Edward A. Birge: president, UW 1918-25: professor of aquatic ecology.

[Madison, Wisconsin]: [s.n.], [s.d.]

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TELEPHONE: FAIRCHILD 2558

Wisconsin Alumni Research Foundation

MADISON, WISCONSIN

September 6, 1940

Mr. Robert Foss, Editor
Press Bureau
309 South Hall
University of Wisconsin
Madison, Wisconsin

Dear Mr. Foss:

At the request of Dr. Russell, I am enclosing a copy of the talk which he gave at the banquet for Dr. Birge.

Very truly yours,

~~WISCONSIN ALUMNI RESEARCH FOUNDATION~~

~~By~~ Lucille O'Kelly

LO:MB

DOCTOR BIRGE AS A TEACHER

Great teachers are few and far between. They are born, not made. Their greatness does not depend upon the size of the institution in which they teach; or on the magnificence of the libraries and laboratories which are available. In fact, a superabundance of physical accessories may require so much time and energy to keep in order that the vigor and virility of the teaching may be impaired. Fortunate, indeed, is the young student who may chance to fall into the classes of that member of a University staff that is endowed with those unusual powers of enlisting the interest, the enthusiasm of youth. To pass on the torch of learning from this generation to the next; to awaken in the youthful mind a yearning for a better grasp on the verities of life is the reward that gives the fullest satisfaction to the teacher. What a sense of accomplishment must come to our honored guest tonight for the service which he has rendered his institution ~~and his community~~ in leading his students these many years to a realization of a more complete and satisfying life!

It is my privilege to acknowledge here the personal debt I owe to the best teacher I ever had. It was my good fortune to come under his influence in those happy days before he had to yield so large a part of his time to administrative detail. Fresh from the laboratories of Germany which then was the Mecca for all students in almost every field of thought; fired with enthusiasm which his keen analytical mind brought to the consideration of every subject which he taught, he had that uncanny faculty of discerning the

weak spots in a student's mind.

Well do I remember his class in physiology. When called upon to recite he always seemed to be able to ask a question on which the student's ideas were more or less hazy. My thinking apparatus was to him transparent as glass, and if there was any problem on which I did not have positive knowledge, this always seemed to be the point on which he wanted, at the spur of the moment, definite information. There was no stalling "Bugs" as he was then lovingly known by his students. You had to know the correct answer and give it quickly, or down you went. In his large classes, as in Physiology, which was taken not only by science but "lit" students as well, there was no time for long-winded argument which was apt to be indulged in by the student whose knowledge was so hazy and indefinite that he sought to cover this fact with irrelevant verbiage. You couldn't get away with this program with Dr. Birge.

But it was in his advanced classes that you really had to work early and late. Eight o'clock sharp, winter as well as in the fall and spring terms (and in those days the side walks were deep with snow this early in the morning), eight o'clock meant just one hour after "getting up time".

It was tall Bill Kremers of Milwaukee who was so long and lazy that climbing the four flights of stairs of Science Hall always made him from three to five minutes late. One day by herculean effort Bill made the class in embryology a half minute ahead of the bell. Before the gong finished ringing, in walked Birge. Looking with astonishment that Bill's seat was occupied, the Doctor pulled

out his watch, saying his time piece must be slow because Bill was already in place. This sly dig produced no permanent impression on Bill as he lapsed the next day into his former habit.

Dr. Birge did an inestimable teaching service in the development of the pre-medical course, those studies which were basal to the clinical work of the medical schools. Courses in comparative anatomy of vertebrates, histology, embryology, and later in bacteriology, were of fundamental importance, and gave the Wisconsin graduate a breadth of training that far excelled the majority of students who had their entire course ~~of training~~ in the medical schools. It was no wonder that Birge's boys, like the Ochsners, Harry Favill, John Dodson, Arthur Curtis, Jo. Bloodgood, and B. W. Sippy were the outstanding medical men of their time. The young pre-medical student often rebelled because he had to draw the femur of a cat or dog instead of that of a man. It took time and patience to prepare sections of animal tissues, embed them in paraffine, cut thin sections in the microtome, stain and mount the material, and then make a presentable drawing of the slide. This study of normal tissues, however, had to be made before the medical student could fully understand the pathological changes induced by disease.

Because ~~By virtue~~ of such basic training, Wisconsin students were eagerly accepted by the highest grade medical schools and given credit for their pre-medical work.

While it followed logically that most of the courses in the pre-medical course that were biological in character, fell to Dr.

Birge's department to present, his development of bacteriology was more or less an accident.

Prof. Wm. Trelease, who later became the noted head of the Shaw Botanical Gardens in St. Louis, was professor of Botany at Wisconsin from 1883 to 1885.

The epoch-making discoveries of Koch and Pasteur were then giving an impetus to medical ~~discoveries~~ science that were most outstanding. Dr. Trelease had ordered some bacteriological equipment from Germany, but before its arrival, he resigned to accept the St. Louis position. There was no one in the Botany Department at all competent to undertake instructional work in this new field so Dr. Birge volunteered to do what he could with the apparatus. The first year he practiced on himself, learning at first hand how to make culture media and run the incubators. The technique of staining and demonstrating the bacteria in microscopic slides was, however, quite closely allied to the tissue-staining technique that Birge gave in histology.

It was the good fortune of the speaker to be one of Birge's students at this time. Having taken all of his other courses, I grasped eagerly the opportunity which the new course in bacteriology offered. Incidentally, this course determined my life work, and at Dr. Birge's suggestion ~~led~~ induced me later to seek further training under Koch and Pasteur in Europe, and under Dr. Welch at the Johns Hopkins.

Dr. Birge continued to give the instruction in Bacteriology until the speaker returned to the University in 1893, when the Bacteriological courses were set off in a new department under my direction.

A noteworthy procedure that will long be remembered by the students in biology of those days was the Journal Club that used to meet ~~alternate weeks~~ semi-monthly at the homes of Dr. Birge and Prof. Chas. R. Barnes, the Professor of Botany. Reading a chapter of Darwin's "Origin of Species" (I think it was Huxley who said this volume should be read by a student in science at least once a year), followed by an hour of discussion was a great stimulus to this group of advanced students.

Weismann's "Essays on the Germ Plasm" had then just appeared. This philosophical treatment of a basic biological problem occupied our attention for an entire winter. Freed from the formality of the class room, these occasions will always remain as outstanding in the training of the youth that came under the inspiration of these two men.

Dr. Birge's interest was not ~~confined~~ fineed like so many specialists, to his own particular field of thought. An omnivorous reader (the story used to be current when he was President of the City Library Board, that he read all the important books before they were placed on shelves for general circulation), he was as fully at home in a discussion of literature, ~~in~~ history and philosophy as he was in science.

Members of the Madison Literary Club have always been amazed at the versatility of the Doctor in discussing practically any paper that is presented to this group, and this is as true today as it was fifty or sixty years ago.

As my class advisor he warned me against the danger of over-specialization in a too narrow field, and insisted on my taking courses in history under another marvelous teacher in the University, Prof. Wm. F. Allen, when I wanted to load my schedule with more courses in science. He wanted his students to secure an all around training to get a breadth of view that comes only from a broad survey of the various fields of knowledge. The specialist in pursuit of his own particular line digs his canyon of activity deeper and deeper, narrowing his vision more and more, until he loses his perspective on the broader problems of life. Dr. Birge fortunately belongs to the group that views the world from the mountain top rather than the canyon depth.

I have always been amazed at the Doctor's widely diffused knowledge. One day I asked him how he was able to remember such an array of facts. "Oh! that's easy" he shot back. "My mind is like a dust pan. It holds everything that is swept up."

In University life, Dr. Birge has occupied with distinction every possible educational position - instructor, professor, dean, acting president, president. He was one of the leading men in the faculty in his early days, along with Allen and Irving; was a close confidant of four presidents - Bascom, Chamberlin, Adams, and Van Hise, and finally for seven years (1919-26) he led the University himself. With release from administrative duties he has been able to continue his study of fresh water lakes especially as to their biological, chemical, and physical properties. This work has contributed much to the development of the new science of hydrobiology.

This occasion marks a fitting recognition of his services to this science, but we can never forget his service to his University and the State in his capacity of teacher.

Birge

Alumni of the University of Wisconsin. I offer you my most grateful thanks for the honor that you give me tonight. This is the third time that you have so honored me. The two earlier occasions came at points in my history here that gave reasonable excuse for marking them; but I look in vain for such an excuse tonight. You may hunt for reasons as you will, but you and I both know that by doing as I please for the past dozen years, I have acquired no merit that calls for recognition. I appreciate your kindness all the more because of the very lack of merit in its occasion; and I give you double thanks for it. I firmly reject the ribald suggestion that this third time means: Three strikes and out.

I cut my thanks short to give you what you really want from me; a word from the past and a glance at the future. Your date has been well chosen -- better perhaps than many of you know; for the year 1937 marks several anniversaries in our history. Just seventy years ago -- in 1867 -- Wisconsin caught the notion that it was about time to apply its State motto of Forward to the University. The Regents brought President Chadbourne here; he came to the aid and relief of Professor Sterling in his nineteen year task of dragging the University forward along the muddy roads of a pioneer State. After twenty years more we had gone forward marvellously; we had reached the full status of a college under the leadership of Chadbourne and Bascom. The present year again marks an anniversary, the semi-centennial of two most significant matters in our history. First, the year 1887 was just at the beginning of that great movement of American youth to college, which has brought with it such astounding advances in higher education. Second, in the same year President Chamberlin began his work to transform the University of Wisconsin from a University in name to one in fact. Wisconsin was ready for the transformation. Wisconsin as a

commonwealth and Wisconsin at work in education found in Chamberlin the leadership, the strength, the wisdom and the foresight that the situation demanded. He, too, and his successors led us forward with the ideas and ideals that have put our University in the front rank of American Universities and have kept it there.

And for the future -- Are there "listening in" tonight any of the boys and girls whose memories go back into the last century? If so, you need no message from me and you will get none. Your experience of the past has taught you what to expect in the future of the University. But I can ask you to make your experience a help to those "kid alumni" whose memories may not go back even to 1917. You can do this, for life has taught us oldsters how to forecast a future in terms of the past. Alma Mater set our feet upon the road of advance; not an easy road, but one that was open and well marked. Our children in their turn have found it here, not easier, but broader and better marked; and for some of us the same story holds, and in far larger measure, for our grandchildren.

So instructed by time we look ahead -- "far down the future's broadening way" -- not only in hope but also in full faith that coming generations will find here on our Campus the Way, always open and ever broadening; built by the cooperation here in Wisconsin, of Commonwealth and University.

PRESIDENT - EMERITUS BIRGE

- - - - will be honored by alumni from coast to coast during the FOUNDERS' DAY Broadcast on February 6th. As a member of the faculty on which he has served for 61 years, I am sure you will welcome this opportunity to pay tribute to Dr. Birge. Come even though you are not an alumnus of Wisconsin.

Presentation of the testimonial to Dr. Birge will be the high-light of this program, but other features will also be interesting: Wisconsin's famous band and Glee Club; Don Ameche from Hollywood; George Haight and William Drips from Chicago in an interesting word-picture of University events which took place nearly a century ago.

Splendid entertainment will feature the dinner meeting of the Madison Alumni Club at the Memorial Union prior to the broadcast at 9:30 o'clock.

The program committee and Ray Dvorak will stage a STYLE PARADE that will make Hollywood jealous; costumes from the time the University was founded up to the present time; Prom Queen Jean Ryan in person. Other features: movies; short talks by Acting-President George Sellery, James Doyle, senior class president; and Paul E. Stark.

All this for only one dollar. Bob Foss, chairman of the faculty ticket committee, will have co-operation from the following in selling tickets. You can buy your ticket from them or at the Union Desk:

Athletics - W. H. Aspinwall
Agriculture - A. W. Hopkins
Extension - John Kammer
Hosp. & Med. School - Dr. R. C. Buerki
Engineering - Otto Kowalke
Dorms & Commons - Lee Burns
Admins. - A. W. Peterson
W. A. R. F. - H. H. Kletzien
Education - Dean C. J. Anderson
Admin. - Alden White
Speech - A. T. Weaver
WHA - Harold B. McCarty
Zoology - L. E. Noland
Botany - E. M. Gilbert
Economics - Alma Bridgman
Physics - L. R. Ingersoll
Journalism - Mabel M. Bauer
Law School - O. S. Rundell

Geography - Loyal Durand
French - Edna Laumann
Pharmacy - A. H. Uhl
Wisconsin High School - Burr Phillips
Math. - Mark Ingram
Home Ec. - Hazel Manning
Geology - R. C. Emmons
Spanish - Eva C. Petersen
Psych. - Catherine Sage
Music - Winifred Bundy
Chem. - Laura R. Drescher
Eng. - Mrs. Mildred Walstead
German - Thekla Nimmow
History - Robert Reynolds
Philos. - Mrs. Esther Burt
Pol. Sci. - Emily Blenis
Sociology - Mrs. Mildred Coleman

The customary long tables have been broken up into tables seating 8, 10, and 12. Get enough tickets to fill one of these tables and organize your own party; or departments may organize one or more tables and sit together. Tables may be reserved by seeing the members of the ticket committee in your department listed above, or by phoning the Union Desk.

Let's make this FOUNDERS' DAY a red-letter day for Dr. Birge and the University of Wisconsin. Help your ticket committee by buying your ticket TODAY.

Yours for Wisconsin,

A. JOHN BERGE, Executive Secretary
Wisconsin Alumni Association

University of Wisconsin News Bureau Release Sunday, Feb. 16:
Cutlines for accompanying pix:

Madison, Wis.(Special)--Dr. Edward A. Birge, 89-year-old former president of the University of Wisconsin, was made happy this week when he received a specially printed copy of a joint resolution extending to him the congratulations of the Wisconsin legislature. The resolution was adopted unanimously by both senate and assembly.

The photo shows Dr. Birge looking over the resolution in his office in the Biology building on the State University campus. Despite his advanced age, Dr. Birge, who served as dean of the college of letters and science from 1891 to 1918, and president from 1918 to 1925, can be found in his campus office every week day, working on problems in the field of hydrobiology.

As one of the directors of the Wisconsin Natural History survey, Dr. Birge has collected more scientific data concerning Wisconsin lakes than any other person, except probably his colleague and co-worker, Dr. Chancey Juday. These studies have aided Wisconsin in its conservation work.

Two years ago Dr. Birge took up typing so that he could pound out his own reports and scientific notes on a typewriter. Author of hundreds of scientific reports on his lake and stream studies, he is known throughout the world for his work.

In reply to the legislative resolution, which highly praised him for his "outstanding record of public service through these 66 years," Dr. Birge modestly wrote to the Wisconsin legislature:

(more)

"It has always been a source of great pleasure to me--and of some pride--that it has been my good fortune through my active life, to do my part in advancing this Commonwealth through its University."

The complete text of the joint legislative resolution follows:

"Whereas, the University of Wisconsin's President Emeritus E. A. Birge was honored last fall by national scientists and Wisconsin friends on the occasion of his 89th birthday; and

"Whereas, this grand old man, known to so many as 'Dean Birge', became associated with the University of Wisconsin in 1875 as instructor of natural history, and has an outstanding record of public service through these 66 years, probably equaled by no other Wisconsin citizen; now therefore, be it

"Resolved by the senate, the assembly concurring, that the Wisconsin legislature pause in its deliberations to extend its sincere congratulations and felicitations to Dean Birge for his long continued, distinguished services to the University and the State of Wisconsin."

# # #

University of Wisconsin News Service Immediate Release

Madison, Wis. (Special)

Dr. Edward Asahel Birge, president emeritus of the University of Wisconsin, Saturday celebrated his 70th year of continuous service to the state of Wisconsin and its University.

For it was on January 5, 1875 that Dr. Birge came to the University of Wisconsin, at the age of 24, as an instructor in natural history. Now 94 years of age, Dr. Birge is considered "the grand old man" of Wisconsin's and America's scientists-scholars-educators.

Still spry, sharp, and in good health, he spends part of each day, even though he technically retired 21 years ago in 1925, at work in his office in the Biology building on the Wisconsin campus. He learned to operate a typewriter as he approached his 90th birthday five years ago, and still does much of his own typing, his co-workers say, and he's pretty good at it. At present he is working on a volume on the physical, chemical, and biological conditions of Wisconsin's lake waters, a field in which he has specialized since retiring as president of the University in 1925.

From University of Wisconsin News Service
For Newspaper library material

Dr. Edward Asahel Birge, president emeritus of the University of Wisconsin, is now, during 1947, in his 72nd year of continuous service to the state of Wisconsin and its University.

For it was on January 5, 1875 that Dr. Birge came to the University of Wisconsin, at the age of 24, as an instructor in natural history. Now 96 years of age, Dr. Birge is considered "the grand old man" of Wisconsin's and America's scientists-scholars-educators.

Dr. Birge spends part of each day, even though he technically retired 22 years ago in 1925, at work in his office in the Biology building on the Wisconsin campus. He learned to operate a typewriter as he approached his 90th birthday six years ago, and began to do much of his own typing. During the past year he has been working on a volume on the physical, chemical, and biological conditions of Wisconsin's lake waters, a field in which he has specialized since retiring as president of the University in 1925.

Dr. Birge was born in Troy, New York, September 7, 1851, the son of Edward White and Ann Stevens Birge. He received his B.A. degree from Williams College in 1873 and his M.A. in 1876, and obtained his doctor of philosophy degree from Harvard in 1878. He studied in Leipzig, Germany, in 1880-81. Other degrees conferred upon him are Hon. Sc. D., Western University of Pa. 1897; LL.D., Williams, 1903, University of Wisconsin, 1915, and University of Missouri, 1919; Ph.D. Renssalaer Polytechnic Institute, 1925.

In 1875 he became an instructor in natural history at Wisconsin, professor of zoology from 1897-1911, dean of the College of Letters and Science, 1891-1918, acting president of the University, 1900-1903, and president of the University of Wisconsin 1918-1925, being

(more)

president emeritus of the University since September 1, 1925.

Dr. Birge was director of the Geological and Natural History survey of Wisconsin, 1897-1919, and president of the commissions from 1919-1925, being in charge of the natural history division since 1897. He was secretary of the Commissions of Fisheries of Wisconsin, 1895-1915; member of the Board of Forestry Commissions, 1905-1915; member of the Wisconsin Conservation Commission, 1908-1915; director of the Madison Free Library, 1890-1909, and its president from 1893 to 1909.

Prof. Birge is also a fellow in the American Association for the Advancement of Science; member of the Wisconsin Academy of Sciences, Arts, and Letters (president, 1890-1891, 1918-1921); of the Wisconsin State Historical Society; the American Microscopical Society, (president, 1903); the American Fisheries Society (president, 1907); the American Society of Zoologists (president, Central Branch, 1908-1909); the Washington Academy of Sciences; the American Society of Naturalists; the American Philosophical Society; the Ecological Society of America; and the Academy of Natural Science.

Dr. Birge is also a member of Sigma Xi and Phi Sigma Fraternities, served as a senator of Phi Beta Kappa from 1904-1922, and has served as life senator since, having been vice-president of the United Chapters, 1913-1919, and president, 1919-1922. Prof. Birge is a well-known writer on zoology and limnology. For many years, with the late Prof. Chancey Juday of the zoology department, he had charge of the investigations into the physical, chemical, and biological conditions of Wisconsin's lake waters, and their effect on fish life, with a view to increasing the rate of fish propagation and decreasing the cost of conservation work in Wisconsin.

Dr. Birge's special field in these investigations is the study

of the penetration of the sun's rays into lake waters. The importance of this study arises from the fact that the amount of fish food in a lake is partly dependent upon the amount of sunlight that penetrates the lake's water. Thus, lakes which are highly impenetrable are bound to have limited fish food supplies, and it would be useless to plant large numbers of fish in their waters.

As teacher and president of the University, and as a scientist whose work has made him known throughout the civilized world, Dr. Birge has served University and state and nation since 1875.

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University of Wisconsin News Service
9/15/48

Release Sun. Sept. 19
and thereafter

Madison, Wis.--University of Wisconsin students swarmed back to the Madison campus last week and were greeted with programs for the most event-filled year the century-old university ever has produced.

For the past four years one of the students' favorite professors, Economist William H. "Wild Bill" Kiekhofer and his Centennial committee and subcommittees have been planning for this year.

Professor Kiekhofer and Pres. E.B. Fred say they hope the year-long program, which will mark the 100th year of the University, will provide "a year of distinguished academic achievement."

But students, concentrating on a Centennial ball along with their class schedules last week had a more colorful though perhaps less intelligible description.

They said it would be a "whing-ding" of a celebration.

The more serious scholars on the faculty like to quote the slogan for the university Centennial which was taken from a speech of 97-year-old President Emeritus E. A. Birge, who still works in his laboratory on the "hill" each day, though he came to Wisconsin when President Grant was in the White House:

"Rooted in the past, serving the present, forming the future."

University historians, who are taking the Centennial as a proper occasion for the publication of a history of the university, point out that one of the two "birthdays" which could be celebrated by the university this academic year already has passed.

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On July 26, 1848, Governor Nelson Dewey signed the bill establishing the university which had been passed by the first state legislature.

But the real birthday, the university historians say, is not due until next February. On Feb. 5, 1849, the first university class met. That will be celebrated in international fashion, according to plans. On that day, Badgers from London to Tokyo will gather at centers throughout the world to pay tribute to Wisconsin at the Centennial Founders' day dinners, connected by radio hookups from the master dinner at the Memorial Union in Madison which the Wisconsin Alumni association is planning.

These birthday parties, the university Centennial planners hasten to point out, are only a part of the show...a part of the "special celebrations" part of the show, to be exact. They break down the year-long program into four classifications:

1. Special celebrations, such as the Founders' day dinners and the Centennial ball.

2. Academic conferences, featuring among other things a national education get-together which promises to gather college big-wigs from most of the sizeable universities in the nation.

3. Memorial projects, like the university history.

4. Fine arts performances including concerts by the New York Philharmonic orchestra and Fritz Kreisler.

Professor Kiekhofer, his Centennial committee of regents, faculty, and alumni, and his 46 sub-committees made up of 350 professors, grads, and students, feel the academic conferences will be the highlight of the year.

"We propose to focus our celebration," Professor Kiekhofer says, "on applying, in cooperation with educators, students, and laymen throughout the country, common skills, knowledge, and wisdom to the problems of American society."

This phase of the Centennial program is already begun. Symposiums on "Combustion and Flame and Explosion Phenomena," "Steroid Homones," "Frontiers of Housing Research," and "Pulverized Coal Burning and High Pressure Steam Generation and Utilization," already have attracted international experts to discussions at Wisconsin.

Learned societies of anatomists, agronomists, physicists, chemical engineers, and mathematicians also have met on the Wisconsin campus as part of this phase of the Centennial celebration.

But the high point of the "academic conferences" is expected October 8 and 9 when representives of colleges and universities, educational organizations, and the educational press will meet to discuss "Higher Education for American Society".

That meeting will formally open the centennial celebration.

A dozen symposia then will follow. They include:

1. "Significant History: 1848-1948," Nov. 2-Dec. 6, a series of six weekly Tuesday night lectures on highlights of world developments in two important years, sponsored by department of history.

2. "Science and Civilization," Jan. 13-14, 1949, including the impact of the atomic bomb on society, sponsored by department of history of science.

3. "The Humanities in American Society," March, on liberal education, sponsored by Humanities division of the University of Wisconsin.

4. "Looking Ahead in Labor-Management Relations", March, dealing with America's No.1 domestic problem, Big Business vs. Big Labor, sponsored by University Industrial Relations center.

5. "Student Government in Higher Education", Mar. 24-26, on student participation in institutional administration, sponsored by Office of Student Personnel Services and Student Centennial Committee.

6. "American Regionalism," Apr. 14-15, dealing with history, art, literature, and political economy, sponsored by University Committee on Study of American Civilization.

7. "Inter-Relation of Law and American Economy", May 6-7, a part of the annual "Law Weekend," sponsored by Law school.

8. "John B. Andrews Memorial Symposium on Protective Labor Legislation and Social Security," May, with timely discussions of labor-managements relations, sponsored by University Industrial Relations center and department of economics.

9. "Conservation," June 27-28, on intelligent use of Wisconsin's natural resources, sponsored by Centennial Sub-Committee on Symposia.

10. "Eleventh National Symposium on Organic Chemistry," June 19-22, sponsored by Wisconsin section of American Chemical society and American Chemical society (Organic division).

11. "General Education", Aug. 1-3, on the new trend toward "core" curricula, sponsored by department of integrated liberal studies.

12. "Plant Growth Substances", Sept. 8-10, exploring botanical hormones and other regulatory elements, sponsored by University Committee on Plant Growth Substances Research.

Learned society conventions still to come include gatherings of geographers, historians, political scientists, and five other groups.

The "special celebrations" end of the the festivities got under way with the university's participation in the state centennial ceremonies in Madison and exposition in Milwaukee. Still to come are the celebration of the 100th anniversary of the first regents meeting, a series of "University Days" at the 10 University Extension centers, the world-wide Founders' day banquets, a climactic Commencement-Reunion week in June, and the filming of a university movie.

The major"memorial projects" for the Centennial year will include, besides the publication of a two-volume "History of the University of Wisconsin," a series of historical exhibits arranged by the State Historical society and the dedication in name of Centennial memorials being planned by the University of Wisconsin foundation.

The liveliest student interest in the Centennial calandar has been in the "fine arts" planned for the year.

Musically, the Wisconsin Union will present, besides the New York Philharmonic and the Kreisler concerts, performances by Vladimir Horowitz, Florence Quartararo, Todd Duncan, Gregor Piatigorsky, and Burl Ives. The Music school will sponsor concerts by its artists-in-residence.

A music festival, folk festival, a requiem for Wisconsin war dead, and the publication of a Centennial composition are also in the planning state.

ad five--centennial program

Drama for the Centennial will bring Margaret Webster in Shakespeare performances and Maurice Evans in "Man and Superman" in the Wisconsin Union theater, and there is a hint of more Broadway attractions in the booking stage.

Wisconsin Players will provide a series of dramas by Wisconsin playwrights.

A full schedule of art exhibitions in the Wisconsin Union galleries has been scheduled for the year. The top show is expected to be an exhibition of great masterpieces of art from the New York Metropolitan museum, scheduled from Nov. 23 through Dec. 18.

The Centennial steering committee, which arranged for the overall programming of the year-long features, includes, besides Chairman Kiekhofer, Frank J. Sensenbrenner, president of the Board of Regents, honorary chairman; Pres. E. B. Fred; John Berge, executive secretary of the Wisconsin Alumni association; R. Alexander Brink, professor of genetics; John Guy Fowlkes, dean of the School of Education; Paul Knaplund, professor of history; Clifford Lord, director of the State Historical society; LeRoy Luberg, assistant to the president; Andrew Weaver, professor of speech; Morton O. Withey, dean of the College of Engineering; and Clay Schoenfeld, editor of the Wisconsin Alumnus, executive secretary.

Frank O. Holt, director of public service, was a member of the committee prior to his death April 1, 1948. Harold C. Bradley, professor of physiological chemistry, is a retired member.

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U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

October 21, 1948 RELEASE: Immediate

Madison, Wis.--The lake and stream research at the University of Wisconsin got national attention this month.

In an article, "Conservation Goes to College," the magazine "Outdoor America" gave its first pages to the University's lake studies.

"An entire university has just mobilized its whole research facilities in the service of nature," the article reports. "Biologists, chemists, physicists, engineers, geologists, and public health workers, all over the Wisconsin campus--they'll all now be working together for the benefit of nature lovers everywhere."

The magazine "Outdoor America" is the official publication of the Izaak Walton League of America, Inc.,and is devoted to outlining the problems "confronting the American outdoor way of life."

The article, written by Clay Schoenfeld who is editor of the "Wisconsin Alumnus" and a well-known contributor to outdoor magazines, traces the work at Wisconsin from 1875 when Edward A. Birge pioneered lake research to the present lakes and streams research committee of which Prof. William B. Sarles is secretary.

"Our new program should make possible a coordinated effort here at Wisconsin that will yield results of great value to the cause of conservation all over the country," Schoenfeld quotes Professor Sarles as saying.

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Wisconsin scientists will also tackle the pollution problem, the article says.

"Botanists at Madison will study the algae involved in 'smelly' lakes and streams. Zoologists will investigate the tiny 'bugs' which play a part," Schoenfeld writes. "Chemists will work on possible spray treatments. Physicists will experiment on the role of filtered sunlight. Geologists will determine the effects of certain types of soil and rocks in the watershed. Engineers will study sewage disposal techniques. Through Professor Sarles and his central committee they'll pool their questions, hunches, methods, and discoveries."

Research has already produced dividends, Schoenfeld reveals. Bacteriologists have found a way to make paper mill waste harmless. A diet for hatchery trout has been perfected. Management practices have been recommended for the famous Brule river.

"Now that for the first time in history an entire university has tied all its researchers together into a lakes and streams team," Schoenfeld concludes, "nature lovers all over the country will be watching the University of Wisconsin for important conservation facts."

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~~xxxxxx~~ med school convocation

By David D. Levine

Recalling the days when he was the whole faculty of the natural history departments at the University of Wisconsin, Dr. Edward A. Birge, president emeritus of the university, traced the ~~xxx~~ development of the pre-medical course ~~from its infancy until the establishment of a Medical School.~~ at the medical School convocation, Thursday, Nov. 7, in the Service Memorial Institutes building.

"I came to my teaching here in 1875, as one of a "Hill" faculty of 20, equally divided between professors and instructors," Dr. Birge said. "I was instructor in natural history and taught botany, zoology, and physiology to both college and sub-freshmen students."

At the abolition of the sub-freshmen classes, in 1879-80, Dr. Birge undertook the task of creating a pre-medical course that would give prospective medical students a scientific background, yet would not be too technical as to exclude other students from the courses.

"No one was admitted to the course who did not agree to devote most or all of his leisure to the owrk. These pre-medical studies for undergraduates were handled on essentially the same lines as the graduate studies of later years," he explained.

(more)

"Nothing was taught from the viewpoint of medicine," Dr. Birge continued. "I tried to provide future medical students with a background of biological science, against which he could see his professional knowledge in its right proportions and in its larger relations."

The faculty of the pre-medical courses was expanded when Albert J. Ochsner, of the class of 1884, and later the distinguished ~~doctor~~ surgeon of Chicago, was placed in charge of histology and embryology which he had studied in the most advanced laboratories of Europe.

When Dr. T. C. Chamberlin became ~~president of Kikkinchrinnen~~ president of the university, he began to transfer the institution from the college to the university basis. As part of that reorganization, the "special course antecendent to medicine" was established. This was the official birth of the course, but the work had already been going on for four or five years.

The completion of the reorganization by Dr. Chamberlin resulted in the appointment of Dr. Birge as dean of the College of Letters and Science.

"This brings me to my second great service to the pre-medical course," Dr. Birge claimed. "I got out of it."

With the new appointments of the early 90's, ~~the pre-medical course~~ thre began the great period of the pre-medical course when its ~~xxxxxxx~~ graduates were making notable records in the medical schools of the country.

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"In particular, John Hopkins university founded its medical school in 1893 on a basis far more scientific than any of its predecessors," Dr. Birge said. "The type of work done at Wisconsin was precisely that which fitted men for that type of school, and a large number of our graduates always went there until our own Medical School was founded."

###

MADISON, WIS., AUG. --(AP)--AS PRESIDENT OF THE UNIVERSITY OF WISCONSIN SOME 15 YEARS AGO, DR. EDWARD ASAHEL BIRGE, RETIRED, WAS FREQUENTLY IN THE NEWS BECAUSE HE COULDN'T AVOID IT.

EVEN THEN, HOWEVE R, HE WAS A MAN OF FEW WORDS, AS ILLUSTRATED AT ONE OF HIS STAFF CONFERENCES CALLED TO SELECT A PLACE FOR INDOOR COMMENCEMENT EXERCISES.

SOMEONE SUGGESTED THE STOCK PAVILION AND EVERYONE PRESENT WELCOMED THE IDEA, THAT IS EVERYONE EXCEPT DR. BIRGE, WHO CASUALLY INQUIRED:

"WOULDN'T IT BE WELL TO CONSIDER THE SPARROWS."

THEN, AMID THE DISMAYED "OH MY'S" OF THE STAFF, DR. BIRGE PROCEEDED WITH THE SELECTION OF A MORE SUITABLE PLACE.

NOW, ALMOST EXACT LY 15 YEARS AFTER HIS RETIREMENT FROM THE PRESSDENCY--A PERIOD IN WHICH LITTLE HAS BEEN HEARD OF THE PRESIDENT EMERITUS--DR. BIRGE IS COMING BACK INTO THE NEWS.

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Dr. Birge

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Ext. 39

3rd floor
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MADISON, WIS., MAY --(AP)--HAS IT EVER OCCURRED TO YOU THAT FISH SURROUNDED BY AN ABUNDANCE OF WATER MAY BE STARVING?

MORE THAN A HALF CENTURY AGO DR. EDWARD ASAHEL BIRGE, PRESIDENT EMERITUS OF THE UNIVERSITY OF WISCONSIN, NOT ONLY HIT UPON THAT IDEA, BUT HE ALSO DETERMINED TO DO SOMETHING ABOUT IT.

NOW AT THE AGE OF 88 HE IS ONE OF THE FOREMOST AUTHORITIES IN THE NEW SCIENCE OF "AQUACULTURE" AND WILL BE HONORED AT A WORLDWIDE GATHERING OF AMERICAN, EUROPEAN AND CANADIAN LIMNOLOGISTS AND OCEANOGRAPHERS AT A MEETING TO BE HELD AT THE UNIVERSITY OF WISCONSIN NEXT SEPT. 4-7 INCLUSIVE.

University of Wisconsin News Service Special Release

E. A. Birge

Madison, Wis. (Special)--The 76th annual meeting of the Wisconsin Academy of Sciences, Arts and Letters will convene on the University of Wisconsin campus for a two-day session this week Friday and Saturday, April 12-13. Meeting jointly with the Academy will be the Wisconsin Archeological and Folklore societies, the Wisconsin Museums conference, the Wisconsin section of the American Chemical society, and the Wisconsin Junior Academy of Science.

The planning committee for the event includes the officers of the Academy: H.A. Schuette, president; Banner Bill Morgan, vice-president; Ruth Walker, vice-president, science division; Walter Bubbert, vice-president, arts division; Helen C. White, vice-president letters division; and the librarian, H.O. Teisberg.

They will be assisted by the following committees: Program--Pres. Edwin B. Fred, chairman; Profs. Philo M. Buck, Jr., C.A. Elvehjem, L.E. Noland, and James G. Woodburn; rooms and registration--Profs. A.D. Hasler, John W. Thomson, Jr., and Glenn Trewartha; banquet--Profs. E.F. Bean, N.C. Fassett, and Emma L. Fisk; social activities--Mesdames A.W. Schorger, M.H. Ingraham, G.W. Keitt, V.W. Meloche, and Oscar Rennebohm.

On Friday morning from 10 to 12 the Academy section will hold meetings in the Biology building on the State University campus. Pres. Fred will give the address of welcome, and papers will be read by Norris F. Hall, "The Scientific Work of Louis Kahlenberg"; C.A. Elvehjem and W.A. Krahl, "Pellagra and Corn"; George Urdang, "How

(more)

Chemicals Entered the Official Pharmacopoeias"; Aaron J. Ihde, "Who Discovered Sulphur Monochloride"; A.D. Hasler and L.V. Whitney, "An Electric Eye for Detecting Schools of Fish".

On Friday afternoon John H. Kolb will give the "Background and Foreground of Wisconsin's Rural Communities"; Leonard A. Salter will discuss "Do We Need a New Land Policy", and H. Scudder Mekeel will talk on "Where Is Social Science?".

The talks will be followed by the annual business meeting at 4 p.m. Friday, by a tea at the home of President and Mrs. Fred, and by the annual Academy dinner at 6 p.m. in the Memorial Union. At 8 p.m. the retiring president, Prof. H.A. Schuette, will give an address "Harm in the Pot No More", and Bruce S. Wright, formerly a lieutenant commander in the Royal Canadian Naval forces, will talk on the British commandos.

Saturday morning the Academy section will hear the following addresses: "The Industrial Utilization of the Cattail Spike," by H.E. Reed of the Burgess-Manning company; a preliminary report on Typha seed oil by Wm. D. Lewis and Prof. Schuette of the University; "The Lakes of Vilas County" by president emeritus of the University, Dr. E.A. Birge; "Development of Behavior in the Loggerhead Turtle," Karl U. Smith; "The Availability of Thiamine in Dried Yeast," Helen T. Ness, Echo L. Price, and Helen T. Parsons.

"Electrostatic Effects Produced in Dust Clouds Made with Finely Ground Minerals of Various Composition," H.F. Wilson; "A Contribution to the Ecology of the Bluntnosed Minnow in an Artificial Pond," John C. Neess; "Stimulation and Suppression of Some Vegetable Plants by DDT Sprays and Dusts," T.E. Allen and R.K.Chapman; "The Role of Diphtheroids in Bovine Trichomoniasis: Preliminary Studies,"

(more)

K.R. Johansson; "Studies of Sugar Content and Acidity of Corn as Related to Resistance to the European Corn Borer," John Lilly and Mary Jane Bradford; "The Abbe Prevost and the English Latitudinarians," Bernice Cooper; and "Revision of the Cartosyrphus Flies of North America," C.L. Fluke and F.M. Hull.

The Chemistry section on Saturday morning will be opened by R. A. Ragatz, and will hear the following talks: "Diet and Dental Caries", B.S.Schweigert and C. A. Elvehjem; "Reduction Products of Some Diphenyl Acids," Harry Posvic; "The Ortho Esters of Phenylacetic Acids and Their Behavior," Calvin L. Stevens and S.M. McElvain; "The Synthesis of Compounds Related to the Female Sex Hormone Equilenin," Warren J. Close and A.L. Wilds;

"Condensation of Benzaldehyde with 1-Methyl-4-piperidone," Kurt Rorig and S.M. McElvain; "Nutritive Factors Needed by the Monkey," J.M. Cooperman and C.A.Elvehjem; "Anti-biotics by Molds," R.W.Rivett, J.J.Johnson, and W.R. Peterson; and "Studies on Anthracene Transannular Peroxide," Joseph Farber and Paul Bender.

The Archeological, Folklore, and Museums section will hear on Saturday "What Americana Meant to Charles E. Brown," by Dorothy Moulding Brown; "A Tavern Museum in Muir Land," Sylvester Adrian; "Early Contemporaries of Ella Wheeler Wilcox," Albert O. Barton; "Pecatonica and Koshkonong Place Name Origins," F.G.Cassidy; "Wisconsin's Only Covered Bridge Museum," Herb Peters; "Monroe County Folktales," Dorothy Kundert; "Black Hawk Recollections," Mitchell Red Cloud; "Black Hawk Trail Marking," Mrs. Hope Nuzum; "Aztalan Site Study," Palmer Daugs; "Prairie du Chien Museum," Cal Peters; "Wisconsin's Colorful Market Days," Walter Bubbert; "A Milwaukee Legend of 'Yellow Dead' Island," Theodore Mueller; "Beetown Tavern Museum,"

(more)

Rollo Jamison; and "Census of Wisconsin Museums," Walter Bubbert.

The Junior Academy section will meet on Saturday afternoon, with John W. Thomson, Jr., presiding, to hear the following discussions by Wisconsin's leading "teen-age" scientists: "Backyard Insect Collecting," Robert Zusy, St. John Cathedral High School, Milwaukee; "The Importance of Soil Analysis," Anita Kaufman, Lincoln High School, Wisconsin Rapids; "Cold Light", Melborne Rabedeau, Mary D. Bradford High School, Kenosha; "Applications of Atomic Energy," Kathryn Masterson, P.J. Jacobs High School, Stevens Point; "Blood Will Tell," Patricia Kasper, Dolores Demski, Mercedes Ironside, Mercy High School, Milwaukee; "Astronomy Hobby," Robert Bard, Appleton High School; "Hydroponics," Lawrence Maurer, Mary D. Bradford High School, Kenosha; "Lift and Drag Coefficients of Airfoil Sections," James Check, P.J. Jacobs High School, Stevens Point. The Junior meeting will close with the election of officers and the presentation of awards.

# # #

Centennial Edition

(Cut-lines for EDWARD A. BIRGE):

EDWARD A BIRGE (1918-25), also devoted his entire professional life to the University. He blazed new paths in biology, bacteriology, physiology and allied fields, and laid the foundation for the school of pre-medical work.

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5/26/50

DR. EDWARD A. BIRGE

PRESIDENT EMERITUS, UNIVERSITY OF WISCONSIN

The nation's oldest doctor of philosophy, Edward A. Birge, celebrated 75 years of service to the University of Wisconsin last January 5 by working as usual in his office in the Biology building. Dr. Birge is 98 years old.

On Jan. 5, 1875, he began his career on behalf of the University and the people of Wisconsin as an instructor in natural history. He was in turn professor of zoology, dean of the College of Letters and Science, acting president, and president.

In 1918, after 50 years of service, during which Wisconsin changed from "cow college" to leadership in instruction and research, he retired as president to become director of the natural history division of Wisconsin's geology and natural history survey.

He is regarded by many today as the greatest living authority on limnology. He is also an authority on the Apostle Paul and takes to the pulpit at St. Andrew's Episcopal church in Madison every January to talk on some facet of Paul's life and philosophy.

Every morning now he goes to his office in the Biology building to work with his charts and maps on the lakes of Wisconsin. He has written many scholarly papers on related themes, alone and with other researchers. He works in complete concentration because he has become stone deaf and utterly unaware of the noisy students clattering through the corridors.

He keeps a sharp eye on the world beneath his fourth floor window, however. Once last winter when he saw a student slip and fall on the ice he immediately got Pres. E. B. Fred on the telephone.

"See here, Fred," he said. "You'd better get busy and get some sand on the ice around here....It's going to cost the University a lot of money if the students start tumbling all over the place. When I was president, I never permitted risks like that."

Dr. Birge was born in Troy, N. Y. He was awarded his B.A. degree by Williams college in 1873 and his M.A. in 1876. He earned his Ph.D. at Harvard in 1878 and studied at Leipzig in 1880-81.

Miss Anna Birge is given much of the credit by those in the know for her famous father's long and useful life. She has kept house for him ever since Mrs. Birge died in 1919. She it is who sees that he takes his nap after lunch, and that he goes to bed at 9, for he's up at 6 every morning, "and would be up at 5 if we let him."

"The old white hawk" of the Biology building refuses to be cowed by the weight of his birthdays. When he was 90 he "showed" them all by learning to run a typewriter.

Dr. Birge is a living tradition at Wisconsin, a landmark only two years younger than the University itself.

###

University of Wisconsin News Service Release Wednesday, June 2
Noon and After.

E. A. Birge

Madison, Wis. (Special)--Detailed plans for a year-long University of Wisconsin Centennial celebration were presented to Pres. E. B. Fred this morning by Prof. William H. Kiekhofer, chairman of the University Centennial Committee.

The plans call for commemorative events beginning this week and running through September, 1949.

"There will be four main projects," Professor Kiekhofer told President Fred. "They are:

"1. Special celebrations.

"2. Memorials.

"3. Academic conferences.

"4. Fine arts performances.

"We hope to make the whole Centennial year one of distinguished academic achievement at the University," he pointed out.

The special celebrations as outlined by Chairman Kiekhofer today include a world-wide network of Founders' Day dinners on February 5, 1949, and an Anniversary Commencement Week in June, 1949.

Memorial projects include publication of a two-volume University history and the Centennial Fund Campaign of the University of Wisconsin Foundation.

Invitations to over 25 Centennial-year academic conferences will go out to such distinguished leaders as University Presidents Conant of Harvard, Stoddard of Illinois, and Graham of North Carolina.

Fine arts features will include the New York Philharmonic Orchestra, at least two Broadway stage productions, and a $1,000,000 loan exhibit of "old masters" from the New York Metropolitan Museum of Art.

The opening University Centennial event is a national engineering symposium in Milwaukee this Friday, June 4, at which Secretary of Interior Julius Krug, a Wisconsin alumnus, will speak.

The University will become 100 years old during the 1948-49 school year. A bill establishing the University was passed by the First State Legislature and signed by Governor Nelson Dewey on July 26, 1848. The first University class met on February 5, 1849.

Motto by Birge

Slogan of the University of Wisconsin in its Centennial Year is "Rooted in the past, serving the present, forming the future"----- words of President-Emeritus E. A. Birge, who came to the campus when President Grant was in the White House and who still works in his laboratory at the age of 97.

The motto forms the title of the Centennial calendar booklet which Professor Kiekhofer presented to President Fred today. Copies of the brochure will be mailed to alumni and friends of the University this week.

In accepting the Centennial plans President Fred declared:

"I trust that 1948-49 will be a year of real significance to the University, the citizens of Wisconsin, and to higher education generally. We want to key our celebration not so much to a glorification of the past as to ways in which we may best serve in our second century."

Special Celebrations

As explained by Professor Kiekhofer today, the special University of Wisconsin Centennial celebrations include participation in the State Centennial Exposition in Milwaukee this summer, a world-wide series of Founders' Day banquets next February, a climactic Commencement-Reunion Week in June, 1949 and the filming of a University movie.

At the State Fair Exposition the University will be represented by three display booths in the Education Building. Models, charts, pictures, and exhibits will tell the story of "University of Wisconsin Education Yesterday, Today, and Tomorrow."

"It is symbolic that a University which has made famous the policy of 'service to the commonwealth' should celebrate its Centennial at the same time at which its mother state has attained its 100th birthday," Professor Kiekhofer said.

February 5, 1949, is the official "birthday" of the University. On that day Badgers from London to Tokyo will gather at centers throughout the world to pay tribute to Wisconsin. These traditional Founders' Day dinners will be connected by a national radio hookup from the master dinner in the Memorial Union on campus. The Wisconsin Alumni Association is in charge of arrangements.

Climax of the University of Wisconsin Centennial will come during the period of June 12 through 19, 1949.

Special events scheduled at that time include the following:

1. An exhibit by the State Historical Society, on the ground floor of the Historical Library Building, depicting the 100 year life and times of the University.

2. A notable art show in the Wisconsin Union Gallery.

3. A Centennial Dinner at which 1,200 alumni and friends of the University will sit down together in the Field House to discuss the problems of "The University in the Century Ahead."

4. Centennial Commencement Exercises at which the University will graduate its 95th class and confer honorary degrees upon a number of distinguished personages--probably 10, one for each University of Wisconsin decade.

5. A Centennial Reunion which will attract thousands of Badgers from the classes of 1878 to 1948 back to Madison.

Throughout its Centennial year the University will be playing the star role in a movie which will depict the 100 year work of the institution in education, research, and public service. The movie is being financed by an anonymous trust fund and will be produced by the University Bureau of Visual Instruction.

Memorials

One of two principal University Centennial memorial projects will be the publication of a two-volume "History of the University of Wisconsin." A staff of six historians has been at work on the project for three years. It is being written by Merle Curti, Frederick Jackson Turner, Professor of History and author of the Pulitzer Prize-winning "The Growth of American Thought," and Vernon Carstensen, assistant professor of history.

From the University of Wisconsin Foundation, an organization of alumni and friends, the University is eventually to receive a number of Centennial Memorials. These will be suitably dedicated in name at ceremonies during Commencement-Reunion Week in June, 1949.

They include:

1. Scholarships for needy undergraduate students of special ability.

2. Fellowships for outstanding graduate students.

3. Special professorships, not for the purpose of ordinary academic teaching, but for the enlargement of human knowledge.

4. Special equipment, such as scientific instruments and apparatus.

5. A Wisconsin Idea Building that will eventually accommodate institutes, short courses, clinics, and conferences for which suitable University facilities now are lacking.

The Foundation is now conducting a Centennial Campaign to raise $5,000,000 with which to finance these birthday gifts.

Academic Projects

"Backbone" of the University Centennial celebration, according to Chairman Kiekhofer, will be a series of educational conferences, academic symposia, and meetings of learned societies throughout the 1948-49 school year.

"We propose to focus our celebration," he told President Fred today, "on applying, in cooperation with educators, students, and laymen throughout the country, common skills, knowledge, and wisdom to the problems of American society."

Educational Conference

Formal opening of the University Centennial celebration will be an educational conference of national scope on Friday, Saturday, and Sunday, October 8,9, and 10, 1948, under the general title, "Higher Education for American Society."

Topics to be discussed by outstanding leaders include "The First Hundred Years of Higher Education in Wisconsin," "The Plus and Minus of Higher Education Today," "The Future of Higher Education," "Higher Education and Research," "Higher Education and Public Service," "Spiritual and Moral Aspects of Higher Education," and "Some Obligations of the Educated Man."

In addition, there will be a series of roundtables on "Problems in Higher Education," and on "Improving the Effectiveness of Higher Education."

To this conference invitations will be extended to representatives of American colleges, universities, learned societies, and lay organizations.

Symposia

Fifteen academic symposia during the Centennial Year will bring to Madison distinguished experts in various fields of learning and will provide a stimulus to Wisconsin scholarship and research.

The tentative schedule of symposia is as follows:

1. Pulverized Coal Burning and High Pressure Steam Generation and Utilization, June 4, 1948, (at Milwaukee) on the economical production of cheap electricity, sponsored by College of Engineering and American Association of Mechanical Engineers.

2. Frontiers of Housing Research, Sept. 2-4, on up-to-the-minute urban r al estate problems, sponsored by University Regional Planning Course committee and Housing Research Committee of National Social Science Research Council.

3. The Steroid Hormones, Sept. 6-8, an important phase of cancer and tumor research, sponsored by the University of Wisconsin

and Committee on Growth of National Research Council acting for American Cancer Society.

4. Third National Symposium on Combustion and Flame and Explosion Phenomena, Sept. 7-11, dealing with rockets and jet propulsion, sponsored by the University of Wisconsin.

5. The Humanities in American Society, Oct. 11-13, on liberal education, sponsored by Humanities Division of the University of Wisconsin.

6. Significant History: 1848-1948, Nov. 2-Dec. 6, highlights of world developments in two important years, sponsored by Department of History.

7. Science and Civilization, Jan. 13-14, 1949, including the impact of the atomic bomb on society, sponsored by Department of History of Science.

8. American Regionalism, April 14-15, dealing with history, art, literature, and political economy, sponsored by University Committee on Study of American Civilization.

9. Co-Curricular Education, April, on student activities outside the classroom sponsored by Office of Student Personnel Services and Student Centennial Committee.

10. Inter-Relation of Law and American Economy, May 7-8, a part of the annual Law Weekend, sponsored by Law School.

11. Labor Legislation and Social Security, May, with timely discussions of labor-management relations, sponsored by University Industrial Relations Center and Department of Economics.

12. Conservation, June, on intelligent use of Wisconsin's natural resources, sponsored by Centennial Sub-Committee on Symposia.

13. Eleventh National Symposium on Organic Chemistry, June 19-22, sponsored by Wisconsin Section of American Chemical Society and American Chemical Society (Organic Division).

14. General Education, August, on the new trend toward "core" curricula, sponsored by Department of Integrated Liberal Studies.

15. Plant Growth Substances, Sept. 8-10, exploring botanical hormones and other regulatory elements, sponsored by University Committee on Plant Growth Substances Research.

Learned Societies

Besides the October Educational Conferences and the 15 symposia, the University of Wisconsin campus will be the site during the Centennial year for the conventions of 10 national learned societies.

While the programs of these various conventions will be concerned first of all with the scholarship and research projects of the society members, they will also each include stimulating lectures and discussion meetings to which the public will be invited, Professor Kiekhofer pointed out.

The tentative schedule of Centennial conventions is as follows:

1. Summer Meetings of Cornbelt Section of American Society of Agronomy; June 20,21,22, 1948.

2. Meeting of American Physical Society; June 21,22,23, 1948.

3. Chemical Engineering Division of American Society for Engineering Education; Aug. 29-Sept. 4, 1948.

4. Meetings of American Mathematical Society, Mathematical Association of America, Institute of Mathematical Statistics, and Econometric Society; Sept. 5-10, 1948.

5. Association of American Geographers and the American Society for Professional Geographers; December 28-31, 1948.

6. Meeting of Mississippi Valley Historical Society; April 14-16, 1949.

7. Meeting of Wisconsin Academy of Sciences, Arts, and Letters; April 18-20, 1949.

8. Midwestern Economic Society; April 21-23, 1949.

9. Meeting of Wilson Ornithological Society and Wisconsin Society of Ornithology; April 21-24, 1949.

10. Meeting of the Council of the National Society of Phi Beta Kappa; September, 1949.

Fine Arts Events

"Our celebration will have its artistic as well as its academic appeal," Chairman Kiekhofer emphasized today.

He outlined the following series of fine arts projects:

Music: To Madison during 1948-49 will come a succession of top-ranking concert attractions. The New York Philharmonic Symphony Orchestra will open the Centennial fine arts program on Sept. 25 in the Pavilion. Leopold Stokowski will conduct.

Fritz Kreisler, violinist, and Vladimir Horowitz, pianist, will be a part of the twenty-ninth annual Wisconsin Union Concert Series during the year. Concert Attractions will also include Florence Quartararo, soprano; Todd Duncan, Baritone; Gregor Piatigorsky, cellist and Burl Ives, ballad singer.

A music festival in April, 1949, will feature an artists-of-the-future concert, a Pro Arte Quartet presentation, and a massed performance by the University of Wisconsin choruses, bands, and orchestras in the Pavilion.

A custom-written University Centennial composition by Prof. Gunnar Johansen will be performed during the year.

Other Centennial musical events tentatively include a campus folk music festival and a requiem for Wisconsin war dead.

Drama: Throughout the Centennial year the Wisconsin Union Theater will be the setting for a number of special drama performances, including at least two stage productions from New York and Chicago. In addition, the Wisconsin Players will give their annual series a Centennial slant by offering the works of distinguished Wisconsin Playwrights.

Art: Outstanding art exhibitions being planned for the Wisconsin Union Gallery's Centennial year include the State Centennial Exhibition of Contemporary Wisconsin Art, a showing of the works of Wisconsin alumni, the annual Rural Art Show, decorative arts in Wisconsin, photographic portraits of Wisconsin faculty members, the annual Student Art Show, and a $1,000,000 loan exhibit of old masters from the New York Metropolitan Museum of Art.

Radio: State stations WHA and WHA-FM will devote many of their 1948-49 broadcasting hours to special University Centennial programs.

At Work for Four Years

The University's Centennial has been in the planning since 1944. Besides Chairman Kiekhofer, well-known professor of economics, the University of Wisconsin Centennial Committee includes Frank J. Sensenbrenner, president of the Board of Regents, honorary chairman; President E. B. Fred; John Berge, executive secretary of the Wisconsin Alumni Association; R. Alexander Brink, professor of genetics; John Guy Fowlkes, dean of the School of Education; Paul Knaplund, professor of history; Clifford Lord, director of the State Historical society; LeRoy Luberg, assistant to the president; Andrew Weaver, professor of speech; Morton O. Withey, dean of the College of Engineering; and Clay Schoenfeld, editor of the Wisconsin Alumnus, executive secretary.

Besides the central committee, over 100 University faculty members are at work on sub-committee projects.

Edward Asahel Birge

1851-1950

The University of Wisconsin's "Mr. Centennial" is dead, but while memory lives in his students, and massive Birge Hall stands in the middle of the campus, his influence will continue to pervade the University.

The stocky man with the beetling white brows and moustache would have reached the age of 99 in September. At his death June 9 he was the nation's oldest living doctor of philosophy and member of Phi Beta Kappa.

He was born at Troy, New York, on September 7, 1851. After acquiring a bachelor of arts degree at Williams college in 1873, he stayed on to earn a master of arts degree in 1875. In 1878 he was awarded the doctor of philosophy degree at Harvard. He studied in Leipzig in 1880.

Dr. Birge came to Wisconsin in 1875 as a young instructor in natural history. During the next 75 years he helped found many of its science departments, rose to its highest office, and added to its reputation in research. He was dean of the college of letters and science in 1891-1918, acting president 1900-1903, president 1918-1925, and "Dr. Bugs" throughout.

Let one of his students, Dr. Harry Russell who is director of the Wisconsin Alumni Research Foundation, describe Dr. Birge as a teacher:

"It was my good fortune to come under his influence in those happy days before he had to yield so large a part of his time to administrative detail. Fresh

-more-

from the laboratories of Germany,...fired with enthusiasm which his keen analytical mind brought to the consideration of every subject which he taught, he had that uncanny faculty of discerning the weak spots in a student's mind.

"Well do I remember his class in physiology. My thinking apparatus was to him transparent as glass, and if there was any problem on which I did not have positive knowledge, this always seemed to be the point on which he wanted, on the spur of the moment, definite information. There was no stalling 'Bugs'... you had to know the correct answer and give it quickly, or down you went. But it was in his advanced classes that you really had to work early and late.

"Dr. Birge did an inestimable teaching service in the development of the pre-medical course, those studies which were basal to the clinical work of the medical schools. Courses in comparative anatomy of vertebrates, histology, embryology, and later in bacteriology, were of fundamental importance, and gave the Wisconsin graduate a breadth of training that far excelled the majority of students who had their entire course in the medical schools. It was no wonder that Birge's boys, like the Ochsners, Harry Favill, John Dodson, Arthur Curtis, Joseph Bloodgood, and B.W. Sippy were the outstanding medical men of their time.

"Dr. Birge's interest was not confined, like so many specialists, to his own particular field of thought. An omnivorous reader (the story used to be current when he was president of the City Library Board that he read all the important books before they were placed on shelves for general circulation), he was as fully at home in a discussion of literature, history, and philosophy as he was in science.

"One day I asked him how he was able to remember such an array of facts. 'Oh, that's easy,' he shot back. 'My mind is like a dust pan. It holds everything that is swept up.'"

On July 15, 1880, Dr. Birge married Anna W. Grant of Troy, New York. Two children, Edward Grant (deceased) and Anna Grant, were born to them. He is survived

by his daughter and by two grandsons, Dr. Edward A. Birge of Milwaukee, Atty. Lawrence Birge, Easton, Maryland, and four grandchildren.

Honorary degrees conferred on him over the years included the Hon. Sc.D., Western University of Pennsylvania, 1897; LL.D., Williams, 1903; University of Wisconsin, 1915; University of Missouri, 1919; and Ph.D., Renssalaer, 1925.

He was director of the geological and natural history survey of Wisconsin 1897-1919, and president of the commissions 1919-1925, in charge of the natural history division. He was secretary of the commission of fisheries of Wisconsin 1895-1915; member of the Board of Forestry commissions, 1905-1915; member of the Wisconsin Conservation commission, 1908-1915; director of the Madison Free Library 1890-1909, and its president 1893-1909.

He was also a Fellow of AAAS; member of the Wisconsin Academy of Sciences, Arts, and Letters (president 1890-1891; 1918-1921); of the Wisconsin State Historical Society; the American Microscopical Society, (president 1903); the American Fisheries Society (president 1907); the American Society of Zoologists (president, Central Branch, 1908-1909); the Washington Academy of Sciences; the American Society of Naturalists; the American Philosophical Society; the Ecological Society of America; and the Academy of Natural Science.

After his official retirement in 1925 he returned with fresh zest to his scientific studies of "how the lakes keep house." Each summer he travelled to northern Wisconsin, where he studied the relationship between fish and the organic and inorganic content of lake water. During the long midwestern winters he wrote up the results of his findings in his little office on the fourthfloor of Birge Hall.

For many years he had charge of the investigations into the physical, chemical, and biological conditions of Wisconsin's lake waters, and their effect on fish life, with a view to increasing the rate of fish propagation and decreasing the cost of conservation work in the state.

Lake Mendota bordering the Madison campus was the chief scene of his

labors, although he had intimate acquaintance with the features of 500 other Wisconsin lakes. He once said jokingly that no more fitting monument could ever be erected to his memory than a simple shaft rising from the waters of University Bay where he spent long hours in a row-boat.

When Dr. Birge died, Pres. E.B. Fred of the University put into words the deep feeling of all who knew the indomitable little man:

"The world of science knew Dr. Birge as the pioneer limnologist, the man who found out more about lakes than any other man had ever known. The world of education knew Dr. Birge as one of the nation's oldest doctors of philosophy, whose 75 years as instructor, professor, dean, president, and president-emeritus of the University of Wisconsin made an unrivalled record of educational achievement.

"The University of Wisconsin knew Dr. Birge best. And it knew him as a teacher. His research, his scholarship illuminated his teaching. His major aim as president of our University was the improvement of teaching. And when he gave up his administrative burdens and became president-emeritus, he continued to go, each day, to his campus office.

"A great teacher may die, but his influence lives on in his students and their students, through all time."

His dean of the College of Letters and Science, Mark H. Ingraham, adds in valedictory a sidelight on the old man's character:

"Business appointments were attended no more regularly than were the meetings of the Madison Literary club. His papers were among the best, but others equalled his. However, no one else equalled him in the versatility, the knowledge, and the wit that he brought to the discussion of the contributions of other members. Savants, divines, and jurists all wrote better because they anticipated his comments--anticipation not unalloyed with trepidation."

"We recognize today that the University's oldest servant has become its youngest immortal," Dean Ingraham concluded.

###

EDWARD ASAHEL BIRGE, president emeritus of the University of Wisconsin, was born in Troy, New York, September 7, 1851, the son of Edward White and Ann Stevens Birge. He received his B.A. degree from Williams College in 1873 and his M.A. in 1876, and obtained his doctor of philosophy degree from Harvard in 1878. He studied in Leipzig, Germany, in 1880-81. Other degrees conferred upon him are Hon. Sc.D., Western U. of Pa. 1897; LL.D., Williams, 1903, U. of Wis., 1915, and U.of Mo., 1919; Ph.D. Renssalaer Poly. Inst., 1925.

Prof. Birge married Anna W. Grant of Troy, N.Y. on July 15, 1880, and had two children, Edward Grant (deceased) and Anna Grant Birge.

In 1875 he was an instructor in natural history, professor of zoology from 1897-1911, dean of the College of Letters and Science, 1891-1918, acting president of the University, 1900-1903, and president of the University of Wisconsin, 1918-1925, being president emeritus of the University since September 1, 1925.

Prof. Birge was director of the Geological and Natural History survey of Wisconsin, 1897-1919, and president of the commissions from 1919-1925, being in charge of the natural history division since 1897. He was secretary of the Commissions of Fisheries of Wisconsin, 1895-1915; member of the Board of Forestry Commissions, 1905-1915; member of the Wisconsin Conservation Commission, 1908-1915; director of the Madison Free Library, 1890-1909, and its president from 1893 to 1909.

Prof. Birge was also a fellow in the A.A.A.S.; member of the Wisconsin Academy of Sciences, Arts, and Letters (president, 1890-1891, 1918-1921); of the Wisconsin State Historical Society; the

American Microscopical Society, (president, 1903); the American Fisheries Society (president, 1907); the American Society of Zoologists (president, Central Branch, 1908-1909); the Washington Academy of Sciences; the American Society of Naturalists; the American Philosophical Society; the Ecological Society of America; and the ~~xxxx~~ Academy of Natural Science.

Prof. Birge was also a member of Sigma Xi and Phi Sigma Fraternities, served as a senator of Phi Beta Kappa from 1904 to 1922, and has served as life senator since, having been vice-president of the United Chapters, 1913-1919, and president, 1919-1922. Prof. Birge is a well-known writer on zoology and limnology. For many years, with Prof. Chancey Juday of the zoology department, he has had charge of the investigations into the physical, chemical, and biological conditions of Wisconsin's lake waters, and their effect on fish life, with a view to increasing the rate of fish propagation and decreasing the cost of conservation work in Wisconsin.

Dr. Birge's special field in these investigations was the study of the penetration of the sun's rays into lake waters. The importance of this study arises from the fact that the amount of fish food in a lake is partly dependent upon the amount of sunlight that penetrates the lake's water. Thus, lakes which are highly impenetrable are bound to have limited fish food supplies, and it would be useless to plant large numbers of fish in their waters.

As teacher and president of the University, and as a scientist whose work has made him known throughout the civilized world, Dr. Birge has served University and state since 1875.....

Statement on Dr. Edward Asahel Birge:

The State and its University specifically, and the nation and the entire world of science and education, feel a deep personal loss in the death of Dr. Edward Asahel Birge. On February 5, ~~1947~~ 1950, Dr. Birge completed 75 full years of continuous service to Wisconsin and its University, ~~and to the entire field of science and education~~. He has served his University with outstanding distinction as teacher and scientist, dean and president, since February 5, 1875, when he became an instructor in natural history. He served as professor of zoology from 1897-1911, dean of the College of Letters and Science, 1891-1918, acting president of the University, 1900-1903, and president of the University of Wisconsin 1918-1925. He became president emeritus of the University on September 1, 1925. At the same time, Dr. Birge further served Wisconsin as director of its Geological and Natural History survey of Wisconsin, 1897-1919, and president of the commissions from 1919-1925, being in charge of the natural history division since 1897. He was secretary of the Commissions of Fisheries of Wisconsin, 1895-1915; member of the Board of Forestry Commissions, 1905-1915; member of the Wisconsin Conservation Commission, 1908-1915; director of the Madison Free Library, 1890-1909, and its president from 1893 to 1909. He accomplished a vast amount of important work on the physical, chemical, and biological conditions of Wisconsin's lake waters, and over the years he served as an active member of a dozen state and national educational and scientific societies.

Dr. Birge was also a member of Sigma Xi and Phi Sigma Fraternities, served as a senator of Phi Beta Kappa from 1904-1922,

and has served as life senator since, having been vice-president of the United Chapters, 1913-1919, and president, 1919-1922. He was a well-known writer on zoology and limnology. For many years, with the late Prof. Chancey Juday of the zoology department, he had charge of the investigations into the physical, chemical, and biological conditions of Wisconsin's lake waters, and their effect on fish life, with a view to increasing the rate of fish propagation and decreasing the cost of conservation work in Wisconsin. Dr. Birge's special field in these investigations was the study of the penetration of the sun's rays into lake waters.

The life of Dr. Birge has extended across three generations of mankind. His work will go far beyond. He is gone but he has left a record of human achievement in the allied fields of education, science research, and public service that will never leave us; that neither time nor man will ever forget or obliterate.

#

File. [E. A. Birge]

FACULTY RESOLUTIONS ON THE DEATH OF DR. BIRGE

(Draft)

The Faculty of the University of Wisconsin record their sorrow at the death of Dr. Birge, who ~~passed to his eternal rest~~ died on the ninth of June, after seventy-five years of work for the University, during which, as Regent Werner remarked at the dedication of Birge Hall, he "wove the thread of continuity, which was his life, through the fabric of our University."

Edward Asahel Birge was born at Troy, New York, in 1851, ten years before the outbreak of the Civil War, of a line of New England ancestors which antedated the Revolution by almost a century and a half. ~~His birth preceded the outbreak of the Civil War by ten years.~~ He received his college education at Williams, where Latin, Greek, mathematics, and philosophy were still the backbone of the curriculum, and where Mark Hopkins in philosophy and John Bascom in literature, were his outstanding professors. He took his Ph.D. in 1878 at Harvard in zoology under Agassiz. Few men have had more distinguished teachers.

Dr. Birge was appointed instructor in natural history at the University in 1875, a year after John Bascom became president. Four years later he was made professor of zoology. He spent the year 1880-81 at Leipzig, working in physiology under Carl Ludwig and in histology under Dr. Gaule, so that he might be better equipped to teach what were later known as premedical sciences. The courses he gave, formally announced for 1882-83, included, in addition to elementary zoology, vertebrate anatomy, histology, and embryology, and a lecture course in physiology. A little later he initiated a laboratory course in bacteriology, with Harry L. Russell as one of his students. As Dr. Birge once ~~vittily~~ remarked, by 1905 his original setee of biology had been sawed up into four separate chairs. The careers of many distinguished physicians attest

to the quality of Dr. Birge's courses. Dean Russell, educated at home and abroad, says that Dr. Birge was the best teacher he ever had. Dr. Bunting, another of his students, puts him close to Welch and Osler.

Dr. Birge's teaching was accompanied by a growing series of research papers in zoology. These gradually revealed a trend from the study of lake insects to that of the life of our inland lakes themselves--to "how the lakes keep house." In this transition, and after, he had the good fortune to secure the collaboration of Dr. Chancey Juday, who came to us as biologist of the Wisconsin Geological and Natural History Survey, which had been established in 1897 with Dr. Birge as director. The last year of the century may be taken as marking the shift of Dr. Birge's scientific interests to limnology. In 1925 he was able to devote his full time to the work. In 1940, at the limnological congress which met at Madison in his honor, he was acclaimed as one of the leading limnologists of the world. His work had indeed prospered, and the other scientific departments had been happy to give him counsel and technical assistance.

The list of Dr. Birge's "outside activities" is too long to quote. President or secretary or director of national scientific associations, state conservation commissions, the Madison School Board, the Madison Free Library ("he read all the new books"), life senator of Phi Beta Kappa, curator of the State Historical Society, deacon of the Congregational Church of Madison, Sunday school teacher, lay theologian who in his later years preached fourteen annual sermons on St. Paul in St. Andrews Episcopal Church, charter member and leading light of the Madison Literary Club, member of Town and Gown from its inception--his energy seemed never to flag. Meanwhile the University placed heavier responsibilities on his sturdy slender shoulders.

In 1891 Dr. Birge became dean of the College of Letters and Science and chief adviser of President Adams. He was acting president 1900-1903, close collaborator with President Van Hise 1903-1918, and president of the University during the difficult years 1918-1925. Then, at last, he was free to devote full time--for another twenty-five years--to his limnological investigations. No other teacher at Wisconsin can match his record.

As an administrator Dr. Birge regarded the presidency as an office of faculty leadership rather than of jurisdictional authority. Did he get this idea from his experience as a member of the faculty or did he learn it from John Bascom? At any rate, in his magnificent memorial address on Bascom, in 1911--one of the great documents on the growth of the spirit of this University--Dr. Birge said: "His was a spiritual leadership; that of a great and inspiring example, not that of a commander or even of a successful organizer."

Dr. Birge's breadth of cultivation made him sympathetic with the newer subjects. In his Atlantic Monthly article of 1909 he observed: "Today that 'practicality' which once seemed to inhere in science is placed in the study of history and of economics." "All are now aware that the study of science is no more practical, and no less so, than is the study of philosophy."

The "Wisconsin Idea" had his full approval. That the University specialists should aid the Legislature and the industries in promoting the welfare of the people through just laws seemed to him only a sensible utilization of all available talent. So too with University Extension. In his address on the career of Thomas Lloyd Jones, our high school inspector for the seventeen years prior to his untimely death in 1931, Dr. Birge remarked: "He saw a state organized for education, in order to advance the civilization of its people; organized not merely to give its children that decent minimum of knowledge which

is essential in a modern world, but organized to develop to the full and in all directions the native intelligence of every boy and girl."

Dr. Birge was a clear-headed and convincing speaker. His wit was sometimes wry and pungent. Ladies' Hall he had the Regents dedicate as Chadbourne Hall, in memory of President Chadbourne, the opponent of coëducation. Frequently even his compliments had a little salt. In 1921, advising his successor in the deanship to turn down an offer from another institution, he said: "You have made many fewer mistakes than I expected you to make." When in 1896 he offered the future Dr. Henry Bunting the fellowship in zoology, Bunting refrained from asking why the offer came to him: "I was afraid he would make some crack about the year's crop being a poor one."

Dr. Birge was a religious man. His expressed sympathy with the religious views of John Bascom--in the memorial mentioned above--makes that manifest. "Every man," he there enunciated, "who lives by the revelation of a God present in the world must seem heterodox to that large majority of men who can receive a revelation only when it comes to them attested by the witness of generations of adherents. But, unlike most men who are able to hear the voice of God to their own time, he (Bascom) did not feel that the new word was the whole message.... And if he departed from the traditional belief it was not so much that he was dissatisfied with tradition as that he saw a more excellent way of reaching the spiritual end which tradition had sought before it became tradition." In the midst of Bryan's attack upon him in 1922 for his "Darwinism," Dr. Birge wrote his pastor: "I have never found it necessary to justify religion to science or to excuse science to religion. I have accepted both as equally divine revelations."

Dr. Birge was a shy person. In 1899 President Adams noted in a letter that Dr. Birge "keeps his emotions in rather remarkable reserve." Some thought

of him as austere. Yet anyone who reads even a few of his numerous memorial addresses--many of them still in manuscript--must be struck by the strength and tenderness of his affections.

"The Faculty, in expressing their sorrow at the close of a career of high distinction, record also their deep gratitude for an inspiring life, prolonged in enlightening activity far beyond the ordinary limit, and dedicated through all its years to the doing of a man's work for education and for science. These words, from the Faculty Resolutions drafted by Dr. Birge in honor of former President Chamberlin, we apply in their full force to the man whose memory we cherish. We "shall not look upon his like again."

E. B. Fred

Arthur D. Hasler

M. H. Ingraham

J. H. Mathews

Harry L. Russell

G. C. Sellery

2 October 1950

6/9/50

Statement by President E. D. Fred on the Death of Dr. E. A. Birge.

The University of Wisconsin is in mourning today.

It mourns the death of one of its greatest teachers. The world of science knew Dr. Birge as the pioneer limnologist, the man who found out more about lakes than any other man had ever known.

The world of education knew Dr. Birge as one of the nation's oldest doctors of philosophy, whose 75 years as instructor, professor, dean, president, then president-emeritus of the University of Wisconsin made an unrivalled record of educational achievement.

The University of Wisconsin knew Dr. Birge best. And it knew him as a teacher. His research, his scholarship illuminated his teaching. His major aim as president of our University was the improvement of teaching. And when he gave up his administrative burdens and became president-emeritus, he continued to go, each day, to his campus office.

"I love the students," he once explained.

A great teacher may die, but his influence lives on in his students and their students, through all time.

Dr. Birge was such a teacher.

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June 9, 1950

Statement by President E. B. Fred on the Death of Dr. E. A. Birge.

The University of Wisconsin is in mourning today.

It mourns the death of one of its greatest teachers. The world of science knew Dr. Birge as the pioneer limnologist, the man who found out more about lakes than any other man had ever known.

The world of education knew Dr. Birge as one of the nation's oldest doctors of philosophy, whose 75 years as instructor, professor, dean, president, then president-emeritus of the University of Wisconsin made an unrivalled record of educational achievement.

The University of Wisconsin knew Dr. Birge best. And it knew him as a teacher. His research, his scholarship illuminated his teaching. His major aim as president of our University ~~Wisconsin~~ was the improvement of teaching. And when he gave up ~~dropped~~ his administrative burdens and became president-emeritus, he continued to go, each day, to his campus office.

"I love the students," he once explained.

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U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

6/12/50 RELEASE: Immediately

Madison, Wis.--The University of Wisconsin will name its Biology building Birge hall in special ceremonies at 4:30 p.m., Friday, June 16, in honor of Dr. Edward Asahel Birge.

Dr. Birge, president-emeritus of Wisconsin and world-reknowned limnologist, died Friday, June 9, at the age of 98, after 75 years of service to the University.

Up until his final illness he continued his lake studies in his campus laboratory, which was located in the building which will bear his name.

U. W. Pres. E. B. Fred will preside at the ceremonies. Other speakers will be Regent A. Matt. Werner, Sheboygan; Dean Mark Ingraham of the College of Letters and Science; Prof. Lowell E. Noland of the zoology department; and Emeritus Prof. George S. Bryan of the botany department.

The half-hour long ceremonies will be part of University Commencement week celebrations which are scheduled throughout this weekend. They will be preceded and folowed by a selection of Dr. Birge's favorite hymns, played on the University carillon.

The ceremonies will be held on the steps of the Biology building, or moved into the Biology auditorium, in case of rain.

The dedication will be open to students and their parents, alumni attending reunions, faculty, and the general public.

##

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DR EDWARD ASAHEL BIRGE=

CARE EDITOR DAILY CARDINAL MADISON WISC=

GOOD BYE DEAN BIRGE TO ME YOU WERE EVERYTHING WISCONSIN STOOD FOR ZOOLOGY OR LIMNOLOGY YOU SURELY UNDERSTOOD THE CAMPUS SPECIES=

EDWARD S (NED) JORDAN=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

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P

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New York City
June 12, 1950

DR. EDWARD A. BIRGE
c/o EDITOR, THE DAILY CARDINAL

GOODBYE DEAN BIRGE. TO MANY YOU WERE EVERYTHING WISCONSIN STOOD FOR.

ZOOLOGY OR LIMNOLOGY, YOU SURELY UNDERSTOOD THE CAMPUS SPECIES.

EDWARD S. (NED) JORDON

U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

6/15/50 RELEASE: Immediately

Madison, Wis.--Two major actions, aimed at easing University of Wisconsin's housing shortage, were approved Thursday by University regents.

The regents asked that preliminary plans be drawn for a married student and junior faculty housing project, and for a women's dormitory to replace and enlarge the present Chadbourne hall.

Both projects would be self-amortizing and would not require legislative appropriations.

Regents suggested that the married student and junior faculty project be designed for 200 families. The location of the project was not set, but among the areas under consideration is one north of the east-west road between the Forest Products laboratory and Walnut st. Another proposal is that the apartments be erected in the area south of University ave. which the University Building Corp. has purchased for campus expansion. Other locations also will be considered.

University faculty members and administrators have long been considering a replacement for Chadbourne hall, which is now nearing its 79th birthday.

Regent action calls for plans for a new dormitory to house approximately 600 students, to be located at the northwest corner of University ave. and Park st., and to include replacement of the present Chadbourne hall.

Chadbourne is the oldest women's dormitory on the campus and, ironically, was named after the University's third president, who was opposed to coeducation. It has served two wars, housing army troops during World War I and Wave and ASTP's in World War II.

-more-

ad one--buildings

One of the first buildings on the University campus, Chadbourne was built six years after the Civil war and later received its present name from the late Emeritus Pres. Edward A. Birge. The $50,000 cost of the building was borne by the first appropriation ever received by the University from the state legislature.

##

SUGGESTED MEMORIAL RESOLUTION

Prepared by George C. Sellery

The Regents of the University of Wisconsin mourn the death of Dr. Edward Ashel Birge (1851-1950), the last living link with the now distant days of Bascom, Chamberlin, and Adams, when the young University began to realize its modern duties. The Regents mourn; but their sorrow at the ending of a notable life, seventy-five years of which were spent in the service of the University, is swallowed up in contemplation of the achievements of that life and of the inspiration which it has been to all the friends of this and other universities.

Dr. Birge was a scientist, a pioneer in the field of limnology. He was also a humanist, rejoicing in the values of great literature, with which his mind and heart were stored. He was also a lay theologian, whose studies of St. Paul were embodied in fourteen annual sermons on the Apostle to the Gentiles. As a professor of Zoology he did the spade work for the premedical sciences, and as dean and president he exemplified the virtues of the well-rounded University administrator, who saw no conflict between science and the humanities (and as a Christian no conflict between science and religion).

Dr. Birge's teaching was made vital by research, and research was his refreshment from administration. As dean (1891-1918), acting president (1900-1903), and president (1918-1925), he continued to find spare time to keep alive his investigations of the life of our lakes, and when he laid down the duties of the presidency in 1925 he plunged with happy alacrity into full-time research, which continued for almost a full quarter century. Retirement had no terrors for him; it was merely a change of occupation.

Dr. Birge's services were not confined to the University. His memberships in civic, State and national societies were so numerous as to constitute a veritable roll of honor.

The Regents tender their sympathy to Dr. Birge's family and record their pride in his accomplishments.

MEMORIAL SERVICE
for
EDWARD ASAHEL BIRGE
1851-1950

MEMORIAL SERVICE

E D W A R D A S A H E L B I R G E

1851 - 1950

3:00 P.M., Sunday, June 11, 1950
First Congregational Church
Madison, Wisconsin

Rev. Alfred W. Swan, Officiant.
Rev. Fr. Francis Bloodgood, Assisting.
Mrs. Chester Hasum, Organist.

MEMORIAL SERVICE
for
EDWARD ASAHEL BIRGE
1851-1950

ORGAN Three Chorales - J.S. Bach: God's Time is Best
Christ Lay in Death's Bondage
In Paradisum - Mulet All Mankind Must Die.

SENTENCES OF TRUST

Now this is the message which we have heard of Him and declare unto you, that God is light and in Him is no darkness at all.
- I John 1:5.

I heard a voice from heaven, saying, Blessed are the dead who die in the Lord from henceforth; yea, saith the Spirit, that they may rest from their labors; and their works do follow them.
- Rev. 14:3.

A PRAYER

O Lord support us all the day long of this troublous life, until the shadows lengthen, and the evening comes, and the busy world is hushed, and the fever of life is over, and our work is done. Then of Thy great mercy grant us a safe lodging, and a holy rest, and peace at last, through Jesus Christ our Lord. Amen.

THE SCRIPTURES

Psalm 139 - Domine, probasti me.
O Lord thou hast searched me.

Wisdom 3,4,5 - Selections.
The souls of the righteous.

Matthew 5:3-10 - The Beatitudes.
Blessed are they.

John 14:1-3,27 - From the Farewell Discourse.
Peace I leave with you.

I Cor. 15 - St. Paul on Immortality.
Read by Rev. Fr. Francis Bloodgood.

A HYMN - For all the Saints who from their labors rest - vs. 1-4.
Sung by the Congregation.

EDWARD ASAHEL BIRGE

Son of Edward White Birge and Ann Stevens Birge was born at Troy, N.Y., on September 7, 1851, and departed this life in Madison, Wisconsin, June 9, 1950, aged at the time of his departure 98 years, 9 months and 2 days.

He was united in marriage to Anna W. Grant, July 15, 1880, and predeceased by her on December 14, 1919. Predeceased also by a son Edward Grant Birge, and survived by his daughter Anna Grant Birge. And by two grandsons, Dr. Edward A. Birge, of Wauwatosa, Wis., and Atty. Lawrence Birge, of Easton, Md., and by four great grandchildren.

He graduated from Williams College in 1873, took its Master's degree in 1876, a doctorate at Harvard in 1878, followed by study at Leipsig University, Germany, in 1880-81.

He was brought to the University of Wisconsin by President John Bascom, his former teacher at Williams College, in 1875, as Instructor in Natural History. He served as Professor of Zoology from 1879-1911, as Dean of the College of Letters and Science from 1891-1918, as Acting President of the University from 1900-03 and 1918-25, and as President Emeritus from 1925-50. His Life Senatorship in Phi Beta Kappa signifies only one of the many academic honors he bore and public services he rendered through a long life, characterized by the inquiring mind illumined by a devoted faith.

MEMORIAL ADDRESS

It would be easy now to expand our observation on the length of life we contemplate here today. It is interesting to note that Edward Birge remembered the Civil War as an adolescent boy. It is impressive to think that his life span almost coincided with that of the University he served for fifty years, and whose campus he continued to grace with his presence for another twenty-five, as his personality adorned the commonwealth.

But while interesting, such pursuits of thought are irrelevant if not irreverent. For life is not measured significantly in length of days, any more than by height of stature. Dean Birge was not a large man, but he was alert, and he lived largely and gave fully. Not only was he scientist of first rank in his field, but he was a scholar so encompassingly informed as to represent a type almost vanished from among us. The Madison Literary Club can testify that there was no field of letters, history, government or theology that he could not discourse upon with profit, and often with amusement, to his listeners.

Yet these which are associated with the professional interests of his career may more properly be noted elsewhere by colleagues and his beloved students who come after him. Here we may for a few moments attempt to understand his view of life, that is, his faith and religion.

Of early 17th Century New England Yankee stock, by accident of his father's removal from the Connecticut River Valley to Troy, New

York, he was reared a New School Presbyterian, albeit indoctrinated in the Westminster Shorter Catechism. But his background prepared him for congenial residence with the Congregationalists, with whom he fellowshiped here since 1882, being the Deacon Emeritus of this church now these many years.

He was a thoro-going scientist, and though a student of the elder Agassiz, the last of the great non-evolutionists, he accepted the findings of evolution, and when belatedly in this 20th Century he was attacked for his views on religious grounds, he confidently maintained his position, disentangled it from the religious faith which he held with like confidence and appraised the greater treasure.

To the graduating class of 1925, when he was retiring, and therefore going out of academic halls, even as they who sat before him were, he commended an ancient faith to them as to himself, whereby one "went out not knowing whither he went". But he was ever confident of moving out into fresh experience. That faith never deserted him. Does it reward him now?

An answer to that question may be found in a passage at the close of a favorite book, which he once kindly pointed out to me as representative of his own view. Confessio Medici, by Stephen Paget, is the observing reminiscence of a physician. It was perhaps the more his favorite because he took such pride in providing the pre-medical scientific training for so many prospective doctors here. The brief volume concludes with these observations on "Prudens", the physician under observation by the author:

"Consider the case of Prudens. The spirit of practice was quite

certain that he came to an absolute end. He had been he, and was become it. Like Michael and Satan in the legend, fighting over the body of Moses, so these two words, He and It, fought over the body of Prudens.

"The river, to which I compared the course of Prudens' life, died, like him, by inches; without assurance of revisiting or remembering the land, or of retaining, in the sea, its limiting banks. Only, it felt sure of that, but was unable to think further. So, with Prudens, as we watched him, we felt sure that something was going to happen: but what it would be, and how he could still be he through it, we could not say. But rivers go out as candles go out. Their dissolution is a purely chemical process: they have no identity but in us. The death of Prudens, his dissolution, was also chemical, to all appearances, but we knew that his life had not been a matter of chemistry. So it seemed reasonable, to trust our memory of him, and to believe that he died as he had lived, at another level than that of the natural sciences. It was hard to see how he could still be individual and distinct: but we were sure that the individuality, which had distinguished him here, had been real. Once, he had been: somehow, therefore, he is: that was the argument. He had been he: and, though words are useless here, the fact remains that nobody has any right to play conjuring-tricks with the two most difficult words in our language, which are He and It. Prudens, not it but he, still he, went to what had been, always, the spiritual element of his life. The reality of that element, and the reality of him, part of it, yet apart from it, are facts which he had so proved by the manner of his life that they were not challenged by the manner of his death."

pp. 153-155

Here was a scientist who lived at another level than the natural sciences. He believed that he was more than chemistry. And more than chemistry he was to those who knew the sharpness of his eye and mind, and the warm concern he had for both students and men of affairs.

He used to say he did not hold to "Cogito, ergo sum" - I think, therefore I am - but rather to "Cogito sum" - I think I am. And he was, and is, like John Bascom who brought him to Wisconsin, and John Robinson and John Knox who stood back of his Pilgrim blood and fire.

The dimensions of such mind and feeling are embraced only in religion. It was his happy and continuous habit to find his place and his pew, and noted were the days when the white head faltered in appearing in the accustomed row.

It was not an addendum to his career but ingredient of his nature that he preached the St. Paul's Day sermon in the nearby Episcopal Church for fourteen years, ceasing only when the careful preparation he put into each appearance caused undue fatigue.

Memorable is the fact in this congregation that for twenty-five years the busy Dean of the College and President of the University found time to teach a Sunday Class, usually on the Gospel of St. John.

He used to say that the life of learning was like the Master's bidding, "Follow me" - come along with me and I will show you what life is like.

What life was like to him is not certified by any less than the words of St. John, "This is life eternal, that they might know thee, the only true God, and Jesus Christ whom thou hast sent." (John 17:3)

So now we are left waiting, but not gazing into emptiness. For

now he is of a greater company. He once presented a young minister to a congregation with the observation that, while he himself represented the 19th Century, the younger man represented the 20th, which, he said, might be taken to signify that the Life of our Lord is timeless and flows through every century. It is true that this Prudens wrestled with the problems of science and thought in terms of the 19th Century and not in terms of the society and politics of the 20th. But it is still more true that Edward A. Birge does not belong to any century, but is part now of the timeless life of the ages. He is part of that Life which by faith we have in God through Jesus Christ, a measure of whose spirit dwelt in him.

As he passes forever from the halls of University and Church he knocks humbly but not unavailingly at the door of the Universal whereon is inscribed the mystic words, "I am the Resurrection and the Life, saith the Lord; He that believeth in me, though he were dead, yet shall he live. And whosoever liveth and believeth in me shall never die." (John 11:25,26.)

PRAYERS

The Nunc Dimittis:

Now lettest thou thy servant depart, O Lord,
According to thy word in peace,
For mine eyes have seen thy salvation,
Which thou hast prepared before the face of all the peoples;
A light for revelation to the gentiles,
And the glory of thy people Israel.

From the Episcopal Prayer Book:

O God, whose mercies cannot be numbered, accept our prayers on behalf of the soul of thy servant, Edward Asahel Birge, departed, and grant him an entrance into the land of light and joy in the fellowship of thy saints, through Jesus Christ our Lord.

The Lord's Prayer

Benediction.

ORGAN "All Flesh is as Grass" from Brahms' Requiem.

AT THE GRAVE

The strife is o'er, the battle done;
The victory of life is won;
The song of triumph hath begun;
Alleluia!

The Commital

Forasmuch now as there hath been removed from our mortal sight and earthly fellowship the life of our brother, EDWARD ASAHEL BIRGE, departed,

we do now commit the body, wherein dwelt that life, unto the earth, that it may by the grace of nature be returned unto the elements,

and commend his spirit, for a moment with us, now beyond us, unto the heavenly fellowship who comprise the spiritual atmosphere of our universe,

trusting that the Lord of Life shall, by his might and mercy, in the Appointed Day, complete what is incomplete in us, and gather us unto himself.

A Benediction.

Talk by Lowell E. Noland at Dedication of
Birge Hall, 4:30 p.m., June 16, 1950

It is fitting that this building before which we stand should bear the name Birge Hall, because it was the vision and initiative of Dr. Birge that brought it into existence.

From the time it was built until the end of his life Dr. Birge had an office in it. Even when he was president of the university he kept this retreat where he could temporarily slough off his administrative duties and be a biologist again -- at least for a few hours a week sandwiched in between other pressing duties.

Later, when he had become president emeritus and could give his whole time to his lake work, his office on fourth floor became once more a busy center of limnological activity.

It is fitting that this building should bear his name, not only because he brought it into being, but for another reason: His love of scholarship and his devotion to the quest for new biological knowledge were built into the very foundations of this structure, and this spirit still lives in its halls.

Speaking as a representative of the Department of Zoology, I wish to say that we are happy to have the home of our labors named in his memory.

We shall no longer see him arriving punctually at his regular hour, or working away at his maps and data sheets, but we shall feel his influence still. Our offices and classrooms will henceforth bear his name, and we shall be thereby often reminded of him and of the days when he was here with us.

He was president of this university when I first entered the graduate school in 1920. I received my master's and doctor's diplomas from his hands. I worked with him and his outstanding colleague, Professor Juday, on the waters of Mendota, Green Lake and Trout Lake. I had frequent opportunity to enjoy his pungent wit, and to marvel at his dynamic research drive. I listened as a young assistant professor to his masterful addresses at the first faculty meetings in the fall in the last academic years of his presidency.

In the period after that I had close association with the limnological research program which he and Professor Juday were carrying out. To me and my colleagues the name Birge Hall will bring back memories like these.

This building was completed in 1912. For nearly forty years it has housed the two vigorously developing departments of botany

and zoology. Thousands of students have learned about plant and animal life in its classrooms and laboratories. Scores of outstanding biologists have worked in it. Many valuable discoveries have been made within its walls. It has, in the spirit of its founder, been serving the state in both instruction and research as faithfully as its occupants were able.

Today we rededicate it under a new and appropriate name, Birge Hall; and as we do so we rededicate ourselves to two outstanding ideals illustrated by Dr. Birge's life: the energetic pursuit of new biological truth, and the faithful transmission of established biological truth to new generations of students.

It is our steadfast hope and purpose that in the future both the teaching and research programs in biology and the building itself may grow as a fitting monument to the well-known biologist after whom it is named.

SPEECH BY PRESIDENT E. B. FRED
AT THE CEREMONY TO NAME THE BIOLOGY BUILDING
IN HONOR OF DR. E. A. BIRGE
4:30 P.M., FRIDAY, JUNE 16, 1950

RELEASE: Friday, June 16,
4:30 p.m.

File

Friends of Edward Asahel Birge:

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These few minutes which we spend will be but a formal stamp on an idea which has grown through the years. The biology building has been Birge hall for many years. Now, that name becomes official.

Doctor Birge had made his mark on Wisconsin long before a stone was cut for this building. He had been instructor, professor, dean, and had acted as our University's president before this building changed from fond dream to rugged reality.

There are many who can tell of his skill as a teacher. Dean Russell once said that Birge was the best teacher he ever had.

Others can talk of Birge, the scientist. He was known throughout the world as the pioneer limnologist and was one of our nation's first bacteriologists.

Others, too, can tell of Birge, the administrator. His cooperative work with state officials, regents, and faculty led the University to great heights.

But I want to talk about Birge, the counselor and guide.

For Dean Birge, as we affectionately called him when I came here in 1913, has been, through the years, my friend, my advisor.

Fortunate, indeed, is the young teacher who, on arriving at his new post, finds an "old hand" to guide his early progress. I found such a man in Birge.

Though he was Dean of the College of Letters and Science when I arrived, he was keeping his very sharp eyes on research.

His lake studies, or, as he called his studies, "How the Lakes Keep House," by that time, had already reached monumental proportions, and with the help of other scientists, he was putting together the pieces of the puzzle bit-by-bit.

He long had the theory that lakes provided the soluble organic food upon which lake life is built. He believed that bacteria made first use of this food, and that the lower forms of plant and animal life he called "particulates" were sustained by nourishment made available by bacteria. And that this inverted pyramid of lower to higher life continued up to help maintain all fish and plant life in lakes.

Much of my early studies had been on the function of bacteria in making soil nutrients available to crops. Under Birge's lake investigations, I applied some of these findings to lake life.

Birge and his colleague, Professor Chancey Juday, felt that lakes sustain life in much the same way the soil does. One investigation our team made, for instance, determined that the coloration of living matter in lakes compares proportionately with the coloration of living matter on the adjoining fields and woods.

From Birge we learned the value of broad and well-balanced investigation, as well as the need for accuracy in every detail supporting broad conclusions.

Birge and his staff of investigators studied the characteristics of many lakes. For many years these lake studies were carried on at Green Lake and later at Trout Lake.

When, in the middle 1930s, we renewed our bacteriological studies of the lakes, we found that Birge's investigations had provided detailed and well catalogued facts on the 547 lakes within the 30 mile radius of the Trout Lake station.

Thus, when we chose a lake for bacterial study, Birge's file could locate for us a lake almost identical in chemical and physical makeup.

Bacteriologists customarily check one test against another. But here was a broad program in which similar lakes could be checked, one against the other.

This thoroughness pervaded research under his watchful eyes. And this thoroughness lives on at Wisconsin today, a tribute to this pioneer scientist.

And yet, this attention to detail did not obscure, for Birge, the broad picture. He knew that the world beneath the scientist's microscope is but a speck in the world of man; that the interrelation of science with life is more important than science itself.

Dr. Birge, I believe, seemed shy to some people, outspoken to others. To all, he was a man with a sense of humor. It may have been this sense which helped him to view science with objectivity, and his fellow man with love.

He was quick to note shortcomings and suggest remedies. He could be demanding. His science-trained intellect gave him the power to see through to the core of a problem and disregard misleading detail.

Yet, he also was a humanist. He advised his science students to study history and literature and theology.

These things that were Birge, the dean, remained when he became Birge, the president.

His ideals were tested through the years of his acting presidency, developed by Van Hise, then carried on through the post-war years when Birge became our president.

If you remember that he became president in 1918 and guided our University's transition to a peace-time institution, you can see his administration in a familiar setting--an era of a sudden enrollment rise, building needs, and other problems much like our own.

As in our post-war period, his was faced with a rise in the interest in professional courses. It is inevitable that those whose educations are delayed by war, and who return at a time of life when they normally would be working, would interest themselves primarily in the work which they could apply directly to their vocations. Birge recognized this drive and made provisions for it, but at the same time he insisted that, with their vocational work, the students must delve into a broad cultural program which would lift the level of their intellectual and spiritual life.

Another guide-post which he set for those of us who follow has been administration by leadership, not by jurisdiction. Dr. Birge, loyal to his colleagues always, respected by them tremendously, used his administrative power sparingly, his gift for persuasion heavily.

Though with open give-and-take, which the method of persuasion is rooted upon, often flowers with hot words, Dr. Birge seldom allowed his argument to become heated, and freely forgave those who were not as expert as he at cool thinking and rapier-like thrusts of wit.

Just as he gave strong support to his faculty when its cause was just, so too did he meet demands of the people when their requests were justified. And as the faculty respected him, so too did the people who supported the University. Thus, when he asked the faculty to assume great burdens of an increasing enrollment, the faculty granted his request. When he asked the people for the Wisconsin General hospital as a training aid for our Medical school, that request too, was granted.

I have not the time, today, to tell you all I learned from this great man. I can assure you that his instruction has followed me through the years.

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"Fred," he said, "get some sand on those icy sidewalks right now."

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"I am wearing metal grippers on my shoes myself. But one of these students might fall."

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CEREMONY TO NAME THE BIOLOGY BUILDING
IN HONOR OF DR. E. A. BIRGE -- "BIRGE HALL"
Front of Biology Building
Friday, June 16, 1950 -- 4:30 p.m.
Remarks by University of Wisconsin President E. B. Fred

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#

INTRODUCTIONS

Now, may I introduce the Vice President of the University Board of Regents, A. Matt. Werner.

(Werner Speech)

Our next speaker is the Dean of our College of Letters and Science, Mark H. Ingraham.

(Ingraham Speech)

May I next present Emeritus Professor George S. Bryan of the botany department.

(Bryan Speech)

Our final speaker this afternoon is Professor Lowell E. Noland of the zoology department.

(Noland Speech)

With Professor Noland's words, we have concluded our program. This building, known for forty years as the biology building, henceforth will be named Birge hall, in honor of Edward Asahel Birge.

#

established in 1897 with Dr. Birge as director.

The last year of the century marked the shift of Dr. Birge's interests to limnology. In 1925 he officially retired to devote full time to the work. In 1940, at a Symposium on Hydrobiology which met at Madison in his honor, he was lauded by colleagues from here and abroad as one of the leading limnologists of the world.

Dr. Birge took part in innumerable outside activities. He was president, secretary, or director of national scientific bodies, state conservation commissions, the Madison School Board and Free Library, life senator of Phi Beta Kappa, curator of the State Historical Society, deacon of the Congregational Church, Sunday school teacher, authority on St. Paul, and charter member of the Madison Literary Club.

Dean Mark H. Ingraham of the College of Letters & Science remembers: In 1891 Dr. Birge was named dean of the College of Letters and Science. He was acting president 1900-1903, and president during the years 1918-1925. No other teacher at Wisconsin can match his record. He looked on his administrative duties as faculty leadership rather than jurisdictional authority.

He was always sympathetic with the newer subjects. In 1909 he observed, "Today that 'practicality' which once seemed to inhere in science is placed in the study of history and of economics. All are now aware that the study of science is no more practical, and no less so, than is the study of philosophy."

He was heartily in sympathy with the "Wisconsin Idea", that University specialists should aid law-makers and industries in promoting the welfare of the people through just laws to utilize all available talent. He agreed wholeheartedly with the too idea of a state organized for education to advance the civilization of its people; organized not merely to give its children that decent minimum of knowledge which is essential in a modern world, but organized to develop to the full and in all directions the native intelligence of every boy and girl."

He possessed an astringent wit. He had the Regents dedicate Ladies' Hall as Chadbourne Hall, in memory of the president who had opposed coeducation. When in 1896 he offered the future Dr. Henry Bunting the fellowship in biology, Bunting refrained from asking why the offer came to him because, "I was afraid he would make some crack about the year's crop being a poor one."

In 1922 William Jennings Bryan attached Dr. Birge for his "Darwinism." Dr. Birge wrote his pastor: "I have never found it necessary to justify religion to science or to excuse science to religion. I have accepted both as equally divine revelations."

Dr. Birge was out-spoken--but shy. In 1899 President Adams remarked in a letter that Dr. Birge "keeps his emotions in rather remarkable reserve." Many thought him austere. Yet anyone ever reading his memorial addresses is struck by the strength and tenderness of his affections.

We take our leave of him, whose memory we cherish, by quoting, as fully applicable to himself, the heartening words he wrote in the faculty resolutions in honor of former President Chamberlin: "The Faculty, in expressing their sorrow at the close of a career of high distinction, record also their deep gratitude for an inspiring life, prolonged in enlightening activity far beyond the ordinary limit, and dedicated through all its years to the doing of a man's work for education and for science."

Williams, 1903, University of Wisconsin, 1915, and University of Missouri, 1919; Ph.D. Renssalaer Polytechnic Institute, 1925.

In 1875 he became an instructor in natural history at Wisconsin, professor of zoology from 1897-1911, dean of the College of Letters and Science, 1891-1918, acting president of the University, 1900-1903, and president of the University of Wisconsin 1918-1925, being president emeritus of the University since September 1, 1925.

Dr. Birge was director of the Geological and Natural History survey of Wisconsin, 1897-1919, and president of the commissions from 1919-1925, being in charge of the natural history division since 1897. He was secretary of the Commissions of Fisheries of Wisconsin, 1895-1915; member of the Board of Forestry Commissions, 1905-1915; member of the Wisconsin Conservation Commission, 1908-1915; director of the Madison Free Library, 1890-1909, and its president from 1893 to 1909.

Prof. Birge is also a fellow in the American Association for the Advancement of Science; member of the Wisconsin Academy of Sciences, Arts, and Letters (president, 1890-1891, 1918-1921); of the Wisconsin State Historical Society; the American Microscopical Society, (president, 1903); the American Fisheries Society (president, 1907); the American Society of Zoologists (president, Central Branch, 1908-1909); the Washington Academy of Sciences; the American Society of Naturalists; the American Philosophical Society; the Ecological Society of America; and the Academy of Natural Science. (more)

Dr. Birge is also a member of Sigma XI and Phi Sigma Fraternities, served as a senator of Phi Beta Kappa from 1904-1922, and has served as life senator since, having been vice-president of the United Chapters, 1913-1919, and president, 1919-1922. Prof. Birge is a well-known writer on zoology and limnology. For many years, the late Prof. Chancey Juday of the zoology department, he had charge of the investigations into the physical, chemical, and biological conditions of Wisconsin's lake waters, and their effect on fish life, with a view to increasing the rate of fish propagation and decreasing the cost of conservation work in Wisconsin.

Dr. Birge's special field in these investigations is the study of the penetration of the sun's rays into lake waters. The importance of this study arises from the fact that the amount of fish food in a lake is partly dependent upon the amount of sunlight that penetrates the lake's water. Thus, lakes which are highly impenetrable are bound to have limited fish food supplies, and it would be useless to plant large numbers of fish in their waters.

As teacher and president of the University, and as a scientist whose work has made him known throughout the civilized world, Dr. Birge has served University and state and nation since 1875.

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SPEECH BY DEAN MARK H. INGRAHAM
AT THE CEREMONY TO NAME THE BIOLOGY BUILDING
IN HONOR OF DR. E. A. BIRGE
FRIDAY, JUNE 16, 1950 - 4:30 P.M.

RELEASE: June 16, 4:30 p.m.

File
E.A. Birge

At the very center of the University is the scholar--the scholar who is also a teacher. But a university is more than just an agglomeration of scholars. It is also an environment that makes scholarship fruitful, an institution that furnishes the libraries, the equipment, the buildings without which we can neither view the past nor peer into the future.

We rejoice, therefore, that this building will be associated with the memory of a great scholar-teacher who also was devoted to making the University a fit home for learning and investigation.

President Fred has spoken of Birge as a scientist. I shall emphasize to a greater degree Birge, the teacher, the humanist, the transmitter of our intellectual heritage. He, himself, held teaching and investigation to be inseparable. The teacher must share not only the quarry but the quest. Few men have entered the classroom with more knowledge or with a firmer conviction that the student must not only gain information but develop that attitude of mind which is the mark of the liberally educated--an attitude of mind, however, that has no room for the view that the knowledge of facts is unimportant.

Birge was a great teacher--not because of more than normal interest in the student nor because he was a fanatic for his subject, but because he had a zestful intellect and the power of cogent and logical expression. I believe few people have enjoyed to a greater degree the life of the intellect. This joy he was always willing to share, but he knew it could not be forced upon others.

It is only human to marvel at the length of Birge's life. We should wonder more at its depth, its breadth, and most of all its quality.

Birge started at Wisconsin as a teacher of biology, including not only many branches of what is now zoology--but botany, bacteriology, and the pre-medical sciences. From time to time great chunks of these passed into other hands, but there always remained a growing subject within his own field and a hard core of research.

Although biology was his profession and the study of lakes the specialty to which he made original contributions, his interest, his knowledge, and his understanding were almost co-extensive with that of liberal education. May I give two illustrations before I dwell particularly upon his passion for literature and faith?

> When Birge went to college he felt that life would be richer if he had an organ and he borrowed $100.00 from his father to obtain it. He promptly repaid the debt by tutoring a student in Greek and, characteristically, the receipted note from his father is now in his daughter's possession.
>
> My own close contacts with Birge were in connection with statistical problems--such as counting the numbers of fish in a lake without catching them. He was innocent of technical mathematics, but more than any such man that I have known he sensed what were the powers and the limitations of mathematics. "Ingraham, you can give me the answer to this," or "We have to have more data," he would declare with confidence and most amazing accuracy.

Life is not only lengthened by manifold years, but also by the concentration and effectiveness of activity. In years, Birge outlived his fellows by nearly half a lifespan. His life was actually many times that of others. His biological work and his teaching would fill one life; his University and college administration another; his rapidity of reading and retentive memory amply allowed him to lead another as a humanist; while he, himself, once told me that--given a few more years (and they were given)--he would have wasted one life waiting for people.

No account of Birge, the man, or for that matter, the leader of the College of Letters and Science, could possibly omit his love of literature and his omnivorous reading. He read so rapidly that he could read much. His memory was so exact that he always impressed one as having freshly studied a subject even if he had not examined it for twenty years. He also did a little judicious cramming. Business appointments were attended no more regularly than were the meetings of the Madison Literary club. His papers were among the best, but others equalled his. However, no one else equalled him in the versatility, the knowledge, and the wit that he brought to the discussion of the contributions of other members. Savants, divines, and jurists all wrote better because they anticipated his comments--anticipation not unalloyed with trepidation.

Religion played a fundamental role in the humanism of Birge. He was a man of strong Christian faith, an intellectual and enlarging faith, that naturally found in St. Paul, the first great former and reformer of the Christian doctrine, a person of peculiar fascination. Birge was a questioner but not a doubter. In fact, his most incisive questions were often reserved for the doubter, for the philosopher whose determinism doubted the power of the will, for the sectarian who doubted the power of religion to face the findings of science, for the reformer who doubted that progress could be made through orderly procedure. His controversy with William Jennings Bryan concerning evolution led not so much to a declaration of academic freedom as to a statement of his faith in the power of Christianity to include the findings of modern science. As his grandson wrote: "He had a faith so clear that it did not have to be based on tradition."

We do not discuss here his administration, for the way to describe Birge as a dean and president is to view him as a man--for his life was whole.

It is appropriate that this building be named for Birge. Under conditions much like the present, he urged its erection. In a now-current bulletin it is described as follows:

"The library is overflowing into the fourth-floor hall. Important war work connected with the development of penicillin was carried on in a make-shift laboratory under a basement stairway. Discussion sections are held in other buildings."

In 1908, Birge wrote:

"Two years ago I stated that if the biology department were to remain in science hall, it would be necessary to remove all of the specimens and cases from the museum, putting them on the attic floor, and using the museum for laboratories. This has been done, but only a small relief for the crowded condition of the building has thus been gained."

Between these recurrent needs this building, now anticipating enlargement, has served as the home of the intensive work of Birge and his colleagues.

Although we shall with propriety call this Birge hall, the naming comes somewhat short of divine justice. Birge, himself, tempered mercy with justice and decreed not only that Chadbourne's services should be remembered through the naming of a building in his honor, but that Chadbourne, himself, should by this means endure long penance for having opposed co-education. Perhaps there is retribution, for Birge in his own lifetime had to observe the mistakes of his successors.

Buildings outlast their occupants, but they crumble and only have immortality through the lives they enclose. Even the written word depends for its life upon the spoken word. There are few of Birge's students alive, but his influence lives and grows in many grand and great-grand students. Some of us forget the links that connect us with the great teachers of the past. Probably less than forty handclasps would serve to join us with Euclid, with Socrates, or with Jesus; and in that chain is Birge and his great teachers, Mark Hopkins, Agassiz, and Bascom.

I am particularly happy that Birge hall adjoins Bascom hall. Seldom have the purposes of two buildings been more nobly appropriate to their names or has their proximity more truly represented the closeness of two lives.

We recognize today that the University's oldest servant has become its youngest immortal.

# # #

WIRE NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE: Immediate

UNIVERSITY OF WISCONSIN 1950 COMMENCEMENT WEEKEND AT A GLANCE

THURSDAY:	4 p.m. — H onors Convocation, Memorial Union theater, followed by carillon program
	7 p.m. — Twilight Concert, Union terrace, U.W. Concert band
	8 p.m. — President's Reception, Great Hall, Memorial Union
	9 p.m. — Alumni Dance, Great Hall
FRIDAY:	8:30 a.m. — Commencement Ceremony, U.W. Field house
	12 noon — Half-Century Club Luncheon, Great Hal l
	12 noon — School of Nursing Luncheon, Nurses dormitory
	12 noon — Medical School Luncheon, hospital dining room
	4:30 p.m. — Birge H all dedication, former Biology building
	6 p.m. on — Annual Class Dinners for alumni
SATURDAY	10 a.m. — Annual meeting Wisconsin Alumni Assoc., Play Circle
	11:30 a.m. — Rededication of Bascom Plaque by '10 Class
	12 noon — Class Luncheons
	6 p.m. — Alumni Banquet followed by theater program and President Fred's "State of the University" address. Banquet to be held in Tripp Commons and Great Hall, with following program in Union theater
SUNDAY	8 a.m. on — Morning Alumni Breakfasts

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U. W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

RELEASE: Immediately

6/17/50

Cutlines for Accompanying Photo:

Speakers at the memorial services for Dr. Edward A. Birge, president emeritus of the University of Wisconsin who died June 9 at the age of 98, were President Edwin B. Fred of the University(left) and A. Matt Werner, Sheboygan, vice president of the University Board of Regents. The memorial services were held in the University's Biology building which was renamed Birge Hall in honor of the late President Emeritus who served the University and the State for 75 years as teacher in biological fields, scientist on Wisconsin lake and stream problems, and eeucational administrator at the University. Mr. Werner was re-elected vice president of the University Board of Regents at the board's annual meeting on the campus last Thursday.

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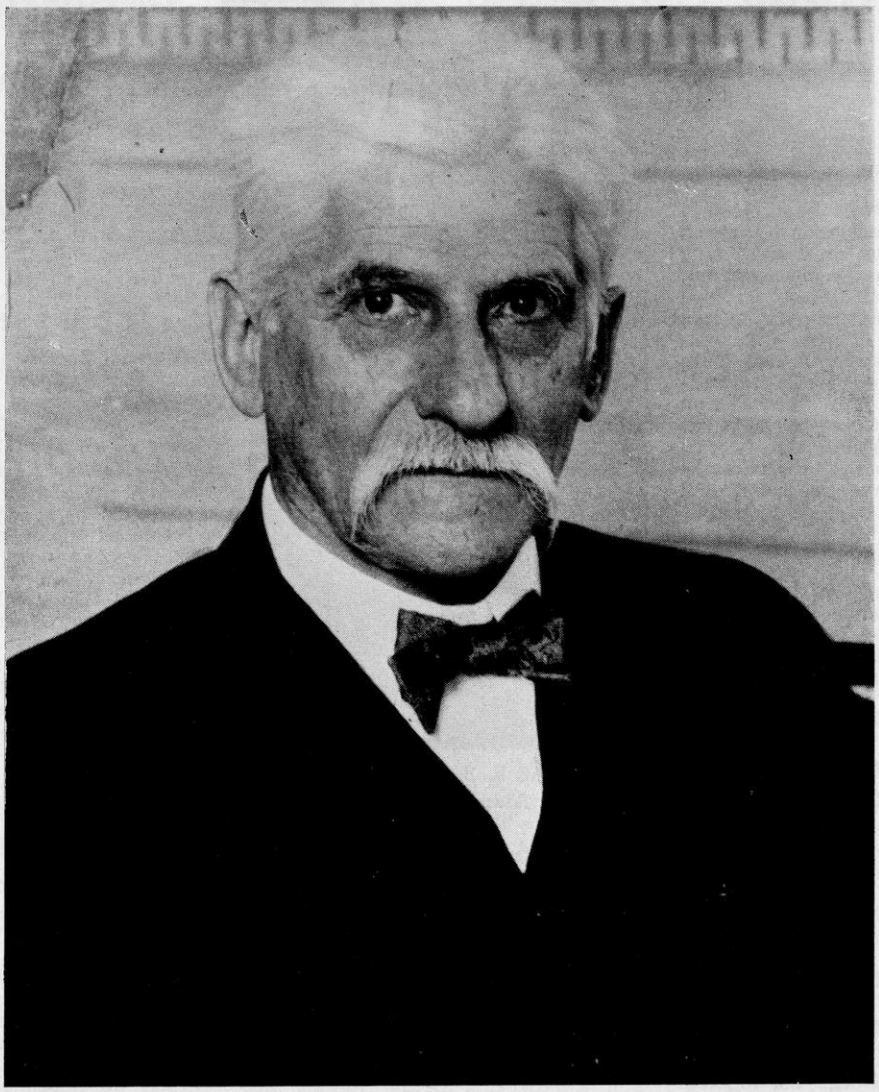
File
[Birge, E. A.]

Dr. Bugs is Gone

By Curt W. Hibbard, Jr., '50



Edward Asahel Birge

75 Years Of Service

"DR. BUGS" is gone.

But memories of Edward Asahel Birge, the crusty scientist-educator who once explained, "I love the students," are as fresh as ever for his friends and associates.

The 98-year-old president emeritus of the University of Wisconsin died at his home Friday, June 9. He had outlived a great number of his students many of whom had gone on to prominence in science, medicine, government, and education; Robert M. LaFollette and Charles R. Van Hise were freshmen in the first class he taught at the University in 1875.

His early students who affectionately tagged him "Dr. Bugs" remember him as a demanding teacher, but a sympathetic counselor.

Emeritus Dean Harry L. Russell, one of Birge's original students, recalls that Dr. Birge had "an uncanny way of being able to diagnose a man's knowledge. If there were a spot of dust on it anywhere, he could put his finger on it." He always demanded correct answers with no hedging.

Dr. Birge always advised against over-specialization in too narrow a field, and he opposed the philosophy of going to college merely in hopes of making a better living. He felt that the main purpose of higher education is to produce "a certain temper of mind, a certain way of looking at things."

Sermons & Witticisms

Friends of the short modest biologist remember his sharp, piercing black eyes over a sharp, piercing wit.

One of his favorite organizations was the Madison Literary Club, and many of its meetings were spiced by his probing papers. He constantly amazed members of the club with his knowledge on virtually every subject discussed—he confessed to a friend that he owed much of this penetrating knowledge to "a little judicious cramming."

He gained information rapidly because he could digest books by reading an entire page almost instantaneously. While he was a member of the University library board, Dr.

Annual Meeting Results

Thomas E. Brittingham, Jr., '21 Takes Over as Alumni President

Returning Badgers also select other WAA officers and 10 directors; pass investment amendment

EIGHTY-NINE years old this spring, the Wisconsin Alumni Association last month opened its 1950–51 year by electing a new president, **Thomas E. Brittingham, Jr.**, '21, Wilmington, Del., to succeed **John H. Sarles,** Minneapolis, Minn.

Besides electing a new president, the Association installed a new slate of officers, selected 10 directors-at-large for three year terms, and passed a constitutional amendment which will allow Association investments in "safe" but more lucrative securities than have been accepted in the past.

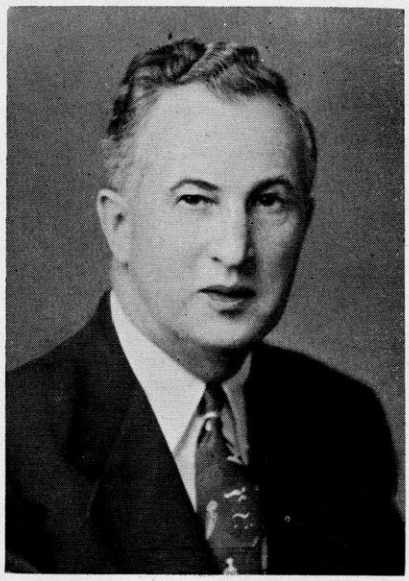
Five New Officers . . .

Mr. Brittingham, a nationally-recognized investment economist, is president of Lumber Industries, Inc., of Wilmington and is the man behind the University's Brittingham trust fund which was established some years ago by his father, Thomas E. Brittingham, Sr. Serving with the new president are **Willard G. Aschenbrener,** '21, American Bank & Trust Co., Racine, first vice-president; **Sam E. Ogle,** '20, manager of public affairs, Schuster's department store, Milwaukee, second vice-president, **Russell A. Teckemeyer,** '18, manager of the Madison branch of Thomson & McKinnon, s e c u r i t y brokers, treasurer; and **Mrs. George Chatterton,** '25, Madison, secretary.

Ten New Directors . . .

The 10 new directors elected are: **Dr. George O. Berg,** '26, medical advisor at Los Angeles City College and Los Angeles S t a t e College, Calif.; **Donald B. Caldwell,** '44, technical service engineer in the tape division of the Minnesota Mining & Manufacturing Co., St. Paul, Minn.; **Dr. J. A. Keenan,** '30, president, Standard Cap & Seal Corp., New York, N. Y.; **Sam E. Ogle,** '20, Milwaukee; and **Mrs. Silas L. Spengler,** '19, former president of the Fox River Valley Alumni Club, Menasha.

Incumbent directors re-elected are **Mrs. George Chatterton,** '25, Madison; **James D. Peterson,** '18, lawyer and former president of the Wisconsin Alumni Club of Chicago, Ill.; **Gov. Oscar Rennebohm,** '11, Madison; **Guy M. Sundt,** '22, president of his UW class and new athletic director at Wisconsin; and **Arthur E. Timm,** '25, sales manager, metal department of National Lead Co.



THOMAS E. BRITTINGHAM, JR.
New Association President

Four Club & Class Directors . . .

Other additions to the board have recently been made by three newly qualifying clubs and the Class of 1950. Beloit has contributed **Fred Benti,** '32, Oshkosh has **John F. Konrad,** '39, as its representative, and Racine has Deane Baker, '49. **William Rogge,** Foxboro, represents the Class of 1950, while the term of Class of 1947 director, **Mrs. Joseph A. Melli,** has expired (this leaves the customary representation of the three "most recent" classes).

Outgoing President **John H. Sarles** meanwhile automatically becomes a director, bringing the total of board members to 62.

Two Special Representatives

Alumni representatives to the University Board of Visitors and to the Athletic Board were also elected at the directors meeting reunion weekend. **Abner A. Heald,** '25, Milwaukee, who was named Visitor a year ago to fill the unexpired term of the late **John E. Joys,** Milwaukee, was again named to the Board of Visitors. **James F. McManus, Jr.,** '21, Chicago, auto dealer, was named to the Athletic Board to succeed **William D. Hoard, Jr.,** '21.

Who is Tom Brittingham?

Anyone who has read about the national "Widow's Contest" for investment advisors has read about Thomas E. Brittingham, Jr.

Started in 1939 by *Barron's National B u s i n e s s and Financial Weekly,* the Widow's Contest was a theoretical competition for the best solution of the investment of $100,000 for a widow with two small children. It ended last year, after 10 years of watching the ups and downs of theoretical investments by 1,171 contestants; and one of the two men on top at the end was Thomas E. Brittingham, Jr.

His "widow's investment" had increased from $100,000 to $168,497 on the philosophy that "hindsight and statistics show that investing in the popular favorites for the long pull is the surest way toward an ever-decreasing income and a diminishing capital . . . the age-old theory of the favorite, well-known stocks for widows and orphans is all wrong." Last month, on June 15, Mr. Brittingham c h e c k e d his widow's portfolio again—this time she was worth $244,431.

Mr. Brittingham used his same philosophy in directing the fate of the Brittingham fund for the University of Wisconsin. His father, a former Regent and honorary Alumni Association member, left the $250,000 fund to the University in 1927; since then the son has increased its worth to $750,000.

It was this fund, by the way, that supplied the University with its new $14,000 Isotope-Ratio Mass Spectrometer (see December *W i s c o n s i n Alumnus*) and which last month gave the University $55,000 for four different projects (see page 24).

Among other indications of his service to Wisconsin are Mr. Brittingham's 15 years as trustee of the Wisconsin Alumni Research Foundation and his onetime association with the UW Foundation.

He married a Badger, by the way, the former Margaret Cummins, '28. ■ ■

Birge read all the books which came to the library. His remarkable reading facility enabled him to become widely read in history, literature, biography, and theology.

Birge's theology reading led him to deliver 14 annual sermons on St. Paul at St. Andrews Episcopal Church. A member of the parish once told him, "I come to church once a year to hear you preach." Birge's quick retort was: "You don't need much to live on, do you?"

During one of these famous sermons which always packed the church, a little girl sitting in the front row and playing with her mother's purse happened to swing the purse against the alms basin. The basin emitted a resonant "bong!" which sounded like the then-current Major Bowes signal to stop. Birge turned to Reverend Francis J. Bloodgood and asked dryly, "Have I talked too long?"

While he was president of the University he engaged in a running literary battle with William Jennings Bryan who accused him of being an atheist. He found that distant states were much more concerned with his orthodoxy than citizens of Wisconsin. Wisconsin opinion was proven to his satisfaction when a professor overheard a salesman out in the state saying, "Birge an atheist? Oh, hell! All the citizens of the state know that Birge has slept in his pew of the First Congregational Church for the past 40 years!"

The Rev. Alfred Swan, pastor of the First Congregational Church, says that "Birge's white head was always there," but he wasn't sleeping. He was one of the last of the old school who bowed their heads on the pew ahead to pray.

While he loved to read books, he hated to read and fill out questionnaires. When he received a set of forms from a young instructor at the University of Michigan, he had some particularly acid comments. He wrote that while he had never found any particular pleasure in questionnaires, "I am bound to say that yours is a particularly obnoxious one . . . However let me say on the other side that while I am receiving questionnaires in practically every mail, yours is a new form and I think you may be congratulated on adding a new terror to human life —at least so far as human life is shared by college presidents."

When he addressed a library school graduation, he stated, "The greatest blessing I could wish you librarians is that you have a good janitor!"

He once brightened a commencement ceremony when he was president of the University by accidentally turning to the microphone as he muttered an aside to Dean Scott Goodnight. Goodnight was putting hoods on the doctoral candidates, and Birge thought he was proceeding too slowly. His "Rope 'em, Goodnight, but don't tie 'em!" boomed out through the loudspeakers and brought down the house.

It was during Birge's presidency of the University that buildings began to be named for past presidents. He pushed the naming of Ladies' Hall for Paul Chadbourne because he was amused at the irony of the oldest women's residence hall permanently bearing the name of the president who bitterly opposed co-education.

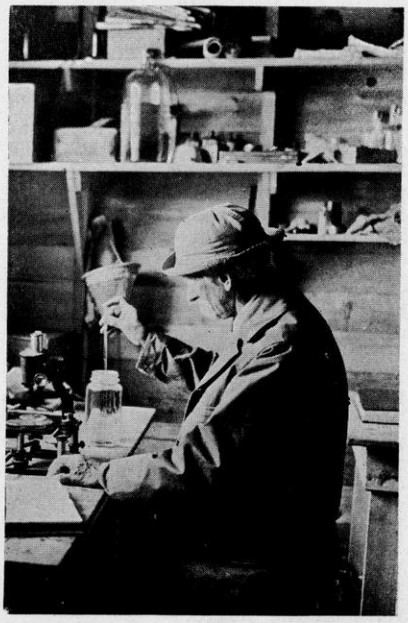
A "Desiccated Biologist"

Birge's associates and colleagues remember him as the man who found out more about lakes than any other man has ever known.

The man whom Upton Sinclair called "a desiccated biologist" was a pioneer in the field of limnology, the study of lakes; the word "limnology" was not coined until a year after he had started to study this branch of biology.

Birge discovered that Lake Mendota is not one lake—but two. The lake which supports marine life is only about 30 feet deep; below that is a lower lake, practically without living organisms. This discovery, early in his career, led him into the study of lakes, and through his 91st year took him on an annual research trip to Trout Lake in northern Wisconsin.

Here he'd let his brush haircut grow out for the summer (to see if there were any correlation between long hair and poetry, he said. He never found any.) When he returned to Madison he always paid his barber at the University Club double price for his haircut, and then was all set to return to work at the Biology Building (renamed Birge Hall on Commencement Day, 1950).



DR. BIRGE remained busy on limnology research (the study of lakes) until January of this year, his 75th at the University.

Dr. Birge was eternally curious—not doubting, but questioning. When he made an out-of-state trip with some faculty friends a few years ago, he disappeared wordlessly. His friends finally located him in a local drug store—all attention focused on playing a slot machine. It was the first time he had ever seen one, and he wanted to figure out how the contraption worked.

Ten years ago when he was a youthful 88 he set out to discover the secrets of a typewriter because he wanted to write his research papers faster and more legibly.

In *Who's Who* Since 1898

The nation's oldest doctor of philosophy, Dr. Birge was also the oldest living member of Phi Beta Kappa. He was a graduate of Williams College, and received his PhD from Harvard in 1878. *Who's Who* carried his name every year since 1898, and it eventually listed 12 scientific societies of which he was a member. Birge was acting president of the University from 1900 to 1903, commissioner of fisheries of Wisconsin from 1895 to 1915, state forestry commissioner from 1905 to 1915, and a member of the state conservation commission from 1908 to 1915.

Dr. Birge was appointed president of the University in 1918, but he made it a condition of acceptance that he would be relieved of his duties as soon as a suitable successor could be found. The Regents liked his administration, and asked him to continue through 1925, which marked 50 years of service to the University.

When Dr. Birge retired in 1925, he regarded his resignation as merely a change of occupation, and he remained busy on limnology research until January of this year, his 75th at the University. He meanwhile took an active interest in the University, bursting in on Pres. Edwin B. Fred a few winters ago to tell him, "Fred, get some sand on those icy sidewalks right now."

After a pause, he added, "I am wearing metal grippers on my shoes myself. But one of these students might fall."

This continued interest in the students and the University made him the logical man to be named "Mr. Centennial" during the 1948–49 University centennial celebration.

* * *

At a testimonial dinner in 1940, Dr. Birge suggested his own memorial. He proposed that when a monument seemed to suit his condition better than a dinner, a spar buoy, properly painted and firmly anchored halfway between Elizabeth Waters Hall and Picnic Point, the spot where he had spent a good share of his life, would suitably commemorate his work. ■ ■

"By the Students, For the Students"

What did student government do for the men and women on campus in 1949–50? Here is the answer . . .

"STUDENTS aren't capable of governing themselves." Thus spoke an important University administrator in a discussion with students several years ago. A *Daily Cardinal* columnist, writing of student government this year, "This student monkeybusiness is a lot of ceremonious good-will. There is little being done by the Student Board that couldn't just as well be handled by University administrators."

Every so often, student government skeptics, both faculty members and students, question the reasons for student government. "Why have a student government?" "What good is it doing?"

What Has Been Done

This year's Student Board may not have made as many spectacular headlines as some others, but in spite of inadequate finances, the Board did more for the welfare of the student body than perhaps any other Board. Freshman Orientations, Campus Community Chest, Campus Carnival, Junior Prom, and the mock United Nations Conference were some of the annual events sponsored by the Board.

Several new activities sponsored this year were the Student-Faculty Basketball Game, Political Emphasis Week, and the revival of Parents' Weekend.

The Board also succeeded in getting such things as student wages raised to a minimum of 60 cents an hour, the faculty to recognize the problem of discrimination and to accept most of the Board's recommendations concerning the problem, 11 new University bulletin boards on the campus, stop signs erected on Langdon St. by the city police, a grievance procedure established for student employees, and a faculty evaluation program set up.

Other services included a freshman course guide sent out to all freshman, a dry cleaning and laundry service with special discounts, discounts on shoe repairs and flowers, maintenance of exam files in the Quonset Reading Room, tours of the campus for visiting groups, forums on Europe, and scholarships for needy students. Thus the Student Board has continually tried to be responsive to the needs of the Student Body.

Reflecting Opinion—Examples

One good reason for student government is that students should

By George D. Wheeler, '50
President of Student Board

—*DeLonge photo*

have, and have felt the need for, an organized means for making their collective voice heard. An organized, representative student government is particularly valuable in a big University such as Wisconsin, where the faculty and administration do not have as close a contact with as large a proportion of the student body as they do in a smaller school.

The chief instrumentality of student government at Wisconsin, the Student Board, has through the years attempted to honestly speak for the student body, to the faculty and administration, the press, and outsiders in general.

Since its inception there have been several changes in the system of representation itself, each change a step forward in the process of making the Board more representative of the entire Student Body. This year such an advance was made when the students voted in a referendum to allow the principle organized living groups—the Interfraternity Association, the Men's Halls Association, the Independent Students Association, the Panhellenic Association, and the Women's Dorm Council—to have representatives on the Board.

Besides improving the representation system itself, the Board has served as a voice for the student body during the past year in such matters as compulsory ROTC, discrimination, student wages and living conditions, basketball seating, and the Faculty advisory system.

In a further attempt to represent the Student Body accurately, the Student Board sponsored a student assembly this year, inviting the presidents of every organization on campus to come to a meeting such as the early New England town meetings. An innovation in student government, it turned out to be fairly successful.

With the Administration

The faculty and administration have recognized the value of student opinion and representation in the administration of the University.

I think it is safe to say that students have been given a bigger role in the handling of University affairs this year than in any other year in the history of the University.

More students have been appointed to faculty committees this year than in any other. The unprecedented Student-Faculty Committee on Educational Affairs was established—the first permanent faculty committee with equal student representation. This committee was a product of student initiative and perseverance. Just recently a faculty committee which had no student representation on it at all—the Public Functions Committee—took the initiative, without any student promoting whatsoever, in asking the Student Board for students to sit on their committee.

The University has recognized the importance of student government and extra-curricular activities generally in the development of well-rounded individuals. Last year the University Functions and Policies Committee reported, "Extra-curricular activities should be an essential part of the total educational experience of every student at the University." Dr. Charles W. Elliot of Harvard once said, "The real object in education, so far as the development of character is concerned, is to cultivate in the youth a capacity for self-control or self-government, not a habit of submission to over-whelming, arbitrary, external power, but a habit of obeying the dictates of honor and duty, as enforced by the active will-power within."

Student governments can be "laboratories in democracy." ■ ■

U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

9/26/50 RELEASE: Immediately

Madison, Wis. - The University of Wisconsin has been awarded one of the highest honors given for work in the science of limnology--the Einar Naumann medal--in memory of the two world-renowned pioneers in the field who worked on the Wisconsin campus: the late Pres. Emeritus Edward A. Birge and the late Prof. Chauncey Juday, it was announced today.

Limnology is the study of fresh water and fresh water life.

The medal was awarded by the International Association of Limnology, which made the selection at its annual meeting in Ghent, Belgium and forwarded the medal to Pres. Edwin B. Fred.

In awarding the honor, Gunnar Alm of the State Institute of Fresh Water Fishery Research, Stockholm, Sweden, said:

"As president of the International Association of Limnology, I have the honor to inform you that the association at its meeting in Belgium has decided to present its mark of distinction, the Naumann Medal, with a diploma, to the University of Wisconsin in recognition of the work of the two famous limnologists, Professor Birge and Professor Juday."

Einar Naumann was a Danish limnologist whomethe association honored by setting up a medal in his name. He was a contemporary of Professors Birge and Juday.

Professor Birge, who died June 9, 1950 , at the age of 98, was the oldest holder of the Ph.D. degree in the country, the oldest member of Phi Beta Kappa, and the oldest active member of a university faculty. -more-

ad one, Naumann medal

When the University of Wisconsin observed its 100th anniversary in 1948, he was nicknamed "Mr. Centennial," just as he was affectionately dubbed "Mr. Bugs" in 1876 as he rowed around Lake Mendota collecting the microscopic life forms in the lake waters while preparing the first of his classic reports.

After 1905, the year in which Professor Juday left the Wisconsin geologic and natural history survey to join the University, Birge and Juday worked together until Juday's death on March 29, 1944. Their experimental investigations of the animal, vegetable, and mineral characteristics of Lake Mendota centered international scientific attention on the lake, and paved the way for findings which have been used throughout the world to increase the natural productivity of lake waters.

The work has been exploited intensively by Wisconsin wildlife experts to increase the rate of fish propagation and decrease the cost of conservation.

Although Lake Mendota was the main laboratory for Professors Birge and Juday, some 547 or more other lakes in Wisconsin were examined over the years. Hydrographic maps were made of many of them, and each had its physical, chemical, and botanical and zoological "profile" recorded.

It was largely the work of Birge and Juday, scientists point out, that made possible the development of methods to use these bodies of water to the best advantage for fish culture and recreation.

At a dinner held in his honor in 1940, Professor Birge spoke in a characteristic manner of one of their important reports, published in 1911:

"Through our studies, mainly through the work of Dr. Juday, the small lakes of Wisconsin came into their own," Dr. Birge said, "for this was the first general limnological report, based wholly on large numbers of small lakes in all their variety. So it could not avoid emphasizing their peculiar conditions; and it is the small size of the lake which brings out those significant phenomena that make limnology a science by itself--a science distinct from oceanography."

# # #

File

June 10, 1952 [Birge, E. A.]

Mrs. Perry C. Smith
844 South Steele
Tacoma 6, Washington

Dear Mrs. Smith:

President Fred has asked me to send you information on the life, family, and activities of Pres. Emeritus Birge.

If you have any specific questions on the family geneology, may I suggest that you write directly to Miss Margaret Gleason, State Historical Society, University of Wisconsin, Madison 6.

Sincerely,

Robert Taylor

844 So. Steele,
Tacoma 6, Wn.,
May 27, 1952.

University of Wisconsin
Madison, Wisconsin,

Dear President:-

A clipping, dated June 11 1950, tells of the death of Dr Edward A Birge, president emeritus of University of Wisconsin.

Would appreciate such information as you will grant on life, family & activities of Dr Birge.

Understand Wisconsin University was favored with Birge, Burge, Burges, Burg. Burgis &c genealogy.

What books on same list you have that our library may loan.

Am a member of Burge family and very much interested in data in the family.

Thank you, so very much,

Very Respectfully,
Theodora Burge Smith.
Mrs Percy Creath Smith.

P.S. Am also interested in Belle Boyd history.

U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

5/29/56 vh RELEASE: Immediately

MADISON, Wis.--A "doubly-faceted biography" about a long-lived giant among University of Wisconsin administrators and scientists came from the UW Press this week.

The life story is of Dr. E. A. Birge and has potential interest for anyone remembering the dark, piercing-eyed man or the University legend, for the growth of one parallels the growth of the other.

Edward Asahel Birge began his association with Wisconsin in 1876, when the New York State native came to the campus as an instructor in natural history. From then forward for 75 years, he was engulfed in University affairs and played a large part in raising the University from uncertain infancy to unchallenged academic stature.

Advancing through academic ranks to deanship, then finally to the UW presidency in 1918, he struggled to continue a pattern of growth and expansion for the institution after World War I and persuaded a state legislature to a long-range ideal of mutual interests and advantage.

Dean Emeritus and Historian George C. Sellery, colleague and one-time neighbor of Dr. Birge, is the author of "E. A. Birge," the memoir. In his seven chapters, he accomplishes a faithful portrait of the distinguished and often eccentric scholar-administrator, presenting this through background, activities, and basic Birge ideas. The chapter titles include "The Preparation," "The Professor," "The Lieutenant of Presidents," "The President," "The Lecturer and Essayist," "The Religious Man," and "Some Final Estimates."

-more-

So far as possible, Dean Sellery has let Dr. Birge speak for himself. Thus from the pages Mr. Birge speaks as in 1925, when he was nearly three-quarters of a century old and his administrative duties for the University were done:

"This personality of mine is a side of life that is only beginning its development."

Dr. Birge lived to a ripe 98 years and it is a remarkable fact that over half his published scientific writing appeared in the quarter century following his 75th birthday. He was free in those years to devote full energies to limnology, the science of fresh water and fresh water life.

C. H. Mortimer, hydrologist at Ambleside, England, offers an essay appraisal of Birge, the limnologist, in "An Explorer of Lakes," concluding the UW Press publication. Mortimer describes Birge's contribution, weighs the research of Birge and his collaborator Chancey Juday against that of their contemporaries, and traces the emergence of a distinct science province through development of Birge-Juday ideas.

"From the happy coincidence of a gifted man and an appropriate geographic environment arises this doubly-faceted biography," say the publishers.

"E. A. Birge" may be purchased for $3.50 the copy.

####

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

6/6/56

RELEASE: Immediately

By JAMES LARSEN

MADISON, Wis.--To a handful of scientists stretched across this country and the world, the name Edward A. Birge ranks with those of the great American naturalists, yet to all but these he is virtually unknown.

The reasons for Birge's obscurity, while wide recognition has come to those who may have made less enduring contributions to science, among them perhaps Muir, Seton, even Agassiz, probably lie in the fact that Birge's long list of publications include only scientific papers. He wrote but little else, and there is nothing less inspiring to the usual imagination than volumes of data.

Birge's name looms large in the history of the University of Wisconsin, of which he served as president from 1918-1925. Many a student and faculty member clearly recalls Birge in his later years, a small, knotted, white-haired and sharp-eyed figure hunched over microscope or typewriter in a cluttered, cramped office on the fourth floor of what is now Birge Hall.

Entrenched though his memory is at Wisconsin, to the rest of the world he remains an obscure genius who laid the larger foundation stones of a science familiar to every sportsman, though perhaps not by name. Limnology was Birge's science, the study of lakes and streams and the life within them, a science which forms the basis for today's skillful management of freshwater resources by departments of conservation throughout the world.

In his early years, Birge was too busy gathering facts to write more than technical papers about his work; in his middle years he was occupied with the

-more-

University presidency; in his later years (he lived to be 98) there was too great a need to organize the information he had gathered to write much about it.

A few essays remain, gathering dust in the University's collection of "Birge Papers," and these are the only non-technical expressions existing to describe the work that virtually created a new science.

The life, times, and scientific work of a major American naturalist, thus, would remain buried in the obscurity of scientific journals were it not for a volume ($3.50) just published by the University of Wisconsin Press.

Jointly authored by George C. Sellery, Letters and Science dean under Pres. Birge, and by C. H. Mortimer, eminent British hydrologist, the book concerns the intellectual history of a complex individual who helped raise a university to a place of distinction among those of the world, and at the same time carved an enduring place for himself in the history of science.

Sellery's "E. A. Birge, a Memoir," is not an internal biography; Birge's thoughts, motives, and feelings are untouched and untampered with except as he gave them written expression and are left for the reader to discern. But Birge's growth is recorded, from historical evidence available and through the words of those who knew him. His early education, frail physique, and intellectual interests are dealt with; his training under Mark Hopkins and Louis Agassiz themselves; and his maturation in the academic world and political world.

Not a narrow genius, Birge served as adviser and lieutenant to two presidents who preceded him; he tackled the problems of the humanities in a world of science; he tangled with William Jennings Bryan on the issue of evolution; he defended academic freedom on many an occasion, and particularly Eugene Debs' right to be heard on public platforms; and he delivered a famous series of 13 sermons, one a year, on the subject of St. Paul, in the local Episcopal Church.

At the same time, as Mortimer summarizes in a long chapter, "An Explorer of Lakes," Birge and a long succession of fellow-scientists, of whom Chancey Juday was most notable among them, worked to discern the enormously complex ecological structure of the life in Wisconsin's lakes.

Birge did not coin the name of his science, limnology; a French scientist, Forel, did that in 1892. Forel also discovered that lakes have upper and lower layers of water of widely different temperature, with a thin strata of sharply-declining temperature between. Birge did, however, give these layers their names, and his understanding of the seasonal behavior of the epilimnion, hypolimnion, and the thermocline between, laid the basis for our knowledge of lakes and the life in them.

When Birge started his lake work, he first studied in the most intimate detail the tiny, free-swimming or floating plants and animals that form the base of the food-chain in lakes.

He and Juday not only identified the species, they counted individuals in huge samples of lake water and learned that, acre-for-acre, lakes are as productive of basic foodstuffs as many a green pasture.

Then Birge and Juday attempted to translate this basic resource into the terms understood by every angler--pounds of fish per acre.

Birge and his colleagues discerned the outlines of the entire framework of action and reaction upon which the webs of life are based. They were among the first--if not first--to take one web apart to see what made it tick. They demonstrated that each bit of life is part of an incredibly complex system, tied to earth and sun; each species (and each individual) is irrevocably tied to every other, yet all are forced apart by competition and the necessities of predation.

In explaining Birge's attraction to lakes as sites for his studies, Mortimer writes that here Birge found "a circumscribed world" to which he was "attracted rather than appalled by its complexity, which undoubtedly had for him an aesthetic appeal."

When he was 89, with enthusiasm still undimmed, Birge wrote of the northern lakes: "Each of them is a sort of tiny water-cosmos by itself, yet each of them has a life-history that fits into that of the community of lakes of the lake district."

The nearly unbelievable quantity of information collected by Birge and Juday has found many applications in the biological profession of lake management. It has also contributed much to our basic knowledge of life as studied in the science of ecology. Birge's "water-cosmos" is possibly still the best-understood of the many webs-of-life to be found in this wide and varied earth of ours.

This volume by Sellery and Mortimer is a fascinating account, and a much-needed one, of Birge's complex and extremely productive mind; of Birge as participant and leader in the web-of-life to be found in a university, and also of Birge as scientist, discerning the larger laws of life as they find expression in an underwater world that had never been explored before.

The accomplishment of Sellery and Mortimer in so vividly describing these two worlds is no little one in itself. The book may well become a classic portrayal of each.

###

CUT LINES

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

6/6/56

RELEASE:
Immediately

MADISON, Wis.--Wisconsin's lakes were the favorite laboratories of Edward A. Birge, shown above on one of his countless expeditions in search of knowledge about their teeming underwater life. He was equally at home in the rough garb of the naturalist and in the dignified academic robes of a University of Wisconsin president.

##

FEATURE STORY

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

12/2/57 j1

RELEASE: Immediately

By James A. Larsen

MADISON, Wis.--Thousands of lakes of the northern portion of this hemisphere and Europe--famed for their beauty and recreational attributes--within recent years have become the subject of an unusual increase in scientific interest.

The interest is centered upon neither beauty nor recreation--but rather upon a unique potential for use during winter when snow and ice stretch across the continents.

It is becoming apparent that these lakes may have considerable military value. Across the Arctic wastes lie hundreds of potential air fields--bases for winter transportation routes and defense.

University of Wisconsin meteorologists under Prof. Reid A. Bryson have begun a study of the ice of northern lakes--research which may help open the Arctic to winter transport, and who knows how many additional practical pursuits.

Among the facts which must be gathered are average dates of freezing and thawing of lakes in various parts of the continent, thickness of ice at various times of winter, and, hence, the weight that the ice could be expected to support safely.

The scientists are studying the importance of ice ridges and other characteristics of an ice sheet. Are ice ridges, for example, indicative of thick or thin ice? Does snow cover increase or decrease ice thickness in spring? Questions like these must be answered before practical utilization can take place.

In a report on ice research to the UW lake investigations committee, Bryson and William W. Bunge, Jr., pointed out recently that the history of research on ice is a long one. Sweden, Finland, Germany, and Switzerland pioneered the work in the 1800's, some was conducted in Japan and in the United States--mostly,

-more-

add one--ice research

in the case of the latter, at the University of Wisconsin.

Within recent years, Russia has apparently undertaken a tremendous amount of ice research, largely from the point of view of military application.

Others interested in ice and its effects are biologists attempting to alleviate winter-kill of fish, as well as loggers and shippers who have transportation problems aggravated by ice.

The late Edward A. Birge, famed lake scientists and UW president, collected at least 27 years of ice thickness data on Lake Mendota in Madison, Wis., and about 30 years of winter water temperature--for various periods during 1894-1930.

"The first investigations seem to have arisen out of the curiosity of amateurs," Bryson and Bunge point out. "Diary records of the opening and closing of lakes were kept by fisherman, ice cutters, and other interested people. Engineers have been interested in ice's effects on dams, while geologists have a long-standing interest in ice's role in producing shoreline features.

"Military science has spent considerable money and is achieving good results in basic research in all branches of the subject," the Wisconsin scientists point out, "and in more narrow military problems such as trafficability of ice to tanks and feasibility of using frozen lakes for landing fields."

Europeans--notably Russians, Norwegians, Germans, and Scandinavians--have voluminous records on dates of freezing and thawing of their lakes. There are observations for 50 years on 1,864 lakes in Sweden, and a series of observations on Lake Suwa that date from the year 1443. This information has been invaluable to meteorologists attempting to trace climatic changes.

A good deal of information has been obtained regarding processes involved in lake freezing and thawing. These processes are more complex than might at first be imagined--involved, each in its way, are air temperature, solar radiation and its effect on water temperature, evaporation, turbulence, conduction of heat, depth of the lake, area, elevation, shape, local precipitation, snow cover, and others.

-more-

One question scientists asked long ago, for example, was "Why does a lake freeze from the edges inward?" A physicist named Ernest Dorsey once answered this question in these words:

"As the water of a pond is being cooled, it is warmer than the air; consequently currents of warm air rise from the center of the surface, and cold air sweeps in from the sides. This chills the lateral waters, and is itself warmed thereby; thus the center of the surface remains warmer than the edge, and if the air temperature is not very low, the center may remain unfrozen long after the banks are bordered with ice."

Almost everyone familiar with northern lakes knows that a strong wind can "hold open" a lake many days.

"Even light breezes stir the water enough to prevent the necessary cool surface layer from forming," say Bryson and Bunge. "If the wind is holding a lake open, its cessation will usually herald a suddenly thickening ice sheet."

A recently-discovered manuscript of Birge--now being edited for publication by Bunge and John Neess, University of Wisconsin zoologist, shows that this early-day limnologist recorded many pertinent observations on the characteristic manner in which Lake Mendota freezes over.

Birge pointed out that there is often a considerable interval between the time the surface water has reached freezing temperatures and the time the lake freezes over. For Lake Mendota, this interval is from two to seven weeks. This retardation in actual formation of ice after temperature of the water has reached freezing is in large part due to the wind which keeps ice from forming.

Ice thickness has always interested persons who must travel across frozen lakes or rivers. One fact revealed by the Wisconsin scientists is that the ice along each side of a pressure ridge is usually thinner than average. The ice here has been forced downward from the weight of the ridge, and the lower portion has been melted by the water beneath.

Another fact--no less interesting but perhaps of less practical import to use of frozen lakes for transportation or airfields--is that the ice sheet forms from the bottom in fall and melts from the top in spring. Whatever the temperature of the surface of the ice sheet, its lower edge is always exactly 0^{o} Centigrade or 32^{o} Fahrenheit. Whenever the water at the lower edge gets colder from loss of its heat to the ice layer above, it is converted to ice crystals which grow to the ice sheet.

During the warming days of spring, the surface of the ice melts, and water collects on the surface in puddles. The water in these puddles finally gets high enough to flow off in streams to holes--around the edges or through pressure ridge cracks--and eventually the ice sheet melts and drains away.

It often happens, the UW scientists point out, that the thinner ice along the edges of pressure ridges is melted by the puddles, and in spring the first open-water leads in a lake form next to the pressure ridges thrown up by expanding ice during the cold days of winter.

"If there is a strong wind before much thinning," Bryson and Bunge write, "the ice will blow off dramatically and often with shore destruction.

"There are many popular misconceptions about the opening of the lake. One is that the ice sinks. These notions arise because the lake can clear within an hour.

"The minute the wind 'gets hold' of the exposed warm water, it is washed over the ice that remains and causes it to melt rapidly. If the wind is strong, it can move the ice rapidly off the water. Sometimes tremendous quantities of ice will pile up on downwind bars and shorelines," Bryson and Bunge point out.

Winter-kill of fish is one of the most severe and destructive effects of ice in northern, shallow lakes, the Wisconsin scientists say.

"A year of heavy winter kill may cost the state millions of dollars in lost tourist trade," they add.

Add four--ice research

"The problem lakes are those in which the fish die in years with unusually cold and snowy springs. The reason the ice cover is deadly is that a snow layer prevents photosynthesis, so that oxygen is consumed and not replaced by plant life. The fish die, then, for lack of oxygen in the water," Bryson and Bunge continue, quoting the zoologists.

William Schmitz, of the UW lake laboratory research team, has aerated lake water by means of long underwater pipes through which compressed air is forced. The air escapes through holes in the pipe and bubb les upward through the water.

Enough oxygen is made available to the lake--and the fish--to permit the fish to survive, but the method is expensive. Another researcher attempted to run outboard motors in holes cut in the ice in Beaver Dam lake, but there was no apparent effect on the oxygen content.

These are merely some of the problems that present-day researchers on ice are tackling. Many more exist, and a large number of agencies are now attacking them--both industrial and military.

One fact stands out--of contemporary researchers on the subject, the Russians have shown more interest in ice research than perhaps any other nation. Perhaps, say Bryson and Bunge, this is a reflection of their desire for air bases in the far north, where a knowledge of ice thickness could make every lake a potential landing field.

###

Birge, E.A. File
Birge

January 6, 1958

Professor S. Charles Kendeigh
Zoology Department
Vivarium Building
University of Illinois
Champaign, Illinois

Dear Professor Kendeigh:

The photo of [Birge] we sent you is published in the Archiv. f. Hydrobiologie. There are no copyright restrictions, I am sure, although I do not know the exact date of the photo--probably in the late 1940's.

Sincerely,

Esther Madsen
Secretary

UNIVERSITY OF ILLINOIS
ZOOLOGY DEPARTMENT
VIVARIUM BUILDING
WRIGHT AND HEALEY STREETS
CHAMPAIGN, ILLINOIS

December 23, 1957

Miss Esther Madsen
University of Wisconsin News Service
Observatory Hill Office Building
Madison 6, Wisconsin

Dear Miss Madsen:

Thank you very much for the photo of Dr. Birge. It is very suitable.

Is this the photo from the Archiv. f. Hydrobiologie, mentioned in Dr. Hasler's letter? Do you know if there are any copyright restrictions on its use? About what date was it taken?

Very truly yours,

S. Charles Kendeigh
Professor of Zoology

SCK:ft

File

December 20, 1957

Professor S.Charles Kendeigh
Zoology Department
Vivarium Building
University of Illinois
Champaign, Illinois

Dear Professor Kendeigh:

Your letter to Dr. Hasler in regard to a photograph of Dr. Birge was referred to this office for attention.

A glossy print of Dr. Birge is being sent to you herewith. We hope it will meet your needs.

Sincerely,

Esther Madsen
Secretary

cc: A. D. Hasler

THE UNIVERSITY OF WISCONSIN
MADISON 6

DEPARTMENT OF ZOOLOGY
BIRGE HALL

December 18, 1957

Professor Robert Taylor
University News Service
Observatory Hill Office
Univ. of Wisconsin
Madison, Wisconsin

Dear Prof. Taylor:

Attached is a request from Prof. Kendeigh of the University of Illinois which I believe your office might fill. I have no glossy prints of Dr. Birge. There is a local photographer, Harold Hone, who has the Birge photo used at the celebration in 1941. I like the snapshot in the enclosed obituary from the Archiv f. Hydrobiologie. If you have the original of this it would be good. At any rate please send this with anything you have to Dr. Kendeigh because it might reproduce fairly well if one made a photograph of it and a glossy print.

Cordially,

Arthur D. Hasler
Professor of Zoology

ADH/pla
Enc.
cc: Dr. S. C. Kendeigh

A. Hasler
To: Reg R. Taylor
Al. Rees S.

UNIVERSITY OF ILLINOIS
ZOOLOGY DEPARTMENT
VIVARIUM BUILDING
WRIGHT AND HEALEY STREETS
CHAMPAIGN, ILLINOIS

December 3, 1957

Dr. A. D. Hasler
Birge Hall
University of Wisconsin
Madison 6, Wisconsin

Dear Dr. Hasler:

During the past five years I have been preparing a textbook of animal ecology. I am now in the process of collecting together illustrations for it. In the first chapter there is a brief historical account. I thought I would include photographs of some of the early founders of ecology in the country. Would you have a small portrait photo of E. A. Birge that would be suitable?

He surely is one of the first founders of limnology and should be included. If you have such a photo that you can loan me could you give me the date on which it was taken.

I hope everything is going well with you.

Very truly yours,

S. Charles Kendeigh
Professor of Zoology

SCK:ft

Ltr. - I have only a dull finish print - do you have a glossy print?

Ans
Have Home probably has the negative for Dr. Birge's photograph that I have no copies of. Will look for you.

BIRGE, EDWARD A.
President Emeritus: in charge of Natural History, Div. of Wisconsin Geological & Natural History Survey
454 Biology Bldg.
2011 Van Hise Ave.

EDWARD A. BIRGE, TEACHER AND SCIENTIST

Paper $.50

Published by U. of W. Press.

U.W. NEWS

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON, WISCONSIN 53706

1/22/65 rf

RELEASE: Immediately

MADISON, Wis.--The great-grandson of one of the University of Wisconsin's most famous professors, deans, and presidents will receive his first degree at the University's first midyear commencement Saturday afternoon (Jan. 23).

He is Edward Asahel Birge, oldest son of Dr. and Mrs. Edward A. Birge (9622 Harding Blvd.), Wauwatosa, and great-grandson of Dr. Edward Asahel Birge, ninth president of the University from 1918 to 1925.

Edward Asahel Birge III entered the University at Madison in 1960 as a freshman. He is graduating with honors, receiving his bachelor of arts degree with a major in chemistry. He plans to continue his studies in the University's Graduate School. He holds a research assistantship in the University's zoology department---the department in which his illustrious great-grandfather did outstanding teaching and research for three-quarters of a century.

The great-grandfather Birge came to Wisconsin's University in 1875 as an instructor in natural history. He was named professor of zoology and became internationally known for his research on the lakes and streams of Wisconsin. He served as dean of the University's College of Letters and Science from 1891 to 1918, and as president of the University in 1918-25, when he became President Emeritus of the University. During his retirement years he continued with his research nearly up to the time of his death in 1950 at the age of 98. Birge Hall on the Wisconsin campus at Madison, housing classrooms and laboratories for biology and zoology, bears his name.

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The young Birge's father was graduated from Wisconsin in 1932, receiving his B.A. degree. He then went on to Johns Hopkins University for his medical degree, returning to Wisconsin to serve his internship and residency in pathology in University Hospitals. He is now pathologist at Milwaukee Hospital.

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feature story

From The University of Wisconsin News and Publications Service, Bascom Hall, Madison 53706 • Telephone: (608) 262-3571

Release: Immediately 6/29/70

By VIVIEN HONE

MADISON--The memory of a distinguished University of Wisconsin president and early aquatic ecologist has been brightened with the restoration of a portrait of Edward Asahel Birge.

The oil of the scientist-president has been reclaimed by a distinguished painter, Christian Abrahamsen, creator of the original canvas.

Dr. Birge was internationally known for his pioneer studies of the lakes and streams of Wisconsin and the life within them. He served as dean of the College of Letters and Science from 1891 to 1918, as acting president of the University more than once, and became president in 1918. He remained in the last post until "retirement" in 1925.

As with today's administration, the years of the Birge presidency were marked by turbulence, controversy, and fluctuations in supporting State funds, but the Birge research in limnology marched steadily on.

Affectionately called "Mr. Bugs" because of his habit of rowing or paddling about the lakes in search of water life, Dr. Birge continued his daily trips to his laboratory until close to his death in 1950. He was then 98 years of age, the nation's oldest holder of the Ph.D., the oldest member of Phi Beta Kappa, the oldest active member of a university faculty, and an undisputed founder of modern aquatic ecology.

- more -

Add one--restoration

His friends commissioned the artist to paint Dr. Birge in the mid-1920s. Abrahamsen, a native of Bergen, Norway, was widely known for his portraits of leaders in government, industry, and education, and maintained studios in both Chicago and New York. A number of Madisonians had sat for him.

The portrait was completed and subsequently given to the Memorial Union in 1929. For some years it hung in the Union's Council Room. Water damage was followed by years of slow deterioration.

Brought back to a familiar Madison this spring, Abrahamsen has employed a technique of restoration which has taken advantage of his particular approach to portraiture.

"On the face especially, I always first lay a heavy coat of pigment," Abrahamsen explained. "That is my primary coat; then I build up from there, weaving the tones together."

The solid base of pigment was virtually the salvation of the portrait, he continued. It kept much of the crumbling surface from dropping away. With this lean advantage, he coated the image side of the canvas with a gelatine solution to further immobilize the pieces. Once the solution was dried and firm, Abrahamsen managed to strip the old canvas from the back and join the old pigments with a new foundation.

Harold D. Laswell, Yale faculty member, one critic of Abrahamsen's work, says:

"...He reminds us again--as did the great masters of the Renaissance--that portraiture is capable of being a profound commentary upon man and history when it is in the hands of an artist who knows what he is doing."

Commentary upon a man and his distinguished University of Wisconsin contributions, the portrait will soon be hung in Birge Hall, home of Madison campus biological studies, which further honors Dr. Birge in its name.

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uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 11/9/79 jhs

UW-MADISON NEWS BRIEFS

$10,000 BIRGE BEQUEST ACCEPTED FOR SCHOLARSHIP FUND

A $10,000 bequest of Anna G. Birge, daughter of former University of Wisconsin President Edward A. Birge, was accepted by the UW System Board of Regents Friday in behalf of UW-Madison.

In accordance with her will, earnings from the bequest will support scholarships in zoology.

Miss Birge, born in Madison, died here July 22 at age 95. Her father was president of the University from 1918 to 1925 and, as a zoology professor, created the science of limnology--the study of fresh water lakes. He died in 1950.

-o-

Emeritus Professor Eldon C. Wagner of the civil and environmental engineering department has been presented the American Society of Civil Engineers' annual Surveying and Mapping Award.

Wagner, 6 Whitcombe Circle, was cited for "unstinting endeavors to improve land surveying in his state" and for effectiveness in improving surveying education at University of Wisconsin-Madison. He retired last year.

###

A HUNDRED YEARS OF LAKE STUDIES AT THE UNIVERSITY OF WISCONSIN-MADISON

1875 -- E. A. Birge joins UW faculty as an instructor in zoology.

1895-97 -- Birge publishes research on the plankton Crustacea of Lake Mendota, marking the real beginning of limnological studies at the University of Wisconsin.

1900 -- Chancey Juday appointed biologist, Wisconsin Geological and Natural History Survey (of which Birge was director from 1897-1919).

1900-03 -- Birge serves as Acting President, University of Wisconsin.

1908 -- Birge appointed Secretary of Wisconsin Commissioners of Fisheries (a forerunner to the Wisconsin Department of Natural Resources).

-- Juday appointed lecturer in limnology, UW Department of Zoology.

1911 -- Birge and Juday publish a landmark study, a 259-page report on seasonal changes in distribution of dissolved gases in southern Wisconsin lakes.

1918-25 -- Birge serves as President, University of Wisconsin.

1925 -- Summer field research station established at Trout Lake near Minocqua in Vilas County. Juday served as Director of the Trout Lake Station until his retirement. This marked a shift of Birge and Juday's studies from southern Wisconsin lakes to the lakes of northern Wisconsin.

1932 -- Arthur Hasler comes to UW as a Ph.D. student under Chancey Juday. His research topic: the physiology of digestion of plankton crustacea in Trout Lake.

1937 -- Arthur Hasler hired as an instructor in elementary zoology at the UW.

1942 -- Chancey Juday retires as professor of zoology, and director of the Trout Lake Biological Station.

1946 -- UW President E. B. Fred appoints a campus-wide Lakes & Streams Committee to coordinate UW aquatic research (V. W. Meloche (Chemistry), Chairman; W. Sarles (Bacteriology), Coordinator.

-- Hasler and Juday publish a bibliography of papers on Wisconsin limnology (1871-1945) in Trans. Wis. Acad., illustrating the productivity and diversity of UW research group.

1947 -- Hasler publishes first North American paper on the eutrophication of lakes caused by domestic drainage.

1950 -- Birge passes away, 15 months shy of his 100th birthday.

1950 -- Birge and Juday awarded the Einar Naumann Medal by the International Association of Limnology.

1951 -- Hasler and Warren Wisby (Ph.D. student) publish their first paper on the discrimination of stream odors by fishes, leading to now-famous research on the role of stream odors and imprinting in fish migration.

1951-54 -- Hasler and students (Brynildson, Helm, Johnson) publish landmark studies on Lakes Cather, Peter & Paul in northern Wisconsin & Michigan, marking beginning of whole-lake studies/experimental limnology.

1953 -- The Wisconsin Conservation Department and the University of Wisconsin establish a cooperative program to conduct basic research on the ecology of fishes in Wisconsin.

1960s -- UW Lakes & Streams Committee encourages state representative Norman Anderson to get the state legislature to pass the Anderson Act, diverting sewage effluents from upstream communities around Madison's lakes to the Nine Springs sewage treatment plant. (The "Wisconsin Idea" in action.)

-- Hasler revives limnological research at Trout Lake Biological Station.

1962 -- Oceanography & Limnology interdisciplinary graduate student training program established.

1962-63 -- Lake laboratory is built on UW-Madison campus on the shores of Lake Mendota with funds from the National Science Foundation.

1964 -- Marine Studies Center is established with Robert Ragotzkie (Meteorology), Director.

1967 -- John Magnuson joins UW-Madison Zoology Department faculty.

-- New research laboratory built on the south shore of Trout Lake with NSF and UW funds.

1968 -- UW Sea Grant Program is established, focusing research attention on the state's Great Lakes, Michigan and Superior.

1969 -- Arthur Hasler is elected to the National Academy of Sciences.

1978 -- Arthur Hasler retires; becomes Professor Emeritus (Zoology)

1979 -- Trout Lake Biological Station is designated by the National Science Foundation as one of 11 national sites for Long-Term Ecological Research (LTER).

1982 -- Center for Limnology is established in the College of Letters & Sciences with John Magnuson, Director, James Kitchell and Thomas Frost, Associate Directors. This consolidates research at the Limnology Lab in Madison and the Trout Lake Biological Station.

1983 -- Conference on "History of Limnology in Wisconsin" held at the Trout Lake Biological Station.

Wisconsin Week

For Faculty and Staff of the University of Wisconsin-Madison

February 24, 1999

UW research fuels growth in spinoff, startup companies

Brian Mattmiller

Research at the university has fueled a swift rise in new technology-based business ventures in Wisconsin during the past five years, according to a recent study of spinoff and startup companies.

The study, focusing on a 40-year period, was conducted by the University-Industry Relations office at UW-Madison. It identifies 172 Wisconsin companies that have some fundamental connection with the university. Of that total, 62 began in the last five years.

The total number is a dramatic increase from the first study conducted in 1993, says Philip Z. Sobocinski, associate director of UIR and author of both studies. This time around, he was able to identify three times as many companies with close university ties.

"This study shows what a dramatic effect UW-Madison has on Wisconsin's present and future economy through new business creation," says Sobocinski.

"We have more researchers than ever before giving thought and effort to the applications of their work," he adds. "There's also more peer acceptance in academia today for starting a commercial venture."

The findings reinforce a priority in Gov. Tommy Thompson's 1999-2001 budget recommendations. Thompson proposed creating a not-for-profit venture capital company and a new state position to facilitate more technology transfer between UW-Madison and the private sector.

"These new businesses are helping put research innovations to work right here in Wisconsin," Thompson said. "This study shows we're making great progress, but we can do even more to encourage technology transfer."

Sobocinski says the business-university connection is defined in two ways. A spinoff company develops products or services that stem directly from research on campus and often are using a license from a UW-Madison patent. The second are startup

continued on page fifteen

A day of discovery: UW-Madison faculty on the road

Photo by Jeff Miller

Veterinary medicine professor Joanne Paul-Murphy, with help from "Slim" the boa constrictor, gives school children at the Milwaukee Public Museum a sense of what scaly snakeskin feels like. The visit was part of UW-Madison's outreach program Feb. 16 at the museum, called "Whys and Wows." For details of this sesquicentennial event, the first of a series that will put Madison faculty "on the road" around the state, see page 16.

Policy: Hands off special equipment

Erik Christianson

Because of her disability, a rare genetic mutation that causes some of her muscle and soft tissue to turn to bone, Heather Niles needs to sit in a padded chair during her classes at UW-Madison.

But a special chair provided to her by the university was stolen from a classroom in Van Hise Hall last semester. The theft forced Niles to sit in a regular desk, which put pressure on her back and caused five new bones to form.

"Somebody thought it was more comfortable than a regular desk and took it," says Niles, a freshman from Rio who is planning on majoring in psychology. "A couple of people in my class searched all over Van Hise for it, but it was gone."

The theft of Niles' chair, and complaints from other students with disabilities, has prompted university officials to issue a policy related to classroom accommodations for students with disabilities.

The policy, distributed widely across campus, reminds students and instructors that tables, chairs and other equipment provided for students with disabilities must not be utilized for other uses in classrooms.

Marcia Carlson, facilities access coordinator for UW-Madison Facilities Planning and Management, adds that people can be charged with theft if they remove such items from classrooms.

"What it does is put students with disabilities at a disadvantage," says Carlson. And it raises liability concerns as well, because the Americans with Disabilities Act requires the university to provide accommodations for students and employees with disabilities.

There are approximately 1,000 students with disabilities being served by the university's McBurney Disability Resource Center. Students must identify themselves as disabled to receive services.

Niles says the theft of her chair not only injured her back but also forced her to take more medicine to manage her pain, which affected her ability to study and attend classes. She now has another chair.

"Hopefully it won't happen again," she says. ■

Race matters

UW expert works to uncover bias in medicine

Dian Land

A new study on race and medicine may sadden and anger UW Medical School's Vanessa Northington Gamble, but it doesn't surprise her. Professionally and personally, she knows all too well that skin color and cultural background figure in medicine, as in every other aspect of American life.

Vanessa Gamble

Gamble learned a few weeks ago that a study to be published in the New England Journal of Medicine Thursday, Feb. 25, shows doctors are less likely to order cardiac diagnostic tests for blacks than for whites, even though all patients noted exactly the same symptoms of heart problems.

"This meticulous study shows us once again that — consciously or subconsciously — race and ethnicity shape the expectations, beliefs and sometimes the practices of physicians," says Gamble, director of the UW Center for the Study of Race and Ethnicity in Medicine.

She will appear on several news programs, including ABC's "Nightline," this week, commenting on the study and offering her perspective as a nationally known expert on race and medicine.

"For a long time, people have mistakenly believed that doctors are above racism; that since their job is to heal people, they simply can't be prejudiced," she says. "This study is one of many to remind us that the medical profession is not immune to this difficult issue of race, and that disparities based on race exist in medical decision-making."

Gamble's life work is dedicated to the arduous task of getting people to honestly think about, discuss and try to understand the insidious role racism can play in interactions between doctors and patients. Her efforts were rewarded most in spring 1997, when President Clinton formally apologized to the remaining survivors of the Tuskegee Syphilis Study.

The 40-year, federally sponsored study may have been the most compelling and sobering example of racism in American medicine, says Gamble, who served as chair of the legacy committee that sought the

continued on page fourteen

Inside

Postcards from UW's past

Page 5

University to take tough stance on sweatshop labor

The university will push for a tougher code of conduct for companies that produce university-licensed products as a result of an agreement between the chancellor and students.

The agreement, meant to prevent UW apparel from being produced in sweatshops, ended four days and four nights of protest by students and others who slept outside the chancellor's office during a "sit-in" in Bascom Hall.

UW-Madison plans to endorse a proposed code of conduct drafted by a task force of universities that contract with Collegiate Licensing Co. The code would make demands on subcontractors about the conditions of their factories and treatment of their workers.

Much of the controversy surrounding the code's draft language concerned the lack of specific detail related to harassment, discrimination, wages and other provisions. According to Casey Nagy, the university's negotiator with the CLC, the task force planned to develop an appendix to further explain these terms after first hearing from the various campuses.

"In this sense, the protest activity helped to heighten awareness of details that the UW-Madison community feels strongly about and will help focus the next round of discussion for the task force," Nagy says.

Specifically, UW-Madison will:

- Insist on full public disclosure of company names, owners and other information for all facilities that produce licensed articles.
- Convene a symposium and sponsor institutionally funded research to determine "living wage" requirements. The amount of research funding will be determined by the specific proposals, which will be reviewed by the Graduate School Research Committee.
- Submit the findings for inclusion in the code, unless the results are widely disputed by the university community. If other universities don't agree to alter the code to require payment of living wages as determined by these findings within three months of their submission, UW-Madison will withdraw from the code.
- Include specific provisions about women's rights in the university's negotiating stance. The administration has agreed that if those provisions and others are not added to the College Licensing Co. code, the UW will withdraw its support.
- Sponsor annual community meetings on the code and establish a CLC Task Force Advisory Committee of students, faculty and staff. ■

1999-2000 Sabbaticals

At the December Board of Regents meeting, 1999-2000 sabbaticals were approved for the following UW-Madison faculty:

Sandra Adell, Afro-American Studies; Ramon Aldag, Business; Emily Auerbach, Liberal Studies & Arts/English; Anatole Beck, Mathematics; Mark Beissinger, Political Science; Norman Berven, Rehabilitation Psychology & Special Education; Alda Blanco, Spanish & Portuguese; David Bordwell, Communication Arts; Patricia Boyette, Theatre & Drama; Susan Brantly, Scandinavian Studies; Paul Bredeson, Educational Administration; Rachel Brenner, Hebrew & Semitic Studies; Mark Browne, Business; David Burgett, English; Martin Cadwallader, Geography; James Callen, Engineering Physics; Salvatore Calomino, German; Claudia Card, Philosophy; Noel Carroll, Philsophy; Francesco Cerrina, Electrical & Computer Engineering; Tsai Cheng, East Asian Languages & Literature; Hardin Coleman, Counseling Psychology; John Coleman, Political Science; Jane Collins, Sociology/Women's Studies; Harold Cook, History of Medicine/ History of Science; Mark Courtney, Social Work; Jack Damer, Art; James Dannemiller, Psychology; Martine Debaisieux, French & Italian; Werner DeBondt, Business; Dennis DeMets, Geology & Geophysics; Raymond Deneckere, Economics; Sharon Derry, Educational Psychology; James Dillard, Communication Arts; Randall Dunham, Business; Charles Dyer, Computer Sciences; Elmer Feltskog, English; Lewis Friedland, Journalism & Mass Communication; Rajit Gadh, Mechanical Engineering; Samuel Gellman, Chemistry; Harold Hill Goldsmith, Psychology; Linda Graham, Botany; Sabine Gross, German; Robin Harris, Soil Science; Robert Hawkins, Journalism & Mass Communication; Jan Heide, Business; Michele Hilmes, Communication Arts; Karen Holden, Consumer Science/LaFollette Institute; Yu Hen Hu, Electrical & Computer Engineering; Linda Hunter, African Languages & Literature; John Kennan, Economics; Jonathan Mark Kenoyer, Anthropology; Laura Kiessling, Chemistry; David Knipe, Languages & Cultures of Asia; James Knox, Geography; John Kutzbach, Atmospheric & Oceanic Studies; Gloria Ladson-Billings, Curriculum & Instruction; Jo-Anne Lazarus, Kinesiology; Richard Lehrer, Educational Psychology; Geoffrey Letchworth, Animal Health & Biomedical Sciences; Yafei Li, Linguistics; Yu-Sheng Lin, History; Mark Linzer, Medicine; Vladimir Lumelsky, Mechanical Engineering; Judith Maloni, Nursing; Rodolfo Manuelli, Economics; Gerald Marwell, Sociology; Herbert Maschner, Anthropology; Laura McClure, Classics; M. Lorrie Moore, English; Frances Myers, Art; Gilbert Nathanson, Chemistry; Michael Newton, Biostatistics/ Statistics; John Nitti, Spanish & Portuguese; Garrett O'Keefe, Agricultural Journalism; James Pawley, Zoology; Robin Pemantle, Mathematics; Suzanne Pingree, Agricultural Journalism/ Consumer Sciences; Carol Pylant, Art; Raghu Ramakrishnan, Computer Sciences; Mark Ready, Business; Andrew Reschovsky, Agricultural & Applied Economics/LaFollette Institute; Joel Robbin, Mathematics; Stephen Robinson, Computer Sciences/Industrial Engineering; Gary Rosenshield, Slavic Languages; Boyd Rossing, Continuing & Vocational Education; Eric Rothstein, English; Patrick Rumble, French & Italian; Jackie Rutledge, Animal Science; Karen Ryker, Theatre & Drama; Prospero Saiz, Comparative Literature/Chicana/Chicano Studies; Uli Schamiloglu, Slavic Languages; John Scharer, Electrical & Computer Engineering; Leona Schauble, Educational Psychology; Elaine Scheer, Art; John Scholz, Economics; Michael Shank, History of Science; Lawrence Shapiro, Philosophy; James Shilling, Business; Robert Smith Jr., Civil & Environmental Engineering; Paul Sondel, Pediatric Hematology & Oncology; David Sorkin, History; William Tate, Curriculum & Instruction; Robert Turner, Mathematics; John Valley, Geology & Geophysics; William Van Deburg, Afro-American Studies; Paul Voss, Rural Sociology; Jerry Weygandt, Business; Marvin Wickens, Biochemistry; Terry Wiley, Communicative Disorders; Franklin Wilson, Sociology; Thongchai Winichakul, History; Arun Yethiraj, Chemistry; Virginia Young, Business; Dieter Zeppenfeld, Physics; and Sarah Zimmerman, English. ■

UW research

continued from page one

companies, which are technology-based business ventures started by faculty, staff, students or alumni.

Virginia Hinshaw, dean of the UW-Madison Graduate School, notes that the companies are rooted in some of the university's most innovative research, in areas such as new materials development, biotechnology, biopharmaceuticals, medical imaging, power electronics and software development.

"This partnership between research at UW-Madison and Wisconsin business is an exciting growth area that benefits both partners," says Hinshaw. "It is also becoming a source for higher-wage, highly skilled jobs that will keep our graduates in Wisconsin."

Over the last five years, the study showed that an average of 12.4 new companies were started each year. That's nearly a 50 percent increase in the growth rate found in the previous five years, from 1989-1993.

Why the recent surge? Sobocinski attributes it to a number of factors. There has been an increase in technological innovations at UW-Madison that have strong commercial potential. There is also more availability of federal "seed" capital through programs such as the Small Business Innovation Research (SBIR) program.

The three arms of UW-Madison technology transfer — UIR, the Wisconsin Alumni Research Foundation and University Research Park — have more joint ventures today to encourage and assist new business creation, he adds.

Other key findings from the study:

- More than 92 percent of the firms identified as created over the past several decades are still in business.
- The vast majority of these high-tech firms stay in Wisconsin. Less than 2 percent of non-acquired firms chose to relocate outside of the state.
- These are truly small-business ventures, with the majority of them (66 percent) having fewer than 10 employees. Only 8 percent employ more than 100 people. Most (71 percent) have estimated revenues of less than $1 million annually.
- From fiscal 1983-1997, Wisconsin firms received $58 million in SBIR and Small Business Technology Transfer (STTR) grants from the federal government. Of that total, 67 percent, or $38 million, went to UW-Madison spinoffs and startups.
- The companies are distributed in 13 Wisconsin counties, but the vast majority are located in Dane County. ■

Some high-tech firms with UW-Madison ties

From promising new treatments in gene therapy to nanometer-scale instruments, many laboratory advances from UW-Madison are the foundation of recent business ventures. Here are a few examples of companies developed in the past five years:

- **The Mirus Corporation.** This company was founded in 1995 by a research team led by Jon Wolff, a pediatrics professor, and the PanVera Corporation. In his research, Wolff developed chemical reagents that are essential ingredients in gene therapy work. They are compounds that help genes penetrate cells. They also manufacture chemicals that help scientists track the transferred genes. Mirus Corp. is making these compounds available to other university-based laboratories and companies that do gene therapy work. It is also on the trail of a "universal" gene transfer reagent that could work on all applications.
- **Piezomax Technologies, Inc.** Founded in 1997, this company is developing the research of materials science Professor Max Lagally and researcher James MacKay in nano-scale devices. A nanometer is one billionth of a meter. The company is developing new precision-motion devices that use piezoelectric materials, which expand and shrink when voltage is applied. Precise motion at the nanometer scale is important for applications such as lithography, optical communications and microscopy.
- **Bioassay, Inc.** This 1997 company, founded by zoology Professor Stanley Dodson, is developing a simple test that can determine whether new and existing chemicals may cause endocrine disruptions. Christine Merritt, a former postdoctoral researcher in zoology, is the company's president. The technology has an interesting connection to UW-Madison history. In the late 1800s, zoology professor and lake studies pioneer Edward Birge surveyed plankton in Lake Mendota, including a species called daphnia. Referencing Birge's data, Dodson and others recently discovered a significant decline in the percentage of male daphnia, indicating the species may be sensitive to the increased amount of chemicals in the lake. The test uses daphnia as a test organism to predict whether a chemical can have endocrine-changing effects.
- **ProCertus BioPharm, Inc.** This company is based on the research of William Fahl, an oncology professor and researcher with UW-Madison's McArdle Laboratory for Cancer Research. ProCertus is developing products that can help alleviate some of the painful side effects of chemotherapy, such as hair loss, bone marrow suppression and weakened immune systems. It is also developing probiotic strains of bacteria that can protect newborn livestock from some lethal infections.

FOR IMMEDIATE RELEASE 2/24/99
CONTACT: Philip Sobocinski, (608) 263-2840

UW RESEARCH FUELS GROWTH IN SPIN-OFF, STARTUP COMPANIES

MADISON - Research at the University of Wisconsin-Madison has fueled a swift rise in new technology-based business ventures in Wisconsin over the past five years, according to a new study of spin-off and startup companies.

The study, focusing on a 40-year period, was conducted by the University-Industry Relations office (UIR) at UW-Madison. It identifies 172 Wisconsin companies that have some fundamental connection with the university. Of that total, 62 began in the last five years.

The total number is a dramatic increase from the first study conducted in 1993, said Philip Z. Sobocinski, associate director of UIR and author of both studies. This time around, he was able to identify three times as many companies with close university ties.

"This study shows the effect UW-Madison has on Wisconsin's present and future economy through new business creation," said Sobocinski. "We have more researchers than ever before giving thought and effort to the applications of their work."

The findings reinforce a priority in Gov. Tommy Thompson's 1999-2001 budget recommendations. Thompson proposed creating a not-for-profit venture capital company and a new state position to facilitate more technology transfer between UW-Madison and the private sector.

"These new businesses are helping put research innovations to work right here in Wisconsin," Thompson said. "This study shows we're making great progress, but we can do even more to encourage technology transfer."

Sobocinski said the business-university connection is defined in two ways. A spin-off company develops products or services that stem directly from research on campus, and often are using a license from a UW-Madison patent. The second are startup companies, which are technology-based business ventures started by faculty, staff, students or alumni.

Virginia Hinshaw, dean of the UW-Madison Graduate School, noted that the companies are rooted in some of the university's most innovative research, in areas such as new materials development, biotechnology, biopharmaceuticals, medical imaging, power electronics and software development.

"This partnership between research at UW-Madison and Wisconsin business is an exciting growth area that benefits both partners," said Hinshaw. "It is also becoming a source for higher-wage, highly skilled jobs that will keep our graduates in Wisconsin."

Over the last five years, the study showed that an average of 12.4 new companies were started each year. That's nearly a 50 percent increase in the growth rate found in the previous five years, from 1989-1993.

Why the recent surge? Sobocinski attributes it to a number of factors. There has been an increase in technological innovations at UW-Madison that have strong commercial potential. There is also more availability of

federal "seed" capital through programs such as the Small Business Innovation Research (SBIR) program.

The three arms of UW-Madison technology transfer -- UIR, the Wisconsin Alumni Research Foundation and University Research Park -- have more joint ventures today to encourage and assist new business creation, he added.

The information from Sobocinski's study will be included in an upcoming publication called "UW-Madison Technology Transfer and Entrepreneurship: Creating High-Tech Business Growth in Wisconsin." The book will take stock of the ways UW-Madison makes its mark on the marketplace.

Other key findings from the study:

* More than 92 percent of the firms identified created over the past several decades are still in business.

* The vast majority of these high-tech firms stay in Wisconsin. Less than 2 percent of non-acquired firms chose to relocate outside of the state.

* These are truly small-business ventures, with the majority of them (66 percent) having fewer than 10 employees. Only 8 percent employ more than 100 people. Most (71 percent) have estimated revenues of less than $1 million annually.

* From fiscal 1983-1997, Wisconsin firms received $58 million in SBIR and Small Business Technology Transfer (STTR) grants from the federal government. Of that total, 67 percent, or $38 million, went to UW-Madison spin-offs and startups.

* The companies are distributed in 13 Wisconsin counties, but the vast majority located in Dane County.

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-- Brian Mattmiller, (608) 262-9772

FOR IMMEDIATE RELEASE 2/24/99
CONTACT: Philip Sobocinski, (608) 263-2840

EXAMPLES OF RECENT HIGH-TECH FIRMS WITH UW-MADISON TIES

MADISON -- From promising new treatments in gene therapy to nanometer-scale instruments, many laboratory advances from University of Wisconsin-Madison are the foundation of recent business ventures.

Here are a few examples of startup or spin-off companies developed in the past five years:

The Mirus Corporation. This company was founded in 1995 by a research team led by Jon Wolff, a pediatrics professor, and the PanVera Corporation. In his research, Wolff developed chemical reagents that are essential ingredients in gene therapy work. They are compounds that help genes penetrate cells. They also manufacture chemicals that help scientists track the transferred genes.

* Mirus Corp. is making these compounds available to other university-based laboratories and companies that do gene therapy work. It is also on the trail of a "universal" gene transfer reagent that could work on all applications.

* Piezomax Technologies, Inc. Founded in 1997, this company is developing the research of materials science Professor Max Lagally and researcher James MacKay in nano-scale devices. A nanometer is one billionth of a meter.

The company is developing new precision-motion devices that use piezoelectric materials, which expand and shrink when voltage is applied. Precise motion at the nanometer scale is becoming important for applications such as lithography, optical communications and microscopy.

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The technology has an interesting connection to UW-Madison history. In the late 1800s, zoology professor and lake studies pioneer Edward Birge surveyed plankton in Lake Mendota, including a species called Daphnia. Referencing Birge's data, Dodson and others recently discovered a significant decline in the percentage of male Daphnia, from 50 percent to about 2 percent. The surveys indicate the species may be sensitive to the increased amount of agricultural chemicals in the lake.

The test uses Daphnia as a test organism, akin to a "canary in a coal mine," to look at the effects of various chemicals on the next generation.

* ProCertus BioPharm, Inc. This company is based on the research of William Fahl, an oncology professor and researcher with UW-Madison's McArdle Laboratory for Cancer Research.

* ProCertus is developing products that can help alleviate some of the painful side effects of chemotherapy, such as hair loss, bone marrow suppression and weakened immune systems. It is also developing probiotic strains of bacteria that can protect newborn livestock from some lethal infections.

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-- Brian Mattmiller (608) 262-9772

Chancellor's Initiative to begin

Erik Christianson

Since the earliest days of the university's existence, faculty members have worked with government officials to help solve the problems facing Wisconsin.

A new initiative about to begin will enhance that long-standing relationship. The Chancellor's Initiative includes an orientation seminar for new legislators, a speakers series, a staff luncheon series, faculty-legislative pairings and policy forums.

The name for the initiative comes from Chancellor David Ward's desire for the university to expand and redefine its service to the state, says Donald F. Kettl, director of the Robert M. La Follette Institute of Public Affairs.

"We are working out of the tradition of the Wisconsin Idea and at the same time seeking to adapt to the new challenges facing government today," says Kettl, who is coordinating the initiative with Charles Hoslet, special assistant to the chancellor for state relations.

The orientation for new state legislators is planned in January. Faculty will provide an overview of important issues, in conjunction with legislative leaders of both parties, and outline university resources.

Six staff luncheons are planned in spring for state and local government officials.

The faculty-legislative pairings will identify areas of interest among key legislators and link them with professors who are experts in those areas.

The policy forums, while still in the planning stages, will set up dinners between faculty and lawmakers with discussions on topics of mutual interest.

Kettl says Democratic and Republican lawmakers have reacted positively.

"This is the kind of thing that people continue to tell us they need and expect and want the university to be doing," Kettl says. "It demonstrates the university's commitment not just to respond to issues but to define our responsibility to the state in exchange for the taxpayers' generosity to us through the state budget." ■

Sesquicentennial snapshot

Photo courtesy UW-Madison Archives

The Father of Weather Satellites
Atmospheric science professor Verner Suomi (left, with colleague Herman La Gow) inspects the features of a vintage 1959 weather satellite. The UW-Madison professor revolutionized the way the world sees the weather as inventor of the imaging technologies behind modern weather satellites. His "spin-scan camera" gave meteorologists their first moving pictures of weather systems. His career at UW-Madison, from 1948 until his death in 1995, included co-founding the Space Science and Engineering Center in 1965, now a world-class center for studying the atmospheres of earth and other planets. Heralded as a "giant of modern science," Suomi said he took most pride in the fact that his inventions improved the public's safety from severe weather.

Series features Soglin

The next sesquicentennial breakfast features Paul Soglin, former mayor of Madison and UW alum, who will discuss student activism on and of campus.

Soglin will present a 30-year historical perspective, from his days as a student to his experience as a city alderman and mayor. The talk is scheduled at 7:30 a.m Tuesday, Dec. 8.

As part of the celebration for the university's 150th anniversary, the Daybreak Discussions series provides an opportunity for campus and community members to gather, reflect on the past and look to the future. The discussions are scheduled each month (except January) during this academic year. Open to all, the talks begin at 7:30 a.m. and conclude by 8:45 a.m.

The series is sponsored by the Chancellor's Office, the Morgridge Center for Public Service and Wisconsin Union. For information, call the Morgridge Center, 263-2432. ■

SESQUICENTENNIAL QUIZ

Okay, once again let's test your knowledge of the university's rich history with the *Wisconsin Week* Sesquicentennial Quiz. This second in a series of exams will separate the true sesquicentennial scholars from the sea of wannabes.

Questions

1 Who was the first UW faculty member to win a Nobel Prize?
2 Who was Wisconsin's first and — so far — only Heisman Trophy winner?
3 How did UW pharmacist Dale Wurster change your life?
4 What part of the evening newscast can you credit to UW-Madison?
5 To which country did UW students travel for the first study abroad program?
6 What did UW art professor Harvey Littleton accomplish in 1962?
7 For which organization has UW-Madison produced more volunteers since 1990 that any college in the nation?
8 Which summertime acronym is associated with UW-Madison?

Answers

1 **Joshua Lederberg**. His work, which explained why bacteria develop resistance to antibiotics, won him a Nobel Prize in 1958.
2 Badger fullback **Alan Ameche**, who played both offense and defense on a team that went to the Rose Bowl in 1953.
3 Dale Wurster, in 1959, invented a technique **to easily coat pills**, making medicine easier to swallow.
4 UW's Verner Suomi invented a camera capable of taking pictures of Earth from satellites, part of any modern-day **weather report**.
5 In 1961, students traveled to **India**. Students have attended UW programs in every continent except Antarctica.
6 Harvey Littleton forged the **world's glass-art movement** by creating a studio-scale furnace hot enough to mold glass into a work of art. Artist Dale Chihuly, a student of Littleton, created the colorful sculpture in the Kohl Center's lobby.
7 Through 1997, 2,237 UW graduates have chosen to defer salaries and careers for a humanitarian calling in the **Peace Corps**.
8 **SPF**, Sun Protection Factor. Sunscreen ratings were developed based in part on the work of dermatologist Derek Cripps. ■

FLASHBACK

HISTORICAL HIGHLIGHTS
Students need books to study, and, to that end, UW started building a library of donated books in 1849. The first collection, opened in September 1851 on the fourth floor of North Hall, housed about 800 donated volumes — a bit humble in the reflection of today's 45 libraries and 5.8 million volumes. Memorial Library, with more than 3 million volumes, houses the largest single collection in Wisconsin and draws more than 1 million visits a year.

PEOPLE IN OUR PAST
In 1875, when **E.A. Birge** arrived at UW-Madison as a 24-year-old instructor in natural history, he brought with him an insatiable curiosity about lakes and streams. Soon after his arrival, limnology — the study of inland waters — was founded in North America. Today, UW's tradition of lake research makes Lake Mendota and other Wisconsin waters among the best-studied in the world, and UW research helps ensure the well-being of those treasured resources. ... The nation's oldest Scandinavian studies program found a receptive home at UW-Madison in 1875. Founder **Rasmus B. Anderson** assembled a huge library of Norwegian literature and provoked controversy with his own book asserting that Columbus didn't discover America.

CAMPUS MEMORIES
"Sometime during 1954-1958, the period in which I was a UW undergrad, I had the privilege of serving on the Memorial Union Music Committee, under the direction of a wonderful woman whose name I cannot remember. She was knowledgeable, dynamic and a great tutor for students. She showed us how to do some of the basics of arranging concerts, presentations, and other events for the committee. Often, we were a part of pre-concert dinners with the noted musician or conductor. It was a heady and wonderful experience.
"Now that I am many years an alumna, I find myself still drawing on the grace, poise, diplomacy and planning skills which she modeled for us. I run an annual conference in Portland for researchers and family members interested in improving children's mental health; it gets outstanding reviews from participants. My Union experience was and is undeniably valuable and long lasting."

— Kaye J. Exo
BS '58, MS '76

To offer your memory, visit: www. uw150.wisc.edu/memories/

RESOURCES
To keep up with Sesquicentennial goings-on, check out the activities and other information organized at the UW-Madison web site at: www.uw150.wisc.edu

FOR MORE INFORMATION
Peyton Smith, sesquicentennial coordinator, 265-3044, plsmith @mail.bascom.wisc.edu. The sesquicentennial office is in 96 Bascom Hall.

Sesquicentennial snapshot

Photo courtesy UW-Madison Archives

E.A. Birge, shown in his boat, began a tradition that has made Madison's lakes among the most-studied in the world. In 1875, when E.A. Birge arrived at UW-Madison as a 24-year-old instructor in natural history, he brought with him an insatiable curiosity about lakes and streams. Soon after his arrival, limnology — the study of inland waters — was founded in North America.

Campus plans to celebrate sesquicentennial summer

Liz Beyler

As you plan your summertime activities, don't forget the university's Sesquicentennial Summer Celebration and Open House on Saturday and Sunday, Aug. 21-22. Varied entertaining and educational activities are being planned, according to sesquicentennial coordinator Peyton Smith.

"The celebration will be lots of fun for people of all ages, and it will provide a great opportunity for them to learn more about UW-Madison and sample some of the many resources it has to offer," says Smith. "And for some, it offers a chance to become reacquainted with the campus and see what's new."

Events kick off Saturday afternoon, 1-2:30 p.m., when the Badger football team holds its annual Family Fun Day in Camp Randall Stadium. Players and coaches will sign autographs and meet fans.

The festivities continue Saturday evening with live music and dancing on the Memorial Union Terrace and a special program at the Elvehjem Museum of Art.

The celebration continues throughout the day on Sunday, and concludes with a live 20th anniversary broadcast of Wisconsin Public Radio's "Simply Folk" on the Terrace from 5 to 8 p.m.

Sunday starts off with a 3K/5K run/walk open to all, a free soccer clinic and a Health Sciences Fair, featuring interactive exhibits and demonstrations from 8 a.m. to noon on the west end of campus.

From 10 a.m. to 2 p.m., the agricultural campus will host an Agricultural/Biotechnology Fair and a Life Sciences lunch. There will be farm animals to see and engaging science activities for the kids. Visitors can pick up a free potted birch tree, blueberry bush or rhododendron, and sample the sesquicentennial ice cream, "Praise to Thee, Our Almond Mocha."

On the lower end of campus, including Library Mall, there will be music and other entertainment, educational demonstrations and arts activities for children from 1 to 5 p.m.

Open houses and tours will proceed throughout the day. For example, visitors will be able to go behind-the-scenes at the Veterinary Medicine Teaching Hospital, enjoy a sesquicentennial floral display at Allen Centennial Gardens, visit the renovated Red Gym and the Geology Museum, see a new exhibit at the Elvehjem, and tour the Arboretum by bus.

Parking in some university lots will be free Saturday and Sunday, and buses will shuttle visitors between events Sunday.

If you are interested in participating in the Sesquicentennial Summer Celebration or in volunteering for it, contact the Sesquicentennial office at 262-4315. ■

For information on the celebration and open house, call 262-4315. A full schedule of events will appear soon on the World Wide Web at: www.uw150.wisc.edu/sigevents

Sesquicentennial events to continue

Public events and exhibits

June

16 Wednesday

ROBERT J. LAMPMAN MEMORIAL LECTURE
"A Financial Policy in Lampman's Tradition: The Community Reinvestment Act." Edward Gramlich, University of Michigan. 1100 Grainger Hall, 4 p.m.

August

21 Saturday

SESQUICENTENNIAL SUMMER CELEBRATION
The celebration kicks off Saturday evening with music and fun at the Union Terrace and Elvehjem Museum, and spreads throughout the campus on Sunday with a series of events featuring health, athletic and interactive activities, tours and open houses. Some campus parking will be free Saturday afternoon and Sunday and buses will shuttle between events Sunday.

22 Sunday

SESQUICENTENNIAL SUMMER CELEBRATION
See Saturday, Aug. 21 listing.

October

15 Friday

SCHOOL OF NURSING 75TH ANNIVERSARY GALA
Details developing. Monona Terrace.

Exhibits

ENGINEERING PHOTO EXHIBIT
"Engineering Time." Scenes from the college's rich history; 23 images span 1881-1998. East wall, 1610 Engineering Hall. Exhibit runs through the year.

HUMAN ECOLOGY STUDENT EXHIBIT
Exhibits from landscape architecture, interior design, and textile and apparel design. Through May 13.

FLASHBACK

HISTORICAL HIGHLIGHT
In 1961, UW inaugurated its first formal study-abroad program by sending students to India for an academic year. The choice of India was unique in American higher education, where study-abroad programs concentrated on the major countries of Europe. But it was deliberate: The university has sought to provide study opportunities that offer a taste of a culture whose flavors are unfamiliar, and thus educationally stimulating. The university began adding programs in Europe — and across the world — by the mid-1960s; today, 8,000 students have attended UW programs on every continent except Antarctica.

PEOPLE FROM OUR PAST
Where most saw windows and bottles, **Harvey Littleton** imagined the raw grist of a new art form. In 1962, the UW art professor forged the world's first glass-art movement by creating a studio-scale furnace hot enough to mold glass into a work of beauty. Littleton and his protégés produced glass that demanded to be looked at, rather than through, with brilliant, gem-like colors and lifelike shapes. Hundreds of UW students followed Littleton's muse, including **Dale Chihuly**, the current master of the medium and artist of the strikingly colorful sculpture that adorns the Kohl Center lobby.

Two alumni of UW's electrical and computer engineering department found themselves leading the technological revolution in post-World War II America. **John Bardeen**, who in 1947 invented the transistor, and **Jack St. Clair Kilby**, who in 1958 invented the integrated circuit, created the pieces that made the computer age possible, ultimately affecting the lives of anyone who operates a computer, drives a car or uses an electronic appliance.

FACULTY MEMORIES
My calculus professor, **Martin Isaacs**, had an incredible following with students, some being denied transfer into his classes because of their popularity. Luckily, I had a friend in Isaacs' first semester class who informed me about this great professor, making the next two semesters of calculus much more bearable.

Anyone who had his classes would have to agree: His attention was centered on our interest, as his lectures were always full and his energy level was always up. He wrote clearly and always made sure students didn't leave class misunderstanding the discussion. I would have likely given up long before professor Isaacs had. Why, you ask? Well, the story of Professor Isaacs goes back long before I arrived at UW. The professor had been a race car driver many years back, and unfortunately had an accident which left him disfigured and disabled. One side of his face was burned, leaving him with only one eye and ear and difficulty speaking. He had trouble walking and he lost most of his fingers.

Where some professors find it difficult to make a clean copy of last year's handout, Professor Isaacs made every effort to assure we had the easiest possible time learning calculus. I am sure he left his lectures spent, but his energy always seemed up and ready for more. For the sake of future education, may all professors be like Professor Isaacs.

— **David Henschel**, B.S. '86

Left: Students in John Magnuson's Limnology class lab sift through a tub of Lake Mendota sediment samples collected from aboard the Limnos research boat. Below: Aboard the boat, students and researchers roam in search of signs of how development has affected the ecology of Madison's Lake Mendota. Mendota is a trademark urban lake, but it could be any lake, anywhere in Wisconsin, says limnologist Steve Carpenter. "I see this lake as a symbol of our ability to manage the other 15,000 lakes in this state," Carpenter says. Photos: Jeff Miller

The big blue lab

Lake Mendota teems with teaching and research efforts—and algae

Brian Mattmiller

At nearly 10,000 acres wide and 80 feet deep, with waters draining a constantly changing landscape, it's doubtful scientists will crack every mystery about Lake Mendota.

But they're trying.

During any given semester, Lake Mendota lives up to its billing as the most studied lake in North America, with a popular undergraduate course taught on its waters and numerous research projects analyzing it inside-out. No university in the world is more versed in limnology, or the science of what makes a lake tick.

On weekday afternoons, the 26-foot research trawler "Limnos" veers out toward University Bay with about a dozen students on board. The 33-year-old vessel, built especially for Lake Mendota research by a Two Rivers marina, stands out among the sailboats and recreational cruisers — especially with its line of tattered flags and bright red "Badger tracks" painted on the flat aluminum bed.

There's a tremendous amount of information to be gleaned below the glassy surface. Students send bright black-and-white secchi disks into the blue-green water to measure water clarity; they measure temperature, dissolved oxygen, nitrogen and phosphorus levels; they survey plankton from top to bottom; they inventory aquatic life dredged from the muck.

This is the lab portion of Zoology 315, a class that serves up the rare opportunity to do field research in the university's own backyard. The course attracts about 150 students each semester, but only about one-third of those students opt for the two-credit lab section on Lake Mendota and the Limnology Lab's northern outpost, Trout Lake Station.

"The best part of this course is it's the ultimate hands-on experience," says Karen Wilson, a teaching assistant who runs labs aboard Limnos. "We get samples out here and can analyze them in the same afternoon in the laboratory."

"I also don't have to worry about keeping my students' attention," she adds. "We're out in the middle of the lake — what better way to spend an afternoon?"

The biggest surprises come when the class steers out to Mendota's deepest hole, and students contrast surface waters with frigid depths. At about 10 meters, temperatures drop off radically and dissolved oxygen almost vanishes — a symptom of what ails this highly eutrophic, or overly enriched, lake.

Mendota's deep hole gets the most attention, Wilson says, since it reveals the lake's thermal stratification. It's so well-studied that the bottom has collected more than its share of research equipment lost overboard. "I'd hate to speculate how much limno-trash is out there in that deep hole," she says.

Zoology professor John Magnuson, director of the Limnology Lab who has taught the course since 1967, says the course dates back to 1907, and is the first such course taught in North America. It connects today's students with past generations of limnologists, such as E.A. Birge, Chauncey Juday and Arthur Hasler, whose research put Mendota on the science world's map.

"Being a limnologist is like being in a blimp and trying to examine the city of Madison on a foggy day," says Magnuson. "The waters are opaque and we can't see into them, so limnologists continually try new methods to remotely sense or sample what's happening below the surface."

To that end, several new efforts are in the works. Limnologist Paul Hanson is developing new radio buoys for Mendota that will continually monitor the environment, from surface to bottom, and radio the information back to limnology computers. Magnuson says the project will provide the fine-detail analysis of lake changes that can't be collected now.

They are also adding a genetic component to lake research with a new "microbial observatory" developed by agronomist Eric Triplett. The goal is to define the diversity and roles of the thousands of strains of microbes that exist in lakes.

These projects build on the lab's Long-Term Ecological Research (LTER) project, which examines how massive forces like climate change, agriculture, deforestation and urban development affect the ecology of lakes in southern and northern Wisconsin.

There are more urgent issues for Mendota. Limnologist Steve Carpenter studies eutrophication, which is the constant overloading of nutrients like phosphorus from agricultural and urban runoff, causing huge blooms of scummy blue-green algae. Beyond being an eyesore, eutrophication can permanently damage water quality.

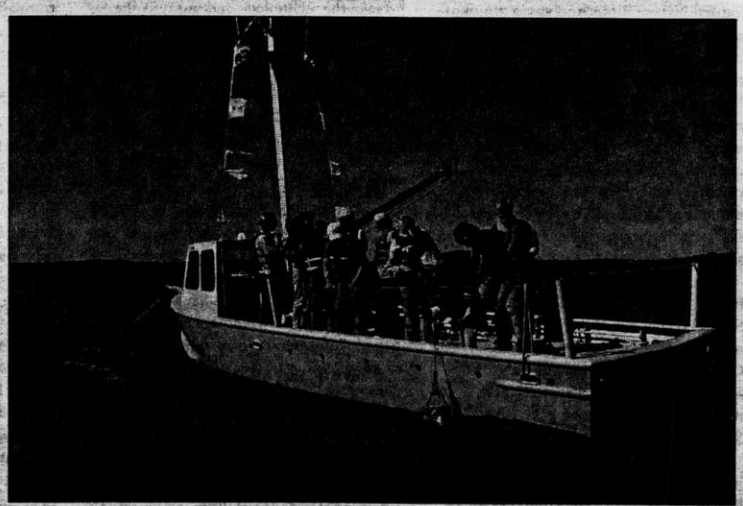
A new study by Carpenter and economics professor W.A. Brock used computer models to define a "cliff edge" for Mendota, a point at which the damage from eutrophication becomes irreversible. "We are certain the cliff exists. The good news is we're not there yet," Carpenter says.

"Lake Mendota is extremely fragile, and we could make some very expensive mistakes here," he says. "A problem that costs $10 million to fix now could easily grow to a $100 million problem if left unchecked."

Carpenter notes that the state Department of Natural Resources has a major watershed management program at work on Mendota now, helping change land-use practices that impact the lake. UW-Madison limnologists are measuring the effects of that project.

Mendota is a trademark urban lake, but it's amazing how perspectives can change on the water. Cruising between Picnic and Frautschi points, for example, one becomes isolated from development, and the forested shores are lined with limestone bluffs, their crevices home to scores of swallows. It could be any lake, anywhere in Wisconsin.

"I see this lake as a symbol of our ability to manage the other 15,000 lakes in this state," Carpenter says. ■



Birge, Edward A.
p. 15

History Digest

THE UNIVERSITY OF WISCONSIN
1848–49 1948–49

From October, 1948, *Wisconsin Alumnus*

THE UNIVERSITY OF WISCONSIN

1848–49 1948–49

★ The University of Wisconsin is 100 years old this year. On February 5, 1849, instruction commenced for 20 preparatory students in a borrowed room. Today over 75,000 UW degrees have been granted, the University is housed in $36,000,000 worth of buildings on a 2,600 acre central campus and 16 extension centers around the state, and the fame of Wisconsin as a great state institution of higher education is world-wide.

This is a pocket edition of the 100-year story of the University of Wisconsin. In an account so abridged as this, it is difficult to present much more than a chronicle of the comings and goings of professors and presidents, courses and curricula. But we have tried to add those brief touches of sidelight and interpretation which give flesh to a skeleton of dates. We are vastly indebted to the late J. F. A. Pyre, professor of English, for material from his *A History of the University of Wisconsin* (1920); to Merle Curti, Frederick Jackson Turner Professor of History, and Vernon Carstensen, assistant professor of history, for material from their *The University of Wisconsin* (1949) and for personal assistance in the preparation of this article; and to Prof. Robert Pooley, chairman of the department of integrated liberal studies, Dr. Clifford Lord, director of the State Historical Society, John Berge, executive secretary of the Wisconsin Alumni Association, and the President's office for comments and criticisms.
—CLAY SCHOENFELD, editor of the *Wisconsin Alumnus* and executive secretary of the University of Wisconsin Centennial.

The University of Wisconsin

A History Digest

ONE HUNDRED YEARS AGO higher education in America meant primarily the small academy or college, with its classical curriculum, sex segregation, and dormitory residence, founded by private donations and swayed by denominational interests.

Today American higher education features the sprawling state university, with its strongly vocational courses, minimum costs, co-education, non-sectarianism, and vast research and public service programs, supported by public tax moneys.

In this transition the University of Wisconsin has played a major role. Here in the heart of the Middlewest have developed cultural forces which have helped to shape the course of American history.

How has this story come to pass?

Small Beginnings

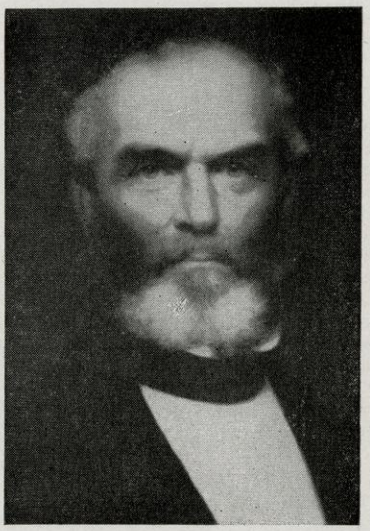
The University of Wisconsin may in a sense be said to have opened in the Autumn of 1850. At least it was then that a designated freshman class assembled for instruction in the first year of a four-year college curriculum.

But the antecedents of Wisconsin's State University go back much further than 1850, and, indeed, its official Founders Day is marked as February 5, 1849.

The history of American state universities in general is usually held to begin with the Ordinance of 1787, that celebrated instrument in which were formulated the principles that should regulate relations between the Old Northwest Territory and the original federation of states. Among its assurances was that contained in the oft-quoted clause respecting education: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." True, there is here no explicit reference to higher education. But in the negotiations between Congress and the Ohio Land Company, Congress agreed that two townships of the public domain should be set aside for the endowment of seminaries of learning. When Ohio was admitted to statehood these grants were confirmed and the lands were transferred to the state. Thereafter, the dedication of a fixed portion of the public domain to the encouragement of higher education became one of the stereotyped inducements offered by the nation to settlers upon its unoccupied lands. The national government had thus entered upon a course of action which, combining with other conditions of the frontier, was to produce a new type of educational institution—the American state university.

Steps toward acquiring the national endowment of land were taken by Wisconsin's Territorial Legislature in 1837, and the Legislature of the following year provided for the establishment of a university "at or near Madison," the newly created "seat of government." The customary grant of two townships of public land within the territory, "for the use and support of a university," was voted by Congress and approved by President Van Buren in 1838, and the location of these lands was begun the following year.

In 1848 Wisconsin became a state. The new constitution provided for



JOHN HIRAM LATHROP
1849–1858

"The American mind has grasped the idea and will not let it go, that the whole property of the state, whether in common or in severalty, is holden subject to the sacred trust of providing for the education of every child in the state."

"the establishment of a state university at or near the seat of state government," and the first State Legislature specified with considerable definiteness the scope and character of the projected institution. This act, creating "an institution of learning under the name and style of the University of Wisconsin," became effective upon receiving the signature of Governor Nelson Dewey on July 26, 1848. The government of the University was vested in a Board of Regents to be elected by the Legislature. But the Legislature failed to perform this duty, and a bill was rushed through in the last moments of a crowded session empowering the governor to fill vacancies. Governor Dewey thus appointed the first board.

The Regents met at Madison in October, 1848, and organized with Eleazer Root of Waukesha as temporary president of the Board. There were as yet no funds, provision having been made for the appraisal, but not for the sale of the University lands. Nor were the schools of the state sufficiently advanced to fit students for entrance to the University. Nevertheless, the Board determined to begin operations at once by establishing a preparatory department. John W. Sterling, a graduate of the College of New Jersey (Princeton), was elected to the professorship of mathematics in the University and invited to take charge of the preparatory school. The school opened in borrowed quarters in the Madison Female Academy Building on Monday, February 5, 1849. Seventeen pupils appeared the first day. Three more enrolled later to bring the first class to 20.

John H. Lathrop, a graduate of Yale College, was called from the presidency of the University of Missouri to become, in the autumn of 1849, the first Chancellor of the University and president of the Board of Regents. He was inaugurated with much ceremony January 16, 1850, in the presence of the Legislature and the state officers.

The Regents had acquired by purchase about a quarter section of land on the edge of the village of Madison, about one mile from the capitol building. A portion of this tract was reserved for the college campus, a portion was exchanged for other lots that were wanted to fill out the site, and a considerable part was laid out in village lots and five-acre tracts and sold for the benefit of the University. By these processes the University secured a building site of something less than 50 acres and was enriched by a profit of about $7,500 from its land transactions.

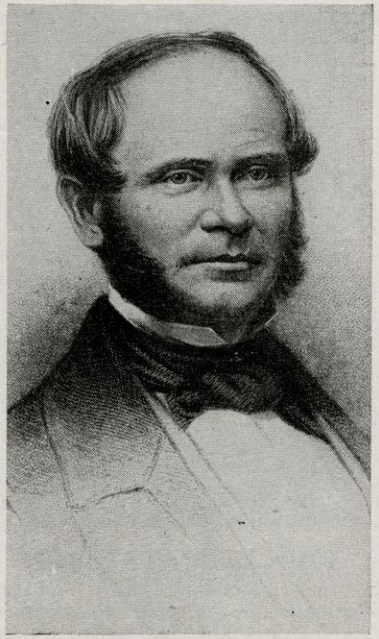
Plans for the University, at this time, contemplated a "main edifice" on the crest of the Hill, where Bascom Hall now stands, an avenue 240 feet wide from the building to the east line of the grounds, and four dormitories lower down the hill, two on each side of the avenue. Of the

five buildings here contemplated three were eventually built: North Hall, completed in 1851, South Hall in 1855, and old Main Hall, nucleus of the present Bascom Hall, in 1860.

The three buildings erected by 1860 were constructed on loans authorized by the Legislature against the security of the lands held in trust for the support of the University. It was the intention that these loans, amounting to about $100,000, should be returned out of the income of the University fund; but that income proved insufficient to achieve this purpose in addition to supporting the University, even in its small beginnings. Eventually (1862), the Legislature authorized their payment out of the principal of the fund. The effect of this act was equivalent to constructing buildings out of the capital funds of the University.

The University lands were originally appraised (1849) at an average of less than $3 an acre. Lathrop and the Regents protested that this was altogether too low, and the Legislature of 1850 was induced to set a minimum price of $10 an acre upon the lands. Contrary to expectations, however, the land did not sell rapidly at these prices. In 1852, a minimum of $3 an acre was again established and most of the lands were soon disposed of at this price. By the end of 1854 the fund amounted to $161,000 with only 6,000 acres remaining unsold. In the meantime, on the petition of the Legislature of 1851, the federal government had duplicated this endowment, granting the state, "for the benefit and in aid of the University," 72 sections of land in lieu of an equal amount of salt springs land previously granted for general state purposes. By the end of 1856 most of the second grant had been contracted for, and the land fund then amounted to $310,000.

During the first few years, the University had paid its running expenses almost entirely out of student fees, the profits on its land purchase, and the remnants of its first building loan. In 1852 it had been compelled to borrow $5,000 to defray current expenses, but it seemed about to enter upon an era of relative prosperity. Unhappily, the panic of 1857 was at hand, to be followed directly by the Civil War, so that new troubles were in store.



HENRY BARNARD
1859–1860

"I am to be at liberty to cooperate with the Board of Regents of Normal Schools, as their agent, and with the teachers and friends of common schools, in their efforts to develop all the means and institutions of education intended for the great masses of the people."

Although its charter unfolded larger plans, the University, as it existed under Chancellor Lathrop, was virtually a small classical academy and college of the old fashioned New England type. Most of the students lived in the dormitories, North and South Halls. When the first college class, consisting of Levi Booth and Charles T. Wakeley, graduated in 1854, there were 41 students in attendance, exclusive of 15 in the preparatory course. The

faculty consisted of Chancellor Lathrop, professor of ethics, civil polity, and political economy; John W. Sterling, professor of mathematics, natural philosophy, and astronomy; Obadiah M. Conover, professor of ancient languages and literature; and Stephen H. Carpenter, tutor. Daniel Read, professor of philosophy and English literature, John P. Fuchs, professor of modern languages, and Ezra S. Carr, professor of natural history, were added in the two years following. Professors Read and Carr were expected, in addition to their regular duties, to give instruction in the art of teaching and in agriculture, respectively. Modern tendencies in education were further recognized by the establishment of the degree of bachelor of philosophy, first conferred in 1858.

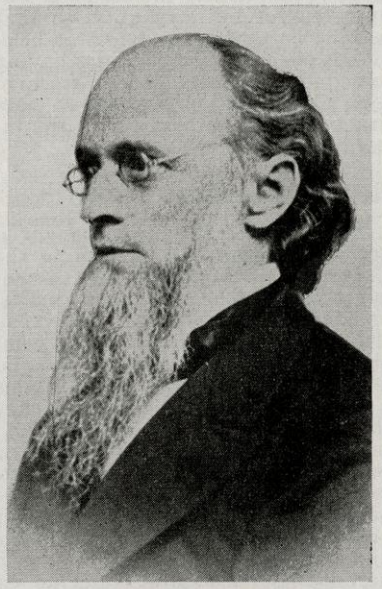
These mild readjustments and a moderate growth in attendance were not sufficient to appease critics of the University. There was hostility to the preparatory department; and it was held that the University was not rendering that large and practical service to education which the state expected. A reorganization in 1858 led to the resignation of Chancellor Lathrop and the election, in his place, of Henry Barnard, a graduate of Yale and an educator of very great reputation. Chancellor Barnard was destined, however, not to occupy that conspicuous place in the annals of the University of Wisconsin which he achieved in the history of American education at large. On account of ill health, he spent but a few months in Wisconsin and during this time employed his energies chiefly in the conduct of institutes for teachers, with the aim of improving general educational conditions in the state. With respect to the University he presented to the Board of Regents a number of recommendations, but these were not followed.

With the departure and subsequent resignation of Chancellor Barnard in 1860, the immediate government of the University lapsed into the hands of the faculty with Professor Sterling as executive officer. As dean of the faculty and afterward as vice chancellor, Professor Sterling continued to direct the affairs of the institution until 1867. A large proportion of the students volunteered for military duty, so that in 1864 no Commencement was held, all but one of the senior class having joined the army. Finances were in a pitiable condition. Professors were practically on half pay. Still the institution was kept alive.

Reorganization, Rebirth

The close of the war brought a new inspiration and growth to the University of Wisconsin. The returning soldiers took up their studies, and by 1870 there were nearly 500 students in residence. In 1866 a complete reorganization was effected and Dr. Paul A. Chadbourne of Williams College was called to the presidency the next year. To his vigorous and intelligent labors as executive and teacher, the University owned very largely its firm progress during the next few years. The Legislature of 1867, conceding that an injustice had been done to the University in permitting its capital fund to be impaired for the erection of buildings, voted that the amount thus lost be made good by annually restoring the sum of $7,303.76 to the University fund. Three years later, just at the close of President Chadbourne's administration, the Legislature made its first direct gift, an appropriation of $50,000 for the erection of a separate building for women students. This building, the nucleus of what now is known as Chadbourne Hall, was dedicated in 1871, after the arrival of President Twombly. It was an early and significant event in the nation-wide movement of those years toward coeducation and the higher education of women.

Another important event of President Chadbourne's administration was the founding (1868) of the College of Law, which immediately enjoyed a rapid growth. The same year (1868) a professor of agriculture, W. W. Daniells, was added to the faculty, thus putting into active operation the agricultural department which had been ordained in 1866 to take advantage of the Morrill Act granting to the state 240,000 acres of public land for the encouragement of agriculture and the



PAUL A. CHADBOURNE
1867–1870

"The object of the state colleges is to obliterate the supposed superiority of the so-called learned professions by securing a liberal — that is, the highest education—for those who choose industrial pursuits, thus lifting agriculture and mechanic arts from the plane of mere routine labor to the dignity of learned professions founded upon scientific knowledge, and allied to, or connected with, those branches of learning essential for a broad and generous culture of the whole man."

mechanic arts. The institution of the departments of agriculture and engineering as integral parts of the University was a departure from the policy of most other states of the Middlewest, which had, up to this time, founded colleges of agriculture and engineering apart from the state university. It was a feature of organization which, while its influence was not felt immediately, was fraught with important consequences for the University and the state.

Dr. Chadbourne was succeeded in the presidency by Dr. John H. Twombly, a Methodist minister from New England. Twombly was elected in June, 1871, and was forced to resign in January, 1874, on the ground of unfitness. Perhaps the most significant event of his short and unhappy administration was the dedication of Ladies' Hall already mentioned. A normal course for women had been conducted during the war; the reorganization of 1866 had explicitly provided for co-education; but for some years the work of the women was kept ostensibly separate from that of the men, in what was known as the Female College. During Dr. Twombly's administration there was a gradual approach to actual co-education, which was openly recognized upon the advent of President Bascom.

On the side of finance there was a distinct change of policy when the Legislature in 1872 voted an annual tax of $10,000, to be levied and collected for the benefit of the University. Nor was any dissatisfaction with this new departure to be detected in the state. On the contrary, the newspapers of that year seem to have been unusually friendly in their tone toward the University. The establishment at this time of a system of free tuition to graduates of high schools who passed the entrance requirements of the University foreshadowed closer relations between the University and the secondary schools of the state, a movement which the University of Michigan had inaugurated several years before.

The Bascom Era

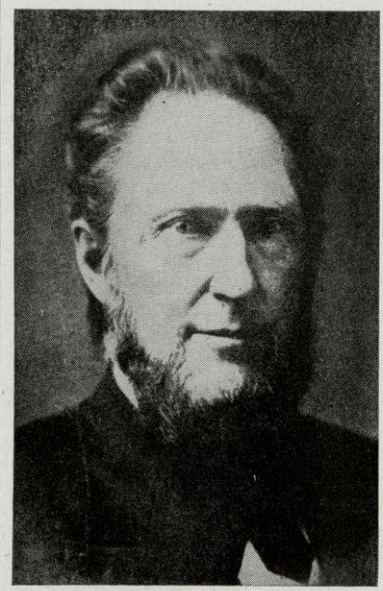
Competent students of University history have generally united in assigning peculiar importance to the administration of President Bascom. John Bascom came from a professorship at Williams College to the presidency in the spring of 1874; he retired at the close of the academic year 1886–87. The length of his incumbency, the vigor and distinction of his personal character, and the ripeness for progress of

state and University combined to make the years of his leadership a period of unusual solidarity and significance. Dr. Bascom clearly saw and resolutely attacked the most pressing problems of the University: the ambiguity concerning co-education, the imperfections of the preparatory system in the state, and the insufficiency of means in every respect.

During the first year the young women were "put in all respects on precisely the same footing in the University with the young men." In 1875 the Legislature appropriated $80,000 for the construction and equipment of "Old Science Hall," and the following year the scientific collection of I. A. Lapham was purchased at a cost of $10,000. All told, $112,400.22 had been expended for material improvements by 1877. In 1876, Wisconsin followed the lead of Michigan in granting the first mill tax in favor of the University, one-tenth mill on each dollar of the property valuation of the state. The mill tax was increased to one-eighth mill in 1883. Assembly Hall, later Library Hall, and now Music Hall, the first building of the University to be erected out of the savings of its current income, was completed in 1879. For nearly a quarter of a century this building housed the University Library. Washburn Observatory, the first University building erected by private munificence, had been built in 1878 at a cost of $45,000.

The next building era came at the close of President Bascom's administration when, after the burning (1884) of "Old Science Hall" with the scientific collections housed in it, the Legislatures of 1885–87 voted a total of nearly $400,000 for the erection and equipment of Science Hall, the old Chemical Laboratory, the Machine Shops, and a power and heating plant for this group of buildings. The rapid development in laboratory science and the expansion of the engineering department which came toward the end of this period are well exemplified in this relatively lavish expenditure for buildings and apparatus.

The opening paragraph of President Bascom's first address to the Board of Regents had thrown emphasis upon the necessity for an articulated system of public education leading to the University. There was, throughout this year, a wide agitation among educational leaders for improvement of intermediate instruction in the state. The next Legislature (1875) passed the important "act to aid in the maintenance of free high schools." This action paved the way for the



JOHN H. TWOMBLY
1871–1874

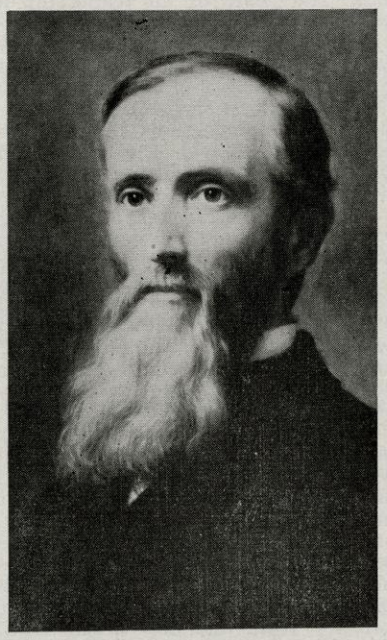
"On surveying the period of my connection with this University, I find that it has been fruitful of valuable results to the institution. The requirements for admission have been increased, the standard of scholarship raised, the facilities for instructions multiplied, a generous addition made to the funds, the favor of the public assured, and the important connection established between the University and the public schools. If the University was ever a mere 'high school,' it is not so now."

gradual elimination of the preparatory department, which was finally dropped in 1880, and for the introduction of the accredited-schools system. In 1878 the state teacher's certificate was extended to graduates of the University. With the improvement of the secondary schools it became possible to increase requirements for entrance to the University, and to raise the standards of instruction within it.

The discontinuance of the preparatory department, the increase of the teaching force, and the subdivision of fields of instruction tended more and more to make the University "the home of the keen intellectual life." Thus, Professor W. F. Allen, who had been elected in 1867 professor of ancient languages and history, became in 1870 professor of Latin and history, and in 1886 professor of history, a field to which he had given himself with increasing singleness of interest. Though still more restricted fields of research and instruction were soon to prevail, Professor Allen is mentioned because he was a distinguished teacher and scholar of this epoch as well as a fair illustration of its rate of progress toward specialization.

In the development of science in the University, Professor Roland D. Irving had an important part. He came to the department of geology in 1870, as a recent graduate of the Columbia School of Mines. He brought to his subject enthusiasm, thorough training, and a scientific temperament. The Wisconsin Geological Survey, which began in 1873, offered him large opportunity for research in the new and difficult field of Lake Superior geology and this work was later continued, until his death in 1888, under the United States Geological Survey. He became an acknowledged master in his own field, and, like Professor Allen, whose service was terminated by death only a year later than his own, he founded one of the exceptionally strong departments of the University.

Even a brief account of the University of this period would be misleading if it conveyed no impression of the UW's influence as a school of



JOHN BASCOM
1874–1887

"Honor abroad and a liberal percentage of foreign students enhance the estimate in which a university is held at home. . . . We cannot secure the force of large life without large life itself. . . . I beseech for the University a generous method and a large spirit, on the part of the faculty who order it, on the part of its governing board, and on the part of the people of the state."

character and ideals. It was a time of unusually rapid readjustment in matters of belief. Possessed of a faith at once intellectual and devout, President Bascom brought to the University as ethical and spiritual leadership of singular efficacy in this period of transition. The material progress of the University during the 13 years was not remarkable. The increase in attendance was from about 300 to about 500

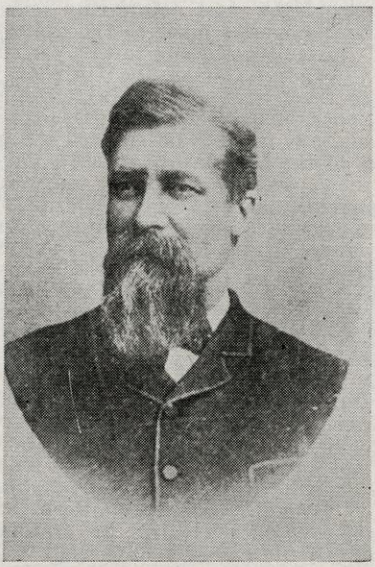
students in the college proper—a less impressive growth than that of any later period. This period is noteworthy for an improvement, more difficult to estimate, in the quality of the moral and intellectual service rendered to the student and to the state. The central college had been refined and strengthened; expansion would come in due time.

Coming of Age

The scientific development which influenced the material additions to the University toward the close of President Bascom's administration was recognized in the appointment of his successor. The new president, Thomas C. Chamberlin, a graduate of Beloit College, was a geologist of authority. He assumed the presidency in 1887 and resigned in 1892 to become head of the department of geology in the University of Chicago. During these five years distinct advances were made in the enlargement of scientific and technical instruction, in agricultural research and extension, and in inducements and facilities for graduate work. The first University fellowships were established and the University announced itself ready to confer the degree of doctor of philosophy early in the new administration (the first such degree going to Charles R. Van Hise, later to be president); the seminar method of teaching was introduced in several departments; the faculty was strengthened by the addition of several young scholars who had been trained in modern methods of research at Johns Hopkins University or in the universities of Europe. The organization, in 1892, of the School of Economics, Political Science, and History under the directorship of Dr. Richard T. Ely, marked a decisive stage of this movement.

Toward the close of President Bascom's administration there had been some agitation in the state for the removal of the agricultural department and its organization as a separate institution, and this stimulated the University authorities to a more vigorous development of this department. Immediate progress was made, and although for a number of years the long-course students continued to be few in number, some of the most noteworthy scientific discoveries made in the College of Agriculture belong to this period. The organization of the University into the four Colleges: Letters and Science, Engineering, Agriculture, and Law, which was effected by an act of the Legislature in 1889, gave a new prominence to the technical departments. The only building of importance erected during this era was the Dairy Building, Hiram Smith Hall. Two other buildings, however, provided for by the same legislature (1891), were completed shortly after the arrival of President Adams, namely the Law Building and the Armory and Gymnasium. During the five years, the number of students in the University had doubled and diversification of their pursuits had set in, not only through a wider range of studies but through the introduction of inter-collegiate rivalry in oratory and athletic games, and through the development of college journalism and other student activities. In the social life of the student as well as in the character and organization of the academic work of this period there was a marked transition from the college of former times to the modern university.

Charles Kendall Adams had won a wide reputation as professor of history at Ann Arbor and as president of Cornell University. He was president of the University of Wisconsin from 1892 to 1901. His health failed toward the end of the time, and, except for a few weeks in the autumn of 1901, the administration of the University, from 1900 to 1903, was in charge of Edward A. Birge, dean of the College of Letters and Science, as acting president. The expansion of the University during these 11 years was exceedingly rapid; the number of students nearly trebled, the instructional force more than doubled in size, and the life and organization of the University became far more varied and complex. In spite of advances in valuation of taxable property and numerous special appropriations for buildings and maintenance, the resources of the University were severely taxed to provide room for its new activities.



THOMAS C. CHAMBERLIN
1887–1892

"I conceive it to be a peculiar function of public education to foster unbiased intellectual action and to promote intellectual rectitude and those noble attributes of the mind that spring from rising above the disturbed atmosphere that envelops party and sect and clique and clan and individual."

The opening of a Law Building on the campus in 1893 was a recognition of the importance which has been attained by the oldest professional department of the University.

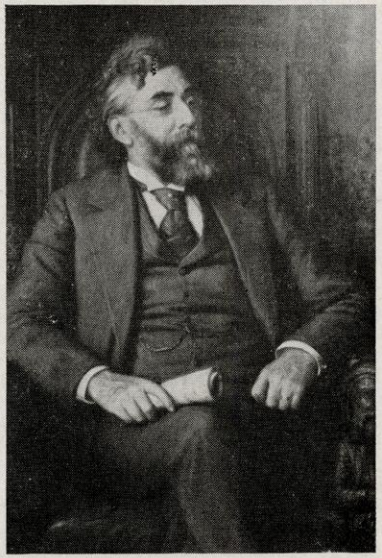
The Armory and Gymnasium was first occupied in the autumn of 1894. It was, at the time, the most ambitious building of its kind in the country. In purpose, though not in situation, it ostensibly replaced a shabby, wooden drill hall which had been burned in the spring of 1891. The attention given to its equipment as a gymnasium was due to the recently awakened interest in physical education and in athletic recreations with which President Adams heartily sympathized. The great increase of sports enthusiasm which characterized the '90's was a spontaneous student growth. In the last year of President Chamberlin's administration the Boat House had been built, largely by student subscriptions, and crew racing commenced; competitive football had begun in 1890 and track and field sports developed shortly after. About the same time (1893) a special appropriation was secured from the Legislature for the purchase of Camp Randall, of which a portion was laid out as an athletic field.

The lighter phases of University life, here touched upon, developed rapidly during the administration of President Adams, not without encouragement from the president. Ladies' Hall was renovated and increased in capacity and fitted with a gymnasium for the young women. Besides providing a drill hall and gymnasium floor of large capacity, the main room of the Armory afforded a practicable scene for musical, intellectual, and social functions on an ample scale, and a reasonable indulgence in recreations of this kind was not discouraged. The formation of the Choral Union was due directly to the personal influence of the president. It was to endow the University with facilities for appropriate musical culture that the organization of the School of Music was undertaken in 1894. The Adams house had been enlarged to receive the treasures with which the president and Mrs. Adams had surrounded themselves, and its doors were liberally opened to both faculty and students. The development of athletic recreation and of a livelier and more urbane social life in this epoch widened the appeal of the University so as to embrace a class of students, increasing as the wealth of the state increased, which had been tending to look with favor upon remoter institutions eastward. At the same time, the growing numbers and activities of the student body began to dictate the need of better plans for the regulation of their recreations. In 1897, Miss Anne C. Emery (PhD, Bryn Mawr) was appointed dean of women. Under her influence Wisconsin pioneered in developing a self-government associa-

tion of the coeds. A little earlier the faculty had found it necessary to exercise some degree of control over intercollegiate athletics, though for some years to come the management of these continued substantially in student hands.

All of the educational movements which have been mentioned as beginning under President Chamberlin continued with increasing momentum during this epoch and in addition special impetus was given to the improvement of library facilities and to the development of history and allied humanities. Research and graduate study developed to a volume and quality which warranted the forming of a Graduate School. For the work of the School of Economics, Political Science, and History the collections of the State Historical Society afforded special advantages. The prestige of the historical department was recognized by establishing in 1900 a School of History under the directorship of Professor F. J. Turner. The establishment in 1897 of a School of Education followed by the appointment in 1899 of a special inspector of high schools were necessary steps in a more formal organization of the relations of the University with the high schools of the state. More and more, too, the University became a finishing school for the graduates of the normal schools of the state; an understanding as to the terms of their admission had been arrived at in 1895–96. It was chiefly to serve the teachers of the state that a Summer School had been organized as early as 1887; it scope was much enlarged by transforming it, in 1899, into a regular Summer Session of the University, of six weeks' duration.

Education in the special applications of science to industry had been developing gradually for a long time. Just at the close of this administration it took on a new pace which first appeared in an accelerated growth of the College of Engineering. It was not until some years later that the impetus transferred itself to the full course in scientific agriculture, though, to watchful eyes, the beginnings of the latter movement were already perceptible at the turn of the century, dramatized by Prof. S. M. Babcock's in-



CHARLES K. ADAMS
1892–1901

"We cannot for a moment believe that knowledge has reached its final goal, or that the present condition of society is perfect. We must therefore welcome from our teachers such discussions as shall suggest the means and prepare the way by which knowledge may be extended, present evils be removed and others prevented. We feel that we would be unworthy the position we hold if we did not believe in progress in all departments of knowledge. In all lines of academic investigation it is of the utmost importance that the investigator should be absolutely free to follow the indications of the truth wherever they may lead. Whatever may be the limitations which trammel inquiry elsewhere, we believe that the great State University of Wisconsin should ever encourage that continual and fearless sifting and winnowing by which alone the truth can be found."

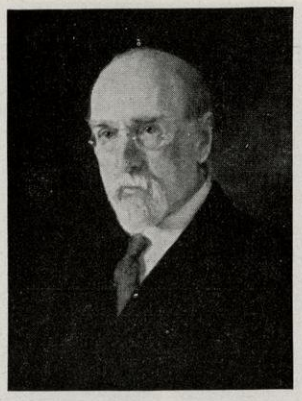
vention of the butterfat test. An analogous application of knowledge to the practical pursuits of life underlaid the last important project which received the attention of President Adams, namely, the School of Commerce, founded in 1900 under the direction of Professor W. A. Scott. This enterprise involved, if not a new principle, at least a new emphasis. It was a decisive step in the introduction of the vocational conception into the activities of the college of liberal arts.

The University was crowded toward the end of President Adams' administration. The south wing of Bascom Hall was first occupied in the autumn of 1899, and the Engineering Building a year later. In 1900, also, the library building of the State Historical Society, which had been nearly five years under construction, was made ready for occupancy. While not strictly a University building, it is like the Historical Library itself, substantially one of the resources of the University. Here for the first time the humanities were given facilities fairly comparable with those which had been provided for the natural sciences in their laboratories and apparatus. One of the last public appearances of President Adams was at the dedication of this building. It is the most impressive, as doubtless it is the most significant monument of his administration, unless that credit should go to the Regents' approval of his heroic statement that the University should ever encourage "that continual and fearless sifting and winnowing by which alone the truth may be found."

The expansion of the University continued unabated under the provisional administration of Dean Birge. The central building of the College of Agriculture was completed and the Chemical Laboratory was projected. The number of students in attendance had passed 1,000 in 1891-92; and had passed 2,000 in 1899-1900; a university of over 3,000 students greeted President Van Hise in the autumn of 1903. In five years there had been a gain of over 1,000 students. To meet the necessity of furnishing instruction to this body of students the faculty had not only been greatly increased in number; it had been much modified in character. Under President Bascom and even under President Chamberlin, it had been composed very largely of professors; now it was composed of departments, usually made up of one or two professors of full rank with a considerable number of instructors of lower rank under their direction. This was but one of many respects in which the University was increasing in complexity as well as in extent.

The "Wisconsin Idea"

President Charles R. Van Hise was the first alumnus of the University to be called to its chief executive position. Since his graduation in 1879 he had been continuously associated with the institution and had attained eminence in his chosen science of geology. The University made his installation the occasion of a commemorative celebration at the 50th anniversary of its first Commencement, June, 1904. Besides alumni, students, and friends of the University, the "Jubilee" brought together a brilliant gathering of representatives from a large number of the most important institutions of learning of this continent and of Europe and the achievements of the University were introduced as never before to the knowledge of the learned world. The medal struck for this occasion bore the inscription, "The University of Wisconsin commemorates 50 years of service to the Commonwealth." These words have become in a very special sense the keynote of the University ever since. Not only to pursue knowledge for its own sake and to widen its boundaries has been assumed to be the responsibility of the university, but to make more widely serviceable to humanity that which is already known. That is, the University has tended to throw stress upon the application of knowledge to affairs and to give as much energy to the distribution of knowledge beyond its own boundaries as is consistent with the maintenance of its efficacy as an institution of teaching and research. This tendency was evident in all the state



CHARLES R. VAN HISE
1903–1918

"I shall never rest content until the beneficent influences of the University are made available to every home in the state. . . . I hold that the state university, a university which is to serve the state, must see to it that scholarship and research of all kinds, whether or not a possible practical value can be pointed out, must be sustained. A privately endowed institution may select some part of knowledge and confine itself to it, but not so a state university. A university supported by the state for all its people, for all its sons and daughters, with their tastes and aptitudes as varied as mankind, can place no bounds upon the lines of its endeavor, else the state is the irreparable loser."

universities, but Wisconsin was nevertheless both a pioneer and an influential leader.

This *Wisconsin Idea* is typified by the history of efforts to awaken interest in the scientific practice of agriculture. "The history of agricultural schools in this country and in Europe shows that they are the most difficult to sustain," President Salamon of the Board of Regents wrote in 1867. In 1881, 14 years later, President Bascom recorded that the agricultural department was "for the first time beginning to strike root a little and promise some growth." Yet for nearly 20 years longer the work of the department was effective only in research and in its dissemination of scientific knowledge by means of bulletins, farmers' institutes, and short courses in agriculture and dairying. A full technical course in the subject was maintained; but almost no one could be induced to take it. Finally, about 1900, there set in a gradual movement toward the long course. Beginning in 1908, when the increase in engineering came to a standstill, the annual increase in agriculture accelerated until in 1914 it exceeded that in any other department of the University. The attendance upon the College in 1914–15 exactly equalled that of the entire University in the last year of President Chamberlin's regime. Even more significant was the number of graduate students in the College, which in 1914 exceeded the total number of graduate students in the entire University 20 years before.

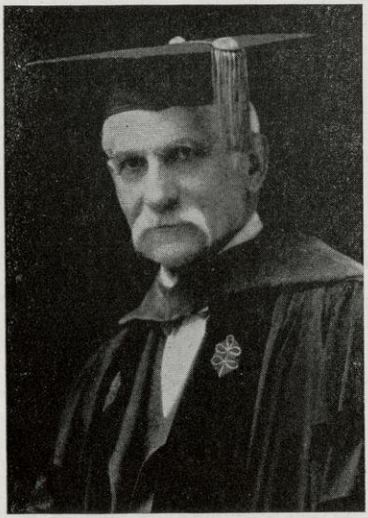
The *Idea* is typified, too, by the fact that much of the historic social legislation enacted by the state in the Progressive era was drafted in University seminars. The activity of John R. Commons, Richard T. Ely, and at least a score of other professors in this movement attracted the attention of both the educational world and progressive thought all over the nation to Wisconsin. The *Wisconsin Idea* was widely publicized, and, despite opposition both with the University and around the state, it gave the institution vitality and distinction.

Another striking feature of the progress of the University in the Van Hise period was the development of university extension. An effort in this direction began under President Chamberlin and was continued under President Adams. The older type of University extension depended for instruction almost entirely upon lectures by the regular staff of the University and, for pecuniary support, entirely upon the communities that undertook the work. It did not prove feasible, and was allowed to languish until special

means could be provided, when it was revived in a new form. This began in a small way in 1906–07. The new extension made profitable use of the experience of preceding years in the agricultural college and in part adapted to other branches of knowledge, the methods which had produced success in that department. Since 1907–08, when the present organization was begun, the Extension Division has operated upon funds appropriated expressly for this purpose. It receives expert assistance from the general staff of the University, but its work is mainly carried on by a special staff. In this movement Wisconsin was again an influence on other institutions, not only in the United States but in other countries as well.

Another movement which gained great strength during President Van Hise's administration was that in the direction of increased specialization in the various colleges, but particularly within the central College of Letters and Science. In this, the Wisconsin pattern differed from that of many other state universities, which gave greater autonomy and emphasis to the new pre-professional courses. Originally both the College of Agriculture and the College of Engineering sprang from single departments of the University, manned by a single instructor. Near the end of the administration of President Adams there came, as we have seen, the organization of the School of Commerce within the College of Letters and Science. This was soon followed by other courses organized within the College in a somewhat analogous manner; that is, by a combination of certain technical studies with a selection of studies already given in the regular curriculum, the whole leading to some particular occupation in practical life.

One of the most important so far as the central College was concerned was the course for the training of teachers, which was reorganized as a School of Education in recognition of a pronounced movement toward a more definite preparation for the profession of teaching. Another field in which a more systematic preparation came to be demanded than had been required in the past was that of journalism. These are only examples of the more ample as well as the more specific equipment that became requisite for many callings.



EDWARD A. BIRGE
1918–1925

"The most obvious duty of the state university is to meet the needs of the community for technical and professional training. . . . The second great task is the providing of courses of liberal education. . . . The third great duty lies in research and in training for research. If the state university fully recognizes these three duties and recognizes them as growing equally out of her obligations to the state, all else is matter of arrangement and of detail. If she is quick to feel and to supply the needs of the people for professional and technical instruction, broad and clear in her courses of liberal education, faithful in guiding the chosen minds of the state to fruitful research and in drawing thence the inspiration of her teaching—if she accomplish these duties, she is worthy of the name of a state university."

Through beginning to minister to these requirements, the University experienced, during the Van Hise days, a dazzling swiftness of growth. The rush toward engineering had no sooner slackened, in 1908, than the surge toward agriculture began. Then a new drift toward commerce began.

There is no room in an article of this scope for a detailed account of the material growth of the University during those years. A mere list of the buildings erected and the lands acquired would occupy pages. The period of most rapid constructional development was the five years between 1908 and 1913. The growth in attendance continued at an accelerating pace until interrupted by American entrance into World War I. There is likewise no room in this article for a delineation of the sharp conflicts, both personal and institutional, which marked the Van Hise administration.

World War I brought about a relative slowing down of University momentum. With the end of the war came the end of a great chapter in the history of the institution. The rejoicings that followed the Armistice were stilled by the announcement of the unexpected death of President Van Hise. Dr. Edward A. Birge, since 1891 dean of the College of Letters and Science and often acting president of the University, was shortly installed in the presidency.

Interregnum

Dr. Birge was to remain in the chair until mid-1925. For the University it was a slack-water period. President Birge, in the full knowledge that his was only a temporary appointment, was reluctant to commit the school to long-range policies. For the University it was also a period of being caught in the backwash of post-war socio-economic strains to which the only result could be a lessening of public support and a decline in the distinctive leadership Wisconsin had enjoyed among other universities.

The close cooperation which had marked the relationship between the two ends of State Street during the early days of the Van Hise–La Follette axis had begun to deteriorate even before 1917, and it deteriorated further when an internationalist-minded faculty signed a round-robin letter condemning the elder La Follette for his opposition to American entry into the war. The scars of this fracture were in abundant evidence under the Capitol dome in the early 1920s. Despite a surge in enrollment which carried registration past the 7,000 mark, two successive Legislatures were disinclined either to increase the University's operating budget or to provide for new buildings.

President Birge fell heir to untimely criticism from diverse quarters. The student Social Science Club attacked him for his refusal to grant the use of a University hall for a public address by Scott Nearing, famous Socialist of his day. An alumnus attacked him for his "un-Christian" attitude on evolution. A prominent assemblyman criticized expensive social functions on the campus. A Milwaukee temperance league charged that the student body was engaging in excessive drinking. And even the governor of the state complained publicly that the number of faculty members had been increasing far more rapidly than the number of students.

These controversies were but forerunners of the stresses which were to mark University history during the coming decade. They inclined to place in the shadow the University's continued progress in the *Wisconsin Idea* tradition, exemplified by the opening of the State of Wisconsin General Hospital.

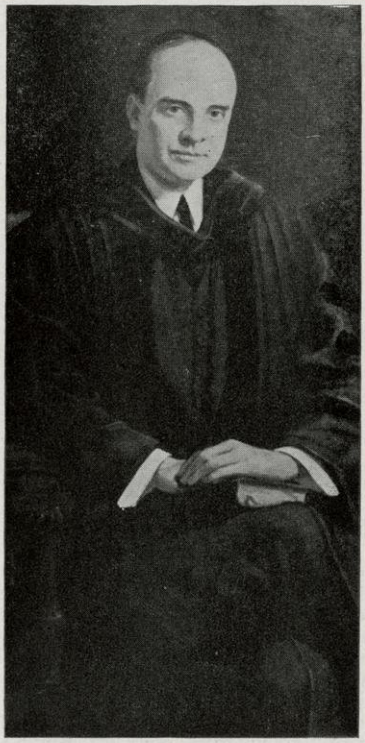
By January, 1925, matters reached a stage which Theodore Kronshage, Jr., president of the Regents, could only call "an emergency the like of which has not confronted the University since the far-off days of the Civil War." Birge had asked for a sizeable increase in the University operating budget and a building fund of $3,000,000, pointing out that the state had expended no money for academic buildings since Sterling Hall had been erected in 1913. The State Board of Public Affairs elected instead to cut the University appropriation by $300,000 and recommended a building fund of only some $591,000.

In the face of this critical situation, the University mustered popular support such as had not been recruited since the turn of the century. Faculty, students, Regents, alumni, and friends pitched in. President George I. Haight of the Wisconsin Alumni Association published at his own expense a booklet which carried broadside around the state the message that "if financial measures now before the Legislature are enacted into law, they will not only prevent the development of the University, but they will cripple it beyond all recognition." A Janesville superintendent of schools, Frank O. Holt, who was later to serve the University as registrar, dean of the Extension Division, and director of public service, presented the University's requests to the Legislature. In the middle of the fight the Board of Regents annonunced that it had finally picked a new University president, Glenn Frank, the young editor of *Century* Magazine.

Almost over night in the Spring of 1925 the University grass turned green. The Legislature appropriated a respectable, though still inadequate, operating budget and a $1,500,000 building fund. Dr. Frank arrived. Prof. Harry Steenbock announced from a biochemistry laboratory that he had discovered a way to irradiate foodstuffs artificially with vitamin D, spelling the end of rickets. The University granted, 1,870 diplomas to its largest graduating class. Ground was broken for two new men's dormitories, Tripp and Adams Halls, and for the Memorial Union Building, after long campaigns for each project. And 1,000 concrete seats were being added at Camp Randall Stadium. Little wonder that the editor of the *Wisconsin Alumni Magazine* proclaimed with confidence that "Wisconsin's golden age is here!"

Frank and Depression

The first five years of Dr. Frank's regime were verily to seem a gilded era. Indeed, the University could hardly have escaped sharing in the halcyon prosperity of the time. Whatever he may have lacked as an administrator, President Frank came to 157 Bascom bursting with ideas. He was not long in trying them out. By June of 1926 he was attracting national attention with a Baccalaureate address on "The Six Lamps of Liberal Learning." By



GLENN FRANK
1925–1937

"The educator must be more than a teacher of accumulated knowledge. He must be keenly alive to the character and demands of his time; for today the street cuts squarely across the campus, the classroom opens into the market place, and the slum is next door to the seminary. The university is an anachronism that puts its graduates into the modern world with the information and outlook of the medieval world."

October of 1926 he set up an "all-university" extension system headed by Chester D. Snell. By December of 1926 he had rescued Alexander Meiklejohn from Amherst and commissioned him to set up an experimental college. By January of 1927 he had asked for a whopping budget by declaring that "I am willing to make a sporting proposition to the people of Wisconsin"—and got it. By June of 1927 he was entertaining Baron Ago von Maltzan, the German ambassador, the first of many distinguished Frank guests. By September of 1927 he was welcoming a record registration of nearly 9,000 students. By October of 1927 he was dedicating a sizeable addition to Bascom Hall, including a theater and a reading room. By January of 1928 he was writing *Thunder and Dawn*. By December of 1928 he had helped the Phi Gamma Delta boys housewarm their new $90,000 mansion, one of many fraternity and sorority houses to go up along the Langdon Street "gold coast." By June of 1930 he had encouraged a liberalization of the Letters and Science curriculum. By October of 1930 he had trimmed the powers of his deans of men and women, following a series of incidents in which Prof. William Ellery Leonard had accused Scott H. Goodnight of "snooping tactics." By November of 1930 he had called for a revival of responsible student government.

But Glenn Frank was not to be allowed to play out his University career in an era of sweetness and light. Three factors were to operate to make his final six years in office as strongly marked by controversy as his opening five-year honeymoon was with calm. They were the onset of the depression, a relative decline in the confidence which the University family was able to place in the man personally, and political turmoil within the state.

University enrollment had increased steadily since World War I, but in September of 1930 came a falling off which the registrar attributed to "the general business and industrial depression." This brought a decrease in student fee income which was not to be reversed until the New Deal funnelled FERA and NYA funds into the campus for student part-time jobs and sent the 1935 enrollment back up to over 9,000 again.

Not only did the student body grow smaller, it grew more critical. It took a new interest in the economic system that had led 76 out of 91 fraternities into bankruptcy. It inveighed against the status quo. And Dr. Frank was a part of that status quo.

The depression brought a sharp decline in University appropriations from the state. A system of salary waivers was instituted which reduced faculty pay checks from 3 to 13 per cent. President Frank was reluctant to pare his own. The University Teachers Union criticized the Frank "key man" policy by which "a few eminent men are retained at salaries the University cannot afford," resulting in a "a tendency to starve the whole University to keep a few stars."

A combination of the tenor of the times and Dr. Frank's own vacillations in administration produced during this period a series of campus thunderstorms which followed each other in breathless succession and which were finally to be "trumped up," as Dr. Frank put it, into a "tempest of hysteria" which was to blow him out of office in January of 1937.

Criticisms, charges, investigations, threats, and muckraking came from all sides. So early as 1928 the liberals had jumped on Frank for his barring the use of a University auditorium to Dora Russell. They cried again when he sided with the Regents who in 1930 revoked a Board ruling prohibiting the acceptance by the University of subsidies from incorporated educational foundations.

The conservatives looked askance at Frank's authorization of Prof. Max Otto's "atheistic" philosophy courses, his espousal of the National Mooney–Billings Committee and the Victor L. Berger Foundation, and his failure to censor the *Daily Cardinal* when it printed a communication which scoffed at the idea that free sexual relations among students were necessarily bad.

There was the John B. Chapple charge that Dr. Frank was a "Red."

There was the *Capital Times* complaint that "education is being corrupted by the eternal quest of University presidents and regents for big endowments and bequests from those who have the money." Free love, football, liquor, fraternity hazing, administration, the Memorial Union, the dormitories, and a dozen other phases of college life came in for goings-over. There were minor tempests like Prof. F. H. Elwell's disagreement with Rev. Alfred W. Swan over the campus minister's liberalism. And there were major ones like the firing of Football Coach Clarence Spears and Athletic Director Walter Meanwell (who disagreed about who should run the show), and Trainer William Fallon (who reportedly gave the team blackberry brandy between halves).

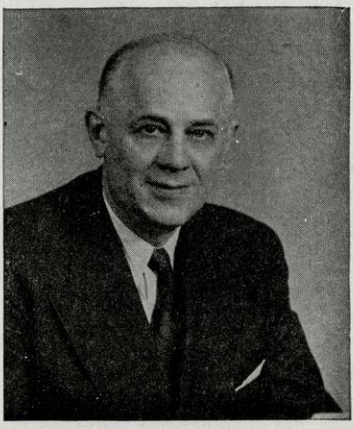
Frank labeled the whole series of controversies "nagging criticism by a band of connivers and a few newspapers." But it was more than that. It was an almost complete breakdown of public confidence in the integrity of the institution which had been so painstakingly built up 20 and 30 years before. As the *Wisconsin Journal of Education* put it: "During these years when the University is kicked and pummelled there is nothing with the remotest resemblance to organized protection or expression of faith."

Philip F. La Follette, in his inaugural address as governor in 1931, had made official the schism when he declared that "we cannot afford increasingly large expenditures with increasingly diminishing returns."

Six years later Frank was summarily called before a meeting of the Regents, charged with mismanagement of finances, weak execution of administrative affairs, failure to devote sufficient time to the University, and lack of backing from those with whom he had to deal. He was dismissed by a vote of 8 to 7. By May his successor was on the campus—Clarence A. Dykstra, city manager of Cincinnati.

World War II

Dykstra set about mending the University fences which alumnus Richard Lloyd Jones said were "as full of holes as a Swiss cheese." He had several sound posts with which to work. All the fury of Dr. Frank's latter days had somewhat obscured the fact that the University had continued to make progress, at least so far as progress can be measured by national boards and rating sheets. H. G. Wells had recently labeled Wisconsin "one of the great institutions of learning in the United States." The *Atlantic Monthly* had just rated Wisconsin 10th nationally among colleges and universities, although admitting that "it has lost some of the distinction it held during the great days of Van Hise." And an educational board had given



CLARENCE A. DYKSTRA
1937–1945

"We must safeguard and defend the inescapable implications of the democratic way. We must realize that our choice is not between liberty and safety; that the time does not come when freedom becomes an outworn shibboleth to be cast aside as a luxury with which we can dispense; that liberty is rather a weapon to be used than just a theory to be defended; that we defend freedom by using it, and that it is as important to have democracy fight for the country as to have the country fight for democracy."

approval to 31 Wisconsin departments, a record exceeded by no other American university.

Dykstra also set about to do some building. He managed to get federal money for more dormitories and for a Wisconsin Union Theater, but Wisconsin was still far, far down the roster of American colleges in its number of PWA-financed buildings.

Dykstra, already experienced at politics, patched University relations under the capitol dome. When Republican Governor Julius Heil had unseated Philip La Follette in 1938 he declared, in reference to the University, that "something is smouldering somewhere and I'm going to clean it up. I'm going to cut out this cancerous growth or kill the patient." But after he had wiped out the old Board of Regents and replaced it with nine men of his own choice, Governor Heil said no more about budget cuts and campus Communists.

Dykstra also cultivated his students and "big Dyke" and his wife became familiar and popular figures at undergraduate affairs.

But President Dykstra, like his predecessor, was not to be accorded a tranquil tenure. Almost from the moment he took office, even though the sun was shining in Madison again, there could be seen on the horizon, as he put it, "the violent lightning flashes of approaching storm." So early as 1938, Wisconsin physicists were fussing around in the basement of the Chemistry Building with something called an electrostatic generator, a machine which was later to be shipped to Los Alamos, New Mexico, and play a role in the development of the atomic bomb. By the fall of 1940 the national defense program was making big inroads in the hospital, physics, chemistry, and engineering staffs. President Dykstra himself was borrowed by Washington to serve as civilian chairman of the draft and then as a member of the national defense mediation board. He returned to the campus in November of 1941 to find his faculty riddled by the loss of over 100 scientists and technicians. The student body, likewise, was evaporating.

As it did on all campuses, war came to the University with breathtaking suddenness on the afternoon of Dec. 7, 1941. Probably no single event in the history of the institution had such an immediate and such a far-reaching effect.

Instead of hibernating, the University accelerated its tempo. The normal enrollment went down, but the total registration went up, due to 1,200 sailors and 480 WAVES in a Navy radio school. Some 200 AAF mechanics were also in training. The Army set up its correspondence institute in Madison. The University went into a year-round calendar, created an Emergency Inventions Development Council. The ROTC, which had become compulsory in 1941 after being voluntary since 1923, had an enrollment of 2,500 cadets. Enlistment programs, civilian pilot training, special research, a cooks and bakers school, war bond drives, civilian defense organizations, home nursing, a student War Council, scrap drives, blood donations, free publications to men in the Armed Forces, and other projects marked the war years. They all helped to build the prestige of the University to the point where the 1945 Legislature not only granted a thumping operating budget but also an $8,000,000 building fund. And they also helped to give purpose to a student body which five years before had been at odds and ends.

The close of World War II, as did the end of World War I, corresponded with a change in University command. Dr. Dykstra resigned to become provost of the University of California at Los Angeles, and his title passed to Edwin Broun Fred, who had been on the campus since 1913 as bacteriology professor, dean of the Graduate School and dean of the College of Agriculture.

Fred and the Future

Dr. Fred's first three years have seen the University cope with the staggering problem of an enrollment bulge of 23,500 students. They were housed in trailer camps, army barracks, an ordnance plant village 35 miles away, and a new men's dormitory. They were taught in

Quonset huts and more barracks. They were handled by an increased faculty. They were financed by a biennial state appropriation of $18,236,100. They were accommodated not only at Madison but at over 20 extension centers around the state.

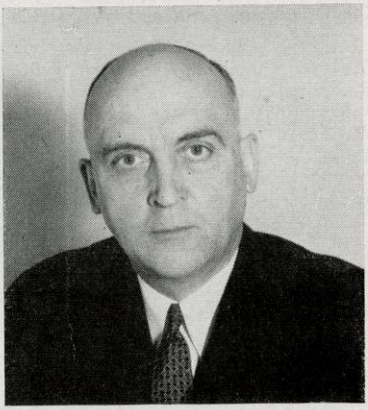
By September of 1948 the bulge in enrollment had tapered down but the sense of educational urgency in an atomic world had not.

University of Wisconsin life today is typical of the three great 20th century trends which have come to mark the institution.

The first is the teaching of an ever-increasing number of students on a budget which the University maintains is not sufficient for maximum effectiveness and in a physical plant which is grossly over-crowded and out-moded.

The total University enrollment passed 5,000, as we have seen, before the United States entered World War I. It dropped about a thousand during the war but immediately afterwards reached 7,000. Within a decade enrollment exceeded 10,000 and although that number was reduced during the early days of the Depression it rose again in the late 1930s. By the time the United States entered the second World War, over 12,000 students were registered at the University. After World War II enrollment again rose rapidly, stimulated by some 12,000 veterans returning under federal subsidies. The University was called upon in 1947 to provide instruction for a student body almost twice as large as it had ever had before. Indeed, in 1948 the number of degrees granted by the University exceeded the total enrollment in the institution only 40 years earlier.

When President Van Hise assumed office in 1903 the University had outgrown its physical plant. In the years that followed, Van Hise worked successfully to win from the state funds sufficient to build needed classrooms, laboratories, and other University facilities. But the period of rapid expansion of the University plant came to a close in 1914. The state has been slow to take up again the responsibility for providing sufficient permanent classrooms, laboratories, and other facilities for re-



EDWIN BROUN FRED
1945–

"We stand at the threshold of a new era in American education. We are beginning what some observers call 'America's cultural renaissance.' More and more people are using the services of the University. What then are the responsibilities of the Universtiy? I think that the responsibilities are mainly two. The first responsibility is to teach. The second responsibility is to learn. To teach means to participate in the building of excellent citizens—citizens who are competent to do their share of the world's work; who are understanding and tolerant of people who may differ from themselves; who appreciate the beauty of the universe; who have respect for the dignity of man and some vision of his possibilities. And if the University is to teach effectively, it must continue to learn. It must keep on learning how to unlock the mysteries of disease; it must delve for the answers to problems of superstition and prejudice; it must search for the keys to understandings between economic and political groups."

search and instruction. Major construction activities since 1919 have included the Wisconsin General Hospital, the Mechanical Engineering Building, the Biochemistry Building, the student dormitories, the Memorial Union, the Field House, and a new faculty apartment project. Of these, only the ME and biochem buildings, 1929 projects, were state financed. Practically no extra additional space has been provided for the College of Letters and Science. The University Library has become perhaps the most overcrowded of any part of the University. It shares with the State Historical Society a building which was completed in 1900. In 1908 Van Hise had declared that the building was already inadequate. In the enrichment of its holdings it failed to keep pace with neighboring institutions. In 1948, professional librarians voted it 24th among American college libraries.

Today the University has a building kitty of some $8,000,000, but inflated costs have rendered this usable for only a relatively small number of structures. Only an $80,000,000 budget will bring the Wisconsin physical plant up to par with the needs of the state and the pace of other universities.

The second great University trend is the emphasis on research. So early as 1890, when Dr. Stephen M. Babcock announced his butter-fat test, the University had begun to think of its laboratories as places of production rather than of mere teaching. Today thousands of research projects are carried on annually, and within the past five years the Wisconsin contributions include immensely valuable new strains of oats, wheat, and tomatoes, a cheaper means of producing penicillin, a bullet detector, biological warfare techniques, basic atomic research, nitrogen fixation developments, synthetic rubber production methods, and many others. In 1940 the University granted 150 doctorates, third largest number of any American university that year.

Since 1883 the state has subsidized research in the College of Agriculture and since 1917 in the College of Letters and Science, but the real reason for Wisconsin's worldwide leadership in many fields of bio-scientific inquiry has been the funds supplied by the Wisconsin Alumni Research Foundation.

The Foundation was set up in 1925 to handle patents on the Steenbock process of vitamin D irradiation. Since 1928 it has turned over to a faculty research committee a total of $3,889,919 and is now prepared to endow University research in the natural sciences to the extent of at least $400,000 a year. During the depression years, particularly, it was emergency WARF grants which held the Wisconsin research program together. Besides grants-in-aid, the WARF provides for scholars and fellows, full-time professorial summer research, lectureships and symposia, a department of wildlife management, a University press, a new enzyme institute, a Slichter professorship, and a 150-family faculty apartment project.

The third great trend influencing University life in the 20th century has been the concept of public service, the *Wisconsin Idea* that knowledge of all kinds is to be extended to the very boundaries of the state.

A radio education program, for instance, has grown directly out of the experiments conducted by Prof. Earle M. Terry of the physics department in wireless telephonic transmission. In 1919 the first clear voice transmission was made and the next year the broadcasting of weather bureau reports was begun. Station WHA and its School of the Air are products of these early experiments and have maintained high standards in radio education.

University extension work has continued to flourish through the efforts of many of the staff to maintain and improve the standards of correspondence work, continued effectiveness of agricultural extension work, the success of the Milwaukee Extension Center, and of the circuit classrooms in other cities. Two innovations of the Wisconsin extension program, each relating to citizenship training, cut new paths. In 1932 Dean Chris L. Christensen, impressed by the comprehensive scope and success of the Danish Folk School in training rural leaders and in enriching rural life, reorganized the Short Course at the College of Agriculture. The young farmers

were now housed together, rather than being left largely to shift for themselves. Community living was considered a new type of training in citizenship. This emphasis also found expression in 1938 in the launching in Manitowoc County of a roundtable group for the study of public administration. The Legislature has since made an annual citizenship program mandatory for each of the 71 counties.

In one extension innovation Wisconsin was indeed unique among American state universities. In 1925 new ground was broken when a summer school for workers was launched to provide needed education for the wage earners of the state. In addition to the summer courses the school conducted an extension program in industrial centers through the year. In time Michigan, Illinois, Cornell, and Harvard followed the Wisconsin example in devising programs for industrial workers which offered both training in union techniques and leadership and education for a deeper understanding of economic issues.

Important, too, has been the way in which the University has lifted to new levels the traditional concept of service to the state in the esthetic sphere, long neglected for what many deemed an over-emphasis on practical affairs. In 1936, thanks to the generosity of the Thomas E. Brittingham estate, John Steuart Curry, a leading regionalist, was made artist-in-residence. This was the first appointment of its kind in an American university. In addition to painting murals for the new Law School Library and the Biochemistry Building, Curry stimulated many amateur painters all over the state to find increased pride and pleasure in their work. Also striking was the coming of the Pro Arte Quartet, again made possible by outside support.

Through the years the University of Wisconsin has been the recipient of many tributes from observers of national and international repute.

President Eliot of Harvard was among the first to recognize Wisconsin's educational leadership. In 1908, in conferring an honorary degree upon President Van Hise, he gave the University the title of "the leading state university of the nation."

From Abraham Flexner of the Carnegie Foundation: "Wisconsin is fortunate beyond almost all other states in the concentration of its higher institutions of learning."

From Lincoln Steffens: "The University of Wisconsin is a highly conscious lobe of the common community mind of the state and of the people of Wisconsin."

In recent years the *Saturday Evening Post* has lauded Wisconsin as a University whose function it is "not only to disseminate knowledge but through research to acquire new knowledge and to see that it finds a place in the lives of the people."

And just this Fall, an article in *Look* Magazine, headlined "University of Wisconsin an influential state university . . . famous for academic freedom and its beautiful campus," declared that "the ratio of work to marble is higher at Wisconsin than at any other university."

What is the measure of the University of Wisconsin on the occasion of its 100th birthday?

It is clear that in its Centennial year the institution faces tasks comparable in difficulty with those that confronted the pioneers.

There is the physical task of educating 20,000 students in a plant designed to accommodate half that many and under a budget inadequate to finance a superior job.

There is the moral task of bringing to all the citizens of Wisconsin education for a fuller realization of democracy in every phase of living, education directly for international understanding, and education for the application of creative imagination and trained intelligence to the solution of social problems and to the administration of public affairs.

Meantime there are the assets of a hundred years of experience and tradition and spirit.

There is abundant campus experience in making ends meet in cramped quarters. There is a vibrant tradition of profound economic, social, and scientific thought. And there is an unquenchable spirit of untrammeled inquiry and unselfish devotion to the public weal.