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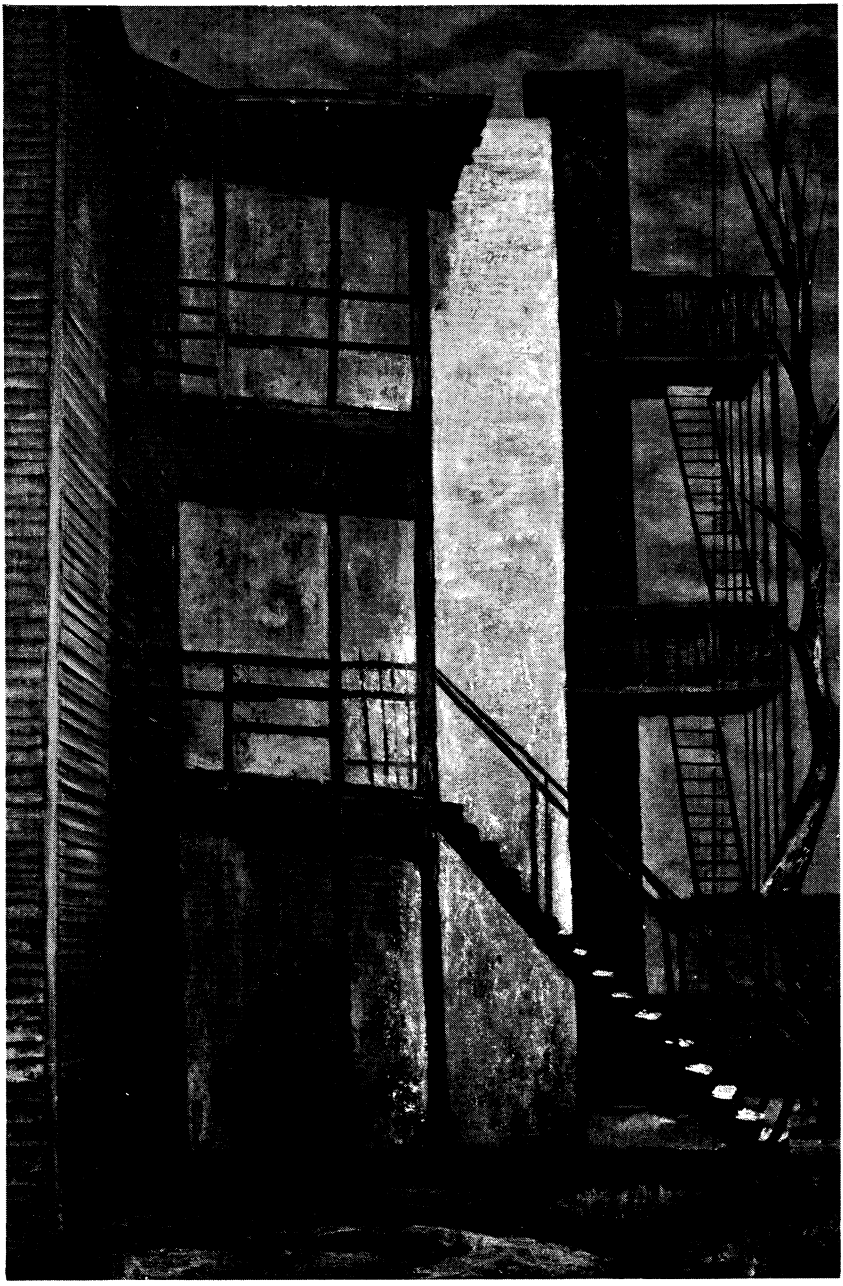
WISCONSIN ACADEMY REVIEW



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Vol. 2 Winter, 1955 No. 1

CONTENTS

WISCONSIN ACADEMY REVIEW

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THE INAUGURATION OF PRESIDENT UPTON AT BELOIT COLLEGE

By Paul W. Boutwell
Chemistry Dept., Beloit College

"No man could be offered a greater opportunity for personal satisfaction and a greater challenge for social service than I have been granted by your investing me with the powers of the Presidency of Beloit College," said President Upton on Friday, October 29, when he was formally inaugurated as the sixth President of Beloit College. The colorful ceremonies appropriately took place in the rebuilt Edward Dwight Eaton Chapel, named for the second President of the College. The exercises marked the first use of the structure which was completed just in time for the inauguration following the destructive fire of nearly a year ago.

Professor R. RONALD PALMER, chairman of the Department of Physics and Secretary of the Faculty, headed the faculty committee in charge of the day's program. Following a noon luncheon for visitors and delegates, representatives of some 220 other institutions of learning and of 26 national professional, learned, and religious organizations, all in full academic attire, marched in the inaugural procession. The Faculty, the Board of Trustees, the Alumni Council, and the Student Senate also marched. Included in the procession were the presidents of 23 universities and colleges.

The services were opened with the invocation by the Dean of the Chapel, ADAM D. BEITTEL, and closed with the benediction by the Chaplain emeritus, Rev. WILFRED A. ROWELL '99. Music was furnished by the College choir of 75 voices led by Professor SUMNER A. JACKSON. The Chapel was decorated for the occasion according to a plan worked out and executed by CLARK FITZ-GERALD and FRANKLIN BOGGS of the Art Department.

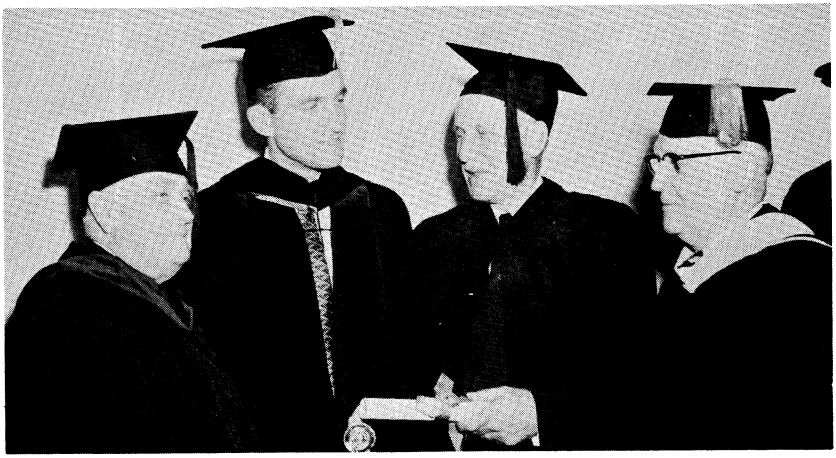
President ERNEST A. JOHNSON of Lake Forest College presented the new president to HOLMAN D. PETTIBONE, Chairman of the Board of Trustees, who formally invested him as president by presenting him with a copy of the Charter of the College, granted February 2, 1846. This was followed by President Upton's inaugural address and by greetings to the new President from JOEL P. SMITH, president of the Associated Students; EDWARD L. COMPERE of the Board of Trustees and Chairman of the Committee of the Trustees which selected Dr. Upton; ARTHUR R. CURTIS,

president of the Alumni Association; ARCH D. TELFER, City Manager of Beloit; EDWIN BROUN FRED, President of the University of Wisconsin, speaking for the institutions of the State; Hon. ALEXANDER WILEY, Senator, for the people of Wisconsin. An audience of over 1200 filled the new Chapel. Following the inauguration, President and Mrs. Upton were welcomed at a reception in the Art Hall which was attended by several hundred friends and visiting delegates.

In his inaugural address, President Upton said in part, " . . . The nature of the education that should be represented at Beloit and its type of college, therefore, seems to me to be best described by the statement, 'an undergraduate liberal education' rather than, 'a liberal arts education'. This change takes away the emphasis from particular content per se and places it on purpose and accomplishment. In other words, I believe that our goal must be a liberal education of the individual student, but such must be judged not by what it is but by what it does. An education is not liberal simply on the grounds that the curriculum includes portions of literature, classics, philosophy, and so on, but rather that these and other courses can be supported, if they can, as contributing to the liberalizing of the student's intellect. A liberal education is the responsibility of the whole college and not particular departments or particular courses therein. In like manner, the liberal character of the education is governed by the methods of instruction and by the general atmosphere that prevails, as well as by subject content.

" . . . In short, does the education have as its prime objective the development of the individual intellect to the point that the student is enabled to become a responsible and secure person, free in thought, free in attitudes, and free in day-to-day living. . . . As the President of your College I see my fundamental responsibilities as those of taking the lead in defining the goals and in establishing that administrative organization and atmosphere which will achieve the fullest and most meaningful participation of the strategic segments of the College in the realization of the goals. I am not here to provide the answers as such, but to establish the climate and the means by which we can expect the best answers to be determined.

"There is, however, one personal conviction that has bearing on this whole point. I am sure that the type of education I have described is best accomplished under small-scale operating conditions. Relative smallness in size does not assure a quality educational product, but it offers a greater opportunity for success



Pictured at inauguration ceremony are U.S. Senator ALEXANDER WILEY, President MILLER UPTON, HOLMAN D. PETTIBONE, chairman of Beloit's board of trustees, and President EDWIN B. FRED of the University of Wisconsin. Both President Fred and Senator Wiley were among speakers at inauguration ceremony October 29, 1954 in Beloit's new chapel.

along this line. The potential still has to be implemented by a strong faculty, good facilities, and wise administrative leadership, all of which require adequate financial backing. Given reasonable resources of this sort, the greater intimacy of the small campus, its more constant educational environment, the greater opportunity for personal student attention from the top executive officers down, and the greater opportunity for welding all elements of the College into a cooperative undertaking with a unified objective, all combine to make the small college the natural setting for a truly distinctive undergraduate liberal education. I can assure you that so long as I am President of Beloit College it shall remain small in size."

In bringing the greetings of the Faculty, Professor HUFFER, its ranking member, declared, "We want to extend an invitation - to bring to us your dreams, your hopes, and your ideals. We urge you to build these into a program; a thirty-year plan for this college. We hope you will outline this plan to us and ask for our help in making it live."

President Fred of the University of Wisconsin, in speaking for the institutions of the State, said in part,

"The preservation of our American way of life, our freedoms, and our opportunities rests to a large extent on how well our educational institutions cooperate in our joint effort to improve our state, our nation, and the world in which we live. It rests firmly upon how well we fulfill the purpose of higher education stated by Beloit's first president - upon how successfully each institution 'sends out its classes of minds developed in symmetry and trained to think and reason, to judge and to act truthfully, in all the posts of influence and honor'."

Senator Alexander Wiley commended President Upton for his "understanding, courage, and dedication to the great purpose of becoming a leader of young minds. I wish you the great joy that comes from training young minds so that they will become servants of this republic and of God. Wisconsin welcomes you, and," introducing a touch of humor which gave the audience a chuckle, "I'll personally welcome you into the Republican party."

Thus, with the inauguration of President Upton, a new era has begun in the 108-year history of Beloit College.

# # #

RESEARCH IN THE MARATHON CORPORATION

By Allen Abrams, Vice-President
Marathon Corporation

From the company's founding in 1909 the management of Marathon Corporation has accented the importance of research. In 1919 the manager, D. C. EVEREST, said, "It is safe to say that only those organizations where the program of research was definite have succeeded in placing the manufacture of their products upon a sound basis, and are now able to take full advantage of their foresight."

In 1926 the research activities were centralized at Rothschild and in 1927 a long-term study was begun on spent cooking liquor, the plague of the sulfite pulp industry. At about the same time Marathon's interest was shifting from the manufacture of plain paper and paperboard to converted products intended for food packaging. This change necessitated basic studies in the fields of sanitation, strength properties, printing and thermoplastic coatings. Out of this research came new wrapping and packaging materials designed to protect

foodstuffs and deliver them to the consumer in as near the original condition as feasible. These packages have had much to do with the modern methods of distributing foodstuffs through supermarkets.

In 1949 a modern Central Research Laboratory was constructed at Rothschild. The building is air-conditioned, equipped with essential services, and it houses laboratories, pilot plants and auxiliary facilities. The structure is pleasing to the eye but, more important, it is functional and utilitarian. Here Marathon has assembled a staff of men and women experienced in the investigation of problems related to the company's business. Their creativity constitutes the most important factor in the research program.

Basic to the company's whole business is its principal raw material - wood. Because of changing forest conditions, the Research Department has investigated the utilization of new species of wood, with the required changes in pulping processes. New types of paper and paperboard packages have revolutionized the marketing of natural and process cheese; have helped to develop the frozen food industry; have created improved methods for distributing meats, baked goods and dairy products.

From the sulfite liquor, formerly discharged into the river, research has recovered the wood lignin and has turned it into a variety of useful products. Deep oil wells in Texas are drilled with the aid of lignin chemicals; millions of shoes contain leather prepared with lignin tans; locomotive and stationary boilers operate on water treated with lignin compounds; modern methods of combining carbon black and rubber latex are

Central Research Laboratory, Marathon Corporation

dependent on the use of lignin dispersants; more than one-half of the vanillin flavoring material used in the United States is prepared from Marathon lignin.

The whole structure of the Marathon Corporation is integrated to carry an idea through from its inception in the Research Department on to the finished product. With the food industry as its principal field the company endeavors through research to maintain a leading position in the delivery of better foods to the housewife, through better packaging.

# # #

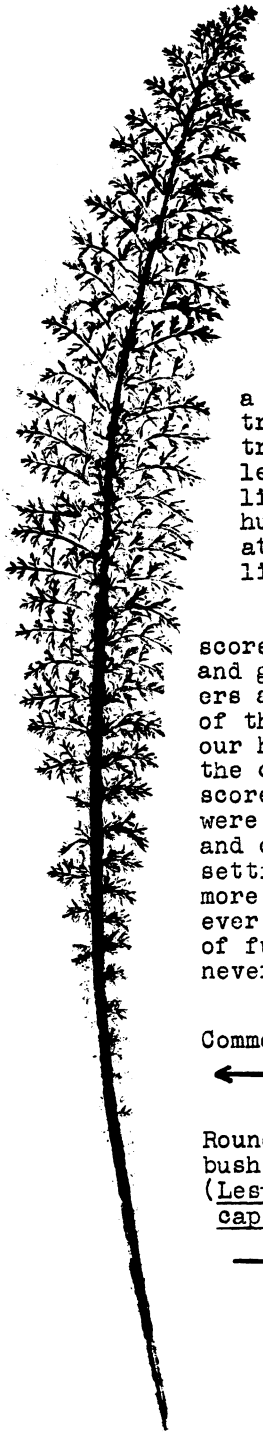
BOTANIZING IN THE COULEE REGION

By Alvin M. Peterson
Onalaska, Wisconsin

That's an impressive title and a colossal order for a brief article, but let's put it this way.

Our first botanizing in the Coulee Region was devoted to learning something about the summer and autumn flowers of the area--where they grow, when they bloom, and securing some black and white photographs. Most of our time and effort was spent at the heart of the region, in La Crosse and Trempealeau Counties mainly, though sometimes we went as far as Wyalusing State Park, Wildcat Mountain and Black River Falls. We inspected and explored all sorts of odd outdoor nooks and corners, traveled hundreds (if not thousands) of miles, and found a good many plants that were new to us. However, we really made slow progress until we set out to keep a wild-flower calendar and secure leaf prints of every plant we could find. Now we had definite objectives and began to dig and scratch with all our might. Every free day found us exploring some likely area, now around Cataract, now in the river bottoms near North Bend, again at Galesville, or at French Island, Chipmunk Coulee, Garbers Coulee, Goose Island, or Grandad Bluff.

At Perrot State Park we found the showy orchis, Kentucky coffee-tree, red-berried elder, cut-leaved, leathery and ternate grape ferns, fern-leaved false foxglove, and jewelled shooting star, to mention only a few; at Black River Falls, the dwarf ginseng, moccasin flower, partridge-berry, pipsissewa, grass pink orchid, bristly sarsaparilla, shrubby St. Johnswort, and winterberry.



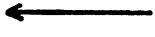
In the McGilvray Bottoms were the midland isopyrum, burning-bush, small green orchis, turtlehead, and bottle gentian; at North Onalaska, the sleepy catchfly, wild liquorice (Glycyrrhiza lepidota), butterfly-weed, prairie larkspur, halberd-leaved rose mallow, pentstemon (p. gracilis), smaller skullcap, and water star-grass; and at Grandad Bluff, the upland white aster, Seneca snakeroot, stiff gentian, downy gentian, zygadenus, scaly gayfeather, Canada milk vetch, showy orchis, compass plant, and ladies' tresses.

We often made long journeys in quest of a new plant or two, and if we found one, the trip was a grand success. Sometimes we traveled many miles to get a new leaf for a leaf print, said leafprint being surprisingly like the fingerprints made of the fingers of human beings, since they enable one to arrive at the identification of many plants with little additional information.

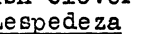
All this was great fun and accounted for scores of days spent each year in the outdoors and gave us leaf prints of about 500 wild flowers and almost all the ferns, shrubs and trees of the region. Eventually, we decided to try our hand at color photography, with wild flowers the chief subjects, a task that sent us back to scores of places previously visited. Now, we were especially interested in attractive clumps and clusters of beautiful wild flowers in lovely settings and discovered that there was a lot more color in our town right around us than we ever before had realized. All this proved lots of fun and gave us an exciting final year we'll never forget.

# # #

Common yarrow



Round-headed bush clover (Lespedeza capitata)



Professor Hammer explaining problem to assistants

THE NUMERICAL ANALYSIS LABORATORY

By Preston C. Hammer
Director, Numerical Analysis Laboratory, U.W.

Are you trying to design a hydrofoil boat? Do you want to keep records of fish catches on various lakes? Are you interested in an analysis of altruism? Do you want to keep a summary of experiments in genetics? Do you want to find out what happens when a flame ignites? Have you a method for forecasting the weather or the stockmarket? Do you want to analyze drop-size distributions in sprays or the word-distribution in Shakespeare's plays? Would you like a bridge hand dealt without bias? Would you like a random placing of shrubs on your lawn? Have you a theory of star metabolism?

If the answer to any of the above questions, or of hundreds like them, is yes, it is almost certain that the services of the University of Wisconsin's Numerical Analysis Laboratory would prove useful.

The Numerical Analysis Laboratory is a division of the University's Mathematics Department. It provides for the University faculty and graduate students one of the best university services in information handling, computing, and numerical analysis. Supported by research funds budgeted by the College of Letters and Science and the Graduate School, the Laboratory has modern electronic computing machines and a staff to help University faculty members with their research problems. It also serves as a training place for about sixty people a year. At present the machine unit of the Laboratory has mostly punched card equipment. The two Card Programmed Calculators (C.P.C.) are the most expensive (rental $1650 per month each) and the most effective on problems requiring

heavy calculating. Each one is equivalent to one hundred automatic desk calculators in the hands of as many good operators on some problems. Yet these electronic calculators are easier to learn to use efficiently than slide-rules or desk calculators.

True enough, the Numerical Analysis Laboratory has experts to wire plug-boards and do trouble-shooting, but the user of the C.P.C. is blissfully unaware of this complexity. In other problems, the sorters, the tabulator and the slow 602A calculator are more effective than the C.P.C.'s. Nor has the desk calculator been replaced in many problems. The Laboratory also does statistical calculations of certain kinds by desk calculator. A simple criterion for mechanization of a record or of a calculation is that each unit of the record or each number must in some sense be used repeatedly, in order that the cost of transcribing not exceed the cost of doing the problem by other methods.

Those outside the University community may avail themselves of these services, provided their project is approved by the Faculty Computing Committee, and usually this means that the proposers will pay the cost rates charged. Wisconsin industries and state departments trying computing equipment for effectiveness or those having a rather small volume of research calculations have availed themselves of this opportunity.

Education in the field of numerical analysis is being emphasized. The Mathematics Department gives a Masters degree in numerical analysis and a PhD in applied mathematics with thesis work in numerical methods. The demand for these trained people exceeds the supply, and this is reflected in the variety and salaries of positions open. One M.S. student first chose the part of the country she wished to live in and was offered several jobs there! The Electrical Engineering Department has courses in analogue computation and machine design. It is also building an electronic calculator (WISC) for use in the Numerical Analysis Laboratory.

Visitors to the Numerical Analysis Laboratory are welcome. Drop a letter to the writer or merely drop in at B-9 Bascom Hall when in Madison.

# # #

THE PLACE OF MUSEUMS IN WISCONSIN'S EDUCATIONAL PROGRAM

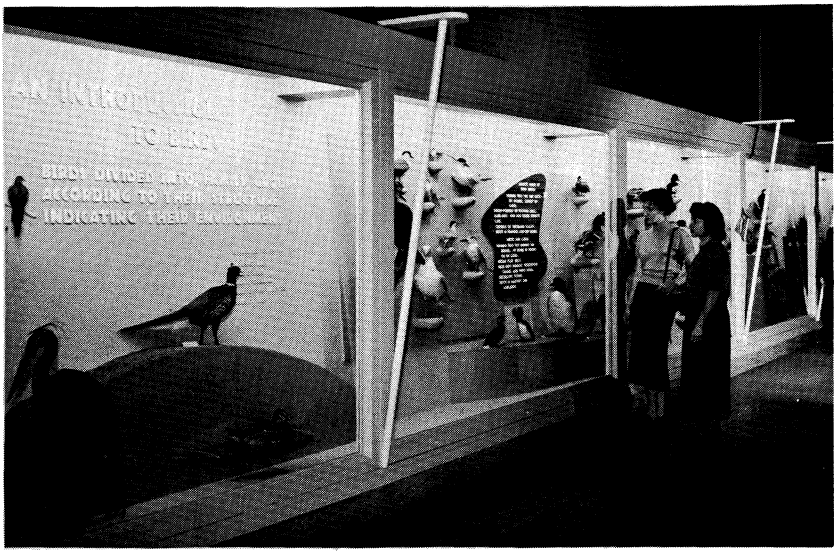
By W. C. McKern, Director
Milwaukee Public Museum

The modern museum is an educational plant rendering its educational services primarily through the use of visual aids. This should be true, whether the museum is great or small, whether it concerns with history, science, or art, whether functioning on a community, county, or state level. These aids include exhibits and such lecture and school-class aids as portable specimen sets, slides, filmstrips, and motion pictures, employed to convey information, or to stimulate appreciation and interest through the medium of the eye. Consequently, all museum activities logically must correlate with methods involving a visual presentation of subjects.

In general, the objectives of a museum may be epitomized, I believe, as the promotion and clarification of the viewing public's knowledge of and appreciation for the natural world in which they live, the people sharing that world with them, the present in terms of their past, and their science, technique, art, and other cultural attainments. These objectives must be manifested in services to the great general public which, directly or indirectly, pays the bills.

In the State of Wisconsin there are various kinds of museums, differing in subject scope and areas primarily served. There is, to start with, the State Historical Museum, active primarily in the field of human history and man in his natural and social environment, with special emphasis on Wisconsin. This Museum, under the guidance of the Wisconsin State Historical Society, is the state's own institution. Its famed historical archives, library, and collections of materials are employed along many educational avenues. Exhibits in the building serve the schools both locally and throughout the state, and the adult public living in Madison or visiting the capital. Its loan collections of visual aids are sent to and used in all parts of Wisconsin.

Services are also rendered by means of its staff lecturers, and through the medium of thousands of junior members of the State Historical Society, organized in public and parochial schools in all parts of the state. Its history-mobile visits our leading communities. Its sources of information and facilities for study are used



Bird exhibit, Milwaukee Public Museum

by faculty members and students in Wisconsin's universities and colleges, as well as from more distant institutions of learning. Publications of the Society include a magazine for adults, another for children, various pamphlets, and outstanding books by informed authors on Wisconsin history. Special projects include the restoration and preservation of outstanding historic sites in our state. In fact, the educational programs and activities of this great Museum are too numerous even to list in a short report.

This probably represents the maximum of services rendered by any one of Wisconsin's museums, but illustrates the type of educational work in which, to a greater or less extent, all our museums engage. An art museum will restrict its services to those logically within its subject field; a natural history museum will limit the scope of its programs to botany, geography, geology, zoology, and so on; a general museum may deal in all subjects: history, natural history, and art. Moreover, a county museum may give primary consideration to serving the county; and a city museum, to serving its own community. But in all instances, the purpose of a museum is service to the public, primarily through the use of its eyes. Seeing is believing, and that which is seen through one's own eyes is more interesting and understandable than that which is described by another.

A very large or highly specialized museum may also engage in original research - the search for new facts. A well equipped science or history museum must weld together the purposes of science or history and the purposes of a museum. Such a museum will have trained and experienced specialists on its staff, and not only would it be a waste of talent to limit their activities to educational work only, but it would be quite impossible to secure or hold their services if the opportunities for research were denied to them. Furthermore, their original studies equip such specialists to participate more intelligently in the educational programs.

Actual schools are operated by museums in some instances. This is particularly true of art museums, where you may send your child to learn art appreciation, or join an adult class in anything from pottery modeling to fine arts. Such museums as a rule are also quite active in programs with music appreciation as an objective.

Your museums, wherever you find them, are striving to equip you with information and appreciation which will facilitate for you a more profitable and enjoyable life. There was a time when the average museum was a musty building where folks went to see mummies and other curios - a mausoleum for dead cultural things. That was a long time ago. Today your museums are alive and alert to the responsibility of public service as your interest and your support will permit them to be.

# # #

PRESIDENT DUNN'S INSTALLATION ADDRESS

Percy L. Dunn became the seventh president of Milton College in ceremonies June 7, 1954. Following are excerpts from his installation address:

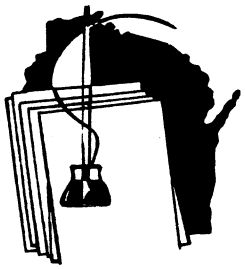
"The first president of Milton College, who took a small academy and forged it into a bulwark for teacher training and the second seat of higher education in the state, outlined its function in these words: 'Our object is not so much that of making money as making manhood; our discipline is not so much to crowd the mind with facts and rules and thoughts of others as to make it discover the facts, to originate the rules, and to think for itself.' The record reveals that during the last quarter of the 19th century Milton-trained men, led by President WHITFORD, established for this state a system of public education second to none.

"Scholars are produced by sound teaching. In each decade there have been teachers of pre-eminence on this campus. In the category of schools with less than 400 graduates between the years 1946 and 1951, Milton was the

(Continued on page 48)

THE WISCONSIN RURAL WRITERS' ASSOCIATION, INC.

By Fidelia A. VanAntwerp, President
Wisconsin Dells, Wisconsin



The Wisconsin Rural Writers' Association was organized in 1948, under the sponsorship of the College of Agriculture of the State University and of the Wisconsin Idea Theatre. News of its existence and purpose was carried throughout the State by a mimeographed "Newsletter," which stated:

> "It has been established for the purpose of drawing together all the folks in rural areas in the State who have written, or would like to try writing a play, a story, or a poem. Not that we would rule out someone who lives in the city, but we are particularly interested in the literary interpretation of the country and farm life."

Membership was free; the Association offered an appealing program; and its invitation to membership was eagerly accepted. Within a year it had approximately 1000 members, both rural and urban.

The Association has had a happy record of achievement, due to the inspiration and effort of its founder, Professor ROBERT E. GARD, and of Professor EDWARD L. KAMARCK, and to the enthusiastic support of devoted members all over the State. Some of its activities have been an annual writers' contest; the formation of local clubs; a play-publishing program; a radio program featuring the work of members; a criticism and advisory service; the Newsletter; an annual picnic at Upham Woods on the Wisconsin River; and an annual three-day writers' conference, held usually in September. Its most recent accomplishment has been the successful launching of its quarterly magazine, Creative Wisconsin, which made its appearance early in 1954.

In 1953 the Association became a corporation. Its Articles of Incorporation and By-Laws provide for an Executive Board of twelve members, one of whom is a representative of the University, and for a president, vice-president, secretary, and treasurer, to be chosen from the Board. Provision is also made for the payment of

annual dues of Two Dollars, this to include a subscription to Creative Wisconsin and to the Newsletter.

The Association has a sizable and welcome list of out-of-state members. It also has an honorary member club over seas, established in Shropshire County, England, by Professor Gard in 1953.

Anyone interested in the purposes and program of the Wisconsin Rural Writers' Association, Inc., is cordially invited to become a member. Applications for membership should be addressed to JOHN A. LONSDORF, Treasurer, Route 3, Birnamwood, Wisconsin.

CREED OF WISCONSIN RURAL WRITERS' ASSOCIATION

Man's deepest experience of life is essentially solitary; at the same time he desires to communicate to others his moments of intense feeling, his present experience, the rich memories of the past. In the recreating and the sharing of these feelings, experiences, and memories the Wisconsin Rural Writers' Association has its being and its meaning.

Let us believe in each other, remembering each has tasted bitter with sweet, sorrow with gladness, toil with rest. Let us believe in ourselves and our talents. Let us believe in the worth of the individual and seek to understand him -- whether he be great or small, young or old, rash or deliberate, brilliant or plodding -- for from sympathy and understanding will our writings grow.

Let us believe that the mark of the cultured man is the ability to express himself competently in language; that this ability can be gained best through study and application of the basic principles of creative writing; that with this study and application grow enlightenment and discrimination; and that the democratic process of government is safest in the hands of a cultured, enlightened people.

Let our purpose be to encourage: Literary expression; appreciation for the fine arts; cultural aspects of rural Wisconsin life; preservation of the local history and folklore of the passing era; enrichment of our lives through self-education and worthy discussion.

"An educated man stands, as it were, in the midst of a boundless arsenal and magazine, filled with all the weapons and engines which man's still has been able to devise from the earliest time."--Thomas Carlyle.

WISCONSIN'S UNIQUE INDUSTRIAL RESEARCH LEAGUE

By J. M. Conway, President
Sulphite Pulp Manufacturers' Research League, Inc.
and Charmin Paper Mills

A Wisconsin organization unique in industry is Sulphite Pulp Manufacturers' Research League, Appleton, formed in 1939 by a dozen of companies owning 14 sulphite pulp mills. It seeks ways of utilizing spent sulphite liquor to reduce stream impairment. Member mills pay pro rata on sulphite pulp output, in recent years budgeting above $150,000 annually, in 15 years more than $1,350,000 total.

Sulphite liquor discharged into Wisconsin streams is being reduced year after year as the scientific staff provides more answers and as more of the mills succeed in applying these new techniques to their individual situations. But science has not yet found the full and complete answers. It remains to be proved that techniques capable of substantially reducing undesirable conditions in the stream can be used without serious financial harm to the mills using them. Also, the League is still researching to find processes that will fit those sulphite mills which still lack workable methods.

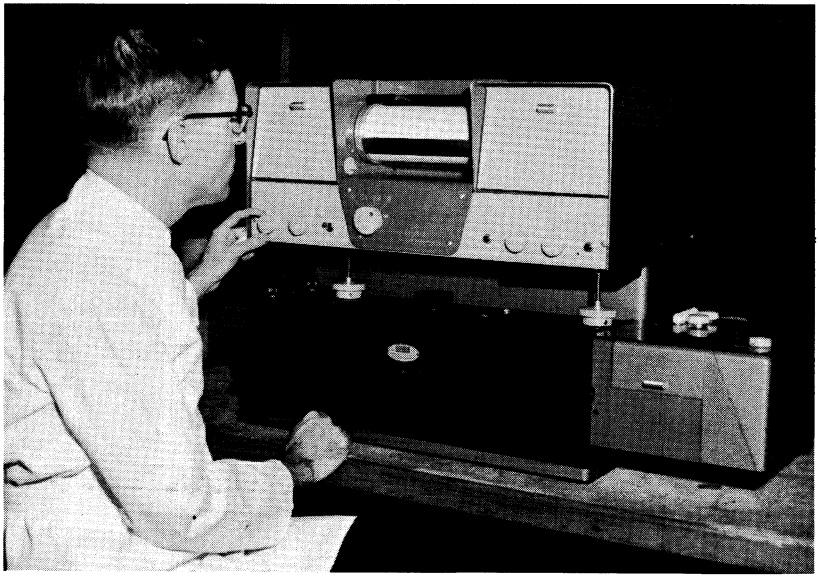
In 1948 after several years of League experimentation, the member mills built at Rhinelander a $500,000 commercial-scale experimental plant to perfect the torula yeast process originally developed in Germany as a war measure. Here protein and vitamin-rich torula organisms are propagated in spent sulphite liquor, consuming the wood sugars that use up oxygen from stream water. This factory now processes all of one mill's collectible liquor. Another member company early in 1955 began operating at Green Bay a new torula yeast plant of twice this size. Torula yeast produced in these two plants goes into human food, pharmaceuticals, and as a supplement into animal and poultry feed.

Since 1951 three mills have brought into operation large evaporator plants of a special design first tested in the United States by League technologists. These plants concentrate the three mills' collectible liquor. These mills sell what concentrate they can for adhesives, dispersants, chemical raw materials, and roadbinder, and burn surplus concentrate for industrial fuel.

Following League laboratory, pilot plant, and field researches indicating that oxygen-consuming capacity of sulphite liquor is partially satisfied as it passes through the soil, state pollution authorities have encouraged adoption of soil filtration through lagooning, ponding, spraying, and other means. In 1954 seven member mills used various techniques of soil filtration for all or part of their collectible liquor, a volume totaling nearly 300 million gallons.

Use of roadbinder obtained from sulphite liquor has also increased substantially in large measure through development of improved methods by League research. In 1954 approximately 59 million gallons were thus used, against 44 million gallons in 1953, the previous high.

Research arrangements with outside scientific groups are a standard investigative tool of the League. Four different college research groups are studying various



Biochemist (GEORGE A. DUBEY, Jr.) using newest model recording spectrophotometer for research on spent sulphite liquor in League laboratories located at The Institute of Paper Chemistry in Appleton. Cooperative research by the League member mills as a group permits the employment of specialists and expensive research tools which would not ordinarily be available to individual mills working on spent liquor problems.

aspects of sulphite utilization. The Institute of Paper Chemistry is investigating another phase. Inclusion of these many research minds upon the problem should hasten its ultimate solution.

League expenses are only one part of expenditures by member mills for sulphite clean-up of streams. Altogether the 14 Wisconsin member mills have paid out for all their sulphite liquor stream control work, since they first undertook such research, well in excess of $10,000,000.

League technologists estimate that to clear Wisconsin streams of sulphite will require the industry to make an investment totalling at least $25,000,000 when science learns how to complete the job. This sum equals a substantial fraction of the total investments of these same mills in plant and equipment that produce pulp.

# # #

A NOTE ON THE COVER PAINTING

"Rear Entrance", a painting in oil, is the creation of Professor Santos Zingale, of the staff of University of Wisconsin's department of Art Education. For many years Professor Zingale has been a leader among painters of the Midwest. He is the holder of some of the region's most cherished art awards including the first prizes of the Old Northwest Territory Exhibition and the Gimbel Art Competition. He has recently completed a much admired mural for the walls of Marquette University. As teacher he has exercised a strong and healthy influence in helping to shape the careers of scores of talented young artists.

"Rear Entrance", the design which graces our front cover, is a characteristically moody work. Varied architectural shapes are stressed by the artist to build a strong form sequence accentuating the drama he extracts from a commonplace setting. --Aaron Bohrod

ACKNOWLEDGMENT is made to Professor ROBERT L. GRILLEY of the UW Art Education Department, who unintentionally was not credited for his portrait of Aldo Leopold on page 24 of the Wisconsin Academy Review for Fall, 1954 (Vol. 1, No. 4). The brief quotations on pages 14 and 25 and the photo on page 8 are from the recent publication "50 Years of Graduate Education at Wisconsin." ... Sketches on pp. 18 and 19 are from St. Nicholas Magazine, Vol. I, No. 5 (1874) and Vol. V, No. 5 (1878).

HELPING WISCONSIN TO BOOKS

By Orrilla Thompson Blackshear, Director*
Traveling Library, Wisconsin Free Library Commission

Books tell the story, and Wisconsin adults, youth, and children want books. That has been true for a long time--it was the reason back of the creation of the Free Library Commission by act of the Legislature in 1895.

Although the Commission's first budget was small and its funds very limited, it proved so useful in its program of getting books to people that the Legislature of 1897 gave it a larger appropriation and additional responsibilities.

This change made possible the extension of library service, and Miss LUTIE STEARNS headed that department.

The Traveling Library as a department of the Commission was originally designated to furnish books which were to be sent in collections from one community to another throughout the State.

While the Extension Department and the Traveling Library have worked together from the beginning, it was not until recently that they were combined as one department. Their services are extended to all of the 312 public libraries of the State, to the individuals who live in an area where there is no public library, and to other State departments.

Approximately 680,000 residents of Wisconsin find it impossible to get books in their home communities. Some of these people use the Traveling Library regularly. Material is selected to meet their recreational and informational needs and to answer specific reference questions. Reading lists on special subjects are prepared

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* - Mrs. Blackshear is public library consultant with the Free Library Commission, edits the Wisconsin Library Bulletin, and compiled the 8th edition of the Buying List of Books for Small Libraries, which was published by the American Library Association in June 1954.

for those who wish to have assistance in selecting books on certain topics. Some of the books are for study purposes, and other are frequently used in book-review programs.

The services of the Traveling Library are available to all citizens of the State with this difference--whenever there is a local public library established, the Traveling Library serves the individual through his home library. During recent years, the type of service rendered by the Traveling Library has changed, and, while collections of books are still sent to Wisconsin communities, the reference service that is offered has continued to grow until it represents a major contribution to the total program of the library. Patrons who request information on a subject for serious study are urged to explain the purpose of their study and their own background for understanding the material.

The Traveling Library book collection consists of approximately 150,000 volumes, some of which are reference works. But the library service is not limited by this collection since the holdings of the Bureau of Information and Program Services, the State Historical Society Library, and the University libraries, as well as the resources of other State departments, are made available through the Traveling Library.

A unique service, which has been growing in popularity throughout the State, is the play readers' service. Duplicate copies of current plays are purchased and loaned to play-reading groups. The plays are reserved for a specific date, and a group may plan a year's program that will be as up to the minute as the publishing business permits.

Other services include the preparation of reading courses for the prisoners at Waupun, the preparation of reading lists on special subjects for other State departments working with the public, and the arrangement of book exhibits for groups and special meetings. Book-selection assistance is given to librarians through the loan of books and the Wisconsin Library Bulletin. The latter is published bimonthly and is now beginning its fifty-first volume.

The days are never long enough to do all the interesting things that are waiting to be done in any library--the Traveling Library is no exception in this respect.

# # #

FREDERICK T. THWAITES — GEOLOGIST

A UW Retirement Profile by Vivien Hone, Revised and Abridged

For FREDERICK T. THWAITES, the professor "who knows more about Wisconsin geology than any other living man," the July 1 official termination of academic years is treated as a rude intruder. Though he has taught for 38 years, served a long curatorship of the UW Geology Museum, acted often as consultant, for years been in charge of the well-drilling samplings for the State Geological Survey, and, according to his colleagues, "published on virtually everything" including "the best textbook on glacial geology," there is still much work to be done, Prof. Thwaites makes apparent.

Prof. Thwaites began his citizenship in Cenozoic time Dec. 23, 1883. His birth at Madison, only a stone's throw from the UW campus, is the first entry in a life record strongly identified with the Wisconsin scene.

This only son of distinguished historian Reuben Gold Thwaites and Jessie Turville Thwaites took his elementary and high school instruction in Madison schools; spent his early summers at the Turville homestead on Lake Monona and later, for many years, dwelled permanently there. Trips across the Atlantic were made more than once with his parents, Prof. Thwaites recalls, but what seems more memorable is an 1894 rowboat journey down the Ohio. With his social historian father, the boy Frederick retraced the river routes of the early French missionary priests. The weeks afloat brought major contributions to the senior Thwaites' monumental 73-volume "Jesuit Relations." For the son they must have been the cementing of claims which the out-of-doors had already made upon his devotion.

When the time came for a university education, the Turville Point lad enrolled at Wisconsin, his major subject engineering, but horizons here seemed "too narrowing" and in the junior year were abandoned for those of

geology. A bachelor's degree resulted in 1906, a master's in 1908. Spotted in between classroom instruction was practical training in the field: summers of prospecting for silver and iron in Canada, of working on an irrigation survey and with both the federal and state geological surveys in Wisconsin. Association at this time with the widely known glacial geologist, William C. Alden of the federal survey probably determined the choice of his special field. Thwaites received his first appointment to the Wisconsin Geological Survey in 1908 and in 1911 accepted additionally the curatorship of the UW Geology Museum, a post he held for 16 years. First days with the survey produced a substantial piece of field research on the Wisconsin shoreline of Lake Superior. Services as the logger of well-cuttings were also undertaken early with the survey and, continued through the years into 1954, they have given this public servant a statewide familiarity with the wells for Wisconsin's water.

The teaching portion of Prof. Thwaites' career was begun in the fall of 1916 with a contract for part-time instruction in the UW department of geology. Since that date it has embraced courses in mapping, including those taught to a general student enrollment as well as to advanced geologists and U.S. trainees in World War I; courses in glacial geology, physiography, and advanced physiography; and in physics to UW engineers under the Navy V12 program of World War II.

"They told me I'd never make a teacher," Prof. Thwaites remarks, but colleagues report that students have flocked to the classes of this man. Founded on the conviction that field training "will weed out the unfit" and has special learning rewards, Prof. Thwaites' mapping course has called forth a special energy and talent from Wisconsin scientists. "I've always had good relations with the students," is his admission that he has enjoyed the years with the young men and young women too, under his instruction. One among them, Amy Mueller, became Mrs. Thwaites and is the mother of the professor's three sons.

Last May, when the UW Geology Club gathered around the banquet table to honor Prof. Thwaites, Prof. Stanley Tyler paid tribute: "A man of ability and humility, he has firmly established through teaching, research, and public service a reputation second to none." The club said it another way. "They gave me a watch," Prof. Thwaites admits in a rare burst of unsolicited autobiography. He continues to treat retirement inhospitably and is working on a comprehensive series of notes on geomorphology toward a new text; is completing, with Prof. Kenneth Bertrand, a study of the glacial geology and topography of Wisconsin's Door Peninsula; and is committed to part-time teaching at Wisconsin and more work for the survey. ###

AN INTERPRETATION OF AARON BOHROD'S WORK

By Bert Jahr
Madison, Wisconsin

The world of art mirrors and reflects the real world about us. It can be a scalpel or a sword, a feather or a hammer. The artist's interpretation of his world is more or less objective, reflecting his feelings towards this world. It is the ability of the artist to communicate his feelings to the spectator and make him see and experience in the world about him that which he could not discern himself, which gives to art, and the artist who creates it, their true value. Art enhances life and makes man alive. It gives a sense of timelessness to that which we know to be transitory.

AARON BOHROD, in his new still life work, seeks to penetrate a small corner of the infinite by examining the finite. He may not do this consciously, but that is what emerges. That which is obvious; the careful craftsmanship, the clarity of color, the loving delineation of each object, its texture and feel, need not be discussed. What is felt is the poetic lyricism of each work, whether composed of the contents of a boy's pocket, the memory of a child's holiday, the keepsakes of a past romance, or the treasures of the sea. These, most often, connote some experience other than denoted. The symbols specific and pleasurable, the feeling evocative of things past.

Aaron Bohrod's art is clear of tone, real yet fanciful, gentle yet firm. His is the sure lyric touch, the quiet voice, steadfast in the knowledge that it will be heard in a strident, noisy world. It is best summed up by WILLIAM BLAKE, the 18th century poet-painter of England:

"To see the world in a grain of sand,
And heaven in a wild flower;
Hold infinity in the palm of your hand,
And eternity in an hour."

# # #

A NORMAN C. FASSETT MEMORIAL COMMITTEE composed of John T. Curtis, Richard I. Evans, Johnathan D. Sauer and John W. Thomson (Chm.) has recommended the collection of a "Norman C. Fassett Memorial Fund" to be used to aid the publication of papers or illustrations on field or herbarium botany in the TRANSACTIONS of the Academy. A goal of $1,000 is being set for a permanent memorial fund. Donations should be made payable to the "Norman C. Fassett Memorial Fund" and sent to any member of the committee. --John W. Thomson, Chairman.

DOMAIN OF LETTERS

Collected by Prof. Ralph A. McCanse
Associate Editor in Letters

Ownable New Books Out of Wisconsin

The University and Its Publics, By CLAY SCHOENFELD, Harpers. Wise, comprehensive, and constructive. Eminently to be recommended, not for college-connected readers alone but for all citizens concerned about the welfare of the commonwealth.

A Century of Banking in Wisconsin, By THEODORE A. ANDERSEN, Vail-Ballou. Awarded 1954 Everest Prize by Wisconsin State Historical Society.

The Wilderness World of John Muir, Edited by EDWIN WAY TEALE, Houghton Mifflin. Both literary and scientific attainments of the great naturalist commend this collection to Academy members.

Medico-Historical Papers, by Dr. WALTER J. MEEK. Published by a group of graduate students of this Emeritus Professor at the University of Wisconsin.

Handbook for Discussion Leaders, by H. L. EWBANK and JEFFREY AUER, Harpers. Revised from 1947 edition of a serviceable work.

Academy Personnel

Professor LOWELL E. NOLAND has recently been elected president of the national Society of Protozoologists.

Honoring the late Professor ALDO LEOPOLD, the U. S. Forest Service and the Wilderness Society have dedicated to his memory a roadside memorial between Silver City and Glenwood, New Mexico.

The following papers have recently appeared in The Wisconsin Magazine of History by Academy member GILBERT H. DOANE, "Lyman Draper, Founder of a Great Library," "Ancestor Hunting," "Collecting Bookplates in Wisconsin."

Professor MERRITT Y. HUGHES participated in a recent annual Conference of Chairmen of Departments of English. The University of Chicago was the host institution.

Professor L.W.J. SEIFERT is co-author with Mrs. HELGA SLESSAREV and ROLAN W. HOERMANN of a U.S. Armed Forces textbook, "Spoken German."

CITATION

This was their battle, this their faith, their strength,
Their sorrow borne, their glory at long length:

In farthest reaches of the Seas, beset
By Cruelty, in loneliness, they yet

Took up the challenge, counted well the cost,
Fought their good fight, denying all was lost!

This be their monument: no marble token,
But a great People's fealties kept unbroken.

--Ralph Alan McCanse

THE DECLINE OF CONVERSATION

(Following are extracts from a talk given recently by Dr. A. WHITNEY GRISWOLD, President of Yale, at the opening convocation of Brown University, as printed in the New York Herald Tribune.)

Conversation in this country has fallen upon evil days. The great creative art whereby man translates feeling into reason and shares with his fellow man those innermost thoughts and ideals of which civilization is made is beset by forces which threaten its demise.

It is foresaken by a technology that is so busy tending its time saving devices that it has no time for anything else. It is drowned out in singing commercials by the world's most productive economy that has so little to say for itself it has to hum it. It is hushed and shushed in dimly lighted parlors by television audiences who used to read, argue, and even play bridge, an old-fashioned card game requiring speech.

It is shouted down by devil's advocates, thrown into disorder by points of order. It is subdued by soft voiced censors who, in the name of public relations, counsel

discretion and the avoidance of controversy like so many family physicians breaking the news gently and advising their patients to cut down on their calories.

It starves for want of reading and reflection. It languishes in a society that spends so much time passively listening and being talked to that it has all but lost the will and the skill to speak for itself.

I wonder how many of us are aware of this predicament and interested in its possible consequences.

It was conversation, reaching its orderly and exalted climax in the dialog of Socrates, which in an age without books or their latter day substitutes, laid the foundation of the civilization we are dedicated to defend. It was conversation of which the New Testament, the greatest teaching ever recorded, was composed. It was conversation among small groups of university scholars still in a bookless world that revived learning at the end of the dark ages.

CONVERSATION is the oldest form of instruction of the human race. It is still an indispensable one. Great books, scientific discoveries, works of art, great preceptions of truth and beauty in any form all require great conversation to complete their meaning; without it they are abracadabra--color to the blind or music to the deaf.

Conversation is the handmaid of learning, true religion and free government.

By this path I return to this university and the extraordinary opportunity that is yours who are about to enter it. Where else save Elysium itself is life so congenial to conversation as it is in a residential liberal arts college?

How, then, shall we make the most of it? Shall we have courses in conversation? Perish the thought. Let us have conversation in courses but no courses in conversation. By conversation in courses, moreover, I do not mean whispering at lectures. I mean as much give and take between teacher and student as is possible in this day of soaring enrolments, teacher shortages and financial deficits.

# # #

"Scientists and scholars...it is their purpose to increase knowledge of the world and of mankind, to guard the ideals of freedom and truth, and to discover the methods by which men can achieve new levels of learning, wisdom, culture... and a better life for all."--50 Years of Graduate Education at Wisconsin.

REPORT FROM THE SECRETARY

By Robert J. Dicke, Secy.-Treas.

PLANS FOR THE 85th ANNUAL MEETING

Plans are underway for the 85th Annual Meeting of the Academy. We have received a very cordial invitation from Director GEORGE A. PARKINSON to hold our meeting at the Milwaukee Extension Division of the University of Wisconsin. The date has been tentatively set for Friday and Saturday, May 6 and 7, 1955.

A Program and Arrangements Committee has been set up with Profs. RUTH I. WALKER and JOSEPH G. BAIER serving as Co-Chairmen. Other members of this committee are: DOUGLAS W. DUNLOP, DONALD K. GEHRZ, MERLIN L. HAYES, LUDWIG K. PAULY, ELDON D. WARNER, and PHILIP B. WHITFORD. An Academy Reception will be again included in the program in charge of Director and Mrs. GEORGE A. PARKINSON, and Mesdames JOSEPH G. BAIER, DOUGLAS W. DUNLOP, SCOTT L.KITTSLEY, and PHILIP B. WHITFORD.

This will be our first meeting with the Milwaukee Extension Division and should be a very interesting and pleasant experience for all of us. Complete plans of the meeting, as well as a description of the Center and their program, will appear in the Spring issue of the Review.

MEMBERSHIP

New Active members since the last issue of the Review are as follows:

KENNETH B. ARMITAGE, UW Extension, Green Bay
CHARLES D. ARONSON, Beloit College
WILLIAM B. A. J. BAUER, M.D., Ladysmith
ELSTON L. BELKNAP, M. D., Milwaukee
ANDREW C. BERRY, Lawrence College
ORRILLA M. BLACKSHEAR, Wis. Free Library Comm., Madison
W. H. BRENER, Wis. Conservation Dept., Wisconsin Rapids
RELIS B. BROWN, Appleton
WILLIAM J. BROWN, Forester, Kimberly Clark Corp., Neenah
IRENE J. BROWN (Mrs. W. J.), Neenah

REID A. BRYSON, University of Wisconsin
MAURICE P. CUNNINGHAM, Lawrence College
JAMES H. DAHLEN, Wisconsin Conservation Dept., Cambridge
N. B. DEXTER, Northland College
JOSEPH T. DURKIN, Fish & Wildlife Service, Marquette, Mich.
HERBERT P. EVANS, University of Wisconsin
JOHN V. FINCH, Beloit College
ELSWORTH H. FISHER, University of Wisconsin
CARL P. FRISTER, Treas.Wis. Society for Ornithology,Milwaukee
WALTER L. GOJMERAC, University of Wisconsin

G. PAUL GRANT, Whitewater State College
FREDERICK W. HAINER, Cleaver Brooks Co., Milwaukee
RUTH D. HAINER, (Mrs. F. W.), Milwaukee
PRESTON C. HAMMER, University of Wisconsin
INGVALD O. HEMBRE, University of Wisconsin
RICHARD A. HEMP, Postmaster, Mosinee

J. HOMER HERRIOT, University of Wisconsin
KARL W. KAHMANN, Taxidermist, Hayward
B. H. KETTELKAMP, River Falls State College
ALLISON M. KIECKHEFER (Mrs. Alfred), Milwaukee

HUGO E. LAHTI, Whitewater State College
CATHARINE LIENEMAN, River Falls State College
G. WM. LONGENECKER, University of Wisconsin
TED J. McLAUGHLIN, UW Extension, Milwaukee
WALTER H. MADURA, Writer-Artist, Necedah
ALBERT M. MARSHALL, Editor Republican Eagle, Red Wing, Minn.
Mrs. A. M. MARSHALL, Red Wing, Minn.
J. BURTON MILLAR, Forester, Kimberly Clark Corp., Neenah
LARRY G. MONTHEY, Editor Amer. Society of Agronomy, Verona
PETER MUTO, River Falls State College

R. E. NICHOLS, University of Wisconsin
IDA C. OLSEN, Ladysmith High School
GIAN N. G. ORSINI, University of Wisconsin
THEODORE A. PETERSON, Forester, UW
WALTER F. PETERSON, Milwaukee-Downer College
BURTON R. PIERCE, Stevens Point State College
STANLEY POLACHECK, Pres., Milwaukee Audubon Society, Milwaukee
R. W. PRUCHA, Whitewater State College
GERALD G. REED, Oshkosh State College
E. G. REINHOLZ, Dairy Belt Cheese & Butter Co., Spencer
BENJAMIN F. RICHESON, Jr., Carroll College, Waukesha

MAY S. REYNOLDS, University of Wisconsin
K. E. RINDT, University of Wisconsin
HAROLD D. ROBERTS, Farmer, Black River Falls
THEODORE ROVANG, La Crosse State College
F. J. SCHMEECKLE, Stevens Point State College
MERTON M. SEALTS, Jr., Lawrence College, Appleton
THEODORE SETTERQUIST, River Falls State College
ALICE E. SMITH, State Historical Society, Madison
NORBERT B. UNDERWOOD, Wis.Conservation Dept., Wisconsin Rapids

FIDELIA VAN ANTWERP, Pres.Wis.Rural Writers' Assn., Wis. Dells
DAVID W. WALKER, Student, University of Wisconsin
STANLEY W. WELSH, Wis. Conservation Dept., Madison
KARL O. WERWATH, Milwaukee
AVERILL J. WILEY, Sulphite Pulp Mfg.Research League, Appleton
MAUD W. WILEY (Mrs. A. J.), Appleton
ELIZABETH J. WILLIAMS, Whitewater State College
RAYMOND T. ZILLMER, Lawyer, Wauwatosa

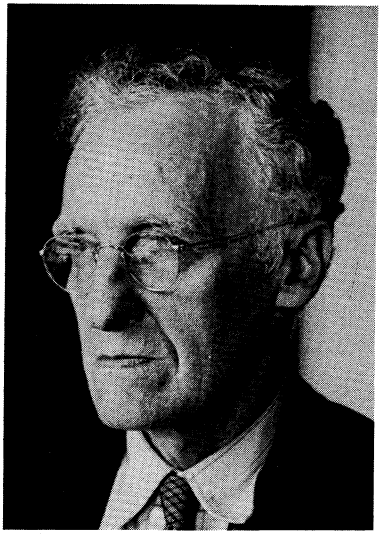
New Library memberships are: CONSERVATION AREA HEADQUARTERS at Nevin Hatchery, Madison; Black River Falls, Oshkosh, Spooner, and Woodruff; MEAD PUBLIC LIBRARY, Sheboygan; OSHKOSH PUBLIC MUSEUM, Oshkosh; OREGON STATE COLLEGE, Corvallis, Oregon; T.B.SCOTT FREE LIBRARY, Merrill.

Total membership is as follows: Patron 2; Life 32; Sustaining 0; Active 494; Honorary 4; Corresponding 10; Library 16; TOTAL 558. In the first issue of the Review, our total membership was reported as 411. This year's increase will be more than 147. This is an excellent tribute to those few of our members who have made a special effort to promote the Academy's welfare. It should be a real incentive for all of us to bring the Academy to the attention of several of our friends or colleagues.

FIRST ISSUE of the Review (Winter 1954) is in very short supply--two left. There is a call from libraries for complete sets.

In Memoriam - George Wagner 1873-1954

(Memorial resolution of the Faculty of the University of Wisconsin on the death of Emeritus Professor GEORGE WAGNER)



GEORGE WAGNER, Emeritus Professor of Zoology died on October 6, 1954, at Marion, Indiana, where he had been living with his daughter, Louise. Professor Wagner was born on February 4, 1873, at New Ulm, Minnesota. There he attended the elementary and secondary schools and worked for two years in a drugstore.

In 1891 he enrolled in the School of Pharmacy, University of Michigan, where he received the Certificate in Pharmacy in 1893. Thereupon, for four months, he managed a drugstore at Morgan, Minnesota. Then in January, 1894, he became instructor in the School of Pharmacy of Northwestern University, Evanston, Illinois, where he taught botany and pharmacognosy. It was here that he met Jennie Van der Veer to whom he was married on August 19, 1896.

After teaching one year at Northwestern University, he went to the University of Kansas in September, 1895, as instructor in pharmacy; and by 1899 he had advanced to associate professor. It was there that he acquired a great interest in animal life and the desire to make it his life work. Consequently, in 1899, he enrolled in the University of Michigan as an assistant in zoology; and there in 1903 was awarded the M.A. degree. These years of graduate study were stimulating years, for among his fellow graduate students were Raymond Pearl and H. S. Jennings who later became outstanding leaders in zoology.

In the fall of 1903 he began his work as instructor in zoology at the University of Wisconsin. He was promoted there to Assistant Professor in 1910; to Associate Professor in 1919; to Professor in 1931; and in 1943 was retired as Emeritus.

During his 40 years at Wisconsin he taught: general zoology, comparative anatomy of vertebrates, invertebrate zoology, animal behavior, variation and heredity, bionomics, organic evolution, and ornithology.

He started the first course in ornithology at Wisconsin in 1907; and he maintained an active program of bird banding throughout his active teaching years. Between the years 1925 to 1943 he and his students banded around 30,000 birds; and he kept card file records of all bandings and returns received. Prominent among his

student collaborators in this work were Charles T. Vorhies, Alvin R. Cahn, Harold Wilson, H. H. T. Jackson, Wallace Grange, and Paul Errington. Professor Wagner also guided the cooperative investigations with the State Conservation Department on wildlife management before such work was allocated to a separate department at the University. The first researches of Professor Wagner, on coming to the University, were in the field of ichthyology; and by 1912 he had published eight papers on Wisconsin fishes.

Professor Wagner learned to speak and read German fluently from his parents; and during World War I he interpreted the stand of the United States to audiences of German speaking people in various cities of Wisconsin. On the occasion of the Goethe Centennial at the University, he read a paper, "Goethe as a Scientist", which was published in 1932 in the University of Wisconsin Studies in Language and Literature.

He was one of the organizers of the University Club and contributed to the purchase of its present site and the planning of additions to the first building. He cherished the associations with his fellow faculty members in one of the earliest dinner clubs to be organized on the campus. It was called the Inefficiency Club, in reference to the Allen investigations into the efficiency of the University.

Professor Wagner belonged to the national societies for Zoologists; for Naturalists; for Ichthyologists and Herpetologists; and Mammalogists. He was a member of the Wisconsin Academy of Sciences, Arts and Letters since 1904 and later became a Life Member. He was also a member of the Wisconsin Historical Society and the Wisconsin Society for Ornithology. He was an honorary member of the Kansas Academy of Science. He maintained an active interest in the affairs of the Madison Chapter of Sigma Xi and Phi Beta Kappa of which he was President in 1938-1939.

Among the survivors of Professor Wagner are: a son, Newton, of Los Altos, California, and two daughters, Grace (Mrs. Emery Roughton, F.P.O., San Francisco), and Louise (Mrs. John L. Thompson, Marion, Indiana). Mrs. Wagner died on November 26,1941 and a son Karl, died in France while serving in the Army during World War I.

Although he was always interested in research, Professor Wagner considered that his best services to the University were in the fields of teaching, advising students, and in administration. He served the welfare of his department in countless ways; he gave many generations of doctors their introduction to anatomical learning and techniques in his courses in general zoology and comparative anatomy. Several doctors, in the hospital where he was treated during his last illness, visited him and recalled their student days with him at Wisconsin. The many graduate students in zoology at Wisconsin during Professor Wagner's 40 years of teaching will not soon forget his helpfulness to them in their academic work and in their researches.

During a winter spent in Munich with his two young sons in 1913-1914, he acquired a love for opera which he cultivated during the remainder of his life. At the time of his death his library contained, besides many operatic phonograph records, forty librettos of operas he had heard, with marginal notes as to the times he had heard them. He regularly reserved on weekends the hours when operas were broadcast on the radio for listening to

their music. He also enjoyed his summers at his cottage near Ellison Bay in Door County, a locality which at the time he purchased his lot there still possessed much of its primeval beauty and wildness. Some of his summers during his earlier years at the University were spent on trips into wild areas for the government fish and wildlife service.

Professor Wagner lived a long and useful life. He was unstinting in his services to his University; he was exacting but helpful to his students; he was loyal to his administrators and his colleagues; and true to his neighbors and friends. The University of Wisconsin and the City of Madison are both richer for the years of his life that he spent in this community.
--MEMORIAL COMMITTEE: George S. Bryan, O. L. Kowalke, L. E. Noland, H. W. Mossman, H. R. Wolfe, Chairman.

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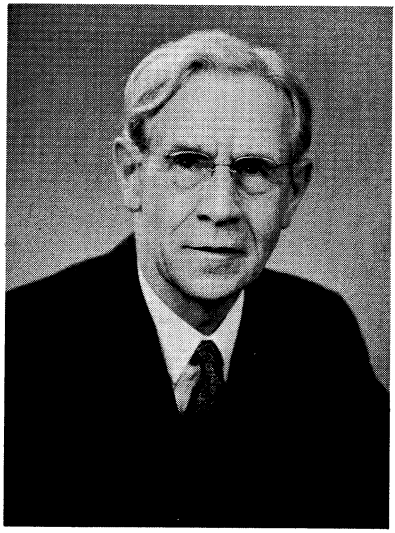

In Memoriam

Herman L. Ekern

1872-1954

HERMAN L. EKERN, a Life Member of the Wisconsin Academy since 1945, passed away December 4 at his home in Madison. During his long and colorful career, he served his state as a legislator, Insurance Commissioner, Attorney General and Lieutenant Governor. A graduate of the University of Wisconsin Law School in 1894, he continued his interest in the welfare of his Alma Mater and served in later years as a Regent. In 1944, the University awarded him an LL. D. degree in recognition of his service to the university, state and nation.

Herman L. Ekern was a distinguished member of the Academy, and we mark with regret the passing of a noble colleague.

JUNIOR ACADEMY NEWS

By John W. Thomson, Jr., Chairman
Junior Academy Committee

The plans for meetings and other activities of the Junior Academy are already well under way. The Milwaukee district committee plans a meeting for April 23 at Science Hall, Marquette University, and the La Crosse District Committee has already scheduled its meeting for March 26 at Wisconsin State College, Eau Claire. The statewide meeting with the Senior Academy is expected to be May 7th at the Milwaukee Extension of the University of Wisconsin.

Miss MARY A. DOHERTY, sponsor of the Seminar Club at Bradford High School, Kenosha, reports that her Kenosha County Science Fair is expected to be held on March 28 to 31. This will be the third year that the Seminar Club has sponsored a science fair in Kenosha. For several years, the club has also sponsored a junior high school program for the presentation of papers.

BURTON R. PIERCE of Bradford High School, Wisconsin State College, Stevens Point, has been appointed to the State Junior Academy Committee. Mr. Pierce has long been active in Junior Academy work and will be of great assistance to the state committee. Another new appointment is that of KENNETH FISH of the Campus School, Wisconsin State College, La Crosse, to the La Crosse area committee. Mr. Fish has had science club members participating in the Junior Academy work for a number of years and has also helped in other capacities.

The committees in charge of the district meetings this year are as follows: Stevens Point Area: E. J. STENZEL, P.J.Jacobs High School, Stevens Point, Chm., ROLAND TRYTTEN, Wisconsin State College, Stevens Point, ALFRED HORNIGOLD, Lincoln High School, Wisconsin Rapids, SISTER M. LAURETTA, Columbus High School, Marshfield, HARRY A. JOHNSON, Senior High School, Wausau, BRUCE KARNATH, Mosinee High School, Mosinee, J. R. THOMAS, Loyal High School, Loyal, G. J. ROMOREN, Reedsburg High School, Reedsburg.

Appleton Area: L. A. KRAUSE, Neenah High School, Neenah, Chm., CLIFFORD A. OLSON, Sturgeon Bay High School, Sturgeon Bay, HARRISON BOWMAN, West High School, Green Bay, M. R. HYMER, Oshkosh High School, Oshkosh, CY KLEUVER, Washington High School, New London, CHARLES SCRIBNER, Appleton Senior High School, Appleton, ROBERT SHOWERS, East High School, Green Bay, JULIA JANICEK, Lincoln High School, Manitowoc.

Milwaukee Area: CAMILLE OLIVER, Washington High School, Milwaukee, Chm., MARY A. DOHERTY, Mary D. Bradford High School, Kenosha, ROBERT EHN, Wauwatosa High School, Wauwatosa, MELVIN HINTZ, South Milwaukee High School, South Milwaukee, Rev. R. M. FROMMELT, S.J., Marquette University High School, Milwaukee, EDWARD VOOS, Wauwatosa High School, Wauwatosa, SIDNEY JACOBSON, Waukesha High School, Waukesha.

La Crosse Area: Rev. JOHN M. SCOTT, Campion High School, Prairie du Chien, Chm., W. W. HANSON, Central High School, La Crosse, SISTER M. AGNESE, Aquinas High School, La Crosse, STAN MATTSON, Grantsburg High School, Grantsburg, GLENN PARISH, East High School, Superior, OLE OINES, Central High School, La Crosse, SISTER M. THEOLA, Aquinas High School, La Crosse, KENNETH FISH, Campus School, Wis.State College, La Crosse, GORDON O. BESCH, Onalaska High School, Onalaska.

GORDON O. BESCH, formerly of the Sturgeon Bay High School and a member of the Appleton Area Committee, spent a year at Harvard University, doing graduate work. While there, he helped in the founding of a Junior Academy of Science in Massachusetts. He has returned to Wisconsin this year, teaching at Onalaska, and is being appointed to the La Crosse Area Committee.

News of great importance to the young scientists of southeastern Wisconsin is the opening this year of a science fair sponsored by the Milwaukee Journal and Marquette University in cooperation with Science Clubs of America. The fair will be held from April 15 to 17, 1955, at Brooks Memorial Union, Marquette University. High School students from the 9th to 12th grades from eleven counties (Dodge, Fond du Lac, Kenosha, Jefferson, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha) are eligible to participate in the fair. Two winners, one boy and one girl, will participate in an expense paid trip to the National Science Fair at Cleveland, Ohio, from May 12 to 14, 1955. One winner will receive a scholarship to Marquette University. The organization of the Southeastern Wisconsin Science Fair is under the direction of Father L. W. FRIEDRICH, S.J., Department of Physics, Marquette University.

West High School Science Club, West High School, Madison, is again planning to publish an issue of the Test Tube Times as a science club project. We look forward each year to their very interesting and fine efforts.

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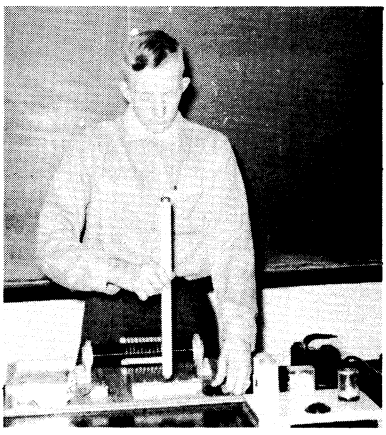
ELECTROMAGNETIC INDUCTION

By Rozel Skaaland
Viroqua High School

We will begin with the Tesla Coil, which was originally invented by Nikola Tesla. The Tesla Coil is the apparatus with which I am working in the picture. Basically, it is a form of a step-up transformer. This coil was operated by a small Ford ignition coil. The Ford coil is constructed the same way as the Tesla coil. In this experiment the current enters the primary of the Ford coil at 18 volts, after it has been reduced from 120 volts by an electric train transformer which is a step-down type. As the current emerges from the secondary of the Ford coil, the current or amperes are greatly reduced, but the pressure or voltage is increased from 18 to approximately 12,000 volts. From the secondary, the wires which carry the current are brought quite close together to form a spark gap, which also steps up



the voltage. From the spark gap the current passes into the high-voltage condenser which is composed of six glass plates 4 by 5 inches with tinfoil leaves between them. The condenser helps to discharge the Ford coil more quickly and also prevents excessive sparking on the breaker points.

When the current leaves the condenser it enters the primary of the Tesla coil which is made up of 10 turns of No. 10 copper wire. As the current goes through the primary of the Tesla coil, where a strong electromagnetic current is induced in the secondary, it is then blocked from going any farther by the condenser. The primary is 4 inches in diameter, and the turns are 3/8" apart. The E.M.F. is induced in the secondary by the making and breaking of the current which causes a strong magnetic force to occur. The secondary is composed of 680 turns of No. 28 enamel-covered copper wire on a 2 inch by 10 inch bakelite tube. There are 10 turns in the primary and 680 in the secondary. Therefore, the turn ratio is 68:1, which means that the voltage in the primary is increased to 68 times its original value. The high voltage discharge from the secondary will light bulbs of several types, such as neon, incandescent, etc.

The principle of the Tesla coil is used in X-ray machines and the ignition system of gas engines, such as in cars, trucks, and buses.

The A. C. Magnetizer

This magnetizer is composed of two bakelite tubes 4½" by 1½" each of which is wound with 244 turns of No. 16 D.C.C. wire. The coils are wound in opposite directions. The current, as it enters the magnetizer passes through a push-button switch which is in series with the coils and the fusebox. The fuses are narrow strips of tinfoil, while the "box" is simply an inverted glass jar with No. 4 wire used as electrodes. The third container in the picture is a square plastic box which holds extra fuses.

Any piece of hard steel which is placed in either tube will become a permanent magnet when the switch is pressed. Old or weak magnets are quickly rejuvenated after one trip to the magnetizer. Materials are magnetized due to the strong surge of one-direction current which occurs when an A-C inductive circuit is broken. The greatest advantage of this magnetizer lies in the fact that it works on alternating current, as well as direct current.

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HIGH SCHOOL CHEMICALS AS AN AID IN SEED IDENTIFICATION

By Barbara Lambert, Science and Camera Club
Messmer High School, Milwaukee

Last year in October, after our Chemistry Club had been organized, we looked about for projects. My friend and I decided to undertake a joint project; we agreed that it would be interesting to work with ordinary seeds from a chemical standpoint. We chose to treat five plant families with at least seven to ten species under each family. By treating them, it would be possible to ascertain what ultimate color reactions we could obtain, and whether these reactions would result in the same or approximately the same color for each species in the family.

After going to a standard seed company, we purchased our seeds--only to find that we could not complete our families with the usual domesticated varieties. We then contacted Mr. Albert Fuller, head of the Botany Department at the Museum, who graciously supplied us with the missing seeds.

We chose the following families and their species with which to work:

Solanaceae: Tobacco, Tomato, Ground Cherry, Petunia, Green Pepper, Red Pepper, Jimson Weed

Scrophulariaceae: Foxglove, Snapdragon, Veronica, Mullein, Flowering Lousewort, Figwort, Butter and Eggs

Leguminoseae: Beans, Kudzu Vine, Sweet Pea, Clover, Lupine, Rosary Beads, Chick Pea, False Indigo

Compositae: Dandelion, Vermuth, Aster, Chrysanthemum, Gaillardia, Marigold, Shasta Daisy, Zinnia, Thunbergia, Sunflower

Cucurbitaceae: Cucumber, Muskmelon, Pumpkin, Squash, Watermelon, Summer Crookneck Squash, Calabash Gourd, Neri Seed, Wild Cucumber, Balsam Apple.

When we had selected our seed supply, we proceeded to make our solutions, which we limited to simple chemicals since our work was being done on a high school level. Four dilute acids were used--hydrochloric, sulfuric, acetic, and nitric. One-tenth, one-twentieth, one-fortieth, and one-hundredth normal iodine solutions were used in the starch tests. Mercuric chloride, sodium chloride, potassium mercuric iodide solution, chlorine water, and ammonium hydroxide were used extensively. Carbon tetrachloride, carbon disulfide, ammonium molybdate, copper sulfate, and formalin were used to a lesser degree. Before the chemicals could be added, the seeds had to be ground very finely. Mostly the actual seed pulp was used, but in some cases a filtrate was also used to show a color reaction.

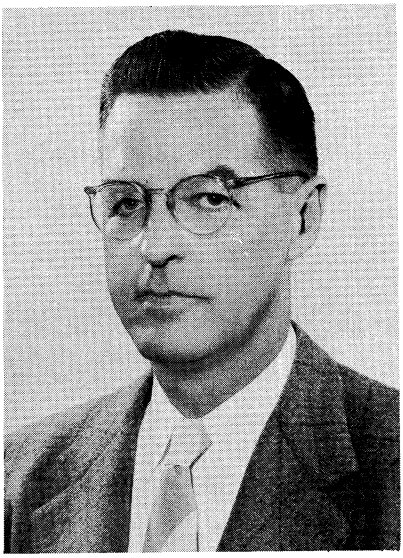
The project was divided into three chapters, each chapter composed of tests thought to be most suitable to the particular family used. The Solanaceae family was used in the first chapter, the Compositae and Leguminoseae families in the second chapter, and the Scrophulariaceae and Cucurbitaceae families in the third chapter. It would be impossible to give all the tests and their results; however, I will illustrate one of them. This is a buiret test which should give a purple-violet or pink-violet upon adding copper sulfate. To the standard bulk of seed was added two c.c. of fifteen normal potassium hydroxide and one-half c.c. of one per cent copper sulfate. The results were variations of the violet color; jimson weed the only member of the Solanaceae family giving a yellow tint.

We performed a total of 360 tests within a period of seven months. With few exceptions, each seed showed a definite resemblance to the other members of its family. We can definitely conclude that seeds could be used to identify plant families. Our work was most interesting and satisfying, for we were always eager to know how our results would turn out.

# # #

INTRODUCING TWO WISCONSIN FORESTERS

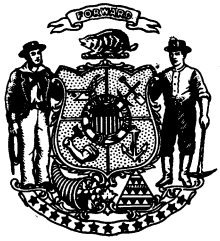
John A. Beale



Stanley W. Welsh

JOHN A. BEALE was recently appointed Chief State Forester with the Wisconsin Conservation Department. He also recently completed work for a Master's degree in Public Administration at Harvard. He is a member of the Society of American Foresters and received his B.S. in Forestry from Michigan State College in 1940. His native home is Rockford, Ill., where he secured his early schooling. He served in the army from 1941 through late 1945 when he was discharged with the rank of captain. He started work as a forester at Wausaukee in September, 1945, became a district forester at Park Falls in July, 1948, a forest inventory supervisor at Wisconsin Rapids in July, 1950 and supervisor in charge of county forestry in October, 1952. All of his experience has been in the cooperative forestry division. Beale, who recently affiliated with the Academy, maintains his office and home at Madison.

STANLEY W. WELSH was recently appointed Superintendent of Cooperative Forestry with the Wisconsin Conservation Department. The two other forestry divisions in the department, Forest Protection and Forests and Parks, are headed by Neil LeMay and C. L. Harrington respectively. Welsh, who is a member of the Wisconsin Academy, is a graduate of the University of Michigan School of Forestry where he received his Masters degree in Forestry in 1936. He started working for the Department that year as a Junior Assistant Forester in the Kettle Moraine State Forest and later worked out of Gordon and Brule. After his return from service in the Army Engineers, he worked continuously in the Cooperative Forestry Division out of the Madison office. One of his major jobs was supervision of the state's forest inventory program until Fred Wilson resigned his position and Welsh took over the division's program in an acting capacity.



State and Academy News

NEWS NOTES FROM MARQUETTE UNIVERSITY
Collected by Professor Scott L. Kittsley
(Review Reporter)

CYRIL C. O'BRIEN, Education department, was elected a Fellow in Esthetics at the annual convention of the American Psychological association held in New York. He also had an article on "The Growth of Psychology With Some Present Implications and Attendant Problems" in the November issue of the Wisconsin Academy TRANSACTIONS. The autumn issue of the American Catholic Sociological Review contains an article by him on "Designing a College Course in Alcoholism," and he also recently addressed the St. Thomas Aquinas Home and School association of Milwaukee on "The Mental Health of the Grade School Pupil" and spoke to thePTA of Dixon Public School of Brookfield on "Tests and Examinations." In August and September he gave two lectures to the Nova Scotia Music Teachers association on "Music Objectives in a Liberal Education," and "Artistic Principles in Interpretation and Performance." He also spoke to Halifax service clubs on "Industrial Psychology," to local educational groups on educational topics and to the Canadian Broadcasting corporation on "The Impact of Music on Television." ... E. S. McDONOUGH was the co-author of an article published in the July-August issue of Mycologia. The title was "Antimycotic Effects of an Extract of Catalpa." He wrote it in collaboration with ROBERT J. McGRAY of the Froma Research Company. ... A series of six booklets by ARLINE M. ALBRIGHT of the Education department and Miss GENEVIEVE E. RAAF of the Speech School has recently been published and is now being used in conjunction with the Marquette Speech Clinic. "They are not for therapists," Miss Raaf emphasized. "They are written in simple language and illustrated with charts and drawings so that parents will have an easily handled guide to help a child perform exercises at home. Also, they give us something to refer people to when they call asking for help." Titles are: Learning to Speak, Articulation Defects, Stuttering, Delayed Speech, Physical Defects, and Voice Problems. Obtainable at Marquette Book Store.

Honors and Awards

Academy member ERWIN R. SCHMIDT, M.D., who is professor of surgery in the UW Medical School and the University Hospital's chief surgeon, was recently awarded the Cine Clinic bronze plaque by Davis and Geck, Inc. for an educational motion picture he produced on "Surgery of the Aged." ... Academy member AARON BOHROD was twice honored recently when his still life picture "Georgic" won a $200 prize at the Old Northwest Territory Exhibition in Springfield, Illinois and when Time Magazine on December 6, 1954 called him "one of the foremost exponents of Trompe-l'Oeil painting in the United States." Bohrod had one man shows in both Chicago and Madison late last year. ... Recently UW President E. B. FRED received a gold medal from the Sons of the American Revolution (Milwaukee) "for outstanding contribution to citizenship." ... Academy member TAKERU HIGUCHI, professor in the UW School of Pharmacy, was named the 1954 winner of the Ebert Medal for "outstanding pharmaceutical research."

Positions Held in Organizations

New officers for the Wisconsin Music Teachers Association elected at their annual meeting in Madison on October 12, 1954 are: President, KENNETH BYLER, Lawrence Conservatory, Appleton; Vice-president, LeROY UMBS, Wisconsin College of Music, Milwaukee; Treasurer, Mrs. W. W. RICHARDS, Kenosha; Secretary, ROBERT MONSCHEIN, UW, Madison. ... JOHN Z. BOWERS, M. D., Dean of the University of Utah College of Medicine, has been appointed Dean of the UW Medical School. He will relieve WILLIAM S. MIDDLETON, M.D., on July 1. Besides being a good administrator, Bowers is also a radiobiologist. ... ROY E. SHAKE of Eastern Illinois State College has replaced UW Arboretum Botanist DAVID ARCHIBALD, who accepted a position in Sumatra. ... D. MURRAY ANGEVINE, professor of pathology at the UW Medical School, will serve as 1954-55 President of the Federation of American Societies for Experimental Biology. ... HENRY AHLGREN, Associate Director of the Agricultural Extension Service, has been re-elected Chairman of the State Soil Conservation Committee. ... PAUL VANDERBILT is the new curator of pictorial collections for the State Historical Society. ... Academy member H. C. GREENE is temporarily in charge of the UW herbarium as acting Curator of Higher Plants pending appointment of a successor to the late Professor N. C. Fassett. ... Academy member ALBERT FULLER (Milwaukee) is presently acting as chairman of the State Board for the Preservation of Scientific Areas.

Articles and Papers

(Editor's Note: Due to space limitations, articles in the Academy TRANSACTIONS are omitted and only articles and papers by Academy members can be mentioned; and it should also be understood this is not an attempt at a complete report by any means).

The following articles were recently published: Annual Fluctuation in Rate of Flower Production by Native Cypripediums during Two Decades (Torrey Bot. Club Bull.) and Scientific Areas in Wisconsin (Wis. Conservation Bull.) by JOHN T. CURTIS ... Population Changes in Some Native Orchids of Southern Wisconsin, Especially in the University of Wisconsin Arboretum (Wildflower) by JOHN T. CURTIS and H. C. GREENE ... Notes on Wisconsin Parasitic Fungi (Amer. Midl. Nat.), Supplement to Host Index of Parasitic Fungi Collected on Plants in Wisconsin, 1880-1950 (mimeo.) and Index to Parasite and Host Species: Notes on Wisconsin Parasitic Fungi (mimeo.) by H. C. GREENE ... Notes on Sorgum in Guatemala (Annals Missouri Bot. Gard.) by JONATHAN SAUER ... An Upland Forest Survey of the Milwaukee Area (Ecology) by P.B. WHITFORD and P. J. SALAMUN ... Soils of the Arboretum (UW Arboretum News) by FRANCIS D. HOLE.

Mean Intervals in Indices of Populations (Journ. of Wildl. Mgt.) and Review of "Those of the Forest" by WALLACE GRANGE (Wis. Cons. Bull.) and Reviews of "Bird Survey of the Detroit Region 1952" and "Wildlife Management" by Reuben Edwin Trippensee (Auk) by JOSEPH J. HICKEY ... Training for Wildlife Management (Journ. of Wildl. Mgt.), Review of "Round River" from the Journals of Aldo Leopold (Journ. of Wildl. Mgt.), Wildlife and Farm Fencerows in Wisconsin (UW Extension Service Circ. No. 469), Hybridization Between the Bob-white and Scaled Quail (Auk), and Balance of Nature (Bios) by ROBERT A. McCABE ... The Wintering Meadowlarks of Dane County, Wisconsin (Auk), A Study of Road Kills (Passenger Pigeon), and Color Phases of the Screech Owl Between Madison, Wisconsin and Freeport, Illinois (Auk) by A. W. SCHORGER ... In October, HERBERT W. LEVI and JOSEPH J. HICKEY issued a statement

to farm organizations entitled "A New Threat to American Agriculture - European Rabbits in the United States."

The Relationship of Soils and Forest Growth in the Algoma District of Ontario, Canada (Journ. of Soil Sci.) by S. A. WILDE, G. K. VOIGT and R. S. PIERCE ... EDWARD SCHNEBERGER was one of eight members of a group of biologists working with the Ohio River Valley Water Sanitation Commission which recently prepared a statement entitled, "Role and Progress Report of the Aquatic Life Advisory Committee." ... A report called "Mineral Resources of Wisconsin" was prepared by State Geologist GEORGE F. HANSON as Chairman of the Minerals Working group of the Natural Resources Committee of State Agencies.

Professor FARRINGTON DANIELS had an article on extreme heat in chemical technology in the September 1954 Scientific American. He also presented a paper at the recent AAAS sessions on "Fuels and Energy for the Future" and, in his recent world tour, discussed similar topics at a conference on wind and solar energy at New Delhi, India, and before the French Chemical Society and the Paris Staff of UNESCO in Paris ... MERLE CURTI recently addressed the American Historical Association in New York as its retiring President. ... PRESTON C. HAMMER recently gave a series of four lectures to the world headquarters staff of the IBM Corporation in New York on the new theory of solving differential equations numerically ... JOHN T. CURTIS recently presented a symposium paper on pure research in relation to orchidology at the First World Orchid Conference in St. Louis and also the Helen Gates Putnam Conservation Lecture at Vassar College. ... At the AIBS Gainesville conference, JOHN THOMSON presented a paper on arctic-alpine lichen ranging into South America and JOHN T. CURTIS an invitational symposium paper on "Ecology of antibiotic-producing organisms." ... The presidential address prepared by the late Professor N. C. FASSETT for the American Society of Plant Taxonomists was read by R. E. WOODSON.

MISCELLANEOUS NOTES

A Harry I. Russell Memorial Fund to be used specifically to aid students who major in, or are primarily interested in wildlife management, has been established by his son, ELDON RUSSELL and his family. This UW Department was established in 1933 by Dean Russell. About $3,000 has already been contributed. ... An Exhibition of paintings, graphics and sculpture by staff artists of the Milwaukee Public Museum is in progress at the Charles Allis Art Library in Milwaukee. Exhibitors include IRVING L. BIEHN, WARREN P. DETTMAN, C. KEITH GEBHARDT, EDWARD A. GREEN, OWEN J. GROMME, HELEN HACKETT, JOHN W. LUEDTKE, STEVE MAJEROWSKI, GENE MECIKALSKI, ALMA MORITZ, ARTHUR NIEHOFF, WILLIAM L. SCHULTZ, ADOLPH E. SEEBACH.

News from Ripon College: Prof. DWIGHT F. MOWERY, Jr., chairman of the chemistry department at Ripon, presented a paper at the national meeting of the American Chemical Society in September. It is titled "Chromatographic Adsorption IV: Investigation of the Use of a Strongly Acidic Ion-exchange Resin as Catalyst in Methyl Galactoside Formation," and will be published in the Journal of the American Chemical Society.

Pres. CLARK GEORGE KUEBLER has resigned as President of Ripon, effective February 1, 1955. He has been appointed provost of Santa Barbara College in California.

# # #

WISCONSIN HERITAGE
By Bertha Kitchell Whyte

Charles T. Branford Co.
551 Boylston street
Boston, 16, Mass.
October, 1954 - $6.50

There are approximately 340 illustrations in this book of 327 pages and they are a choice selection of the best available in the subjects discussed. Two of them are reproduced with this review. Mrs. Whyte carefully points out in her Preface that "this book is not a comprehensive inventory and does not pretend to exhaust any subject." Although some sections of the state and a number of elements of the "Wisconsin Heritage" were arbitrarily omitted, a very interesting account is given in many basic fields. Nine pages of notes and selected bibliography and a good index make this book more valuable as a reference source.

Chapter headings of this book will give an excellent indication of its contents. They are:

I. Early Taverns in Wisconsin
II. Wade House at Greenbush, Wisconsin
III. Old Gristmills
IV. Old Sawmills, Windmills, and Other Mills; V. Cobblestone Houses; VI. Old Miners' Houses at Mineral Point; VII. Octagonal Houses and Barns in Wisconsin; VIII. Covered Bridges; IX. Wisconsin Lumber Era; X. Quaint Gravestones and Historic Markers; XI. Shop Signs and Store Fronts; XII. Old Wrought Iron and Cast Iron; XIII. Wisconsin Potteries and Glass Works; XIV. Norwegian Heirlooms in Wisconsin; XV. Ralph Warner and Cooksville; XVI. The Disappearing Horse.

A Milwaukee Sentinel review of this book calls Mrs. Whyte's style "lucid and leisurely" and further states: "This book contains what is undoubtedly the finest collection of historic Wisconsin photographs ever assembled in a single volume." Mrs. Whyte credits many authorities for assisting her with the book, including Clifford Lord, Director of the State Historical Society.

The following quotation from the book jacket expresses the nostalgic quality of the book's contents: "Wisconsinites and others will welcome this colorful and fascinating notebook of pioneer days in the American midwest. Here is an honest and entertaining record of a well-beloved period in our American growth. It pictures faithfully the undaunted march of the first settlers, farmers, lumberjacks, innkeepers, millers, builders, brewers, craftsmen, artisans. It is a vivid folk history of the life and

lore of pioneers who trekked to Wisconsin and laid the foundations of a flourishing state.

"A wealth of information has been gathered in this book about the great traditions of the past: the great personalities, the artisans and thinkers who brought ideas from other states and other lands and welded them into a new culture. The atmosphere and special flavor of these older generations have been captured and preserved in these readable pages. Here are unforgettable portraits of men and women, descriptions of feuds and undertakings, narratives about spies, glass blowers, potters, innkeepers, sportsmen, and a host of others. Here is a treasure house of memorabilia of Wisconsin."

Mrs. Whyte is the wife of a Milwaukee attorney, Malcolm K. Whyte, who is also President of the Layton Art School Board of Trustees. Although this is her first book, she previously did a column called "The Collector" for the Wisconsin Magazine of History and in 1936 wrote a newspaper series on "Wisconsin primitives." "Wisconsin Heritage" was the result of about 15 years of work and much rewriting as new materials were discovered. Many of the photographs are originals taken by her as the result of travels in the state, and a number of the examples of primitive materials illustrated are from items in her collection.

It is easy to agree with the Milwaukee Sentinel reviewer in the statement that Mrs. Whyte "has managed to prepare a book studded with warm, kaleidoscopic views of the yesterdays of our state. Historians and laymen alike must be grateful for her labors."

# # #

Bateaux and log jam below Jim Falls Bridge, 1905. (Collection of Mrs. Cora Burch, Cornell)

BRULE COUNTRY
By Albert M. Marshall

North Central Publishing Co.
184 West College street
St. Paul, Minnesota
July, 1954 - $3.00

Gordon MacQuarrie, Outdoor Editor for The Milwaukee Journal and author of an article called "River of the Burnt Wood" in the November 1954 Sports Afield, has this to say of ALBERT MARSHALL'S "Brule Country" in the Milwaukee Journal for July 25:

"A publisher who likes to handle the news personally, and who likes to write it and gather it, Al has had that Brule story running through his mind since he was a youngster. From a boyhood spent on the river with his family, he knows every curve and rapids of the storied river, and that, to be sure, is all in the book.

"But over and beyond that he tells the story of the development of the northwest country, with the Brule, of course, as the focal point because of its strategic position as a travel route. It's a big story and a long one, starting with the French coming up the St. Lawrence and working west. Those early Frenchmen even named Brule - Bois Brule. It means place of the burnt woods.

"The author might just as well have titled his book, "The Lake Superior Country," but it's just as well that he decided on "Brule Country," because the Brule, modest though it is in size, holds down a mighty big place in history.

"Badgers with a desire to know about their roots will profit by reading Marshall's carefully documented story of those first white men in Wisconsin - Nicolet, the bold DuLhut, Raddison and his brother-in-law Groseilliers, and those later visitors like Schoolcraft, Cadotte and many others.

"It's a grand job of research and writing. The Brule history of this century is something Al Marshall ingested with his breakfast porridge. And it will please a lot of people, including this reporter, to know that Al dedicated his book to one of the finest old gentlemen in the north - Mr. Joe Lucius, of Solon Springs, Wis."

Albert M. Marshall is presently editor and publisher of the Red Wing (Minnesota) Republican Eagle. From 1934 to 1939 he was editor and publisher of the Berlin Evening Journal in Green Lake county, Wisconsin. After his graduation from Yale in 1924 he worked for awhile for the Marshall-Wells Company in Duluth, a wholesale hardware firm founded by his father. During these years, and in his boyhood, he spent much of his vacation time at the family cottage on the Brule.

This well-documented story includes much of recent history too. It tells about the notorious Frank J. Bowman who used dogs and drift fences to drive deer into pits where they were slaughtered, and also of Henry Clay Pierce and his famous "Cedar Island" where President Calvin Coolidge stayed in 1928. Historians and those who like historical narratives will enjoy the anecdotes about DuLhut, Curot, Schoolcraft and Spalding. # # #

THE UNIVERSITY AND ITS PUBLICS
By Clarence A. Schoenfeld

Harper and Brothers
49 East 33rd street
New York, 16, N. Y.
October, 1954 - $4.00

The Dean of the University of Oregon's School of Journalism calls this "a distinguished book--distinguished for its erudition, for its meatiness, for its coverage of the proper subjects in good depth, for its broad-gauged approach, but most of all distinguished for its emphasis on basic philosophy and its omission of the technique trivia that pad most works of this sort."

The author, Professor CLARENCE A. SCHOENFELD, is Chairman of the Extension Department of Journalism and Assistant to the Director of the University of Wisconsin Extension Division. He is a native of Wisconsin's Lake Mills region and a UW graduate. He dedicated this first book to UW President E. B. Fred, who, in the words of the author, "personifies educational statesmanship."

In the foreword, JOHN GUY FOWLKES, former dean of the UW School of Education, says the book "is informative and useful to administrators and to all others associated with a university or college who are concerned with protecting and advancing its reputation in the community at large." Its emphasis "is on constructive strategy and integrity of educational outlook rather than on publicity devices."

Theme of the book is the belief that "the modern American university seeks to be at once responsible for traditional ideals and responsive to timely public need and will. Only the universities which develop their programs within such a dual framework will merit and receive the moral and monetary support they will require in the days ahead." In an effort to improve both the understanding and the administration of such a philosophy, Schoenfeld describes in detail the background and the points of view of the various "publics" with which colleges and universities have to deal. This book is a part of the "American Series of Public Relations Books" edited by Professor REX HARLOW of Stanford.

# # #

MISCELLANEOUS BOOKS AND BOOKLETS

PAUL L. WILEY, UW Associate Professor of English, recently had his book, "Conrad's Measure of Man" published by the University of Wisconsin Press. It sells for $3.85. Warren Beck, in a Milwaukee Journal review, states that "Wiley's book should help clarify Conrad's classic status as a writer involved and experienced in his times, and committed to them, yet pondering life in the full perspectives of western culture." The UW Press advertisement on the book states: "Accepting in its fullest meaning Conrad's statement that he wished the reader to see his characters think, Professor Wiley has examined the imagery Conrad used throughout his stories to portray psychological conflict.

"Essentially analytical in its approach, this book does not attempt to assign Joseph Conrad a place among the literary great by extensive comparisons of his work with that of others; neither does it attempt a definitive critical treatment. Proceeding from a thorough examination of Conrad's texts, Professor Wiley assumes a certain familiarity with them on the part of the reader, who--whether he always agrees or not--is introduced to a new point of view and provoked to a re-evaluation. The book is a critical departure in its tracing of a continuously ironic attitude toward man in Conrad's view of life and in its integration of Conrad's personal philosophy with his literary methods.

An important aid in the solution of subsurface geologic problems in Wisconsin has been made generally available with the publication of the work of two UW geologists. "Geophysical Methods Applied to Geologic Problems in Wisconsin," the result of four years of investigations (1949-1953), was written by UW Geophysics Prof. GEORGE P. WOOLLARD and State Geologist and UW Staff Member GEORGE F. HANSON. Purpose of the report, Bulletin 78 in the Wisconsin Geological Survey series, is "to show the degree to which geophysical studies can be of assistance in resolving some of the problems of subsurface water supply, mineral exploration, engineering, and subsurface geology encountered in Wisconsin."

Geophysics, a relatively young branch of geological investigation which has been pioneered at the University of Wisconsin, uses some seven types of measurement which are basic to the work of determining what lies hidden beneath the earth's surface: gravity, magnetic, electrical, electro-magnetic, seismic, thermal, and radio-active. Towns at which the studies were made include Cumberland, Spooner, Hayward, Cable, Upson, Hurley, Crystal Falls, Marek, Antigo, Gresham, and Greenwood in the north; Marshfield, Vesper, Neillsville, Oshkosh, Wisconsin Dells, Baraboo, and Campbellsport in the central portion of the state; and Argyle, Madison, Lake Mills, Milwaukee, Blue Mounds, Shullsburg, and Elkhorn, south.

PHOEBE ERICKSON, who was born and grew up on a farm at the tip of the Door County Peninsula, is the author of another children's book called "Daniel 'Coon," the story of a pet raccoon (Knopf,$3.) Both this book and an earlier one "Black Penny," about a colt she raised and trained, are illustrated with beautiful drawings which make these children's books outstanding. Now Mrs. Arthur Blair, her art work has been shown in the Metropolitan and Whitney Museums in New York and in galleries throughout the country.

The Wisconsin Conservation Department has recently bound together a series of reprints from the TRANSACTIONS of the Academy in a 228-page book called "The Brule River - Douglas County." This collection is the result of scientific reports on this watershed prepared over the past decade. The department's supply is not for sale, but this same series can be purchased from the Academy secretary for $1.50. (See page 46).

An important publication for everyone interested in the state is "Wisconsin Agriculture in Mid-Century," Bulletin No. 325 of the Wisconsin Crop and Livestock Reporting Service, State Capitol. The 87-page booklet, available free of charge, contains many maps, charts and statistical tables. WALTER H. EBLING, in charge of this service, states that data from the 1950 census was used.

"Rural Planning and Zoning," Bulletin 19 of the State Planning Division (Bureau of Engineering, State Capitol) was issued recently. Available free, it is 21 pages and a colored map plate showing counties and towns in which zoning ordinances are now effective.

The first "ASL Research Report" from the American Scientific Laboratories, Inc. of Madison was issued in August 1954. It was prepared by PHILIP G. WHITE, S. B. HITCHNER and MARY S. AUGUSTINE on the subject of "Spray Vaccination Against Newcastle Disease Using Commercially Prepared Intranasal Type Vaccine."

A 15-page booklet, "Wisconsin Forest Facts" (1954 edition) was recently published by the Wisconsin Forest Industries Committee (408 Bellin Bldg., Green Bay). It is available free.

# # #

The following "Call for a Meeting to Organize" is reprinted from the first Bulletin of the Academy dated April, 1870. It was issued on February 1, 1870 and it is reported that in response to the call, "a large number of prominent citizens assembled."

COPY OF THE CALL FOR A MEETING TO ORGANIZE.

The undersigned believe that the prosperity and power of a State depend not more upon its material resources than upon the culture of its people and the extent of their knowledge of nature and man. Accordingly, we recognize the high claims of all properly organized institutions of learning, as being essential to the public welfare, and hence clearly entitled to the fostering care of government and people. But we also recognize the fact that such culture and knowledge as are furnished by all schools and colleges are themselves primarily dependent on the discoveries, inventions and labors of men and associations of men devoted to original investigation; and that, therefore, it has been the policy of every enlightened country of modern times to encourage the establishment of societies and institutions for the promotion of such objects. No European State is without them; and the same is true of nearly every one of the Northern United States.

Our own great State, even richer in its varied resources than vast in extent, is almost the only exception—its millions of acres of fertile lands, its apparently inexhaustible mines, its immense forests of timber, and its unexampled facilities for manufacturing and commercial industries almost entirely unknown to the world at large, and but very imperfectly understood and appreciated by even our own citizens.

And yet we number more than a million of people; including, doubtless, as fair a proportion as neighboring States of persons possessed of the scientific tastes, aptitudes and attainments requisite to a thorough exploration of our State as well as the ability to contribute to the progress of the sciences and arts themselves.

An institution of the kind in question would bring into more intimate relations many men, who, though already more or less engaged in original studies and investigations of various kinds, accomplish less than they would had they frequent association with each other, a common storehouse into which to bring their material collections, and some proper medium through which to publish the approved results of their scientific labors to the world.

It would awaken a scientific spirit in all enquiring minds, and thus lead to a more fruitful intellectual activity among the people at large and to a wider diffusion of useful knowledge.

Through a scientific and economical exploration of the State, to which it would early lead—and which it might with great advantage direct—as well as through the published results of independent investigations, conducted by its members, it would do much towards bringing the many natural advantages of our State to the notice of foreign populations, and especially to captalists, both at home and abroad; thus promoting the more rapid and more economical development of our material resources.

It would result in new and important applications of science to the practical arts, and thus advance the industry of the country.

It would associate artists of every class, establish higher standards for the execution of works of art, and lead to the formation of an art museum.

It would bring together men of letters and promote advancement in every department of language, literature and philosophy.

It would also tend to promote the literary and æsthetic culture of the people, and by the quickening, invigorating, and elevating influence it would exert upon all our higher educational institutions, largely contribute to the social progress of the State, and the earlier insure to Wisconsin an advanced position among the most enlightened communities of the world.

We further believe that the time has now come, when, with proper effort on the part of those who may be reasonably expected to aid in so important an enterprise, the foundations may be laid for an institution that shall be of great practical utility and a lasting honor to the State.

We cordially unite, therefore, in asking the attention of all intelligent citizens to this subject, and especially in calling upon such of them as are willing to co-operate, to meet in the State Agricultural Rooms, at Madison, on Wednesday, Feb. 16th, at 2 P. M., for the purpose of organizing an Academy of Arts and Sciences for Wisconsin, and of taking such steps as shall seem most judicious towards placing it upon a substantial pecuniary foundation. [Signed],

L. FAIRCHILD,	NELSON DEWEY,	A. MITCHELL,	JOHN G. McMYNN,
I. A. LAPHAM,	G. C. HAZELTON,	D. W. MAXON,	GEO. REED,
J. H. VAN DYKE,	SOLON MARKS,	DAVID ATWOOD,	J. J. BUSHNELL,
P. R. HOY,	ASAHEL FINCH,	W. H. CHANDLER,	GEO. ABERT,
J. H. EVANS,	M. H. PETTIT,	SATERLEE CLARK,	D. H. RICHARDS,
GEO. B. SMITH,	LYMAN MORGAN,	J. C. SQUIRES,	CHAS. PREUSSER,
TIM O. HOWE,	JAS. H. EARNEST,	HENRY STEVENS,	JAS. H. FOSTER,
T. C. POUND,	A. L. CHAPIN,	JOHN LAWLER,	L. O. THOMPSON,
WM. PITT LYNDE,	ROLLIN A. SMITH,	J. L. JENCKES,	P. ENGELMANN,
J. M. BINGHAM,	R. B. TREAT,	ADAM SCHANTZ,	W. PORTER,
J. I. CASE,	JOSEPH HOBBINS,	P. V. DEUSTER,	C. G. WILLIAMS,
L. C. DRAPER,	R. G. HINSDALE,	C. E. McINTOSH,	ELI STILSON,
G. M. STEELE,	N. WILLIAMS,	D. H. JOHNSON,	DANIEL HALL,
A. S. McDILL,	WM. J. KERSHAW,	D. J. PULLING,	B. R. HINKLEY,
L. W. JOINER,	R. Z. MASON,	H. P. GATCHELL,	C. R. GLEASON,
H. H. GRAY,	JOHN MURRISH,	DAVID TAYLOR,	W. F. YOCUM,
LI. BREESE,	J. C. FOYE,	JOAN CARTHEW,	LUTHER BUXTON,
E. B. WOLCOTT,	JOHN E. THOMAS,	J. H. ROUNTREE,	H. D. BARRON,
HENRY BAETZ,	C. A. HUNT,	ALEX. GRAHAM,	WILLIAM BURGIT,
D. W. JONES,	A. V. BALCH,	W. W. FIELD,	J. G. THORP,
S. S. BARLOW,	S. A. PEASE,	A. E. GORDON,	C. C. KUNTZ,
H. H. GILES,	J. C. CULVER,	J. H. EATON,	S. S. SHERMAN,
H. L. DOUSMAN,	THEO. RODOLPH,	SAM'L PRATT,	D. WORTHINGTON,
HENRY S. BAIRD,	T. L. TERRY,	W. M. GRISWOLD,	JOHN C. HALL,
A. J. CRAIG,	S. U. PINNEY,	G. P. DELAPLAINE,	W. W. WOODMAN,
A. S. SANBORN,	E. D. HOLTON,	G. W. CATE,	T. C. CHAMBERLIN,

J. W. HOYT.

A study of this list of names would pay dividends to historians--especially those preparing the "Dictionary of Wisconsin Biography." It is interesting to note that at least one woman, JOAN CARTHEW, was among those who issued this significant "call". All aspects of the State's life were represented.

# # #

SEPARATES FROM TRANSACTIONS AVAILABLE FOR SALE

By Robert J. Dicke, Secy.-Treas.

All prices for this and subsequent listings are subject to change without notice (depending upon the supply of surplus volumes). Please place your order directly with the Secretary, who will bill you for your purchase following delivery.

In the previous (Fall) issue of the Review, a series of papers in the general field of entomology was listed. Prices on these have now been determined. Vorhies' Studies on the Trichoptera of Wisconsin is priced at 75 cents, and Wilson and Vickery's Aphididae of the World at $1.00. Since Vol. 20 is in short supply, Fluke's Syrphidae of Wisconsin is available at $1.00 and all other papers appearing in this volume at 50 cents. All other papers listed in the series are available at 15 or 25 cents, depending upon length. The entire series (excluding the 4 papers appearing in Vol. 20) are available for $7.00. The following two papers were omitted from the original listing:

P. R. HOY--On the Catocalae of Racine County. Vol. III:96-7 (15 cents)
C. B. HARDENBERG--Comparative Studies in the Trophi of the Scarabaeidae, Vol. 15(2):548-602

The BRULE RIVER SURVEY papers comprising 200 pages (including numerous pictures and illustrations and an 8-page aerial guide) are available at 15 cents each and $1.50 for the entire set.

A number of very excellent publications in the general field of botany are now available for sale. Among these are the taxonomic series of Preliminary Reports on the Flora of Wisconsin in 37 parts to date. Many of these papers were written by or under the direction of the late Prof. N. C. FASSETT. The series is 360 pages in length, including 116 pages of maps on distribution of species, and with complete keys to species in each group. Parts 1-23 and 25-37 are offered at 15 cents each, and the entire set (excluding Part 24) at $4.00. Part 24, appearing in Vol. 29 which is in very short supply, is available at $1.00. A complete listing of the series is as follows:

Preliminary Reports on the Flora of Wisconsin:

I. JUNCAGINACEAE, ALISMACEAE. N. C. Fassett, Vol.24, pp.249-256
II. ERICACEAE. N. C. Fassett, Vol. 24, pp. 257-268
III. LOBELIACEAE, CAMPANULACEAE, CUCURBITACEAE. K. L. Mahony, Vol. 24, pp. 357-361
IV. LYCOPODIACEAE, SELAGINELLACEAE. L. R. Wilson, Vol. 25, pp. 169-175
V. CONIFERALES. N. C. Fassett, Vol. 25, pp. 177-182
VI. PANDANALES. N. C. Fassett, Vol. 25, pp. 183-187
VII. BETULACEAE. N. C. Fassett, Vol. 25, pp. 189-194
VIII. ACERACEAE. N. C. Fassett, Vol. 25, pp. 195-197
IX. ELATINACEAE. N. C. Fassett, Vol. 25, pp. 199-200
X. HALORAGINACEAE. N. C. Fassett, Vol. 25, pp. 201-203
XI. RANUNCULACEAE. L. Almon, Vol. 25, pp. 205-214
XII. POLYPODIACEAE. E. W. Breakey and R. I. Walker, Vol. 26, 263-273

XIII. FAGACEAE. D. F. Costello, Vol. 26, pp. 275-279
XIV. HYPERICACEAE. W. T. McLaughlin, Vol. 26, pp. 281-288
XV. POLYGONACEAE. K. L. Mahony, Vol. 27, pp. 207-225
XVI. XYRIDALES. N. C. Fassett, Vol. 27, pp. 227-230
XVII. MYRICACEAE, JUGLANDACEAE. N.C.Fassett, Vol. 27,pp.231-234
XVIII. SARRACENIALES. F. B. Livergood, Vol. 27, pp. 235-6
XIX. SAXIFRAGACEAE. N. C. Fassett, Vol. 27, pp. 237-249
XX. MALVALES. A. M. Hagen, Vol. 27, pp. 247-9
XXI. GERANIALES. N. C. Fassett, Vol. 28, pp. 171-186
XXII. CORNACEAE. A. A. Drescher, Vol. 28, pp. 187-190
XXIII. URTICACEAE. D. F. Costello, Vol. 28, pp. 191-6
XXIV. SALICACEAE. D. F. Costello, Vol. 29, pp. 299-318
XXV. ARALES. N. C. Fassett, Vol. 30, pp. 17-20
XXVI. CONVOLULACEAE. S. O. Fogelberg, Vol. 30, pp. 21-5
XXVII. LENTIBULARIACEAE. J. W. Thomson,Jr., Vol. 32, pp. 87-9
XXVIII. CAPRIFOLIACEAE. D.R. and D.E. Wade, Vol. 32, pp. 91-101
XXIX. ANACARDIACEAE. N. C. Fassett, Vol. 32, pp. 103-6
XXX. RHAMNALES. R. W. Pohl, Vol. 32, pp. 107-11
XXXI. SOLANACEAE. N. C. Fassett, Vol. 35, pp. 105-112
XXXII. BORAGINACEAE. E. P. Kruschke, Vol. 36, pp. 273-290
XXXIII. RANUNCULACEAE. N. C. Fassett, Vol. 38, pp. 189-209
XXXIII. NAJADACEAE. J. Ross and B. Calhoun, Vol. 40, Pt. 2, pp. 93-110
(Ed.Note: Above two are both listed as XXXIII.)
XXXIV. LILIALES. J. A. McIntosh, Vol. 40, Pt. 1, pp. 215-242
XXXV. ARALIACEAE. N. C. Fassett and H. J. Elser, Vol. 40, Pt. 1, pp. 83-5
XXXVI. SCROPHULARIACEAE. P. J. Salamun, Vol. 40, Pt. 2, pp. 111-138
XXXVII. CYPERACEAE, Pt. 1. H. C. Greene, Vol. 42, pp. 47-67.

A number of papers are of interest as references to the flora of specific areas within the state. These may be obtained for 15 cents each (with the exception of those appearing in Vol. 20 which are priced at 50 cents each), or the entire series of 21 papers (excluding those from Vol. 20) for $2.00.

L. S. CHENEY and R. H. TRUE--On the Flora of Madison and Vicinity, A Preliminary paper on the Flora of Dane county, Wisconsin. Vol. 9(1):45-135, 1 folded map
R. S. ELLARSON--The Vegetation of Dane county. Vol. 39:21-45, 1 folded map in color
C. T. and B. B. BRUES--The Grasses of Milwaukee county, Wisconsin. Vol. 17(1):57-76, 3 pls.
S. C. WADMOND--Flora of Racine and Kenosha counties, Wisconsin: A list of the Fern and Seed Plants growing without cultivation. Vol. 16(2):798-888
J. E. POTZGER--Flowering Plants of Vilas county, Wisconsin. Vol. 35:139-145

L. S. CHENEY--A Contribution to the Flora of the Lake Superior Region. Vol. 9(1):233-254
R. MARSHALL--The Vegetation of Twin Island. Vol.16(2):773-796
H. F. LUEDERS--The Vegetation of the Town Prairie du Sac. Vol. 10:510-524
A. S. HAWKINS--A Wildlife History of Faville Grove, Wisconsin. Vol. 32:29-76
A. B. STOUT--The Bur Oak Openings in Southern Wisconsin. Vol. 36:141-161
R. P. MCINTOSH--Pine Stands in Southwestern Wisconsin. Vol. 40(1):243-257

A. M. FULLER--The Ridges Wild Flower Sanctuary at Baileys Harbor, Wisconsin. Vol. 40(1):149-157, 4 pls.
P. A. GREEN--Ecological Composition of High Prairie Relics in Rock county, Wisconsin. Vol. 40(1):159-172
J. CATENHUSEN--Some Aquatic and Sub-aquatic Plants from the Region of Glacial Lake Wisconsin. Vol. 36:163-169
J. CATENHUSEN--Secondary Successions on the Peat Lands of Glacial Lake Wisconsin. Vol. 40(1):29-48
R. H. DENNISTON--A Survey of the Larger Aquatic Plants of Lake Mendota. Vol. 20:495-500 (50 cents)

H. W. RICKETT--A Quantitative Study of the Larger Aquatic Plants of Lake Mendota. Vol. 20:501-527 (50 cents)
H. W. RICKETT--A Quantitative Study of the Larger Aquatic Plants of Green Lake, Wisconsin. Vol. 21:381-414
N. C. FASSETT--The Plants of Some Northern Wisconsin Lakes. Vol. 25:157-168
L. R. WILSON--The Larger Aquatic Vegetation of Trout Lake, Vilas county, Wisconsin. Vol. 33:135-146
J. E. POTZGER--Study of the Rooted Aquatic Vegetation of Weber lake, Vilas county, Wisconsin. Vol. 34:149-166

A listing of other specialized series of papers in the general field of botany will be continued in a subsequent issue of the Review.

# # #

President Dunn's Installation Address (continued from page 12) highest ranking Wisconsin college in the group with an index of 17.6.

"The future of independent and church-sponsored liberal arts colleges is a concern for all people. We are called upon to answer two questions: 1. Why continue the independent school? 2. For what does liberal arts train one?

"There are many answers to the first question--why continue a struggling non-tax-supported school? In the last analysis they simmer down to one blunt answer. There is a concern on the part of all right-thinking members of a democracy about the trend in education. We the people, the Demos, do not wish to surrender all education to any state. Three times in our generation dictators have tried it. We shudder as we view the wreckage. In this country, religion was separated from the state by the founding fathers, and it would seem that education, which is the handmaiden of religion, should also be spared from supreme state domination. It is a trademark of a free people that they shall control the training of their own youth.

"We in Wisconsin are most fortunate. A large number of our industrialists have seen fit to be concerned about education under private auspices. The recently launched Wisconsin Foundation of Independent Colleges, brought to fruition by the industrialists as much as by the educators, is an evidence of sincere interest on the part of big business.

"I believe you share with me a conviction that we Americans are capable of working out our own destiny with a minimum of state dictation. We would have not less education by the state, but we shall insist on education being shared by the state.

"It may be difficult to survive this decade. Our problem was born during the depression. Unless our whole economy goes in reverse there will come a day when those who come after us will rise up and call blessed those who came to the support of the independent college in the fatal fifties."

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A Message from the Secretary-Treasurer

Is an Academy which attempts to embrace the sciences, arts and letters justifiable in this modern period of specialization?

During the early years of the Wisconsin Academy, there were comparatively few men whose professional or avocational interests were concerned with artistic, literary or scientific efforts, and the need for a common intellectual bond was obvious. Today, the numbers of men and women actively interested in teaching or the results of research in the sciences and humanities has greatly increased, along with a necessary specialization within a comparatively narrow sphere. Also, many of us are members of professional or scientific societies whose activities are concerned primarily with our specialties.

It is this atmosphere of specialization in which we must operate that gives the Wisconsin Academy a new and unique purpose. The Academy is an excellent medium through which we can not only express and communicate our personal interest to others, but in return broaden our own intellectual horizons.

The appreciation and support of a specialist, such as an entomologist or a Shakespearean scholar, by his colleagues, is directly proportional to their acquaintance with his field. The Academy is an excellent means of promoting our interests (and the academic, scientific or professional organizations we represent) among those whose understanding and support we should encourage.

Although we may have to work within a narrow field, our intellectual interests should go beyond these confining limits. We fail to appreciate and enjoy another's specialty mainly through our ignorance of it.

The Wisconsin Academy is worthy of support if for no other reason than the opportunity it provides for each of us to explain our projects and to expand our own intellectual and inspirational experiences.

ROBERT J. DICKE