Donald W. Hastings who, prior to the war, served as a member of the staff of the Pennsylvania Psychiatric Hospital in Philadelphia and during the war as chief psychiatrist of the Eight Air Force in England and later as chief psychiatrist in the Air Surgeon's Office.

*The University of Minnesota's Army Hospitals*—United States General Hospital No. 26 was organized and its medical and nursing staffs provided by the Medical School of the University of Minnesota. Before being sent overseas some of the physicians on the staff of this hospital were transferred to provide the professional staff of the United States Station Hospital No. 31. Both of these units rendered outstanding service during the war; United States General Hospital No. 26 in North Africa and Italy, and Station Hospital No. 31 in New Caledonia. At the end of the war the latter unit was in the Philippines in preparation for the invasion of Japan. General Hospital No. 26 cared for a total of 9,756 patients in North Africa and 24,168 patients in Italy (with a total mortality of .0235 per cent). For its efficient and superior service this unit was given the Award of Merit of the United States Army. Station Hospital No. 31, with a much smaller bed capacity, cared for 15,000 patients in the South Pacific Area. Many commendatory messages were received concerning the work of this unit.

*Postgraduate Medical Instruction*—During the war years the number of postgraduate courses offered for practicing physicians at the Center for Continuation Study was curtailed but the attendance was much larger than anticipated. During the year 1944-45, 23 courses were offered in the various fields of medicine and public health and attended by 1,236 physicians, nurses, and other health personnel.

Anticipating the end of the war, plans were formulated early in 1945 to offer a special program of instruction for discharged medical officers who wished further preparation for civilian practice. The W. K. Kellogg Foundation of Battle Creek, Michigan, which is interested in the improvement of medical practice, especially in rural areas, agreed to provide \$50,000 a year for five years toward the support of this program at the University of Minnesota. In January, 1946 two programs specifically for discharged medical officers were inaugurated, each six months in length. One was devoted to general medicine and surgery and the other to the basic medical sciences. A limit of 40 students was set for each program but final enrollment found approximately 50 students in each course. The instructional programs offered were uniformly excellent and were deeply appreciated by those in attendance.

During the year 1945-46, 17 other postgraduate medical and health programs were offered with 988 individuals in attendance. One of these courses deserves special mention. This was an experimental program arranged cooperatively with and financed by the Commonwealth Fund of New York. Its purpose was to determine whether in a brief period of time it is possible to give physicians in general practice a working knowledge of modern psychiatric principles and techniques. The course was two weeks in length. Twenty-five physicians were invited to attend as students. The instructional staff consisted of 8 of the ablest psychiatrists in the country. All who participated in or attended the course described it as a unique and successful experiment.

*Graduate Medical Education*—With the end of the war, graduate fellows to whom the University had given leaves of absence for military service returned to resume their training, and discharged medical officers by the hundreds applied for fellowships and residencies. Prior to the war, the Medical School, with the cooperation of the University and the Minneapolis General Hospital, offered 66 fellowships for graduate training in the various clinical specialties of medicine. In order to provide as many training opportunities for discharged physicians as possible it was decided early in the fall of 1945 to

double this number and to work out affiliations with Ancker Hospital of St. Paul and certain private hospitals in this area to utilize their clinical facilities as a supplement to those available at the University for graduate training. These efforts increased the number of graduate training opportunities in the clinical fields to 129.

Further opportunities for expansion of this program occurred in January, 1946 when the Veterans Administration requested the Medical School to assume responsibility for the conduct of the clinical service in the 800-bed Minneapolis Veterans Hospital. This program is now well organized and functioning effectively. As of July 1 the University staff in this Hospital consists of 23 consultants, 26 attending physicians and 88 residents. All of these residents are regularly enrolled as graduate medical students in the University of Minnesota. Altogether this makes 217 positions for the graduate training in the clinical specialties of medicine as compared to 66 before the war. The number of qualified applicants, however, still far exceeds the training opportunities available.

*Medical Research*—In spite of the difficulties occasioned by the war the research programs of the Medical School have made continuing and significant progress. Particularly notable have been the studies of human nutrition, starvation and rehabilitation by Dr. Ancel Keys and his associates in the Laboratory of Physiological Hygiene; Dr. Owen H. Wangensteen's studies of gastric ulcer and gastric cancer; Dr. Cecil Watson's studies of blood pigments and of liver disease; Dr. Wesley Spink's studies of streptococcal infections, of brucellosis, and of the action of the sulfonamides and penicillin; Dr. John Adams' investigations of the acute respiratory diseases in infants; the cancer researches of Drs. John Bittner, Robert Green, Cyrus Barnum, Robert Huseby, etc.; Dr. Raymond Bieter's studies of new drugs for the treatment of certain tropical diseases; the researches in neurophysiology supported by the National Foundation for Infantile Paralysis and conducted by Drs. Ernst Gellhorn, Berry Campbell, Harland Wood, and others; Dr. Wallace Armstrong's investigations of calcium metabolism and bone healing; Dr. George Burr's studies of the role and importance of fats in nutrition; and Dr. J. C. McKinley and Dr. Starke Hathaway's development of the "multi-phasic inventory" for the identification of psychiatric disorders, etc.

More funds are available at the present time than ever before for the support of medical research. The Medical School has on its faculty qualified and experienced investigators to utilize such research funds. To do so, however, they must have additional laboratory space and facilities.

*Medical Technology*—The Course in Medical Technology is four years in length and leads to the degree, bachelor of science. The first two years are spent in the College of Science, Literature, and the Arts. At the beginning of the third year the student transfers her registration to the Medical School. The entire fourth year of twelve months is spent in practical rotating service in the laboratories of the University of Minnesota Hospitals and affiliated hospitals. Approximately 76 graduate annually from this course.

*X-Ray Technology*—As in Medical Technology, the Course in X-Ray Technology is four years in length with the first two years spent in the College of Science, Literature, and the Arts, and the third and fourth years in the Medical School. The entire last year of twelve months is spent in practical service in the X-Ray laboratory of the University of Minnesota Hospitals. The number receiving degrees in this specialized curriculum averages 6 to 7 students annually.

*Physical Therapy*—For several years the Medical School has offered a 12-month course leading to a certificate in physical therapy. The program of study includes advanced courses in the medical sciences, as well as specialized instruction and clinical experience in physical therapy. During the past biennium 48 students received certificates. Beginning with the fall quarter of 1946, a four-year curriculum in Physical Therapy will be offered.

*Mayo Memorial*—A Committee of Founders to provide an appropriate memorial for Drs. William J. and Charles H. Mayo was authorized by the State Legislature in April, 1943. Dr. Donald J. Cowling was requested by Governor Harold Stassen to serve as chairman of the committee. Early in 1944 the other members of the committee were appointed by Governor Edward Thye. At its initial meeting the committee accepted the recommendation of the earlier Mayo Memorial Commission that the memorial be a building for medical education and medical research on the campus of the Medical School of the University. Upon the authorization of the Committee of Founders, studies were made by the medical faculty of the utilization of such a building, and preliminary sketches were prepared by the architect. A goal of \$2,000,000 was agreed upon for this memorial with \$1,000,000 to be requested from the Legislature and \$1,000,000 to be raised in private contributions. In April, 1945, the Legislature made an appropriation of \$750,000 toward the construction of this memorial, and by July 1, 1946, private contributions were slightly

in excess of \$1,000,000. The proposed building will be a magnificent memorial to the Doctors Mayo and will provide urgently needed facilities for both teaching and research in medicine. At the present time the preparation of detailed plans and specifications is being held in abeyance because of the great increase in building costs since the preliminary plans were prepared. The Committee of Founders is hopeful that the Legislature will make an additional appropriation and that further private contributions can be secured to permit the construction of this memorial as planned.

*School of Public Health*—On December 10, 1943, the Mayo Properties Association made a gift of \$500,000 to the University of Minnesota for the further development and the support of a School of Public Health. For a number of years the Department of Preventive Medicine and Public Health of the Medical School had been offering programs of professional training in public health for physicians, engineers, and nurses. By the action of the Regents this department was reorganized as a School of Public Health in September, 1943. The most urgent immediate need of this school is for facilities for the conduct of its instructional and investigative programs. For this reason it has been decided to use half of this grant from the Mayo Properties Association toward the construction of a building for this school. According to the latest plans this will be constructed as an integral part of the Mayo Memorial Building. The remaining \$250,000 will be used to provide additional teaching staff.

On January 11, 1946, the Regents of the University accepted an offer from the Mayo Foundation and the Mayo Properties Association to support in perpetuity a professorship of public health at an annual salary up to \$10,000 a year. This professorship represents a substantial addition to the faculty in public health and will be held by the director of the School of Public Health. As the first completely endowed professorship in the University of Minnesota, the establishment of this Mayo Professorship in Public Health is indeed a notable event.

*Citizen's Aid Society Gift*—In 1924 the Citizen's Aid Society of Minneapolis provided the funds for the construction of the George Chase Christian Cancer Institute of the University Hospitals and for the last ten to fifteen years has made contributions in the amount of \$8,000 to \$10,000 annually for the support of the work of this institute. In January, 1945, this society decided to discontinue its activities as an operating agency and to distribute its capital assets. At this time the society made grants to the University to complete its obligations for the support of the George Chase Christian Professorship in Cancer Biology for five years and for the support of Dr. O. H. Wangensteen's investigations of the gastric ulcer problem for a period of three years. In addition, the society placed funds in trust which will become available to the University at the rate of \$12,000 a year for a ten-year period for the support of the work of the Cancer Institute. These generous grants have brought the total sum contributed by the Citizen's Aid Society to the University for cancer work to approximately half a million dollars. It is the judgment of the Cancer Research Committee that this final gift of \$120,000 should be used for the continuing support of the George Chase Christian Professorship of Cancer Biology.

*Variety Club Heart Hospital*—Early in 1945 certain members of the medical faculty aroused the interest of the Variety Club of the Northwest in the support of research and service to patients with heart disease. During the latter months of 1945 and the early part of 1946 the Variety Club raised and is prepared to turn over to the Regents approximately \$250,000 toward the construction of a heart hospital on the campus of the Medical School. In addition the Variety Club has agreed to provide at least \$25,000 a year toward the support of the work of this hospital. This will be a unique development toward the better understanding and treatment of the leading cause of death and disability in this country.—HAROLD S. DIEHL, *dean of the Medical Sciences*.

### SCHOOL OF NURSING

*Wartime Activities*—The chief wartime activity of the School of Nursing in this as in the last biennium has been concerned with meeting the insatiable wartime needs for nursing service in military, civilian, and industrial life. The significant service of the school in these war years is reflected in its contribution of approximately 1,178,670 hours in 1943-44 of undergraduate student service in the care of patients in the three major hospitals associated with the school, University Hospitals, Charles T. Miller Hospital, and Minneapolis General Hospital. These hours of student service filled, in a time of pressing need for civilian care, a gap made by the release of some 150 graduate nurses for military service. Moreover, increased hours of student service have contributed to uninterrupted carrying forward of much vital medical research. Admissions of students climbed from

120 in 1939 to a peak of 591 in 1945; the enrollment from 285 in 1939 to 1,078 on June 30, 1946. The work begun in these war years is still bearing fruit. Students entering the program under the U. S. Cadet Nurse Corps will be graduated through 1948.

*Reconversion*—The formidable load of war work has been exceeded only by the difficult tasks of reconversion. All faculty members have shared generously and creatively in assuming responsibility for coping with the problems of reconversion as they did for meeting the needs of the war years.

Changes in nursing education are posing the greatest problem of the reconversion period. The faculty has already reorganized its program to incorporate some of the needed elements of change. It has recommended to the President of the University discontinuance of the basic (three-year) curriculum effective January 1, 1947 (approved by the Board of Regents July 12, 1946), which will make possible a bachelor of science curriculum for all students, designed to prepare them more effectively for the broad functions and responsibilities of their tasks. The faculty has also revised the program for graduate nurses, placing greater emphasis on preparation for head nurse and supervisory positions in clinical services, financial support for initiating the proposed program to be requested by the University of the William K. Kellogg Foundation.

Many problems confront the School of Nursing at this time. One of these is that of immediate and great decrease of undergraduate students. The presently enrolled students, including the senior cadets, should, however, help to cushion the transfer from war to peace. Eventually the school should attain its approximate prewar admissions and enrollment.

*Federal Aid*—Federal aid has been reported in the 1940-42 and in the 1942-44 biennium reports. During the current biennium the U. S. Public Health Service has continued to provide financial assistance (in accordance with the provisions of the Bolton Act, Public Law No. 74—78th Congress) for two programs—student and postgraduate. Significant changes in these programs are reviewed briefly:

*The United States Cadet Nurse Corps (basic program).* Admission to this Corps closed October 15, 1945, with the provision that all students enrolled in the Corps on or before October 15, 1945, and who could complete their program on or before October 1, 1948, would receive the benefits of the Corps as reported in the previous biennium (the entire cost of the student's education while in the School being paid by the United States Public Health Service). The amount of maintenance allowed during the pre-cadet period was reduced July 1, 1945, from \$45 per month to \$35 per month per cadet for students entering the Corps after that date. The University of Minnesota has maintained the largest enrollment in the Corps of any school in the country.

*Advanced Professional (graduate nurse program).* Graduate nurses enrolled on or before October 15, 1945, for additional academic and professional preparation have been eligible for federal aid through June 30, 1946. This aid has provided payment for maintenance and university tuition and fees.

Funds expended by the United States Public Health Service for these programs from July 1, 1943 to June 30, 1945 are listed below. (July 1, 1945 to June 30, 1946 figures are not yet available.)

CADET NURSE CORPS PROGRAM

	1943-44	1944-45
Tuition .....	\$ 57,939.00	\$ 82,349.00
Maintenance .....	133,577.20	160,015.88
Stipends .....	122,638.31	191,791.57
Uniforms and books .....	71,748.10	69,161.02
Incidental and graduation fees .....	4,707.60	4,804.69
Transportation fees .....	3,607.20	7,252.84
Totals .....	\$394,217.41	\$515,375.00
Total for two years: \$909,592.41		

ADVANCED PROFESSIONAL PROGRAMS

A. Nursing Education

	1943-44	1944-45
Tuition .....	\$ 5,101.53	\$ 6,767.85
Maintenance .....	18,232.06	36,924.22
Incidental, course, and graduation fees .....	1,604.10	2,230.49
Extension .....	1,150.00	2,575.00
Totals .....	\$ 26,087.69	\$ 47,497.56
Total for two years: \$73,585.25		

B. Advanced Course in Psychiatric Nursing Instruction

	1943-44	1944-45
Tuition .....	\$ 3,330.00	\$ 3,330.00
Incidental fees .....	128.70	115.80
Maintenance .....	2,662.27	7,755.36
Totals .....	\$ 6,120.97	\$ 11,201.16
Total for two years: \$17,322.13		

During the biennium Miss Katharine J. Densford, director of the School of Nursing, has been president of the American Nurses Association.

Most members of the faculty have participated in professional organization work, serving on local or state and in some cases on national committees.—KATHARINE J. DENSFORD, *director*.

### SCHOOL OF PUBLIC HEALTH

Effective July 1, 1944, the School of Public Health was established within the Medical School to replace the Department of Preventive Medicine and Public Health. This reorganization was effected to give better recognition to the program of professional training, to place this program on a basis comparable to that in other institutions and to provide a structure for postwar expansion. The expansion received a material impetus through two generous gifts from the Mayo Properties Association, already mentioned.

Further recognition of the School of Public Health came in March, 1946, when the American Public Health Association established a plan for the accreditation of schools of public health and included Minnesota in its original list of nine schools to be accredited for the master of public health program. The public health nursing program which is carried on within the school has been accredited for several years by the National Organization for Public Health Nursing.

As now constituted, the School of Public Health carries on seven rather distinct activities—training of health officers, training of public health engineers, training of public health nurses, training of health educators, instruction of medical students, instruction in biostatistics, and teaching of personal health and hygiene throughout the University. As the biennium closes, plans have been completed for transfer of the Laboratory of Physiological Hygiene to the school and plans are being evolved for the development of a course in hospital administration. The latter will be developed under a grant from the Kellogg Foundation. It will fill a real need for trained hospital superintendents.

The addition of the programs of physiological hygiene and hospital administration within the school will be further expression of the basic philosophy that a school of public health should attempt to combine the interests of various professional groups and disciplines contributing to the organized protection of the health of the community.

As the biennium ends certain very definite needs are apparent. The most urgent of these is the provision of space for the development of proper laboratory facilities. Effective personnel cannot be secured or retained unless they are provided with working space. Prior to the biennium, the School of Public Health had no laboratories except for biostatistics. The State Board of Health had generously provided student facilities within its laboratories but these could be thought of as mere makeshift until the school might have laboratories of its own. During the spring of 1946, the Board agreed to make its unused virus laboratory available to the school for the development of a public health engineering laboratory which will be opened in time for the 1946-47 school year. Much of the equipment will be obtained from federal surpluses, at a considerable saving to the University.

The second most urgent need is the development of better field training facilities. The School of Public Health already has the largest enrollment of public health nursing students in the country. The applicants for work in public health nursing and health education far exceed available facilities, and especially facilities for the field training which is an essential part of the course. If the school is to develop properly and improve the quality as well as the quantity of its instruction, it must have access to better field training and be prepared to pay for the use of these facilities.

Coincident with the demobilization, student enrollment began to climb. During the spring quarter this reached a new peak and advanced registration for 1946-47 indicates an even heavier student load. Special significance may be attached to the fact that in each of the years over 30 states, territories or foreign countries were represented. The role of the school as a regional training center has been recognized in the form of substantial federal financial assistance during each year of the biennium.—GAYLORD W. ANDERSON, *director*.

### UNIVERSITY OF MINNESOTA HOSPITALS

The University of Minnesota Hospitals were established to furnish a means for the University of Minnesota to train medical students in clinical medicine. Training is given in both the Out-Patient Department and Hospitals under the direct supervision and guidance of a competent staff made up of full-time and part-time physicians. The staff is responsible to the state through the University for both the instruction of the students

and the care of the patients. This arrangement has proved satisfactory, not only in the training of medical students, but also as an economical means for the state to care for many of its indigent sick.

It is required that each patient be referred for admission to the Out-Patient Department or the Hospitals by his family physician or by a physician in his local community. This rule avoids the criticism that the Hospitals or its clinics are taking patients away from private practitioners.

Patients are classified according to their ability to pay as county, per diem, teaching and research, Sixty Fund, Eustis, or private. Except for the private patients there is no distinction made between the various classes in the treatment or privileges afforded.

*County* patients are those who are totally unable to pay. Their expenses are shared equally by their county and the state. When applying for either out-patient or hospital care, these patients must present county papers filled in by both their physician and their county commissioner (or his representative).

*Per diem* patients are those who cannot afford to pay for the services of both a private physician and a private hospital. When applying for either out-patient or hospital care, these patients must present a special form filled in by themselves and their family physicians. They are required to pay their clinic or hospital expenses only, no charge being made for the professional services of the staff. From the standpoint of money received by the Hospitals, there is no difference between a county patient and a per diem patient; consequently, the services and privileges tendered both are identical.

*Teaching and research* patients are primarily destitute unmarried obstetrical patients who are unable to avail themselves of county papers.

*The Sixty Fund* is a special grant from the State Legislature which is used to hospitalize indigent psychiatric patients for treatment, teaching, and research purposes.

*The Eustis Fund* was set up by William Henry Eustis to care for indigent children under 16 years of age.

*Private* patients, limited in number, are admitted as a convenience to the senior staff. They are usually cases referred from other doctors in the state. They are afforded the same treatment and privileges as are private patients in any private hospital.

*Students' Health Service* patients are not to be considered as being Hospitals' patients, even though a Hospitals' intern is assigned to that service. The Students' Health Service has its quarters in the University Hospitals, but it is not a part of either the University Hospitals or the Medical School. It is a service institution maintained by the University with a director, staff, and budget of its own.

*In-Patient Department*—The number of patients admitted for the year 1944-45 was 8,251 and for the year 1945-46, 9,220—an increase of 969. This increase in the number of admissions was due principally to the increase in Health Service patients from 1,055 to 1,547 and in county patients from 3,101 to 3,300. The total number of days of hospital treatment aggregated 136,858 for 1944-45 and 142,473 for 1945-46. During 1945-46 the largest number of hospital days service in the history of the Hospitals was given. The average number of days per patient stay in the hospital was 16.6 in 1944-45 and in 1945-46, 15.4 days—a drop of 1.2 days average length of stay per patient. Deaths for the past year numbered 421 as compared with 394 for the year 1944-45. This is a mortality percentage of 4.5 for the year 1945-46 as against 4.7 for the year 1944-45 or a decrease of .2 per cent in patient mortality. Post-mortems for 1944-45 number 295, an average of 75 per cent of deaths, and for 1945-46 the number was 311, an average of 74 per cent of deaths. The daily average number of patients was 375 in 1944-45 and 390 in 1945-46. Surgical operations performed during the year 1944-45 aggregated 5,304 and during 1945-46, 5,695—an increase of 391.

*Out-Patient Department*—During the year the Out-Patient Department showed an increase in the number of services rendered. New patient visits in 1944-45 were 15,061 and in 1945-46, 19,572. Total patient visits for 1944-45 were 69,189 and for 1945-46, 74,110. This increase was due to the discontinuation of gas rationing.

The Psychopathic Department of the Hospitals admitted 321 patients during the year 1945-46 as against 260 patients admitted the previous year. This was the greatest year of performance for the Psychopathic Department.

The waiting list of the Hospitals is now at the lowest peak in recent history.

In the Out-Patient Department the cost per patient visit was \$2.77 in 1944-45 and \$2.85 in 1945-46, an increase of 8 cents per patient visit. The cost of operating the In-Patient Department was \$7.90 per hospital day in 1944-45 and \$9.49 in 1945-46 or an increase of \$1.59 per patient day. Adjustments in salaries and wages of all personnel and the increased cost of supplies and expense account for this great increase in the cost per hospital day.



The shortage of personnel continued to handicap the Hospitals, and it was not relieved much by the cessation of the war. All departments have had a severe struggle to keep the hospitals operating with efficiency.

During the year the addition of a new cafeteria and remodeling of the kitchens were completed. The addition to the Physical Therapy Department was completed during the year.

The administration of the Hospitals wishes to thank the many generous friends who have helped to maintain the services of the Hospitals. To the Citizens' Aid Society for their continued support to the X-ray therapy department; to the University Faculty Women's Club who have continued their generous efforts in behalf of the patients; to the Crippled Child Relief for their assistance; to the Sunshine Club for its contributions; to the Traffic Club who again repeated their performance of giving splendid Christmas entertainment, gifts and cheer to all of the patients; to the many groups of school children throughout the state; to the Camp Fire Girls; to the Girl Scouts and to many other organizations too numerous to mention, the Hospitals expresses its sincere gratitude for their interest in its patients. Appreciation to the Minneapolis chapter of the Red Cross must be made here for its aid to the Hospitals during the war period. The help of the Nurses' Aides, Nutrition Aides and Gray Ladies made it possible for the Hospitals to carry on its function at almost normal tempo. The cessation of their efforts at the end of the war brought to an end an association which was most beneficial to the Hospitals and to the patients and the staff, and too much praise cannot be given to this group. RAY AMBERG, *superintendent*.

IN-PATIENT DEPARTMENT, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46
<b>Total patients admitted</b>		
Private .....	1,786	1,934
Per diem .....	1,301	1,349
Eustis .....	245	201
Teaching and research } Free .....	219	218
Charity .....	14	3
Staff .....	270	357
County .....	3,101	3,300
Health Service .....	1,055	1,547
Psychopathic .....	186	176
Private .....	33	66
Per diem .....	41	69
	<hr/> 8,251	<hr/> 9,220
<b>Total patients treated (discharged)</b>		
Private .....	1,726	1,883
Per diem .....	1,256	1,283
Eustis .....	256	220
Teaching and research } Free .....	217	227
Charity .....	14	3
Staff .....	271	357
County .....	3,184	3,390
Health Service .....	1,064	1,536
Psychopathic .....	209	218
Private .....	31	53
Per diem .....	39	50
	<hr/> 8,267	<hr/> 9,225
<b>Total days hospital care</b>		
Private .....	20,707	21,216
Per diem .....	21,537	20,782
Eustis .....	5,959	6,498
Teaching and research } Free .....	3,761	3,670
Charity .....	190	64
Staff .....	1,287	1,924
County .....	68,212	71,788
Health Service .....	5,506	6,518
Psychopathic .....	7,314	6,061
Private .....	1,425	2,221
Per diem .....	960	1,731
	<hr/> 136,858	<hr/> 142,473

	1944-45	1945-46
Average days per patient		
Private .....	11.5	11.2
Per diem .....	16.5	16.2
Eustis .....	24.3	29.5
Teaching and research } Free .....	17.1	16.1
Charity .....	13.4	21.0
Staff .....	4.7	5.3
County .....	21.9	21.1
Health Service .....	5.2	4.7
Psychopathic .....	39.3	27.7
Private .....	43.2	41.9
Per diem .....	23.4	34.6
Average length of stay per patient .....	16.6	15.4
Daily average number of patients		
Private .....	56.6	58.1
Per diem .....	59.2	56.9
Eustis .....	16.3	17.8
Teaching and research } Free .....	10.3	10.0
Charity .....	0.5	0.1
Staff .....	3.5	5.2
County .....	187.0	196.6
Health Service .....	15.0	17.8
Psychopathic .....	20.0	16.6
Private .....	4.0	6.0
Per diem .....	2.6	4.7
Daily average census for Hospitals .....	375.0	390.0

IN-PATIENT DEPARTMENT, COMPARATIVE TWELVE-MONTH REPORT

Service	Admissions		Patient Days		Average Length of Stay	
	1944-45	1945-46	1944-45	1945-46	1944-45	1945-46
General Surgery .....	1,147	1,197	21,152	19,369	18.5	15
Urology .....	617	486	7,492	7,579	12.1	15
Orthopedics .....	213	217	5,806	6,456	27.2	31
Neurosurgery .....	213	214	3,841	4,262	18.0	15
Tumor Surgery .....	274	286	3,817	3,569	13.9	12
Reconstruction Surgery .....	85	77	2,990	2,328	35.1	29
Total .....	2,549	2,477	45,098	43,563		
Medicine .....	1,116	1,116	17,346	18,536	15.5	19
Neurology .....	390	499	7,986	7,342	20.4	16
Dermatology .....	149	140	2,166	2,207	14.5	16
Total .....	1,655	1,755	27,498	28,085		
Psychiatry .....	263	313	9,911	9,750	37.6	31
Ophthalmology .....	225	242	3,729	3,798	16.5	16
Otolaryngology .....	274	382	2,145	3,078	7.8	8
Total .....	499	624	5,874	16,626		
Gynecology .....	387	484	4,922	5,991	12.7	14
Tumor Gynecology .....	95	87	4,522	4,366	47.4	37
Total .....	482	571	9,444	10,357		
Obstetrics .....	337	344	5,547	5,345	16.4	15
Newborn Pediatrics .....	244	260	3,511	3,143	14.3	13
Pediatrics and Specialties .....	1,157	1,212	23,883	28,203	20.6	22
Health Service .....	1,055	1,664	5,506	7,051	5.2	4
Ambulatory .....	10	0	586	0	58.6	0
Totals .....	8,251	9,220	136,858	142,373	16.6	16

## OUT-PATIENT DEPARTMENT, COMPARATIVE TWELVE-MONTH REPORT

Clinic	New Patients		Revisits		Totals	
	1944-45	1945-46	1944-45	1945-46	1944-45	1945-46
Admissions .....	3,675	3,530	.....	.....	3,675	3,530
Medicine						
General .....	.....	.....	16,087	16,995	16,087	16,995
Cardiac .....	657	596	930	880	1,587	1,476
Chest .....	249	191	2,303	1,281	2,552	1,472
Diabetic .....	111	110	863	826	974	936
Gastrointestinal .....	662	875	79	230	741	1,105
Metabolism .....	162	134	418	519	580	653
Neurology .....	965	947	1,826	1,901	2,791	2,848
Skin						
Allergy .....	.....	30	.....	29	.....	59
Syphilis .....	70	68	1,914	1,781	1,984	1,849
Dermatology .....	841	1,131	2,349	2,964	3,190	4,095
Surgery						
General .....	895	754	6,822	5,396	7,717	6,150
Genito-Urinary						
Female .....	134	117	495	433	629	550
Male .....	362	377	868	969	1,230	1,346
Neurosurgery .....	108	107	401	446	509	553
Reconstruction .....	4	3	10	19	14	22
Tumor .....	309	363	2,334	2,602	2,643	2,965
Orthopedic .....	445	424	1,165	1,471	1,610	1,895
Ear .....	313	270	1,028	887	1,341	1,157
Eye						
General .....	734	818	2,922	3,157	3,656	3,975
Refraction .....	2	0	674	697	676	697
Nose and Throat .....	542	442	1,565	1,234	2,107	1,676
Obstetrics .....	168	124	647	564	815	688
Gynecology						
Gynecology Tumor .....	539	503	1,410	1,407	1,949	1,910
.....	67	56	861	867	928	923
Pediatrics .....	724	719	3,326	2,533	4,050	3,252
Children's Psychiatric .....	31	11	377	220	408	231
Speech .....	12	0	132	16	144	16
Nutrition .....	27	44	44	59	71	103
Dental .....	4	3	53	13	57	16
W-212 .....	842	1,642	2,225	4,142	3,067	5,784
Miscellaneous .....	1,407	5,183	.....	.....	1,407	5,183
Totals .....	15,061	19,572	54,128	54,538	69,189	74,110

## STATEMENT OF INCOME AND EXPENDITURES

	1944-45	1945-46
Cash balance .....	\$ 63,386.90	\$ 32,425.72
County and state reimbursement .....	502,152.71	656,195.82
Minnesota Hospital and Home for Crippled Children .....	40,000.00	49,982.60
Out-Patient and per diem .....	478,578.67	604,751.89
General University funds .....	117,309.57	127,735.39
Psychopathic Department .....	70,000.00	90,000.00
	\$1,272,308.66	\$1,561,091.42
Salaries and wages .....	668,748.05	837,970.84
Supplies and expense .....	534,382.94	611,662.23
Equipment .....	33,094.57	26,352.34
Buildings and improvements .....	2,776.57	2,446.05
	\$1,239,002.13	\$1,478,431.46
Obligations at end of year .....	52,041.26	92,368.09
Free balance .....	19,615.54	9,703.13
	\$1,271,427.85	\$1,561,091.42
Cost of operation		
Out-Patient Department .....	\$ 191,056.10	\$ 211,172.21
In-Patient Department .....	1,080,371.75	1,350,929.21
Cost per out-patient visit .....	2.77	2.85
Cost per hospital day .....	7.90	9.49

PHYSICAL THERAPY DEPARTMENT, COMPARATIVE TWELVE-MONTH REPORT

Type of Treatment	Number of Out-Patient Treatments		Number of Hospital Patient Treatments		Total Number of Patient Treatments	
	1944-45	1945-46	1944-45	1945-46	1944-45	1945-46
Diathermy (short wave) .....	1,311	900	224	146	1,535	1,046
Ultra violet .....	478	375	568	551	1,046	926
Phototherapy—infra red .....	956	864	1,345	840	2,301	1,704
Massage—muscle training .....	3,033	2,789	3,249	3,038	6,282	5,827
Paraffin bath .....		7		1		8
Suspension .....	3			45	3	45
Pool .....		5				5
Pressure cuff .....	334	278	175	97	509	375
Whirlpool .....	2,235	1,614	706	653	2,941	2,267
Galvanic—faradic .....	389	302	225	57	514	359
Hot packs .....	71	286	70	410	141	696
Iontophoresis .....	4				4	
Totals .....	8,714	7,420	6,562	5,923	15,276	13,343
New patients .....	358	364	170	217	528	581
Number of patients treated .....	5,300	4,491	3,943	3,773	9,243	8,264

FEVER THERAPY, COMPARATIVE TWELVE-MONTH REPORT

Diagnosis	Number of Treatments		Diagnosis	Number of Treatments	
	1944-45	1945-46		1944-45	1945-46
Arthritis .....	18	0	Interstitial keratitis .....	14	0
Arthritis (G.C.) .....	11	8	Gonorrhoea .....	3	0
Chorea .....	10	0	Scleroderma .....	9	0
Syphilis .....	5	15	Still's disease .....	9	4
Syphilis (secondary) .....		2	Polio .....		4
Paresis .....	32	0			
Tabes dorsalis .....	6	0	Totals .....	120	33
Brucellosis .....	3	0			

MAIN LABORATORY, COMPARATIVE TWELVE-MONTH REPORT

	1944-45		1945-46			1944-45		1945-46	
Body cavity fluid					Blood, occult .....	64		42	
Routine .....	141	160			Boas test .....	7		0	
Bilirubin .....	8	12			Lactic acid .....	29		28	
Cholesterol crystals .....	2	2			Bilirubin .....	2		1	
Urobilinogen .....	15	0			Urobilinogen .....	1		2	
Urobilinogen (on dressing) .....	2	0			pH .....	0		6	
Bile abdominal sinus .....	4	0			Hematology				
Dye presence .....	2	0			Hemoglobin .....	13,083		13,324	
Pat extraction .....	1	0			Erythrocyte count .....	1,839		1,432	
HGA (subgalia) .....	1	0			Leukocyte count .....	12,335		12,361	
Pus .....	3	0			Differential .....	10,825		10,540	
Urobilin .....	1	0			Dural fluid .....	0		0	
Cerebrospinal fluid					Venous clotting time .....	4		6	
Routine .....	1,003	1,050			Bleeding time .....	791		856	
Colloidal gold .....	356	0			Clotting time .....	835		1,071	
Erythrocyte count .....	219	352			Clot retractility .....	6		20	
P.S.P. .....	0	2			Fragility .....	14		14	
Duodenal drainage					Hematocrit .....	705		301	
Routine .....	16	3			M.C.C. .....	9		36	
Bile .....	2	2			M.C.D. .....	14		31	
Bile pigments .....	5	0			M.C.H. .....	9		36	
Feces					M.C.V. .....	9		36	
Blood, occult .....	273	498			Parasites .....	11		10	
Fat .....	35	68			Platelet count .....	104		147	
Ova-parasites .....	53	140			Prothrombin rate .....	1,409		1,617	
Pus and mucous .....	40	71			Reticulocyte count .....	165		139	
Urobilinogen .....	2	27			Sedimentation rate .....	652		809	
Stercobilin .....	0	0			Normoblast count .....	4		0	
Hemoglobin .....	1	5			Malaria smear .....	0		16	
Urobilin .....	1	0			Sickle cell test .....	0		2	
Mucous .....	24	0			Per. sm. for plat. .....	0		6	
Gastrics					Fragility test .....	0		1	
Routine .....	419	529			Sulfa crystals .....	0		30	

## MAIN LABORATORY, COMPARATIVE TWELVE-MONTH REPORT—Continued

	1944-45	1945-46		1944-45	1945-46
Urine			Urobilin	1	0
Routine	11,099	9,675	Urobilinogen, quantitative	2	28
Color	5	0	Glucose tolerance	0	0
Specific gravity	5	38	Cystos	0	0
pH	74	51	Sulf., qualitative	0	0
Sugar, qualitative	2,645	3,595	Urine calcium	0	3
Acetone	1,509	1,137	Urine chloride	0	96
Diacetic acid	1,257	999	Quaiac	0	1
Sediments	1,626	547	Chyle	0	1
Albumin	203	959	Body cavity hgb.	0	6
Parasites	7	0	Sperm. ct. and morph.	0	13
Bence-Jones protein	7	3	Nasal sm. for eos.	0	3
Bilirubin	64	45	Toxic PMNO	0	1
Concentration and dilution	11	26	Miscellaneous		
Phenolsulfonphthalein test	845	531	Emesis-bilirubin	3	0
Fermentation	0	0	Emesis-blood	1	1
Porphyrin	1	2	Nasal smear	5	0
Protein (Esbach)	41	7	Nasal smear eosinophiles	1	0
Sugar, quantitative	2,068	2,333	Sputum-micro	1	0
Sulfonamide crystals	393	320			
Urobilinogen, qualitative	116	55	Totals	67,544	66,317
Benzidine	6	0			

## CHEMISTRY LABORATORY, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
ROUTINE			Potassium	88	132
Blood			Protein, ratio and total	435	445
Bilirubin	1,074	620	Total base	0	0
Calcium	496	512	Vitamin C	92	80
Carbon dioxide capacity	2,535	1,942	Blood volume	46	0
Chloride (as NaCl)	3,785	2,549	Cephalin cholesterol	253	49
Cholesterol, total	934	628	Glucose micro	44	2
Creatinine	596	719	Feces		
Glucose	2,120	2,363	Fat	17	21
Icterus index	46	8	Nitrogen	7	9
Phosphorus	331	373	Urobilinogen	0	2
Protein, total	3,610	2,364	Dry weight	1	5
Sulfonamides	3,658	1,895	Urine		
Thiocyanate	182	241	Calcium	41	96
Urea nitrogen	5,649	5,213	Chloride	7	21
Uric acid	281	236	Creatine	26	22
Van den Berg	0	0	Creatinine	29	24
Cerebrospinal Fluid			Galactose tolerance	4	1
Chlorides	14	32	Glucose, quantitative	0	0
Glucose	695	817	Hemoglobin	0	0
Protein, qualitative	930	729	Hippuric acid	62	45
Protein, quantitative	924	958	Non-protein nitrogen	0	1
Specific gravity (falling drop)	0	0	Urea	0	37
Cholesterol	12	6	Uric acid	12	5
Colloidal gold	148	272	Urobilinogen, 2-hour	116	31
Sulfonamides	58	10	Phosphorus	11	1
P.S.P.	0	1	Miscellaneous		
SPECIAL			Calculi	39	29
Blood			Nitrogen	0	17
Amino acid nitrogen	7	10	Urea clearance	10	18
Amylase	60	176	Water test	2	15
Bilirubin tolerance	2	0	Sulfonamides, free	0	0
Biliverdin	35	5	Sulfonamides, total	0	0
Bromsulfalein tolerance	143	13	Chloride (bile)	2	0
Cholesterol, esters	0	0	Chloride (gastric)	4	0
Cholesterol, free	0	0	pH	9	8
Congo red	22	6	Secretin studies	1	1
Fibrinogen	3	9	Trypsin	27	12
Galactose tolerance	82	13	Duodenal amylase	6	23
Glucose tolerance	134	128	Pancreatic enzymes	2	5
Glucose tolerance (Exton Rose)	2	8	Barbiturates	0	2
Glucose tolerance (micro)	19	20	Alcohol	0	9
Insulin tolerance	1	17	Micro sugar	0	18
Levulose tolerance	0	0	Keto steroid	0	4
Lipase	4	2	Blood creatine	0	1
Phosphatase, acid	488	310	Plasma and hgb.	0	25
Phosphatase, alkaline	577	417			
			Totals	31,050	24,838

CLERKS' LABORATORY, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
Feces			Sedimentation rate		669
Blood, occult		578	Urine chlorides		1,241
Fat		16	Malaria smears		1
Ova-parasites		21	Urines		
Pus		17	Routine		1,410
Urobilin		18	Color		0
Urobilinogen		100	pH		1
Gastrics			Sugar, qualitative		10,348
Blood, occult		7	Acetone		2,951
Lactic acid		1	Diacetic acid		2,951
Hematology			Sediments		20
Hemoglobin		2,069	Bence-Jones protein		16
Erythrocyte count		611	Bilirubin		83
Leukocyte count		1,974	Concentration and dilution		45
Differential and norm. ct.		1,809	Phenolsulfonphthalein test		98
Venous clotting time		38	Protein (Esbach)		13
Bleeding time		122	Sugar, quantitative		50
Clotting time		95	Sulfonamide crystals		51
Clot retractility		22	Urobilinogen, qualitative		361
Fragility		6	Urobilinogen, quantitative		710
Hematocrit		179	Urine calcium		2
M. C. C.		114	Nasal sm. for eos.		2
M. C. D.		100	Sperm ct. and morph.		7
M. C. H.		114	Gram stain		5
M. C. V.		114	Ziel Neelsen stain		4
Platelet count		124	Total		29,457
Reticulocyte count		169			

COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
<b>BLOOD BANK LABORATORY</b>			<b>Smears</b>		
Blood groupings	10,087	11,708	Acid-fast	368	456
Cross matchings	8,208	11,986	G. C.	609	632
Klines	7,535	8,360	Miscellaneous	477	362
Heterophile antibody	420	300	Pneumo typings	124	98
Cold agglutinins	15		Cerebro-spinal fluids	229	251
Anti-A titre	2		Totals	12,155	12,578
Anti-B titre	1		<b>ELECTROCARDIOGRAPH AND METABOLIC</b>		
Heterophile A. (adsb.)	14		Basal metabolic rates	1,647	1,451
Rh factor	53	279	Portables	115	111
Miscellaneous		107	Electrocardiographs	3,807	4,160
Totals	26,335	32,740	Portables	932	876
<b>BACTERIOLOGY LABORATORY</b>			Vital capacities	126	112
Cultures			Totals	6,627	6,710
Blood	2,805	2,847	<b>TISSUE LABORATORY</b>		
Drug room	622	661	Autopsies	2,114	446
G. C.	599	663	Frozen	156	117
Nose and throat	621	806	Surgicals	4,144	3,673
Stool	70	185	Totals	6,414	4,236
Urine	3,880	4,044			
Miscellaneous	1,751	1,573			

## DISPENSARY LABORATORY, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
Duodenal drainage			Smears		
Routine	0	0	Acid fast	196	168
Pepsin	1	0	G.C.	2	2
Feces			Monilia	0	1
Blood, occult	1,075	947	Nasal (eosinophiles)	134	144
Fat	168	28	Vincent's	5	13
Microscopic	180	38	Miscellaneous	10	0
Starch	0	1	Malaria	0	17
Muscle	0	1	Urines		
Mucous	0	3	Routine	7,259	6,852
Gastrics			Color	0	0
Routine	786	98	Specific gravity	52	4
Blood, occult	783	106	pH	835	386
Boas test	0	1	Sugar, qualitative	1,570	1,517
Lactic test	0	0	Acetone	958	846
Dye	5	0	Diacetic acid	955	828
Volume	5	0	Sediment	1,645	1,578
Hematology			Albumin	513	412
Routine	0	0	Bence-Jones protein	6	11
Hemoglobin	10,680	9,200	Bilirubin	63	35
Erythrocyte count	1,649	1,658	Concentration and dilution	65	100
Leukocyte count	6,983	5,725	Fermentation test	3	3
Differential	3,830	3,605	Phenolsulfonphthalein test	90	129
Bleeding time	110	90	Porphyrin	5	2
Clotting time	103	86	Protein (Esbach)	1	0
Clot retractility	4	12	Urobilin	2	7
Fragility	10	5	Urobilinogen	0	5
Hematocrit	185	258	Urobilinogen, qualitative	94	47
M.C.C.	11	43	Addis count	0	0
M.C.D.	21	45	Sulkowitch	0	8
M.C.H.	12	43	Sugar, quantitative	0	5
M.C.V.	10	44	Venipunctures	9,639	7,496
Reticulocyte count	192	164	Heterophil	0	2
Sedimentation rate	3,111	2,110	Totals	54,123	45,068
Platelet	107	138			
Venous clotting time	0	1			

## STUDENTS' HEALTH SERVICE LABORATORY, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
Duodenal drainage			Urines		
Routine	0	0	Routine	7,157	13,055
Feces			Color	0	0
Blood, occult	39	66	Specific gravity	0	0
Fat	15	4	pH	0	0
Microscopic	38	31	Sugar, qualitative	21	103
Mucous	0	3	Acetone	36	44
Gastrics			Diacetic acid	36	41
Routine	5	9	Sediment	0	2,260
Blood, occult	3	5	Albumin	0	9
Boas test	1	1	Bence-Jones protein	0	2
Hematology			Bilirubin	6	17
Routine	0	0	Concentration and dilution	3	2
Hemoglobin	8,708	12,246	Fermentation test	0	0
Erythrocyte count	594	579	Phenolsulfonphthalein test	2	3
Leukocyte count	2,943	3,855	Porphyrin	0	1
Differential	2,567	3,329	Protein (Esbach)	0	0
Bleeding time	18	24	Sulfonamide crystals	1	77
Clotting time	18	24	Urobilinogen, qualitative	8	15
Clot retractility	0	0	Urobilin	0	0
Fragility	0	3	Sugar, quantitative	1	0
Hematocrit	6	5	Blood sugar	0	0
M.C.C.	1	0	Sulfas	0	0
M.C.D.	1	0	Agglutination	0	3
M.C.H.	1	0	B.U.N.	0	3
M.C.V.	1	2	Bile	0	2
Platelet	17	19	Icterus index	0	1
Reticulocyte count	6	58	Venipunctures	6,317	9,576
Sedimentation rate	652	623	Heterophils	0	85
Smears			Glucose tolerance	0	8
Acid fast	8	12	Cephalin cholesterol flocculation	0	0
G. C.	253	348	Glucose	0	11
Monilia	0	0	Cholesterol	0	15
Nasal (eosinophiles)	23	49	Calcium	0	3
Vincent's	82	275	Prothrombin	0	3
Miscellaneous	137	157	Totals	29,725	47,175
Malaria	0	109			

PHARMACY—COMPARATIVE TWELVE-MONTH REPORT

July 1, 1944 to July 1, 1945

Month	Dispensary and Health Service Rx	Hospital Rx	Total Rx	Out-Patient Net Sales	Hospital Net Sales	Health Service Net Sales	Allergens Rx	Allergens Cash
July	2,966	6,455	9,421	\$ 1,745.30	\$ 8,420.60	\$ 320.15	350	\$ 380.75
August	3,152	6,027	9,179	1,668.10	8,200.50	355.55	315	330.80
September	2,672	5,913	8,585	1,463.75	6,757.80	171.70	295	297.75
October	3,892	5,789	9,681	1,679.95	7,306.35	613.45	166	151.75
November	3,769	5,732	9,501	1,353.75	7,518.10	639.45	102	125.70
December	3,316	6,505	9,821	1,265.10	9,262.25	484.40	118	139.70
January	4,105	7,577	11,682	1,631.65	9,955.25	676.70	94	143.50
February	3,521	5,769	9,290	1,402.00	8,918.45	529.55	282	327.65
March	3,737	6,644	10,381	1,494.75	10,668.55	539.05	503	621.35
April	3,842	6,877	10,719	1,491.45	9,933.35	713.45	326	382.90
May	3,618	8,811	10,429	1,476.05	9,558.50	541.90	317	353.55
June	3,021	6,270	9,291	1,338.15	8,995.80	423.00	277	290.35
Totals	41,611	76,369	117,980	\$18,010.00	\$105,495.50	\$6,008.35	3,145*	\$3,545.75
			3,145					
			121,125					

PHARMACY—COMPARATIVE TWELVE-MONTH REPORT

July 1, 1945 to July 1, 1946

Month	Dispensary and Health Service Rx	Hospital Rx	Total Rx	Out-Patient Net Sales	Hospital Net Sales	Health Service Net Sales	Allergens Rx	Allergens Cash
July	2,873	6,505	9,421	\$ 1,722.10	\$ 11,470.70	\$ 417.50	282	\$ 295.55
August	2,924	6,812	9,736	1,629.75	12,915.90	404.10	422	414.00
September	2,340	6,077	8,417	1,384.35	11,676.15	286.35	242	262.15
October	4,150	6,784	10,934	1,834.85	12,447.60	896.00	128	127.00
November	4,408	6,704	11,112	1,639.81	12,332.40	952.55	117	134.85
December	3,480	6,755	10,235	1,294.69	11,897.15	697.20	147	181.65
January	4,052	6,823	10,875	1,560.45	13,444.05	886.05	205	238.10
February	3,775	6,350	10,125	1,532.55	13,846.65	840.00	185	224.30
March	3,675	6,466	10,141	1,683.55	13,284.85	705.35	405	500.85
April	4,374	6,707	11,081	1,824.55	13,629.70	988.80	423	499.20
May	4,249	7,307	11,556	1,792.60	16,313.00	1,122.15	470	543.35
June	3,556	6,266	9,822	1,591.15	1,559.00	816.20	267	269.65
Totals	43,856	79,556	123,412	\$19,490.40	\$144,817.15	\$9,012.25	3,293	\$3,690.65
			3,293					
			126,705					



ROENTGENOLOGY, COMPARATIVE TWELVE-MONTH REPORT

Parts Examined	1944-45	1945-46	Parts Examined	1944-45	1945-46
Abdomen	875	1,076	Myelography	42	26
Ankle	186	235	Neck and thyroid	24	19
Bladder	19	16	Nose	21	23
Bronchography	87	95	Orbits	35	35
Cervical spine	228	383	Pelvis	665	564
Chest	7,779	10,177	Pregnancy	11	2
Cholangiography	136	99	Radius and ulna	55	70
Clavicle	14	23	Ribs	150	145
Coccyx	23	22	Sacroiliac	19	42
Colon	952	1,007	Sacrum	28	32
Cystogram	46	51	Scapula	0	7
Elbow	121	150	Sella turcica	29	41
Encephalogram	57	112	Shoulder	184	217
Esophagus	175	190	Sinuses (paranasal)	385	307
Femur	227	269	Sinuses (paranasal) iodized		
Fluoroscopy	3,448	4,211	oil	23	26
Foot	266	289	Skull	688	808
Gall bladder	505	531	Sterno-clavicular joints	4	9
Hand	212	205	Sternum	13	16
Heart	312	283	Stomach and duodenum	1,887	2,199
Hip	285	444	Temporo-mandibular joint	40	25
Humerus	106	83	Thoracic spine	280	266
Hystero-salpingography	3	1	Tibia and fibula	173	217
Injection of fistulae	6	2	Urinary tract	450	401
Knee	325	296	Urography, intravenous	736	678
Liver and spleen (thorotrast)	8	1	Urography, retrograde	233	162
Lumbosacroiliacs	895	824	Ventriculography	47	67
Mandible	97	92	Wrist	202	249
Mastoid	109	120			
Maxilla	41	32	Totals	24,205	28,184
Miscellaneous	238	212			

X-RAY THERAPY DEPARTMENT, COMPARATIVE TWELVE-MONTH REPORT

	1944-45	1945-46		1944-45	1945-46
Deep X-ray treatments			Superficial X-ray treatments		
New patients treated	489	538	Out-patient treatment	2,229	2,111
Patients re-treated	196	253	House-patient treatments	150	90
Total number of patients			Total number of treatments	2,379	2,201
treated	685	791	Philips contact treatments		343
Hennepin County patients	77	111			
Ramsey County patients	17	24			
Total county patients	221	222			
Out-patient treatments	5,586	5,763			
House-patient treatments	3,062	3,377			
Total number of treatments	8,648	9,140			

WAITING LIST, COMPARATIVE TWELVE-MONTH REPORT

Service	1944-45	1945-46	Service	1944-45	1945-46
Male surgery	25	7	Female medicine	1	2
Female surgery	21	9	Neurology and psychiatry	1	7
Neurosurgery	4	1	Dermatology	0	2
White surgery	1	1	Pediatrics	2	3
Plastic surgery	19	12	Gynecology	0	0
Purple surgery	1	1	Ophthalmology	11	9
Urology	1	2	Ophthalmology pediatrics	5	8
Surgical pediatrics	1	0	Otolaryngology	6	0
Orthopedic pediatrics	0	1	Tonsils and adenoids	22	4
Reconstruction pediatrics	5	6			
Orthopedics	14	29	Totals	142	105
Male medicine	2	1			

*Social Service Department*—Psychiatric social work is a subsidiary part of the total social service program of the Hospitals and Medical School. It has functioned as a sub-unit for three years, but has had a full staff for less than two. Unlike medical social work in general, it is related to only one large medical specialty—neurology and psychiatry.

Two workers serve adult patients and one works with children. The chief psychiatric social worker is consultant and supervisor for the other three. She also assigns and supervises the practice work of psychiatric social work students.

Primarily, we have concentrated on learning to define in practice and theory our social work function in the departmental team. Roughly, the social worker contributes to the diagnostic study of the neuropsychiatric patient facts and impressions regarding his personal environment, social experience, and dynamic relationships. In treatment, as the physician's therapy helps the patient to resolve conflicts, the social worker helps him to find practical use for the new psychological energy thus released. For the patient who must accept permanent and perhaps progressive neurological handicaps, the social worker tries to give emotional support to him and to his family, and to help him find constructive outlets within his restricted design for living.

The department has functioned for two years as an accepted field work resource for graduate students of psychiatric social work in the University, six students having been assigned to us for the required three quarters of practice work.

The medical social care of patients and teaching have been major functions, but there has been some responsibility for extension of the medical social work program in the hospital, for participation in the development of social and health programs in the community, and for research. Staff turnover in the first year was one out of seven; in the second year five out of seven with obvious resulting losses to the work.

Medical social case work for individual patients rendered by the seven staff members shows the following figures:

Intensive Case Work	1944-45	1945-46
Total number of intensive cases .....	1,011	948
Average monthly case load for the department .....	313	295
Average monthly case load for each social worker .....	45	43

Many patients do not need intensive social case work but require one or two minor social services to enable their medical care. The unrecorded social services for this second group of patients was as follows:

Unrecorded Services	1944-45	1945-46
Reports to other social and health agencies .....	1,380	1,577
Patients referred to another social or health agency .....	234	207
Interpretation regarding clinic and hospital expenses .....	59	82
Clinical advice and interpretation to the patient or family		
By conference .....	3,165	3,015
By letter .....	1,255	1,262
By visit .....	3	0
Discharge arrangements for hospital patients .....	2,150	1,890
Board and room arrangements .....	285	308
Nursing home arrangements .....	638	334
Transportation arrangements .....	101	74
Interpretation of social data to doctors .....	83	605
	9,353	9,354

Medical social work students have continued to be our chief educational responsibility, but there have been lectures to nurses as previously reported, and orientation to hospital librarians and physiotherapists.

We have extended the medical social work program to some extent among other social and health agencies of the community, this having been done chiefly through committee work rendered by individual staff members and the department head in participation with these agencies. Institute programs and individual consultations have also served this end.—FRANCES M. MONEY, *director, Social Service Department.*

*Powell Hall*—I am certain that July 1, 1946 saw the end of the most difficult year in the history of Powell Hall. One short month following the close of the war changed our quiet lobby and living rooms into something resembling a busy hotel lobby. Note that on September 29, 66 university students registered in Powell Hall. The number has varied from 88 in November to 58 at the present time. We were unable to segregate the university students from the nursing staff, and the combination of a study group and a service group living on the same corridor brought problems. Adjustment was difficult at times.

In August, 1945, an addition was opened, increasing the capacity by 178 beds (87 double rooms and 4 single). We are still waiting for such things as drapes, bed covers, kitchen equipment, and lounge furniture.

POWELL HALL RECORD OF WEEKLY ROTATIONS AND ADMISSIONS

July 1, 1945 to July 1, 1946

Date	Central School Students	Affiliates	Dietitians	Anesthetists	Interns	Powell Hall	Telephone	Dorm. Proct.	Counselors	Miscellaneous	Graduates	Total
1945												
July 1	256	50	12	15	.....	2	5	.....	.....	.....	17	347
July 8	254	49	12	14	1	2	5	.....	.....	.....	17	354
July 16	259	49	17	14	1	2	5	.....	.....	.....	17	364
July 23	260	49	17	14	1	2	5	.....	.....	.....	17	365
July 30	255	49	13	14	1	2	5	.....	.....	.....	18	357
August 7	254	48	13	13	1	2	5	.....	.....	1*	18	355
August 15	260	48	14	14	1	2	5	.....	.....	1	18	363
August 20	259	48	14	14	1	2	5	.....	.....	1	18	362
August 27	262	48	14	13	1	2	4	.....	.....	1	20	365
September 2	258	48	12	13	1	2	4	.....	.....	.....	21	359
September 9	252	49	12	13	1	2	3	.....	.....	.....	21	353
September 17	254	49	19	13	1	2	3	.....	.....	.....	20	361
September 24	258	45	19	13	1	2	4	.....	.....	.....	28	371
October 1	330	43	20	14	1	2	5	1	.....	.....	35	451
October 8	338	43	20	14	1	2	5	1	.....	.....	34	459
October 15	341	43	21	15	1	2	3	5	.....	.....	34	464
October 22	342	43	20	15	1	2	3	5	.....	.....	34	465
October 29	345	43	20	15	1	2	3	4	.....	.....	35	468
November 4	342	43	20	16	1	2	3	4	.....	.....	37	472
November 12	344	44	21	15	1	2	3	4	.....	.....	38	469
November 26	340	44	21	15	1	2	3	4	.....	.....	40	470
December 3	333	44	21	15	1	2	2	4	.....	.....	39	461
December 10	326	45	21	15	1	2	2	4	.....	.....	40	456
December 17	319	45	17	14	1	2	2	4	.....	.....	39	443
December 24	242	46	13	13	1	2	2	3	.....	.....	39	365
December 31	235	45	18	13	1	2	2	3	.....	.....	38	357
1946												
January 7	310	45	18	12	1	2	2	4	.....	.....	41	436
January 14	309	45	19	12	1	2	2	4	.....	.....	41	435
January 21	311	45	19	11	1	2	2	4	.....	.....	40	435
January 28	309	45	18	11	1	2	2	4	.....	.....	37	429
February 4	309	45	18	11	1	2	2	4	.....	.....	37	429
February 11	309	45	18	10	1	2	2	4	.....	.....	37	428
February 18	307	44	17	10	1	2	2	4	.....	.....	38	425
March 4	300	44	18	12	1	2	2	4	.....	.....	40	421
March 11	299	48	18	11	1	2	2	4	.....	.....	42	427
March 18	291	47	19	11	1	2	2	4	.....	.....	43	420
March 25	286	47	20	12	1	2	2	5	.....	.....	43	418
April 1	299	47	22	13	1	2	2	5	.....	.....	44	435
April 8	308	47	22	13	1	2	3	3	3	.....	46	448
April 15	309	47	22	13	1	2	3	3	3	.....	45	448
April 22	304	47	22	14	1	2	3	3	3	.....	46	444
April 29	303	47	22	13	1	2	2	3	4	.....	47	444
May 6	303	47	22	13	1	2	3	3	4	.....	46	444
May 13	301	47	21	13	1	2	3	3	4	.....	47	442
May 20	303	47	20	13	1	2	3	3	4	.....	48	444
May 27	302	46	19	14	1	2	4	3	4	.....	49	444
June 3	296	47	16	13	1	2	4	3	4	.....	41	437
June 9	291	47	16	13	1	2	4	3	4	.....	51	432
June 16	310	47	15	13	1	2	3	2	5	3	52	453
June 24	306	46	15	14	1	2	3	2	5	2	53	450
July 1	302	46	19	13	2	2	3	2	5	3	55	451

We have had a strong chairman of activities the past year—one who has been interested in sports on the campus. She has successfully organized teams in Powell Hall. Small groups have joined sleigh ride parties and afternoon and evening dances scheduled from the Union. The hobby course on the campus attracted a surprisingly large group.

The attendance at the weekly coffee hour has increased. Five dances were given during the year—three for residents of Pioneer Hall, one for returned veterans, and the last, a date dance at the Radisson Hotel. Christmas festivities are planned weeks ahead and consist of the Christmas tree trimming and the Christmas party. The crowning accomplishment of the year has been the appointment of six counselors.

The recognition assembly was the outstanding event of the year. It followed the same pattern as the previous years. Odney Swenson was elected the outstanding citizen.—MRS. DOROTHY KURTZMAN, *director, Powell Hall.*

### SCHOOL OF DENTISTRY

*Accelerated Course*—The close of this biennium marks the end of an accelerated program which the School of Dentistry maintained throughout the war. The A.S.T.P. for dental students was discontinued on July 15, 1944, but the school was obliged to continue with its accelerated program because the Navy V-12 program continued until December 22, 1945, and students remaining in the dental course from these discontinued programs were permitted by Selective Service to continue only if accelerated.

*Registration*—Registration in the Dental School has dropped rather sharply. This was due to two factors. First, the termination of the army and navy dental training programs cut off the most important source of supply of entering students. These students received their pre-dental training under military auspices, or were recruited from military personnel who already had the required subjects. Long before the end of hostilities, the army discontinued its pre-dental program, feeling that the war would end before the students who were already in dentistry would graduate. With the discontinuance of the army program, the only available supply of dental students was a limited number from the navy program, a few who had been deferred by selective service, and women. Secondly, selective service did not defer students for pre-dental study. In 1944-45 the total registration was 299 and in 1945-46, 253.

*Faculty*—Dean William F. Lasby retired on June 30, 1945. Dr. Lasby was a graduate of this school in 1903 and was appointed to the staff as a full-time instructor in 1907, serving in various capacities until his retirement. He was made acting dean in 1927 and dean in 1929. Highlights of Dean Lasby's administration were the erection of the new dental building, inauguration of graduate education and refresher courses. A committee headed by Dean Theodore Blegen of the Graduate School was appointed by President Coffey to make recommendations for the appointment of a new dean. As a result of this study, William H. Crawford was recommended and appointed dean by the Board of Regents, effective July 1, 1945. Dr. Crawford graduated from the University of Minnesota School of Dentistry in 1923 and has since devoted his entire time and attention to dental teaching, research, and administration. Five years were spent at the University of Tennessee School of Dentistry, twelve at Columbia University School of Dental and Oral Surgery, and five at Indiana University School of Dentistry where he served as dean.

Three full-time and two part-time teachers returned from military leaves, thus materially strengthening the faculty. Six new part-time teachers were appointed in 1945-46.

*Postgraduate Study*—During the year 1944-45, no students were registered in this area. Sixty-five were registered in 1945-46. The school received many requests for postgraduate courses which offered clinical as well as didactic instruction. The close of the biennium found the school arranging a very extensive program in this area.

*Oral Diagnosis*—The Oral Diagnosis department has been reorganized under the direction of Professor William Simon. The newly organized department extends its teaching to students far beyond the search for missing and decayed portions of teeth. Examination of soft tissues in and about the oral cavity and of the supporting tissues of the teeth now come under the scope of new activities. Students are taught oral manifestations of systemic disease and are drilled in procedures of cooperation with the physician which lead to coordinated benefits to patients. The newly organized department is conducting research on the radiographic study of artificially induced infection at the apices of teeth, using pure strain and cultures.

*Graduate Education and Research*—Registration in the graduate area reached low ebb in this biennium as in other areas of dental study. Demands on dental personnel by

military forces were responsible for this situation. Research in biological chemistry on problems relating to dental caries has continued under the direction of Dr. Wallace Armstrong. A grant from the American Dental Association has been of considerable assistance in this study. Two studies in collaboration with the U. S. Public Health Service on topical application of fluoride—one in Arlington, North Mankato, St. Louis Park, and the other in Rochester, have given evidence that incidence of caries in the teeth of children can be reduced approximately 40 per cent by this application. Further studies under Dr. Armstrong's direction are continuing with regard to dietary alterations on the composition of bone and teeth and on the uptake of radioactive isotopes by these tissues.—WILLIAM H. CRAWFORD, *dean*.

### THE LAW SCHOOL

The biennium marks the transition from war to peace. The conditions in the Law School caused by the war, described in my last two biennial reports, continued through the year 1944-45, but they changed rapidly in 1945-46—the first postwar year.

*Registration*—The registration in the Law School made its low of 53 in the spring quarter of 1944. It rose slightly in 1944-45, and mounted rapidly in 1945-46, when the spring quarter registration was 349. The total individual registrations for each of the six years beginning with the year 1940-41, including the summer quarter but excluding duplications, were 291, 217, 152, 88, 99, and 473. The pent-up flood of delayed registrations augmented by the liberal governmental provisions for the education of returning veterans is now upon us, and will continue to rise for the next three years. Up to the present time the increase has been largely in the freshman class. There are likely to be large freshman classes for at least three more years. At the same time the second, third, and fourth year classes will successively become larger by promotions from the classes below. The registration for 1948-49 will probably approximate 900—about three times the normal prewar number.

*Faculty*—Before the war the Law School faculty had eleven full-time teachers, including the dean. In 1944-45 four were on full-time leave, one on half-time, and another carried the duties of law librarian in addition to teaching. Thus the number was reduced to the equivalent of six full-time teachers. In 1945-46 two members on full-time leave resumed their duties at the school, and the one on half-time leave returned to full time, making a teaching force for that year equivalent to eight and one-half full-time teachers. This number in the spring quarter of 1946 made a ratio of one teacher to forty-one students. Throughout the war the faculty carried an abnormal burden of teaching, and at the same time performed various public services, and the teaching burden continued through the first year after the war ended. Provision has been made for four additional teachers for 1946-47, and others will have to be added for succeeding years as the prospective registration figures clearly indicate.

Two members of the faculty, Professor Edward G. Jennings and Professor William L. Prosser, who had been on leave of absence during the war, resigned to enter practice. They were young men who had won national reputations as scholars, teachers, and legal writers. Their resignations were a serious loss to the school.

*Law Library*—In the biennium 11,116 volumes were added to the law library and 197 volumes withdrawn as valueless, making a net total of 147,697 volumes. There are large outstanding orders for foreign materials, for which funds have been obligated but not paid, due to the fact that these foreign materials could not be shipped. They are now beginning to arrive and will augment the number of volumes to be added in the next biennium. Of the volumes added, 7,736 were obtained by purchase, 2,760 by gift, and 620 by exchange. Over 2,900 books and 1,400 pamphlets were bound, and additional books and pamphlets repaired.

A number of the volumes acquired were books and session laws which are rare and difficult to obtain. The success in this direction is a credit to the law librarian, Professor Edward S. Bade, and his staff. The utmost in alertness is necessary to procure such volumes when they appear in the market. The quality of our law library is more marked than its quantity. The policy is to get along with as few books as possible of only temporary value, and to buy as many as possible of lasting value. This is building for the future at some sacrifice for the present. The law library already contains a mass of materials of great interest to historians, political scientists, economists and sociologists, as well as to lawyers.

The law library is now facing many problems. The staff has been inadequate for the task and is constantly changing. Two new positions have been created and the staff

TABLE I. RECORD OF CANDIDATES TAKING MINNESOTA BAR EXAMINATIONS FOR THE FIRST TIME IN 1942, 1943, AND 1944, IN ALL EXAMINATIONS TAKEN BY THEM TO AUGUST 31, 1946

Candidates' Appearance	Candidates from University of Minnesota			Candidates from Other Law Schools			Totals		
	All	Passed	Failed	All	Passed	Failed	All	Passed	Failed
First .....	26	23 ( 88%)	3 (12%)	55	37 (67%)	18 ( 33%)	81	60 (74%)	21 ( 26%)
Second .....	3	3 (100%)		8	2 (25%)	6 ( 75%)	11	5 (45%)	6 ( 55%)
Third .....	0			2	0	2 (100%)	2	0	2 (100%)
Total passed .....		26 (100%)			39 (71%)			65 (80%)	
Not passed to August 31, 1946 .....	0				16 (29%)			16 (20%)	

TABLE II. RECORD OF ALL CANDIDATES TAKING MINNESOTA BAR EXAMINATIONS IN 1945 AND 1946

Candidates' Appearance	Candidates from University of Minnesota		Candidates from Other Law Schools		Totals	
	All	Passed	All	Passed	All	Passed
First .....	37	35 (95%)	30	20 (67%)	67	55 (82%)
Second .....	0	0	8	7 (88%)	8	7 (88%)
Third .....	2	0	3	2 (67%)	5	2 (40%)
Fifth .....			2	0	2	0
Sixth .....			1	0	1	0
Eighth .....			1	0	1	0
Total passed .....		35		29		64

is now as large as present working quarters will permit, but it is still inadequate. Stack-room space is exhausted and books are being put in storage. Even storage space is insufficient. The library is the laboratory of the Law School, and additional staff, staff quarters, and stackroom space are desperately needed.

*Law Building Extension*—In the building requests presented to the Legislature in 1945 there was provision for an extension to the Law Building. The need then existing has grown with the years that have since passed and will grow even faster in the years just ahead. As pointed out above, the registration is already nearly double the normal prewar years, and will soon be treble those years. The present building will be inadequate in every respect. The need for the earliest possible erection of the extension to the Law Building cannot be too strongly expressed.

*Bar Examinations*—Two tables giving data on the state bar examinations (page 125) Table I is primarily designed to show what proportion of the candidates is ultimately successful. The years 1942, 1943, and 1944 were chosen for this study in order to allow time for repeated attempts. This study was restricted to candidates who first appeared in those years, and the records of unsuccessful candidates were examined down to August, 1946, after which they are not likely to appear for further examinations. This table shows that all of the candidates from this school passed the examinations, compared with 71 per cent of the candidates from other schools.

Table II shows the record of all candidates in 1945 and 1946, regardless of when they first appeared. It shows that 95 per cent of the candidates from this school passed on the first attempt, compared with 67 per cent of the candidates from other sources. The graduates of this school also have an excellent record in the bar examinations in other states.—EVERETT FRASER, *dean*.

### COLLEGE OF PHARMACY

*Enrollment*—The following tabulation shows the number of undergraduate students registered in the College of Pharmacy during the summer, fall, winter, and spring quarters of the years 1944-45 and 1945-46:

Year	Summer	Fall	Winter	Spring
1944-45	21	59	56	51
1945-46	11	79	135	164

*Graduate*—Six students were enrolled in the Graduate School in 1944-45, taking their major work in either pharmaceutical chemistry or pharmacognosy, as against ten students during the year 1945-46.

*Graduates*—The following is a tabulation of the undergraduate and graduate degrees awarded during the biennium:

Year	B.S. in Phm.	M.S.	Ph.D.
1944-45	20	0	0
1945-46	5	0	0

*Curriculum*—As a result of a six-month study of present trends in modern therapy and of a survey among physicians, dentists, and veterinarians to determine how they believe pharmacists should function so as to contribute the most effectively to a better health service, the curriculum was revised effective the beginning of the fall quarter, 1945-46. The principal curricular and requirement changes were: (1) requirement of a "C" average for graduation; (2) increase in mathematics and physics courses; (3) increase in public and personal health courses; (4) increase in pharmacology course; (5) introduction of course in veterinary products; (6) changes in course contents, i.e., semi-microqualitative analysis, etc.; (7) inclusion of course in mycology and antibiotic substances; (8) several rearrangements of course sequences; (9) a number of minor changes, i.e., reallocation of lecture and laboratory hours for a number of courses. The faculty believes that the above mentioned changes have materially strengthened our course of study.

*Faculty*—With the exception of graduate teaching and research assistants and the changes noted below, the faculty remained the same as it was during the biennium, 1942-44: Professor Gustav Bachman, retired as of June 15, 1946; Associate Professor Charles V. Netz, promoted to Professor and Head of Department of Pharmacy to succeed Professor Bachman; Assistant Professor Taito Soine, promoted to Associate Professor; Instructor Ragnar Almin, promoted to Assistant Professor; Associate Professor Willard J. Hadley, new faculty member to fill position formerly held by Dr. Netz.

*Scholarships and Fellowships*—In addition to scholarships and fellowships already in existence, the following were established during the biennium: each year of the biennium, two \$200 undergraduate scholarships were created by the American Foundation for Pharmaceutical Education; two graduate fellowships of \$800 and \$1,467, respectively, by the American Foundation for Pharmaceutical Education; three graduate fellowships of \$1,000 each were established by the Lederle Laboratories, Inc., of Pearl River, N. Y., and one graduate fellowship of \$1,000 by Parke, Davis and Company, of Detroit, Michigan.

*Research*—During the 1942-44 biennium the results of two pieces of research by members of the faculty were outstanding. One was the isolation and characterization of an antioxidant obtained from the so-called creosote bush, and the other was the synthesis of several new thiobarbituric acid compounds. The University has secured process patents on all of these products. During this biennium, purification procedures have been developed so that practically 100 per cent pure compounds can be produced. The former is in commercial production by the Wm. J. Stange Co. of Chicago. The latter is to be marketed by Eli Lilly and Company.

*War Activities*—Despite the marked decrease in enrollment, the amount of didactic instruction given in the College of Pharmacy remained the same. However, the decline did affect the amount of laboratory instruction and supervision. The members of the instructional staff volunteered their services to instruct in those departments in which there was a shortage of teachers. Members of the faculty instructed in physics, chemistry, and pharmacology. One member devoted 20 per cent of his time to antimalarial research. Another member of the staff served as president of the State Pharmacy Advisory Committee to the State Selective Service and the War Manpower Commission, and practically all others participated actively in state and national affairs which it is believed contributed to the furtherance of the war effort.

*Library*—Seventy-one new books were added to the Pharmacy library during the 1944-46 biennium. By authority of the Library Committee, several new and badly needed periodicals have been added to our list.

*State Board Examinations and Placements*—The Minnesota State Board of Pharmacy conducted four examinations in the College of Pharmacy during the biennium. Forty-eight persons made application for licensure examination. Of the thirty-four graduates of the College of Pharmacy of the University of Minnesota taking the examinations, 30 (88.23 per cent) passed and were licensed to practice pharmacy in Minnesota. Of the remaining eligible to take the examinations, 10 (14 per cent) passed the examinations. During the 1944-46 biennium, a large majority of our graduates enlisted in the Army, Navy, or Marine Corps or were inducted into service where they practiced their profession. Others secured positions in retail pharmacies, hospitals, analytical and control laboratories, and the like.—CHARLES H. ROGERS, *dean*.

## COLLEGE OF EDUCATION

In the period extending from July 1, 1944 through June 30, 1946, which included the last year of active warfare and most of the first year after V-J Day, twenty-one staff members of our college and University High School gave specialized military and civilian service. Of those who had officer classification there were two with the rank of lieutenant colonel, four with lieutenant commander, one with major and five with the rank of lieutenant. The others furnished non-military, specialized, war-related, educational services. This indicates that specialized peacetime training for civilian education will in time of war contribute important talent and scholarship to specialized war jobs. Our staff contributed much to the direction and organization of educational programs, the direction and organization of personnel work, the construction and evaluation of selective tests and examinations, the organization and direction of technical war production programs in vocational schools, and the organization and supervision of recreational and physical education programs.

Created during the biennium, but effective for the first time during the year 1946-47, there have been added new positions in distributive education, a directorship of student teaching in general education, now separated from the directorship of the University High School, and a new position in general education. For next year all professorial positions and all teaching or research assistantships as well as University High School instructorships have been re-established and several new ones added. In the University High School the policy of gradually establishing as permanent positions the headships of departments has begun. For the remainder of the High School staff of instructors we shall continue to use candidates for the doctorate in education or in subject-matter



fields who hold Masters' degrees and have demonstrated successful teaching experience. They can usually supply from three to seven years of University High School service.

We have thus far withstood fairly successfully the offers of other institutions to secure younger members of our staff. Except for Dr. George Ekstrom, who has become head of the Department of Agricultural Education at the University of Missouri, and Dr. Verne Fryklund, who has become president of Stout Institute, we have had no major losses. This would not have been possible without the increase the University was able to make in salaries for the year 1946-47, since most of our younger men and women below the age of forty have had attractive offers from elsewhere. To meet the increase in public school salaries very substantial increases have been made in the University High School.

*Scarcity of Teachers*—One acute educational war problem of our state and therefore of the college was the drastic decline in the supply of teachers with standard preparation, due to the large numbers of teachers who left the profession for war service and related jobs in industry and business. The undergraduate enrollment dropped to a low of less than 50 per cent of its prewar registration during 1939-40. The graduate school enrollment in Education dropped to 25 per cent of its prewar level. The total number of Bachelor, Master, and Doctor degrees awarded fell from 790 in 1939-40 to about 375 last year. Even before the end of the first year since V-J Day, however, enrollments have bounced back to almost 80 per cent of prewar enrollments for undergraduates, while the graduate school group in education, and the group enrolled in fifth-year programs already are the largest in the history of our college. The rate of recovery is slower than that of the rest of the University, but it is expected to persist longer, so that we are anticipating a much larger college within a few years. The College of Education did not quite reach the low point of teachers college enrollments; it has experienced a much more rapid recovery than they. The year 1946-47 is, nevertheless, the low point so far in our supply of standard teachers. The demands upon our Bureau of Recommendations have accelerated from 2,000 notices of vacancies per year before the war to over 10,000 during the present year.

*Quality of Candidates*—At best the shortage in the supply of teachers in the state and nation will extend on until at least 1952-55. In spite of this situation the College of Education has recently raised the threshold of admissions to the fortieth percentile in rank of scholarship of high school graduates for academic high school and elementary teachers and to the twenty-fifth percentile for special subject teachers. As the state supply of teachers is adjusted to needs, we hope to raise both of these thresholds further. This does not affect our graduation standards which have always been relatively high in requiring a C average of college scholarship and a C+ average in the major, but it does eliminate from admission and consequent care and service a large number who never would graduate or secure positions.

Not just anyone can teach. Some weaknesses of education in the United States are in no small measure due to unselected admissions and low graduation standards for the profession in institutions which prepare teachers. An investigation revealed that of those whom the college has eliminated for scholastic reasons a considerable proportion will still graduate from other institutions and thus gain entrance into the profession of teaching. This indicates the need of statewide, regional, and even nationwide cooperation.

A beginning has been made with the psycho-educational clinic under the directorship of Guy Bond to train teachers in diagnostic and remedial teaching and to give service to the state on atypical pupils of every sort.

*Summer Workshop*—Special mention should be made of the positive contribution we believe our summer workshops are making to the advancement of education, particularly of higher education, kindergarten, primary and nursery education under the Institute of Child Welfare, and on the problems of local Minneapolis schools. The latter were supported by scholarships to Minneapolis teachers from the Minneapolis Board of Education.

During this biennium the studies in education of the Red Wing Community Survey with reference to postwar planning for that community were completed. They covered the teaching staff, the impact of the war on instruction in the schools and the status of their school youth. Nelson L. Bossing is continuing his directorship of the eight-year study of secondary education in cooperation with eight school systems and the state department.

Additional five-year master of education curricula have been established in elementary education, rural education, English, social studies and recreational leadership. Gradually our entire four-year program of curricula will be paralleled by five-year curricula and then we hope that the four-year curricula of the College of Education may gradually be eliminated over a period of years. Besides better selection, a longer period of general

and professional education and training is needed before we can look with pride upon our profession. Our college is thus definitely seeking to improve the qualifications of those whom we graduate into the teaching profession.

The University must continue to press hard for a unit of three urgently needed buildings to house a widely scattered faculty in education and educational psychology, to supply a central professional library reading room and seminar, to provide much needed educational and psychological laboratories and clinics, also a new and complete University High School that will be a model for school systems, and an elementary experimental school. The lack of these facilities keeps our work of teacher-preparation under a cloud because the student body and faculty are scattered in makeshift accommodations. It affects negatively college spirit and the morale of students which should be developed for the profession of teaching. New buildings will supply a full program of professional education, research and experimentation in which there now are gaps and incomplete provisions everywhere. The University must dignify public school education with a modernized plant.

We must meet a constant demand for more field study and more educational surveys within and, perhaps to our benefit, outside the state by providing some additional expert personnel to supplement the entire present staff which could thus transfer its concepts of forward steps in education more quickly into state practice.

We shall re-examine our entire program of studies and curricula from the standpoint of changing postwar needs in community, state, national, and world affairs. The improvement of education generally is conditioned entirely upon the improvement and continuing adjustment of teacher-preparation to these educational needs in general and of individuals in particular.—WESLEY E. PEIK, *dean*.

### SCHOOL OF BUSINESS ADMINISTRATION

The last year of war and the first year of peace included the college terms having lowest and the highest enrollment in twenty years. In that very sharp increase, which is far from ended, we have the cause of most of our present troubles and those immediately ahead. The veterans' strong preference for business training, together with our normally heavy male registration, have increased our enrollment at a much faster rate than the average for the University.

The official enrollment in the School of Business Administration was 142 in the fall quarter of 1944, rising to 711 in the spring quarter of 1946. Latest estimates are for 1,400 in the fall of 1946. Since our faculty also serves the College of Science, Literature, and the Arts in the teaching of courses in economics, the increase from 6,725 student credit hours in the winter of 1945 to 26,118 hours in the spring of 1946 is a better measure of our problem. Even the latter figure understated the real demand, because we were unable to find faculty for the additional classes demanded in economics, after discarding old standards of maximum class sizes.

The eagerness of the veteran to achieve his degree and become an earning citizen in the shortest possible time has been anticipated by a change in policy adopted by the School of Business Administration in collaboration with the College of Science, Literature, and the Arts. We recognize the maturing and educational value of experience in the armed forces, as measured by the general educational development tests. Thus it is possible for capable young people who entered the armed forces before even finishing high school, and who earned an officer's commission, to pass the G. E. D. tests and receive the equivalent of four quarters of credit, including three of the four minimal pre-business course requirements. By attending summer school, these young people can earn a degree in business administration in two calendar years from the time of entrance.

Our faculty also reached its lowest point in numbers in twenty years and then increased by only half to meet the great influx of students. During the biennium, some of our staff members served in the armed forces, others taught service classes on the campus, and three were loaned to the American University for the Army. We drew heavily on returning veterans for assistance on the faculty, but in spite of this emergency help, the student credit hours per instructor increased from 257.8 in the spring of 1945 to 374.43 in the fall quarter, and to 626.31 in the spring of 1946. We lost four senior faculty members at the close of the biennium, and two of them were promising younger men who left partly because they did not relish the burden of such large classes.

Our faculty has begun a careful study of the curriculum in the light of postwar conditions. Several revisions have been accepted and more are in prospect. We are planning on a revival and extension of our prewar program of "apprenticeship" training for students in business establishments in the Twin Cities and elsewhere. We are collaborating

with several leading universities in developing tests for the selection and training of students in accounting, the largest single field of specialization in our school. We have laid the groundwork for a development of training in the field of retail distribution in cooperation with the College of Education. A joint curriculum in Hospital Administration is nearing completion.

The Industrial Relations Center was established in the spring of 1945 to offer community service, to conduct research, and to give professional training in this important and presently controversial field of human relations. The Center served the people of the state by sponsoring several conferences on special aspects of industrial relations, bringing in national experts on particular problems.

Through its staff members, the School of Business Administration participated in the closing phases of the war, including a report on postwar employment in Minnesota, and the opening phases of peacetime business, including special training for veterans. Special courses were arranged with the Extension Division for returning veterans in Retail Grocery Operation, Real Estate Principles, and Investment Analysis. The annual Minnesota Bankers' Conference was resumed with more than usual success after a wartime lapse. The School of Business Administration received two generous graduate fellowships from the Midland Cooperative Wholesale, Inc.

The major objective for the next biennium is the training of the unprecedented number of veterans seeking formal education for business. High levels of private business activity, continued demands for trained economists by government agencies, and distress similar to our own among other schools of business administration have greatly increased the difficulties of finding additional staff members to maintain our quality of instruction. A lesser but not insignificant problem in teaching effectiveness is classroom space, and office space for research and counseling.

Under the new statewide plan of joint registration, efforts will be made to cooperate even more closely with other Minnesota colleges, so that training for many a veteran can begin closer to his home. The veteran is understandably impatient to take immediate advantage of his educational opportunities, and extraordinary efforts will be necessary by the University and its supporting citizens if he is not to be disappointed.—RICHARD L. KOZELKA, *dean*.

## GRADUATE SCHOOL

*War and Postwar*—In appraising the progress of the Graduate School in this biennium, I wish to pay tribute to the members of the graduate faculty and also to graduate students who on far-flung fields of research, administration, and war action contributed notably to victory. Praise is also due those faculty scholars who, remaining at home and taking on many added war duties, helped to maintain the framework of the Graduate School. That, it was maintained, made the adjustment to the new needs and demands of the postwar period much less difficult than it otherwise would have been. The graduate student who during the campaign on Leyte wrote for a bulletin and said that he intended to return was typical of a great company of students. Their return began during this biennium; and the graduate faculty, grappling with increasing numbers of undergraduate students, have had a difficult and challenging task in maintaining the integrity of graduate instruction, not to speak of the task of resuming their own research as productive scholars. The success with which that task has been met is an earnest of the faculty determination that both graduate teaching and research shall move forward in the future as imperative conditions of university progress.

*Enrollment*—Two years ago the prediction was made that postwar graduate enrollment would surpass the peak of 1939-40, when nearly 4,000 students were enrolled. That prediction has not yet come true, but many signs pointed to its fulfillment in 1946-47. Counting summer terms as well as regular academic quarters, the number of individual graduate students enrolled in 1944-45 was 2,041 and in 1945-46, 3,332. Omitting the Summer Session students (and including the fellows of the Mayo Foundation at Rochester), the enrollments during the three quarters of the academic years were as follows: 1944-45, 1,439; and 1945-46, 2,600. With the return of students whose training was interrupted by the war and with the acceptance of new graduate students (notwithstanding the imposition of higher standards of admission), the Graduate School faced a postwar enrollment considerably in excess of that in 1939-40.

TABLE I. AMOUNT OF WORK FOR WHICH GRADUATE STUDENTS HAVE REGISTERED

Registrants	1944-45		1945-46	
	Men	Women	Men	Women
Academic year				
Registered full time .....	193	205	934	236
Registered part time .....	340	295	542	345
Registered full time, Mayo Foundation .....	376	30	512	31
Total (men and women combined) .....	1,439		2,600	
Summer Sessions, 1944 and 1945				
Registered full time .....	182	204	302	307
Registered part time .....	175	263	207	261
Total (men and women combined) .....	824		1,077	
Totals academic year and Summer Session .....	1,266	997	2,497	1,180
Less duplicates .....	114	108	226	119
Net totals .....	1,152	889	2,271	1,061
Net totals (men and women combined) .....	2,041		3,332	

*Degrees*—The number of graduate degrees granted by the University in the biennium was 545—114 Doctoral degrees and 431 Master's degrees. In 1944-45 there were 64 Ph.D. and 193 Master's degrees; in 1945-46 there were 50 Ph.D. and 238 Master's degrees. The effects of the war are clearly discernible in the number of degrees granted, for in the biennium 1942-44 the total number was 744; in 1940-42 there were 1,144. Twice as many higher degrees were awarded in 1940-42 as in 1944-46. These Minnesota figures are a reflection, particularly at the Ph.D. level, of a national policy which, in contrast to the policies of Britain and Russia, took advanced students in the sciences away from their desks and laboratories, interrupting their specialized training, and leaving the nation with a deficit of scholars trained to the top level of graduate education that will not be overcome for many years.

In past years professional degrees have been established in physical, art, music, industrial, and home economics education; and in forestry, public health, and agricultural technology. During the biennium additional professional degrees have been authorized in recreation leadership, social studies, natural sciences, English education, rural education, and elementary education. The professional degrees are administered, not by the Graduate School, but by the colleges to which they directly pertain. Thus the master of education in the new fields recently authorized for this degree is administered by the College of Education.

TABLE II. DEGREES APPLIED FOR BY GRADUATE STUDENTS AND DEGREES GRANTED

Degrees	1944-45		1945-46	
	Sought	Granted	Sought	Granted
Master of arts .....	844	112	1,318	151
Master of science .....	678	78	1,212	85
Master of business administration .....	2	1	15	1
Master of laws .....	0	1	1	1
Professional engineering degree .....	0	1	0	0
Doctor of philosophy .....	311	64	663	50
None .....	206	0	123	0
Totals .....	2,041	257	3,332	288

*Fellowships and Scholarships*—The biennium witnessed a considerable expansion of available scholarships and fellowships. Among the more notable additions may be mentioned an annual Conway McMillan Memorial Fellowship in Botany made possible by the generosity of Mr. Charles J. Brand of Washington; a series of fellowships for graduate students from Norway, through funds raised by the Norwegian Lunch Club of Minneapolis; and nearly forty fellowships presented by industrial concerns, foundations, and other organizations for the encouragement of graduate work and research in such fields as economics, economic geology, zoology, various branches of chemistry, engineering, physics, pharmacognosy, medicine, and public health. Thirty tuition scholarships for foreign students, graduate and undergraduate, have replaced the twelve Latin-American tuition scholarships reported two years ago.

TABLE III. FACULTY RANK OF GRADUATE STUDENTS

Rank	1944-45	1945-46
Professor	2	1
Associate professor	1	2
Assistant professor	3	7
Lecturer	0	6
Instructor	78	153
Teaching assistant	117	257
Medical fellow	36	103
Mayo Foundation fellow	400	533
Fellow	13	14
Research associate	0	2
Research fellow	8	14
Research assistant	9	33
Administrative fellow	0	2
Totals	667	1,127

In many areas of graduate education, fellowships are an outstanding need, and it is hoped that friends of the University and of scholarship will aid in meeting it.

*Interdepartmental Programs*—Both in education and in research there is a wholesome and promising trend in the direction of interdepartmental programs—the cultivation of overlapping and interlocking fields and “interstitial areas” of knowledge. Two years ago I reported the establishment of new graduate majors in cancer biology and statistics, both of which cut across traditional departmental boundaries. During this biennium additional interdepartmental programs have been added. One, in American Studies, employs many related disciplines to inform and enrich the study of American culture. Building upon undergraduate foundations, Master’s and Doctoral programs have been erected at the graduate level. In International Area Studies, programs have been established for Western Europe, Central Europe, Russia, the Far East, and Latin America and are now carried to the Master’s level. Other interdepartmental programs are now under consideration. In building such programs one faces the danger of sacrificing depth, but recognizing both breadth and depth as essential goals, education must have sufficient flexibility to facilitate a new emphasis upon breadth and the interrelations of knowledge and understanding.

*Faculty Summer Research Appointments*—In the summer of 1946 the University launched a new plan for the purpose of encouraging and advancing faculty research and writing. With the dean and a committee of the Graduate School responsible for its administration, the plan resulted in a series of nine faculty summer research appointments. The subject range of the projects supported through these appointments included educational philosophy, history, English, philology, journalism, engineering, and botany. Notable progress was made by the nine faculty scholars in completing or bringing near completion important studies in their respective fields. Plans have been made for similar appointments for the summer of 1947.

*Research*—Notwithstanding the heavy demands of teaching, the staff, many of whom had returned only recently from war assignments, carried forward much significant research. There was a marked swing from special war researches to basic researches.

One of the important aids to research during the biennium has been the General Research fund, authorized by legislative appropriation of \$50,000 a year. Among more than thirty researches supported through this fund may be mentioned investigations of gene action in maize, of the chemical and physical basis for the development of hardiness to frost injury in plants, of synthetic approaches to Vitamin A, Vitamin C content in tomato varieties, products of wood fibers and sawdust, sterility in corn, sulfonamides in the treatment of animal diseases, late blight in potatoes, physiological studies of the baby pig, chemical products from peat and lignite, the composition and properties of lipids of milk, linen from flax straw, Cuyuna Range stratigraphy, fuel conservation, electron and ion collision phenomena, personnel and industrial relations, and case studies in occupational adjustment.

The legislative grants of \$25,000 a year for medical research, with additional grants for cancer research (\$15,000 in 1944-45 and \$20,000 in 1945-46), have been a genuine stimulus to University research in fields representing the broad range of medical science. The medical fund, supporting significant research in such subjects as penicillin, nutritional problems, ulcers, kidney, heart, and lung diseases, diabetes, and virus infections, has made possible the initiation of new investigations and the continued exploration of basic medical problems. The cancer fund, increased during the biennium, has aided fundamental research in one of the major medical problems of humankind.

During the biennium the Graduate School also administered a fund of \$14,500 for each year in support of a wide range of researches by faculty scholars in all parts of the University outside the Medical School. The grants made from this fund have promoted studies in social sciences, languages and literature, the physical and biological sciences, and various fields of psychology, philosophy, and education.

*The Minnesota Institute of Research*—Under the direction of Dean R. E. Montonna, aided by an advisory committee of the graduate faculty, the Minnesota Institute of Research has carried forward significant researches on dehydration of vegetables, dried whole milk, the production of lactic acid, the making of linen from flax straw, the production of mint oils, a fireless garbage incinerator, and a flax harvester. It has also developed plans for researches in organic chemicals from peat, the utilization of aspen bark, and other problems. Legislative support of the institute was increased during the biennium from \$10,000 to \$15,000 a year.

*The Hormel Institute*—Initiated modestly in 1942, the Hormel Institute has made remarkable progress during the biennium under the direction of Professor H. O. Halverson, with an advisory board of five members. The laboratories at Austin for research in plant and animal production and utilization have been extensively developed, a staff of some twenty persons has been built up, needed equipment has been secured, and numerous important research projects have been carried forward. These include studies of the nature and control of oxidation in fats, the physiology of lactic acid bacteria, soybeans as a source of protein for human nutrition, swine diseases, the nutritive requirements of hogs, and the vitamin and protein contents of fluids extracted from the beef paunch.

*The Dight Institute*—This institute, for the promotion of human genetics, has functioned since its beginning in 1941 under the direction of Professor Clarence P. Oliver and an advisory committee. During the biennium the institute has cooperated with university departments and state organizations, collected family histories, particularly for cases of breast cancer and epilepsy, published studies of dental abnormalities, and analyzed histories of more than five hundred feebleminded persons. It has conducted an information service for the public and has sponsored several public lectures by authorities in the field of human genetics.

*Graduate Dental Education*—The expansion of the graduate faculty in the dental area, the establishment of a number of teaching assistantships, the appointment of additional full-time staff members, and the encouragement of dental research mark the advance of graduate dental education under Dean William H. Crawford of the School of Dentistry during the second half of the biennium. The Graduate School has cooperated in this advance and has continued to administer a special fund for dental research.

*The Encouragement of Regional Writing*—Under the supervision of a faculty committee, the Graduate School has brought nearly to completion its project for the encouragement of regional writing, underwritten by a grant of \$50,000 from the Rockefeller Foundation. Twenty-five fellowships have been awarded since the beginning of this project, which has centered in the writing of histories, biographies, novels, and interpretative essays on the life and culture of the people of the Upper Midwest. Five books produced as a result of the project have already been published: Phillip Jordan's *Singin' Yankees*, Bruce Nelson's *Land of Dakotas*, Alice Sickels' *Around the World in St. Paul*, Herbert Krause's *The Thrashers*, and Florence and Francis Jacques' *Snowshoe Country*. Others are nearing publication.

*Ford Lectureship Fund*—This fund, established in honor of Guy Stanton Ford, has increased to a total of \$9,332. Plans are now being made for the initiation of the Ford Lectures under this fund.

*The Community Basis for Postwar Planning*—An important project sponsored by the Graduate School during the biennium was a co-operative study of the human and material resources of a small Minnesota city—Red Wing. With Professor Roland S. Vaile as director and coordinator, professors of education, economics, sociology, art, home economics education, journalism, and public health, in cooperation with the citizens of Red Wing, prepared a series of eleven pamphlets dealing with such matters as community leadership and opinion, the daily newspaper, public health and medicine, the impact of the war on the schools, out-of-school youth, the diets of high school students, economic and business activities and outlooks, the place of art, and the role of the churches. These studies, in which the citizens of Red Wing have taken a deep interest, were summed up in a final pamphlet on *Red Wing and the Postwar Challenge* by Professor Vaile.

*Administration*—Acting Dean W. S. Miller directed the affairs of the Graduate School until the return of the dean from Washington on September 1, 1944. During the biennium the new office of assistant dean was established. Mr. Ralph E. Montonna, pro-

TABLE IV. FOREIGN STUDENTS REGISTERED IN THE GRADUATE SCHOOL

Country	1944-45	1945-46	Country	1944-45	1945-46
Argentina	4	5	Haiti	1	1
Austria	4	0	Holland	1	2
Bolivia	1	1	Honduras	0	2
Brazil	8	8	Hungary	1	0
Canada	28	74	Iceland	3	6
Central America	5	0	India	3	18
Chile	2	3	Jamaica	1	0
China	36	53	Japan	1	1
Colombia	6	8	Mexico	8	8
Cuba	4	4	Norway	2	0
Czechoslovakia	1	0	Peru	2	0
Costa Rica	1	1	Poland	1	0
Denmark	1	0	Russia	2	1
Ecuador	4	2	Syria	0	1
Finland	3	0	Turkey	0	2
Egypt	0	5	Venezuela	0	5
France	1	0	Yugoslavia	1	0
Germany	6	2			
Guatemala	2	2	Totals	144	215

fessor of Chemical Engineering, was appointed to this position in 1945, combining with it the directorship of the Minnesota Institute of Research. In January 1946 the dean delivered the Hitchcock Lectures at the University of California in Berkeley and Los Angeles. The end of the biennium saw the resignation of Mr. Clarence P. Oliver as director of the Dight Institute, a position that he had filled with signal success. Internal reforms during the biennium included an overhauling of the graduate group committee system, which by faculty action was placed upon a rotating basis. A graduate faculty committee undertook a thoroughgoing investigation of the problems related to the foreign-language requirements for higher degrees and expected to present its final report in 1947. A committee of which the dean served as chairman prepared an extensive report on the problems of foreign students, and a new position, that of foreign student adviser, was created under the dean of students, to begin with the academic year 1946-47. It may be noted that the number of foreign students in the Graduate School increased from 144 in 1944-45 (from 31 countries) to 215 in 1945-46 (from 24 countries).—THEODORE C. BLEGEN, dean.

### THE MAYO FOUNDATION

*Facilities*—The general facilities available for the purposes of the Mayo Foundation, particularly in medical research and clinical investigation, have been taxed to the utmost in the aftermath of the war. Expansion of clinical, laboratory, and research facilities will be made possible by an annex to the present clinic building, which will make available 160 more examining rooms. Certain departments, particularly neurology and neuropsychiatry, will have more adequate quarters. It is hoped that an addition of 150 beds to the Colonial Hospital will be completed within the next year, which will provide an over-all hospital bed capacity of 1,800 available to faculty and fellows of the foundation.

*Additional faculty*, as well as physical facilities, in the fundamental fields (biochemistry, bacteriology, pathologic anatomy, clinical pathology and physiology) aid in providing expanded opportunities not only for basic research in these fields, but also for studies in these fields as related to the several clinical specialties.

*Faculty*—The close of this biennium found the members of the faculty who were on leaves of absence for military service, discharged from the Army or Navy, in which they served with distinction. The total membership of the faculty has been increased to 214. Among the newly appointed members of the faculty who will be actively engaged in teaching and research are Dr. Smith Freeman (formerly associate professor of physiology at Northwestern) in biochemistry, Dr. F. J. Braceland (formerly dean at Loyola) in psychiatry, Dr. K. B. Corbin (professor of anatomy at the University of Tennessee) in neurologic anatomy, Dr. L. A. Weed (formerly associate professor of bacteriology at Indiana University) in bacteriology, Drs. J. E. Edwards (formerly with the National Institute of Health) and G. P. Sayre (formerly fellow in pathology in the Mayo Foundation) in pathologic anatomy, Drs. J. B. Bateman (formerly with the Banting Institute) and E. H. Lambert (formerly of the Department of Physiology at the University of Illinois) in aviation physiology, Dr. D. R. Mathieson (formerly with Parke, Davis and Company) in clinical pathology, and Dr. J. H. Grindley (formerly fellow in surgery in the Mayo Foundation) in experimental surgery and physiology.

The Mayo Properties Association has made funds available through the Mayo Foundation for the establishment of a Mayo Professorship of Public Health in the University of Minnesota Medical School. Dr. Gaylord Anderson was appointed to this post beginning July 1, 1946.

During the biennium the following members of the faculty have reached the age of retirement: Willis S. Lemon, professor of medicine; Samuel Amberg, associate professor of pediatrics; Archibald H. Logan, associate professor of medicine.

It is with regret that we record the deaths of the following members of the faculty of the Foundation: W. D. Shelden, professor of neurology (retired); H. E. Robertson, professor of pathology; R. W. Cragg, assistant professor of pathology (while in military service); L. G. Stuhler, assistant professor of urology.

*Fellows*—In order to maintain the quota established by Procurement and Assignment Service, appointments to fellowships in the Mayo Foundation during the war were restricted to those not physically qualified for service in the Army or Navy, women, and foreign graduate students, with a small number of officers of the Army or Navy assigned on the 9-9-9 program. The group of foreign graduate students consisted of about thirty-five graduates of foreign schools, chiefly from Latin-American countries.

At the beginning of the war, the Medical Graduate Committee adopted the policy that all fellows who left the Foundation to enter military service and all those appointees who were unable to begin fellowships because of call to active duty should be encouraged to complete their appointments. At present there are 442 fellows in the Foundation, and it is probable that the number will reach 500 by January 1. It is anticipated that of the 590 who are on leaves of absence for military service, the majority will have resumed their appointments on July 1, 1947. Insufficient housing may cause some to defer returning until more accommodations are available.

Demobilization at a more rapid rate than was anticipated has created problems in the general plan of training. It is the feeling of the Graduate Committee, in view of existing conditions, namely that our facilities are so heavily taxed to meet commitments to veterans returning to the Foundation, that there will be little opportunity for new appointments until these obligations have been met.

One fellow of the Foundation who holds the degree of M.S. in Medicine from the University of Minnesota, is majoring in medical education under the joint supervision of the College of Education, the Medical School and the Mayo Foundation. This is the first candidate to seek a graduate degree in medical education in the University.

Thirty M.S. degrees and two Ph.D. degrees were conferred on fellows of the Foundation by the University during 1944-45, and thirty-five M.S. degrees and one Ph.D. degree during 1945-46.

*Military*—The 247th General Hospital and 237th Station Hospital, sponsored by the Mayo Clinic and Mayo Foundation, have been demobilized after thirty months of service, of which two years' service was in the Pacific. Surgeon General Kirk for the War Department presented certificates of appreciation for their contributions. After short periods of active duty as units, the personnel of the Navy Specialists Units Numbers 54 and 56, also sponsored by the Mayo Clinic and Mayo Foundation, were utilized with other units and organizations.

The program of training for assigned officers of the Army, Navy, and Public Health Service continued during 1944-45, and a few officers have been assigned to the Foundation since for special studies. Under these programs more than 1,200 officers have participated in the training. For this activity the War Department has awarded its certificate of appreciation of the services performed.

*Research*—The research in aviation medicine which had been begun during the war is being continued for some specific projects under contracts with OSRD, with the Navy, and with Wright Field.

The child health project under the leadership of Dr. C. A. Aldrich is developing very satisfactorily, and the results of some studies have already been reported. This is being maintained under the auspices of the Foundation under a grant-in-aid from the Mayo Properties Association.

Investigators in the treatment of experimental tuberculosis continue to study the results from the use of antibiotics.

There is a general trend towards the return to basic medical science researches. Coincidental with this general shift in emphasis there is an active program of expansion of laboratory and research facilities throughout the Foundation. Additional personnel have joined the staff within the past year. Facilities are being used to capacity and plans for increased space and equipment have been projected—DONALD C. BALFOUR, M.D., *director*.



## GENERAL COLLEGE

*Enrollment*—During the midwar years the enrollment decline in the General College was greater proportionately than that of the University as a whole. The subsequent increase was also in greater proportion, so that by the end of the biennium, spring quarter, 1946, the college had exceeded its peak prewar enrollment figures.

*Curriculum*—Realizing plans described in its last biennial report, the General College set up an experimental occupational program, retailing and selling, which appeared in its first year of operation to justify the expectations on which it was planned. A new full-time staff position, that of lecturer in retailing, was added in 1945-46. The individual appointed to this position had had both teaching experience and a number of years' successful retailing experience. Students who applied for admission to the program were carefully selected, and the requirement that each student must work in a retail establishment a minimum number of hours a week was rigidly followed. Guest speakers, representing various aspects of retail operations, presented realistic and practical talks to the class at intervals. Retail establishments in the Twin Cities, the large department stores in particular, assisted in planning the general content of the course through individual and group conferences.

The success of the program in retailing and selling has encouraged the college to set up a similar program in small business operation, to start during the academic year 1946-47. This program has been developed by joint planning with the School of Business Administration, and the specific course in Small Business Operation will be taught by a member of the staff of that college. The staff of the General College hopes to be able to add in the future several such experimental occupational sequences, although the general education program will continue to be the basic one.

*Summer Session*—For the first time in its history, the General College offered its own program of courses during the first term of the 1946 Summer Session. The successful experience with a limited but representative number of courses in the Summer Session of 1946 may serve as a basis for similar practice in other years.

*Administrative Status*—From 1940 to 1945, the administrative responsibility for the General College was channeled through the dean of the College of Science, Literature, and the Arts to the president of the University. On July 1, 1945, the General College again assumed independent status with the designation of its own director who was directly responsible to the President.

*Major Problems*—The first major problem arising at the end of the biennium was the immediate and pressing one of providing for the sharp increase in enrollment. This involved the expansion of class sections with the attendant difficulties of scheduling, finding classroom and office space, and securing additional staff.

The second major problem was the perennial one of recruiting and holding competent staff members. In addition to the usual requirements involved for university appointment, there are difficulties peculiar to recruiting staff for teaching in the General College. In the first place, the broad scope of courses in a program of general education demands that potential staff members have an unusual breadth of interest and training in order to give such instruction effectively. It is characteristic of training for higher degrees, however, particularly the Ph.D., that the range of research and study is relatively narrow in order to admit of the required degree of specialization. But for obvious reasons of policy, it is nevertheless desirable to recruit staff who hold advanced degrees in academic fields most closely corresponding to those of the courses for which they will have responsibility.

A second difficulty in recruiting staff is to find persons who are sympathetic with the aims of general education and with the needs and interests of the type of student enrolled in the General College. Unless there is a profound conviction on the part of the staff member that the work of the college is educationally and socially significant, he will be unhappy in the General College program and his teaching will lack effectiveness.

A series of weekly seminars for new staff members are held during the first few weeks of classes annually to orient new instructional staff to the background, philosophy, objectives, and procedures of the General College.

*Plans for Immediate Future*—Since the General College was conceived as a flexible unit, it is desirable for it to continue to experiment with and round out its basic program of general education in addition to experimentation with related occupational sequences. In view of the probable expansion on a state-wide basis of terminal post-high-school education, it is incumbent upon the college to provide leadership in developing approaches and courses which might provide a pattern for other institutions and areas of the state.—  
H. T. MORSE, dean.

## UNIVERSITY COLLEGE

This unit of the University continues in much the same capacity as in past years. Its prime function is to provide an avenue of registration and a means of advising for those students who wish to cross college lines. Although it has no budget except for secretarial help and office supplies, University College has available practically the entire staff of the University. At one time or another every college of the institution has contributed to the programs of students in this college. As in the past, University College has no curriculum to present to the student. Each student must present his own program which, if it apparently cannot fit into the usual requirements of another college, is given consideration by members of the University College Committee or by other faculty members selected by the chairman. If it is agreed that the proposed program or a program modified through faculty advice provides for the objectives of the student and is worthy of a degree, the student is transferred to University College.

The number of students registered in University College has varied from 60 to 140 during the past two years. The enrollment has been increasing, in part because of the general increase of university enrollment and in part because of the needs of returning veterans. University College affords the mature student a means of following a curriculum different from that set up for the younger student who has not had his education interrupted.

Relatively few students enter the college before their junior year. Before that time their objectives can usually be satisfied by work in one of the regular colleges. The need for crossing college lines or greatly altering the program in one of the colleges seldom arises earlier.

During the past two years, University College has graduated 82 students. It is not possible to classify these into sharply marked groups since no two will have had the same program, but it may be noted that a considerable number of the graduates combined business courses with others such as journalism, art, or home economics.

Although the registration in the college has never gone above one per cent of the total of the University, the need for such a unit in an institution as large as ours is real.—J. W. BUCHTA, chairman, *University College Committee*.

## GENERAL EXTENSION DIVISION

*Extension Classes*—The increase in enrollments noted in 1944 continued throughout the 1944-46 biennium, rising from 6,715 in 1944 to 11,194 in 1945 and to 15,230 in 1946. The latter represents an increase of 6,397 or 75 per cent over the low point in 1942. The trend toward collegiate subjects noted in the final year of the last biennium has continued, but it has now been matched by a commensurate increase in business subjects. The biennium marked the end of ESMWT courses, which were discontinued in 1945, and some of the increase in enrollments in 1946 represents a decision of registrants in the wartime vocational courses to continue education on their own. Higher scales of remuneration for teachers have made necessary higher class fees for 1946-47. The difficulty of securing services of staff members for extension teaching has been more evident in the smaller communities than in Minneapolis and St. Paul. It is to be hoped that improving conditions and the easing of staff shortages will soon permit the University of Minnesota to expand its extension activities outside the Twin City area. Statistics for extension classes and short courses appear in Table I.

TABLE I. EXTENSION CLASSES AND SHORT COURSES, 1944-46

	1944-45	1945-46
Summary of extension classes:		
Number of student registrations:		
Collegiate .....	8,868	10,493
Business .....	1,558	2,851
Engineering .....	768	1,886
Total .....	11,194	15,230
Net gain over previous year .....	1,647	4,036
Number of classes given .....	491	574
Number of individuals in classes .....	7,327	10,654
Net gain over previous year .....	456	3,337
Summary of short courses:		
Number of short courses .....	8	9
Number of kinds of short courses .....	6	9
Number of registrations in short courses .....	198	316

*Correspondence Study*—The statistical report of the Correspondence Study Department for 1945-46 reflects the termination of World War II. Whereas university and college enrollments declined during the war years, correspondence study departments registered significant increases. But as men and women have been discharged from military service there has been a natural tendency to terminate correspondence study. This is illustrated by the fact that new registrations in this department at Minnesota dropped from 7,924 in 1944-45 to 4,558 in 1945-46. It is interesting to note, however, that while military registrations decreased from 5,129 in 1944-45 to 1,628 in 1945-46, the civilian registrations increased from 1,639 in 1944-45 to 1,932 in 1945-46, an increase of approximately 18 per cent. (See Table II.)

The decrease in registrations, plus the fact that expirations and cancellations exceeded those of any previous year, brings registrations in force as of July 1, 1946 to 5,090, compared to a similar total of 7,859 on July 1, 1945, or a reduction of more than 40 per cent.

TABLE II. CORRESPONDENCE STUDY ENROLLMENTS

	1944-45	1945-46
<b>Regular Courses</b>		
Registrations in force, beginning of year	4,295	7,859
New registrations during year	7,924	4,558
New registrations made through the USAFI	4,713*	1,509*
New registrations made under the G. I. Bill of Rights	0	242*
Reinstatements from previous years	98	375
Total registrations in force during year	12,317	12,792
Registrations terminating during year	4,458	7,702
Registrations in force at close of year	7,859	5,090
Number of new individuals enrolled	7,002	3,916
Total number of individuals enrolled	10,810	11,043
Number of lesson reports received	39,432	42,918
Geographical distribution of new individual enrollees		
Minnesota	1,973	1,469
Other states	2,293	1,440
Outside of the United States	28	38
Army Post Office	2,136	464
Fleet Post Office	1,261	375
Number of states represented	46	46
Number of foreign countries represented	5	11
Courses offered	279	273
Instructors	122	113
<b>Special Courses</b>		
Citizenship†		
New registrations during year	131	103
Number of lesson reports received	1,830	1,964

\* This figure is included in the total new registrations for the year.

† No fee charged for this course.

Educationally it is evident that military personnel have maintained a relatively low rate of course completion. Compared to an all-civilian year (1940-41), when the average number of lesson reports per registration was 7.4, the present year indicates only a rate of 3.4. There are understandable reasons for this less successful rate of accomplishment: namely, difficulties of communications and demands of military duties. In spite of statistical evidence of a lower completion rate, the educational value of the U.S.A.F.I. program operated in cooperation with correspondence study departments is manifested in other ways.

This department has continued to reproduce correspondence study courses for use of the Armed Forces Institute, but on a curtailed basis.

In January, 1946, this department negotiated a contract with the Veterans Administration for correspondence study under Public Law 346 and Public Law 16. Although 196 veterans have already registered for instruction under terms of this contract, it is not likely that enrollments will reach significant numbers. Correspondence study, however, can supplement a formal curriculum and materially assist the veteran in his on-the-job training program.

Finally, it should be noted that in spite of a reduction in registrations, and an increase in expirations and cancellations, this department received during the biennium 42,918 lesson reports. This total, the largest ever processed in the department, demanded extra effort and time from the clerical and instructional staff.

As office supervisor and assistant head of the department, Miss Jennie Williams deserves praise and recognition.

For the most part, the members of the teaching staff have indicated real interest in correspondence study. Many have worked during these crowded times under severe handicaps, but have been willing to assume additional duties.

*Community Program Service*—Since the formation of the Department of Concerts and Lectures, July 1, 1944, this is the first full biennial report of those operations of the department supervised by the General Extension Division and specifically designated as Community Program Service.

These two years have witnessed a considerable growth of the department's off-campus activities. This growth is most easily described in financial terms. Community Program Service has grown financially from a gross of approximately \$50,000 in 1943-44 to a gross of \$90,000 in 1945-46. Of this \$40,000 increase, something over \$4,000 was in the Audio-Visual Bureau while the other \$36,000 was in school assemblies, Talk-of-the-Month, and community concerts. Even more significant, however, is the fact that, while in 1943-44 the University served 996 communities through the several agencies of the Community Program Service, it served 2,052 communities through the same agencies in 1945-46. (See Table VII.)

The desirability of extending these forms of service and the consequent increase of activity have led to changes in staff arrangements. Last January 1 the Talk-of-the-Month and Community Concert series, as well as summer programs for colleges, were separated from school assemblies and Mr. Clifford W. Menz, former concert tenor and manager of musical enterprises, was appointed to handle this phase of the work. Mr. G. W. Remington continues in charge of school assembly programs and audio-visual service, both of which have shown remarkable growth.

Another addition to staff has been Mr. James Carlson to take charge of the Loan Play Library. Under Mr. Carlson, with technical advice from Mr. Frank Whiting and his Theatre staff, the plan is to reach out for new plays, to work up an attractive new catalog, and to let schools know that they may not only borrow the plays but may also get help in selecting them and technical advice for their production.

*School Assemblies*—The quality of school assembly programs has necessarily suffered to a slight degree during these past difficult years. This has been especially true with the musical programs that could be offered the schools at prices they could pay. Conditions will apparently become even worse before they can become better.

*Off-Campus Concerts and Lectures*—The aim of the new Community Concert and Lecture Bureau is to make full-dress concerts available to the larger of the small communities of this region. Already some of the concert series that have been booked in these communities exceed both in quality and size some of the old established artists courses in the Twin Cities.

*Audio-Visual Instruction*—The University of Minnesota continues to operate one of the largest educational film libraries in the country. Its size has been considerably augmented during the past biennium, and it has reached out to an additional 882 communities.

*Municipal Reference Bureau*—This department continues to serve as a university division for students' reference work in governmental subjects, and, as headquarters of the League of Minnesota Municipalities, extends its facilities to local government officials throughout the state. Its services are summarized in Table III. During the biennium, in spite of wartime handicaps, both the Reference Bureau and the League showed significant gains in the statistics of service.

TABLE III. MUNICIPAL REFERENCE BUREAU ACTIVITIES

	1944-45	1945-46
Number of inquiries .....	1,040	1,718
Monthly magazines		
Total number of copies published .....	64,795	64,860
Average monthly number published .....	5,400	5,405
Annual convention attendance .....	*	759
Attendance at regional meetings .....	362	672
Number of regional meetings held .....	13	17
Number of cities receiving charter consultation service .....	10	12
Number of civil service examinations held .....	2	6
Attendance at short courses .....	117	333
Number of short courses held .....	3*	6

\* Because of the transportation ban, no convention was held in 1945, and three of the annual short courses were cancelled.

*Radio Station KUOM*—During the biennium the University Radio Station, at the instance of the Dad's Association, changed its call letters from WLB to KUOM. As in the preceding biennium, the station, in addition to its regular educational programs, broadcast many war programs. The latter included both "live" and transcribed features arranged in cooperation with the U. S. Treasury, Army, Navy, Marine Corps, Farm Credit Administration, and Office of Price Administration. Among regular program activities, the Minnesota School of the Air has retained its high place among such educational efforts. It presents all KUOM programs designed for in-school use; and it is now the only organized sequence of school programs broadcast in this area. Another outstanding service to listeners has been the musical broadcasts of KUOM.

As in former years, the programs from the Farm Campus have benefited the farmer and homemaker both vocationally and socially. During the biennium KUOM has continued to broadcast the University of Minnesota and the Macalester College convocations, and many educational, informative, and cultural programs, including several series of classroom lectures on subjects of general interest. The news broadcasts of KUOM have maintained the high level reached in the past. A special feature of the biennium was KUOM's handling of the inauguration ceremonies for President J. L. Morrill. The university station was responsible for supervising and arranging all broadcasts in connection with the event. KUOM carried all general sessions over its own transmitter.

It is now evident that if KUOM is to yield its highest usefulness to the state, it must somehow obtain more time on the air and wider geographical coverage. During the whole of the biennium, the University has been trying to find ways to accomplish these objectives by seeking a wave length which would permit greater power and night-time broadcasting. Such efforts have not yet been successful, and it may be that to reach the objectives the station will have to change from A-M to F-M transmission.

*Center for Continuation Study*—During the biennium the Center offered 119 institutes or courses with a total registration of 6,756. (See Table IV.) Four of this number, however, were special medical courses for returned servicemen and were conducted on a quarterly basis. Had they been accounted for on the basis used at the Center for medical courses in the past, namely on the basis of the weekly units of which they were composed, the number of courses would be 163 and the registration 8,769. In terms of class load these latter figures are properly comparable with those of other bienniums. In the year 1945-46, the total registration on this basis was 5,668 and the number of courses 110—making it by far the biggest year in the Center's history and indicating that the Center has recovered its wartime losses and almost reached the point of saturation. The 521 courses held at the Center since its opening are classified by type in Tables V and VI.

The Center has been used as a meeting place for various professional and cultural groups when such meetings did not conflict with regular course activities. Because of the full schedules of the past biennium, however, the total attendance at such gatherings has been smaller than in the past. It is estimated at 1,500 during 1944-46. This informal attendance totals about 9,000 since 1936, and brings the grand total of attendance to over 34,000 as of June 30, 1946.

TABLE IV. CONTINUATION COURSES AND INSTITUTES, 1936-46

	1936-38	1938-40	1940-42	1942-44	1944-46	Totals	Per Cent or Average
Number of courses .....	58	90	115	139	119	521	.....
Number of registrations .....	2,867	3,832	5,694	6,071	6,756	25,220	100
Minnesota .....	2,518	2,570	4,207	4,438	5,433	19,166	76
Other U. S. states .....	319	1,198	1,456	1,543	1,266	5,782	23
Foreign countries .....	30	64	31	90	56	271	1
Male .....	1,706	2,472	3,571	3,115	3,667	14,531	58
Female .....	1,761	1,360	2,123	2,956	3,089	10,689	42
Number on faculty .....	1,045	1,581	2,352	1,850	2,024	8,852	17
Course-hours .....	2,042	2,666 $\frac{3}{4}$	3,473 $\frac{1}{4}$	9,074	4,793 $\frac{1}{2}$	22,049 $\frac{1}{2}$	42
Course-days .....	317	429	538	1,470	841 $\frac{1}{2}$	3,595 $\frac{1}{2}$	7

*Bureau of Current Affairs*—With the end of the war, the Key Center of War Information became the Bureau of Current Affairs. Inasmuch as it was created as a wartime service, however, it seemed wise to curtail its activities; and the present plan is to continue only those features which seem to have urgent relevance to the present. The Bureau during the biennium conducted a current affairs reading room in the University Library and helped in the preparation and presentation of the weekly World-We-Want series of radio programs over KUOM. It also published a periodical reading bulletin about contemporary

TABLE V. CONTINUATION COURSES AND INSTITUTES BY TYPES, 1936-46

Course	Number of Courses	Registrations	Minnesota	Other States	Foreign Countries	Men	Women	Number on Faculty	Course-Hours	Course-Days
Hospital service and public health.....	84	5,185	4,004	1,168	13	452	4,733	1,691	2,019	306½
Kenny technique (nurses, technicians).....	38	537	29	476	32	10	527	261	7,062	1,140
Medical.....	107	3,787	1,587	2,067	132	3,698	89	2,422	5,117¼	808
Kenny technique (physicians).....	24	441	46	376	19	414	27	188	699	136½
Educational.....	74	3,986	3,487	492	7	1,270	2,716	1,353	2,416¾	405½
Commercial.....	31	2,977	2,818	159	0	2,696	281	603	696½	113
State-municipal functions.....	54	2,614	2,400	188	26	2,397	217	734	1,027½	162
Civic and cultural.....	29	1,469	1,354	114	1	288	1,241	406	823¼	134½
Technological.....	20	1,266	972	275	19	1,256	10	287	388¼	57½
Social welfare.....	24	1,114	795	306	13	448	666	367	723½	119
Legal.....	9	536	516	20	0	517	19	58	223	38½
National defense.....	6	506	505	1	0	450	56	147	155	27
Pharmaceutical.....	9	456	413	41	2	349	107	168	203	27
Dental.....	12	346	240	99	7	346	0	67	495½	125½
Totals.....	521	25,220	19,166	5,782	271	14,531	10,689	8,852	22,049½	3,595½

TABLE VI. BIENNIAL ATTENDANCE BY TYPES OF COURSES, 1936-46

Course	1936-38		1938-40		1940-42		1942-44		1944-46		Totals		Average Attendance per Course
	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	No. of Courses	Attendance	
Hospital service and public health.....	2	131	13	875	26	1,471	16	1,143	27	1,565	84	5,185	62
Educational.....	14	927	15	576	16	678	12	926	17	879	74	3,986	54
Medical.....	14	397	34	936	35	1,182	10	510	14	762	107	3,787	35
Commercial.....	2	328	1	184	9	1,025	9	514	10	926	31	2,977	96
State-municipal functions.....	7	332	10	475	12	610	11	506	14	691	54	2,614	48
Civic and cultural.....	12	429	2	60	1	35	6	442	8	503	29	1,469	51
Technological.....	2	83	6	294	5	181	3	314	4	394	20	1,266	63
Social welfare.....	3	129	4	22	1	29	1	48	15	696	24	1,114	46
Kenny technique (nurses, technicians).....	.....	.....	.....	.....	.....	.....	38	537	.....	.....	38	537	14
Legal.....	.....	.....	1	52	3	145	3	175	2	164	9	536	60
National defense.....	.....	.....	.....	.....	1	105	5	401	.....	.....	6	506	84
Pharmaceutical.....	2	111	2	105	2	102	1	46	2	92	9	456	51
Kenny technique (physicians).....	.....	.....	.....	.....	.....	.....	21	406	3	35	24	441	18
Dental.....	.....	.....	2	63	4	131	3	103	3	49	12	346	29
Totals.....	58	2,867	90	3,832	115	5,694	139	6,071	119	6,756	521	25,220	48

affairs and literature and assisted in planning and conducting exhibits of a cultural nature dealing with life in foreign countries. For the future, the Bureau will continue the reading room and the radio series.

TABLE VII. COMMUNITY PROGRAM SERVICE ACTIVITIES

	1944-45	1945-46
Lecture and Lyceum		
Number of programs used .....	51	66
Number of schools and organizations served .....	615	616
Number of engagements filled .....	2,424	2,468
Visual Instruction		
Number of communities served .....	562	1,436
Number of visual programs furnished .....	7,406	9,259
Loan Play Library		
Total number of plays in library .....	3,914	3,931
Number of requests filled .....	200	203
Number of copies sent out .....	893	878

The Extension Division is losing the services of Mrs. Bess Dworsky Stein, director of the Bureau, who has served in this capacity in addition to carrying on her regular duties in the Division. To her, and to Professor Frank M. Rarig of the Department of Speech must go most of the credit for the excellent work of the Bureau.—J. M. NOLTE, dean.

### SUMMER SESSION

The Summer Session enrollment for the summer of 1946 was the largest in the history of the University. The enrollment exceeded 13,000 individuals in the first term of the Summer Session, and 10,000 individuals in the second term. The increased enrollment in the first term was approximately 150 per cent of the first term of the preceding year of the biennium, and the enrollment in the second term was approximately 160 per cent of the second term of 1945.

*Curriculum*—The curriculum of the Summer Session is analogous to the curriculum of any of the three quarters of the regular academic year. In addition to the regular curriculum, the College of Education conducted workshops in the following subjects: Curriculum, Guidance, Music Education, Childhood Education, High School Play Production, Higher Education, Rural Education, and Educational Administration. These workshops continued through the summer of the biennium with increased popularity and support by the student body.

The Institute of Spanish Studies was dropped temporarily for the biennium because of the absence of certain members on the teaching staff. The Biological Station at Itasca Park was revived in the Summer Session of 1946.

The accelerated program of studies introduced during the war period was continued in the College of Science, Literature, and the Arts, in the Institute of Technology, in the Law School, in the School of Dentistry, and in the School of Business Administration. The accelerated program was dropped in the case of the School of Pharmacy.

Summer Session enrollment in the Institute of Technology reached its lowest ebb in the summer of 1945 when the Selective Service took its greatest toll, but with the return of veterans in 1946 the enrollment in the Institute reached its maximum of all time with a total of 2,200 students.

*Student Personnel*—There was a very marked change in student personnel during the biennium. In the summer of 1945, 70 per cent of the students were women, but in the summer of 1946 only 25 per cent were women and 75 per cent were men. There has developed a marked tendency for students to use Summer Session as a stepping stone for admission to the regular academic year.

*American Studies*—A new feature in the Summer Session curriculum was introduced in the summer of 1946 with the initiation of the course in American Studies. This was presented jointly by the Committee on American Studies and the various departments represented in the curriculum. It gave students the opportunity to work on their B.A., M.A., and Ph.D. degrees in their respective fields.

*Graduate School*—The Graduate School continued to increase its Summer Session enrollment during the biennium from 777 in the first term of 1945 to 1,461 in the first term of 1946, and from 431 in the second term of 1945 to 1,151 as of the corresponding dates in the second term of 1946.

*Effects of Return of Peace*—The general effect of the war was to decrease materially enrollment in the College of Education and the Graduate School, but the accelerated program in other colleges has enabled the Summer Session to maintain its organization to offer a program of instruction on a substantially normal basis.—THOMAS A. H. TEETER, *director*.

DIVISION OF LIBRARY INSTRUCTION

The biennium 1944-46 marked a continued decline in the enrollment of the Division of Library Instruction. The year 1945-46, however, was marked by the enrollment of several former service men and women and the result was a slight upward trend of enrollment which carried into the Summer Session of 1946. Since new students begin work in the division during the fall quarter only, the general increase in university enrollment has not yet been experienced in the division.

In spite of the scarcity of students, the need for qualified librarians remains acute all over the country. All of those who finished their course during this biennium were able to choose from among several positions offered, and beginning salaries have steadily increased. From a low of \$1,400-\$1,500 at the beginning of the biennium, beginning salaries have now gone over \$2,000 in many libraries.

The period of 1944-46 marked the loss by death of Miss Lura C. Hutchinson and Mr. Frank K. Walter. Miss Hutchinson had been on leave of absence from the division since her accident in the spring of 1944. Until her untimely death she had carried a major share of the work of the division throughout its entire history. Although Mr. Walter had officially retired as director in 1943, he had continued his interest in the work of the division.

Dr. Raynard S. Swank was appointed assistant professor in the division in the fall of 1944. Upon his appointment as chief catalog librarian in 1945, he continued to teach two courses in the division. Miss C. Irene Hayner was added to the faculty in 1945 and brings to the division long experience and leadership in the field of work with children and young people.

The biennium 1944-46 witnessed several changes in the curriculum of the division. A new degree, B.S. in L.S. (bachelor of science in library science) was authorized by the Regents for students who completed a five-year program. Instead of concentrating the 45 credits of library science into one year, students now begin their work in the division in their junior or senior years and spread their work in the division over their last two or three college years. An evening course is now given in the division during the fall and winter quarters, primarily for librarians in the Twin City area.

For the next few years the division needs especially to consolidate and improve its program changes. An additional faculty member is needed to make it possible to institute a program designed specifically to prepare people for library positions in the rural and agricultural areas of the Northwest. It is hoped that the biennium of 1946-48 will result in progress along these lines.—E. W. MCDIARMID, *director*.

INSTITUTE OF CHILD WELFARE

In the biennium, 12 new research projects were undertaken. These, added to 21 projects carried over from earlier years, make a total of 33 active research projects. Of these, three involved cooperation with other university departments. Eight research projects were completed and the results published.

The Nursery School was in session during 1944-45 with an enrollment of 54, and in 1945-46 with an enrollment of 53. The Kindergarten enrollment was 26 in 1944-45 and 25 in 1945-46. Both schools were in session during the first summer term each year.

For 1944-45 the total enrollment in Institute classes on the campus, both undergraduate and graduate, was 1,883 and for 1945-46, 2,613. Two students received Ph.D. degrees, and seven received M.A. degrees with majors in child welfare.

GENERAL SUMMARY OF PARENT EDUCATION ACTIVITIES

	1944-45		1945-46	
	No. Groups	Enrollment	No. Groups	Enrollment
Extension courses				
Credit .....	6	58	4	46
Correspondence study courses				
Credit .....	4	28	4	29
Non-credit .....	2	86	2	86
Study groups .....	17	629	15	432



The weekly Institute radio program was continued over KUOM, the university radio station.

During the biennium, one book, fifteen scientific and professional articles, and twelve popular or semiprofessional articles were published. Three monographs, *The Relation of Parental Authority to Children's Behavior and Attitudes*, by Marion L. Radke, *Intellectual Status at Maturity as a Criterion for Selecting Items in Preschool Tests*, by Katharine M. Maurer, and the *Application of the Rorschach Test to Young Children*, by Mary Ford are in press to be published by the University of Minnesota Press.

*Other Activities*—During the biennium, members of the staff gave 181 lectures or addresses to various groups, societies, and organizations, both lay and professional. Exhibits for organizations and traveling libraries for study groups were supplied as in previous years. The demands upon the staff for advice to private and public agencies, and for participation in national, state, and local programs have continued to be heavy.—JOHN E. ANDERSON, *director*.

### COMMITTEE ON EDUCATIONAL RESEARCH

*Committee Members*—The following were members of the committee during the biennium: Clyde H. Bailey, dean and director, Department of Agriculture, 201 Administration Building, University Farm; Charles Bird, professor of psychology, 254 Psychology Building; Theodore C. Blegen, dean of the Graduate School, 234 Administration Building; F. Stuart Chapin, professor of sociology, 108 Jones Hall; Ruth E. Eckert, professor of education, 301 Eddy Hall (Secretary of Committee on Educational Research); Everett Fraser, dean of the Law School, 204 Law Building; W. F. Geddes, professor and chief of Division of Biochemistry, 111 Snyder Hall, University Farm; Palmer O. Johnson, professor of education, 216 Burton Hall; T. L. Joseph, professor of metallurgy, 104 Appleby Hall; R. L. Kozelka, dean of the School of Business Administration, 127 Vincent Hall; Samuel C. Lind, dean of the Institute of Technology, 127 Chemistry Building; Irvine McQuarrie, professor, head of Department of Pediatrics, 205w Elliot Memorial Hospital; Donald G. Paterson, professor of psychology, 114 Psychology Building; Wesley E. Peik, dean of the College of Education, 204 Burton Hall; Malcolm M. Willey, vice president, Academic Administration, 202 Administration Building; T. R. McConnell, dean, College of Science, Literature, and the Arts, Chairman, 219 Administration Building.

*Studies of the General Education Program*—During the present biennium the committee concentrated much of its effort on studies related to improved facilities for general education. Several studies were undertaken to find out what curriculum practices were best suited to students who normally finish their formal education by the end of the sophomore year and to those who look forward to advanced and professional study. These studies concerned: an appraisal of general educational development tests both as devices for placement of returning veterans and as measures of educational growth during junior college years; the development of new placement tests in freshman mathematics; a survey of the general education courses taken by preprofessional students; preliminary evaluation of the recently developed Social Studies Orientation course; and an investigation by the freshman English staff of broadening instruction by giving more emphasis to the development of communication skills. Among other investigations designed to explore problems of general education, though they were also related to curriculum organization and content at upperclass levels, were studies of the effects of current practices in the College of Science, Literature, and the Arts (such as provisions for substituting excess quality points for credits and for freeing superior students from some of the usual group requirements) on the extent and types of courses elected by students of superior scholastic aptitude. A third research project, begun near the close of this biennium, involved a comprehensive survey of the abilities, academic achievement, and vocational goals of young people admitted to the University College since its founding in 1930, and of the actual programs of study they pursued.

*Studies of Post-High School Opportunity in Minnesota*—At the request of President Morrill and with the aid of a special grant of \$6,000 from the Board of Regents, the committee has devoted most of the personnel and facilities of its central office since January, 1946, to a survey of the needs of this state for extensions in its program of public higher education. Representatives of the public and private colleges in Minnesota have served as an advisory steering committee on this project. Four lengthy reports were prepared and circulated prior to July first, and work on several others had progressed sufficiently to assure completion of the total investigation during the fall of 1946. It is planned to publish this series of reports as one volume in the University Committee's *Studies in Higher Education*.

*Other Studies*—During the preceding biennium a number of investigations had been made to assist the Senate Committee on Education in its study of the University's postwar educational problems. One further study brought to completion during the last biennium was concerned with the character and quality of scholarly publications of faculty members in various departments and colleges of the University. Two other studies approved by the committee during this biennium and completed within this period included (1) an analysis of the characteristics of students admitted to graduate work in education and of the programs they normally take for the Master's and Doctor's degrees, and (2) the development and validation of a comprehensive examination in social work. Still another study sponsored by the committee but not yet completed deals with appropriate admission standards for the University's Schools of Agriculture. Three other projects which had been given committee approval had to be deferred until 1946-47 in order to permit early completion of the studies of post high school education in Minnesota.—T. R. MCCONNELL, *chairman*; RUTH E. ECKERT, *secretary*.

#### PUBLIC ADMINISTRATION CENTER

On September 22, 1945, the Board of Regents established the Public Administration Center in the Department of Political Science and provided that an Advisory Committee be appointed by the president upon recommendation of the dean of the College of Science, Literature, and the Arts to assist the chairman of the Department of Political Science and the director of the Center in the development of its work. From 1936 to 1945, the Center had operated as an independent educational unit under the general supervision of an all-university committee appointed by the president.

The graduate training program in public administration, which is the principal activity of the Center, was continued during the biennium. Only seven students were enrolled in 1944-45, the lowest registration in the history of the project, but the termination of the war was reflected in the 1945-46 enrollment of twelve, two of whom were veterans.

One hundred fifteen students have been enrolled in the training program since its inception ten years ago. Though the war interrupted the careers of a majority of the men, most of them are returning to government work upon completion of military service. Our alumni records at the close of the biennium show employment as follows: 46 in national departments and agencies, 20 of whom are with regional and field offices; 5 in state agencies; 12 in local government offices; 6 in quasi-governmental organizations; 22 in military service; 11 in educational work; 6 in other non-governmental work; 6 housewives; and 1 deceased. This record is rather convincing evidence of the feasibility of training young men and women for administrative careers in government. Many of the graduates of the earlier years of the training program are now occupying very responsible administrative posts at all levels of government.

Budgetary provision for three part-time research assistants in the Public Administration Center during the biennium has made possible the inauguration of a research program in state and local administration in Minnesota as a major activity of the Public Administration Center. Studies of employee relations in the state service, advisory councils in state and local government, and special civil service examining committees are nearing completion, and a beginning has been made on a series of administrative histories of state departments and agencies in Minnesota.

A reference library of public administration materials, maintained in cooperation with the University Library and the Municipal Reference Bureau, and an information service to students and faculty with regard to government employment opportunities, are significant ancillary activities of the Center.

The second and terminal grant of the Rockefeller Foundation in support of public administration training at the University of Minnesota expired in 1944-45. Altogether, the Foundation contributed nearly \$118,000 over a nine-year period, most of which was used to provide fellowships and internships for graduate students who were enrolled in the training program. Although government educational aid to veterans makes the immediate need less urgent, it is imperative that fellowship funds be obtained from some source in the future if the University of Minnesota is to continue to attract outstanding young people to this type of graduate education.—LLOYD M. SHORT, *director*.

#### DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

I submit herewith my report as Director of the Department of Physical Education and Athletics for the years 1944-45 and 1945-46. However, since I returned from military service in October of 1945 this is a combined report of myself and Mr. L. F. Keller who was acting director during the first year of the biennium.

During the year 1944-45 the use of the facilities for physical education and athletics continued to be rather heavy. However, in the second year of the biennium the gradual reduction in the number and size of the various service units resulted in a diminution in the use of these facilities until by the end of the fall quarter an almost all-time low was reached. When hostilities ceased, the College of Science, Literature, and the Arts discontinued the physical education requirement, which resulted in a still smaller use of the gymnasiums and fields. The influx of G.I. students, however, threw a new load onto the department especially in the way of intramural athletics.

During the past biennium a complete program of activities was carried on in all branches of the department. Schedules in some activities were somewhat curtailed, but intercollegiate competition in some form was carried on in all sports. Enrollment in the teacher education curriculum was small during the year 1944-45 but increased sharply in 1945-46. The intramural program, although small in the first year, increased sharply in scope and number of participants and activities in the second year. Statistical tables showing the extent and kind of participation accompany this report.

Each year the department conducts a number of special events in addition to the regularly scheduled activities. Most of them are conducted by the department alone, but a number are carried on in cooperation with the state or Twin City High School Boards. These were:

## 1944-45

1. Intersectional Ice Hockey Series with St. James of Winnipeg.
2. State High School Championship Meets in basketball, golf, swimming, tennis, track, and wrestling.
3. Region and Twin City High School Basketball Championships.
4. Assistance to the State High School Coaches Basketball Clinic.
5. Metropolitan Area and Twin City High School Track Championships.

## 1945-46

1. Region and Twin City High School Basketball Championships.
2. Intersectional Ice Hockey Series with St. James of Winnipeg.
3. State High School Championship Meets in golf, swimming, track, tennis, gymnasies, and wrestling.
4. Metropolitan Area and Twin City Track Championships.
5. Western Conference Swimming Championship Meet.
6. National Collegiate Track Meet.
7. Western Conference Golf Tournament.

*Intercollegiate Athletics*—Although travel, manpower, and scheduling problems still continued to be difficult even after the cessation of hostilities, nevertheless participation in intercollegiate sports was maintained on a level with that of previous years. Full schedules were carried out in most sports and were curtailed only when competition was not available.

Records of the various teams in intercollegiate competition was in the main satisfactory. In some instances the percentage of victories may have proved disappointing but in every sport the teams were a credit to the institution. In the following table items of special importance are summarized and a comparison with the preceding biennium is shown.

Athletic receipts during the past two years showed a marked increase especially during the second year of the biennium. Income was large enough to balance the budget and to add a considerable amount to the reserve.

TABLE I. INTERCOLLEGIATE COMPETITION 1942-46

	1942-44	1944-46
Number of contests .....	191	198
Number of conference contests .....	105	111
Number of non-conference contests .....	86	86
Number of contests won .....	105	120
Number of contests lost .....	84	70
Number of contests tied .....	2	8
Number of varsity candidates .....	319	655
Conference championships .....	0	0

*Physical Education 1944-46 (Sports Education)*—During the preceding biennium (1942-44) participation in regular class work in physical education was at an all-time high. To promote better physical fitness on the part of students who might be called into active service most of the colleges of the University required physical education for all freshmen and sophomores. In addition all of the service units required one hour of physical activity per day. This program continued throughout the year 1944-45, but upon conclu-

sion of hostilities the College of Science, Literature, and the Arts discontinued the requirement. The inevitable result was a great decrease in the activity programs on the part of the civilian students.

It is hoped that in the near future a requirement of at least one year of physical education for all men can be adopted.

*Teacher Training*—During the year 1944-45 enrollment in the teacher education curriculum in physical education for men was the lowest since the major course was inaugurated in 1923. Only seventeen men were registered. However, beginning with the fall term of the year 1945-46, enrollment began to increase rapidly. During the second year a large number of former students returned to the institution and in addition many new G.I. students chose the physical education course. By the end of the year 256 men were registered in this curriculum. A much greater enrollment is anticipated for the coming year.

*Graduate Work in Physical Education*—Enrollment in the graduate courses in physical education for men was small during the year 1944-45. Approximately 20 students took work. With the return of servicemen to the campus, however, registration of men in advanced courses increased. The trend in enrollment is shown by the following figures: fall 1945, 10, winter 1946, 48, spring 1946, 65, first term Summer Session 1946, 106, second term Summer Session 1946, 50.

Graduate courses in physical education were established in 1937 when the College of Education was authorized by the Board of Regents to award the master of education degree. Since that time 90 men students have received the M.Ed. degree with a major in physical education. Thirty of this number were granted during the past biennium. There is an increased demand for physical education teachers with advanced degrees, and more and more students are asking for courses leading to both the Master's and Doctor's degrees. It is the hope of this department that work on these two levels will be offered by the University of Minnesota in the near future.

*Physical Training for Army and Navy Trainees*—Although the number and size of service units gradually decreased during the past two years, nevertheless a considerable number of both Army and Navy men were kept on the campus, and all except the medical and dental students continued to take physical training. The program for the army men was organized and taught by the university staff, but navy personnel handled the work of the navy units with some supervision by the civilian staff. During the year 1944-45 this work was rather heavy. However, by the middle of the second year only a small percentage of the service men remained. By the end of the year all units had been removed.

TABLE II. INTRAMURAL PARTICIPATION, 1944-46

Activity	Number of Men Participating, 1944-45	Number of Men Participating, 1945-46
Archery .....	C	C
Badminton .....	96	116
Baseball .....	Dr	72
Basketball .....	824	1,120
Bowling .....	480	1,081
Boxing .....	C	60+C
Diamond ball .....	468	749
Fencing .....	74	95
Golf .....	68	229
Handball .....	Dr	30
Hockey .....	Dr	110
Horseshoes .....	28	79
Rifle shooting .....	Dr	Dr
Skiing .....	24*	56
Squash .....	Dr	28
Swimming .....	C	60+C
Table tennis .....	Dr	Dr
Tennis .....	106	152
Track .....	73	94
Volleyball .....	C	C
Wrestling .....	C	C+30
Total number participants .....	2,241	4,161

C = Class only.

Dr = Dropped.

These figures include tournament play only. A large number should be added to bowling, golf, and tennis because we accommodated many who did not enter tournament play.

\* Members of University Ski Club.

TABLE III. STATISTICS ON INTERCOLLEGIATE ATHLETICS FOR 1943-44 AND 1945-46

Activities and Head Coaches	Total No. Games		No. Confer- ence Games		No. Non- Conference Games		Total No. Receiving Athletic Instruction		No. Varsity Candidates Eligible for Intercollegiate Competition		No. Having Competition		Number "M" Awards		No. Varsity Plain Garment Awards		No. Games Won		No. Games Lost		No. Games Tied	
	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46	44- 45	45- 46
	Baseball MacMillan .....	14	19	8	10	6	9	61	63	31	60	20	28	10	15	10	12	10	14	4	5	0
Basketball MacMillan .....	21	21	12	12	9	9	57	75	30	60	22	24	11	10	11	9	8	14	13	7	0	0
Football Hauser-Bierman .....	9	9	6	6	3	3	222	102	88	85	61	45	34	37	27	25	5	4	3	5	1	0
Golf Smith .....	7	7	2	2	5	5	20	30	17	15	7	9	7	6	0	3	5	6	2	1	0	0
Gymnastics*																						
Hockey Armstrong .....	10	15	2	4	8	11	38	54	19	35	18	22	12	17	6	6	7	9	2	4	1	2
Swimming Thorpe .....	6	6	4	5	2	1	30	27	27	22	16	19	11	11	5	10	4	3	2	3	0	0
Tennis Brain .....	8	7	5	4	2	3	21	42	17	32	10	6	6	6	4	0	4	4	4	3	0	0
Track Kelly .....	17	9	13	8	4	1	94	43	33	38	20	27	9	16	11	11	10	8	7	1	0	0
Wrestling Osell-Bartelma .....	6	7	5	3	1	4	53	19	27	19	20	13	6	7	14	6	3	2	1	3	2	2
Totals .....	98	100	57	54	40	46	596	455	289	366	194	193	106	125	88	82	56	64	38	32	4	4

\* No competition.

*Adapted Physical Education, 1944-46*—The program of adapted physical education was of necessity curtailed during this period because of inadequate facilities for its operation. The gymnasium, locker room, and game facilities designated for these classes were taken over by the armed forces and later were used as a housing project. The gymnasium has now been moved back into the regular quarters where it may be possible to approximate a normal program.

During this period 141 students enrolled, the majority of whom (79) were referred by the Health Service. The mental hygienist sent 12 students, four were referred by counselors in their respective colleges, and 11 came as a result of information given by their friends.

*Intramural Athletics*—Most of the intramural participation during the past biennium, especially in the first year, was in the nature of competition between units of the various service organizations. During the year 1945-46, with the return of veterans to the campus, increased interest in many of the activities was noticeable. The facilities of Cooke Hall and the various athletic fields were used extensively in the afternoon and evening hours. The reconversion of the second floor of the Stadium from barracks to athletic facilities aided the intramural program. Table II presents a statistical analysis of the participation in intramural sports for the past two years.—FRANK G. McCORMICK, *director*.

#### DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

*Enrollment Implications*—The average total of all individuals handled by the department this biennium was 2,034; this figure is 31 per cent higher than that of the previous biennium.

The greatest increases in the total college program appear in the extra-curricular program in which both the number of individuals and the number of total participations are double those of the preceding biennium.

The number of professional students reached a low point in 1944-45, and during 1945-46 showed a sharp rise.

In this biennium the number of University High School girls doubled over the number of the previous biennium.

*Chief Accomplishment*—A major change was the reorganization of the staff and the reduction of the number of standing committees: the forming of two steering committees, one for the total college program and one for the total professional program instead of four committees.

A study was made of 572 university women students' interests and needs by means of an anonymous questionnaire and through conferences with chief advisers of the five colleges and departments involved.

Further adaptation was made of the college offering to the common needs of all university women students particularly through better follow-up of students after the health examination, improved procedures for individual guidance, improved approaches to the problem of posture and carriage, and enrichment of health emphases.

Development of student leadership in the Womens' Athletic Association was fostered by means of a student-faculty consensus on definitions of responsibilities and the formation of an Officials' Training Club.

A two-day institute on the problems of the high school girls' program in this state was sponsored.

Increased consultant service to the state in school health education was provided.

Revision was made of the professional program especially in relation to evaluation, e.g., exemption tests, evaluation of fitness, improvement of the record system.

*Major Problems*—These may be noted: The study of the data recently secured on 572 university women distributed over five colleges and departments in order to (a) differentiate between the *common needs* of all university women students and the *specialized needs* implied in the vocational preparation given by the various colleges; (b) experiment with ways of meeting the specialized needs of the women students; (c) consider a valid minimum type of health, physical education, and recreation program needed by the women students at the University of Minnesota.

A study was conducted of the ways the department is providing for the emerging health, physical education, and recreation needs of the state in its teacher education program.

The professional program was expanded in order to (a) provide a richer school health education and recreational leadership background especially in the four-year undergraduate major; (b) add to the professional offering in the master of education program

in directions indicated by the interests and needs of the newly enrolled group, e.g., in teacher education; (c) add to the elective offering in ways that may be needed by any woman student in the university, e.g., courses in camp leadership training for women.

The search for staff to develop the offerings needed especially in the professional programs was continued.—GERTRUDE M. BAKER, *director*.

### MINNESOTA GEOLOGICAL SURVEY

*General*—Mr. William H. Emmons who directed the Minnesota Geological Survey for more than thirty years retired in 1944 and, as a wartime appointment, Professor Frank F. Grout become director in July, 1944. An attempt was made to do what was most urgent and use the funds for war work first, and the rest as usefully as possible during wartime shortages of men and materials.

The director promptly visited the state departments, divisions, and commissions in St. Paul to clarify the relations of the Survey to those administrative offices. The chiefs of these groups agree that while their work is largely administrative, they count on the Survey for research that is needed in their work involving geology, ores, waters, and so on.

In the first years of the war, emergency calls came to the Survey for supplies of manganese (Cuyuna Range); magnesium from dolomite; alumina and paper-clays from the southwestern counties. Some advice was given mining companies, also, in their explorations in Minnesota. By 1944 most of the urgency of these calls had passed, but the data acquired through our efforts may well be issued by the Survey for use in possible future emergency calls. Good progress was made especially in the Cuyuna Range.

*Field Work and Projects Under Way*—Professor George A. Thiel vigorously undertook the compilation of data on the water supply of the northeastern quarter of the state, including the Mesabi Range. Professor John W. Gruner spent most of the field season on the Mesabi Range in a study of recent explorations conducted by many industrial groups in the hope of using the low-grade ore, or taconite. In this work he had financial support from the Commission of Iron Range Resources and Rehabilitation. A report is in press. Professor Frank F. Grout continued some studies on the Cuyuna Range; cooperated briefly on the Mesabi work; and made some progress on a project of mapping Cook County. In this connection the Survey offered to cooperate in a project of the Commission to Iron Range Resources and Rehabilitation to drill the deposits of titaniferous magnetite in Cook County. Preliminary magnetic mapping was done as a guide to the best locations to drill. Attempts were made to get a driller, but without success. The efforts are being continued. Plans were studied also for magnetic surveys west of the developed iron ranges.

In the absence of some of the staff on war work and in view of the loss of others by retirement and by death, the funds usually devoted to field work were not all used that way. Two other projects made good use of them. Filing systems have long been needed and were started for well cuttings and drill cores, maps and data on the geology by counties. The demand for topographic maps was so great that \$4,000 was used to start cooperation on a 50-50 basis and have the United States Geological Survey employ experts. The Stillwater quadrangle has been photographed.

*Publications*—During the biennium the following are among the publications issued: J. W. Gruner, *The Mineralogy and Geology of the Taconites and Iron Ores of the Mesabi Range, Minnesota*, Office of the Commissioner of the Iron Range Resources and Rehabilitation, St. Paul, Minn. 1946. 127 pages. (In press.) "Groutite,  $\text{HMnO}_2$ , a New Mineral of the Diasporegoethite Group." *American Mineralogist*, 30:169. 1945. G. A. Thiel, "The Geology and Underground Waters of Southern Minnesota." *Minnesota Geological Survey, Bulletin 31*, 1944, 506 pages.

A bulletin is nearly ready giving the Pre-Cambrian succession in Minnesota and citing type localities. The Geology of the Duluth metropolitan area is well advanced. The geology and ground waters of northeastern Minnesota is fairly advanced. The stratigraphy of the Cuyuna Range is fairly advanced. The geology of Cook County has long needed revision and has had several seasons' study. Some field work is still needed. Robert P. Sharp, newly appointed, will study the glacial geology.

*Other Activities*—Requests for information on many kinds of problems involving geology arrive at the Survey office daily by mail, telephone, and personal calls. Samples of minerals and rocks are identified without cost to the citizens of the state.—FRANK F. GROUT, *director*.

## FIELD SECRETARY AND GENERAL ALUMNI ASSOCIATION

*Alumni Officers*—The officers of the General Alumni Association for 1944-45 and 1945-46 were Dr. George Earl, Arts '06, Med. '09, president; Ralph B. Beal, Arts '18, vice president; Arnulf Ueland, Arts '17, treasurer; and E. B. Pierce, Arts '04, secretary.

*Minnesota Alumnus*—Editorial emphasis during this period was on the wartime services of the University to the state and nation and the planning of the post-war educational program. Also featured was news of alumni in the armed forces, and copies of the magazine were sent free to the reading rooms of all camps and stations in the United States. Considerable staff time was devoted to the maintenance of a complete alumni casualty file. Among the special numbers distributed to a large number of readers beyond the regular subscription list was one devoted to a comprehensive report, in words and pictures, of the inauguration program in April, 1946.

*Alumni Advisory Committee*—For a number of years this group, appointed by the Alumni Board and composed of representative alumni outside the Twin Cities, met with the president and Board of Regents of the University at homecoming time and at commencement time in June. Manpower and gasoline shortages prevented these meetings in 1944-45, but on October 19, 1945, the homecoming meeting was held in Coffman Union and President Morrill spoke on matters relating to the University. The attendance was very gratifying.

*Alumni Meetings*—Tire difficulties, the absence from home of the younger alumni due to war service, etc. curtailed alumni activities very seriously. The following gatherings were held during the years 1944-45 and 1945-46:

1944-45—October—Madison, Wisconsin, Columbus, Ohio, and Waseca, Minnesota. November—alumni directors; homecoming: alumni dinner (Minnesota and Northwestern), dental alumni meetings, journalism alumni; Fox River Valley at Menasha. December—New York City, Big Ten Roundup at Washington, D.C. March—Los Angeles (annual meeting). April—Red Wing, San Francisco. The Minnesota alumni at Seattle, the Gopher Club at Los Angeles, and the Minnesota Alumnae Club had monthly meetings.

1945-46—September—Madison, Wisconsin, Los Angeles (State Society). October—Omaha (Nebraska game), Hibbing (Range alumni), homecoming: alumni advisory luncheon, alumni dinner with Northwestern University, 1904 law class dinner, dental alumni luncheon, journalism alumni. November—Detroit, Michigan, Waseca, Minnesota. December—Los Angeles (Big Ten luncheon for east team). January—Los Angeles (luncheon for Dean Blegen). February—Minnesota State Society of Southern California. March—Los Angeles (annual meeting). May—Chicago, Red Wing, Minnesota. June—general alumni dinner, class luncheons and dinners; Alumnae Club luncheon. The Minnesota Alumni at Seattle, the Gopher Club of Los Angeles, and the Minnesota Alumnae Club had monthly meetings.

*Homecoming*—It has been the practice of the General Alumni Association to invite to its homecoming festivities alumni of the institution represented by its football opponent, especially those living in Minnesota. These representatives have taken an active part in our homecoming programs. Northwestern University was our guest both in 1944 and 1945.

*Alumni Day*—In 1945 Alumni Day fell on June 15. The alumni dinner was held in the Coffman Union cafeteria. Because of transportation difficulties, practically all of the publicity was confined to the Twin Cities and the state. Several of the reunion classes, those with numerals ending in 0 or 5, met during the day. In 1946 Alumni Day was June 13. The general alumni dinner held in the Coffman Union was very well attended. The reunion classes, those whose numerals end in 1 or 6, held luncheons in the Coffman Union and filled the rooms to capacity.

*Alumnae Club*—In addition to its regular monthly meetings for members, the Alumnae Club sponsors a luncheon for the early graduates of the University on Alumni Day. Members of the fifty-year class and older classes are guests on this occasion. This event has become one of the highlights of the reunion period. The club also holds an annual institute on the campus at which members of the university faculty are invited to speak. The institute for 1944-45 on "The Shape of Things to Come" was held on April 14. Last year the institute was held October 6 and the general theme for the discussion program was "Developing More Dynamic Citizenship in Minnesota."

*Alumni Archives*—The Archives Committee, appointed in 1940, has added to its collection valuable material received during this period from alumni in all parts of the country.

*State Song*—At the 1945 session of the Legislature, "Hail! Minnesota" was adopted as a state song, by merely changing the second line to "Hail to Thee, our State so dear." The Executive Committee of the Alumni Association authorized the release of its copyright for this purpose.—E. B. PIERCE, *field secretary of the University and secretary of the General Alumni Association.*



CHARLES FREMONT DIGHT INSTITUTE FOR THE PROMOTION  
OF HUMAN GENETICS

The Dight Institute sponsored a public lecture each year of the biennium. Dr. E. Roberts of the University of Illinois discussed "Biology and Social Problems," and Dr. L. H. Snyder of Ohio State University talked about "The Rh Factor in Feeble-mindedness and Other Diseases." The director gave twenty lectures before various groups and organizations, lay and professional. These covered such subjects as the study of the family history in premartial considerations, and our knowledge about the effects of heredity and environment on the occurrence of specific characteristics. A bulletin on the collection of records in human genetics was distributed.

*Research*—The research program has included five specific projects in cooperation with other departments and state organizations. Family histories and related data were collected from 269 breast cancer patients, 46 persons with gallbladder disease as controls for the cancer study, 87 dental patients, 32 children with cleft palate, one person with mongolism, and 60 epileptic persons. The names of the relatives of these patients are kept on file in order that new data can be added as they become available. It is especially desired to continue the study of families of the breast cancer patients throughout this generation at least, as the study is coordinated with a national project. Two publications on the dental studies and one on the cancer study were made during the biennium.

The analysis of 566 family records of feeble-minded persons was completed during the biennium. Approximately 40 new family records have been collected from individuals who for one reason or other gave them to the institute.

The Dight Institute now has through its several research projects and from the other sources approximately 1,500 family histories in its files.

*Consultation and Public Service*—Eighty-three persons have asked for advice about various human traits in which they have had an interest. Some have wanted to know the probability that they would have children with a specific trait present in their family or in a family into which they expect to marry. Others have asked whether on the basis of their family history, they could expect to develop a trait which is not manifested until later adult life. What a person can be told depends upon the expression of the trait in his family and the probable effect of environment upon its manifestation.

*Other Activities*—The Institute helped organize the Minnesota Human Genetics League which has as part of its purpose the support of research in human genetics and population problems. A cooperative project with the Junior Minnesota Academy of Science has been established. The purpose is to interest young persons in the study of their family histories. The institute through its director has cooperated with national groups interested in genetics. The institute publishes and distributes annually a bulletin in which reports of its records and consultation services are used to explain problems in human genetics.—CLARENCE P. OLIVER, *director*.