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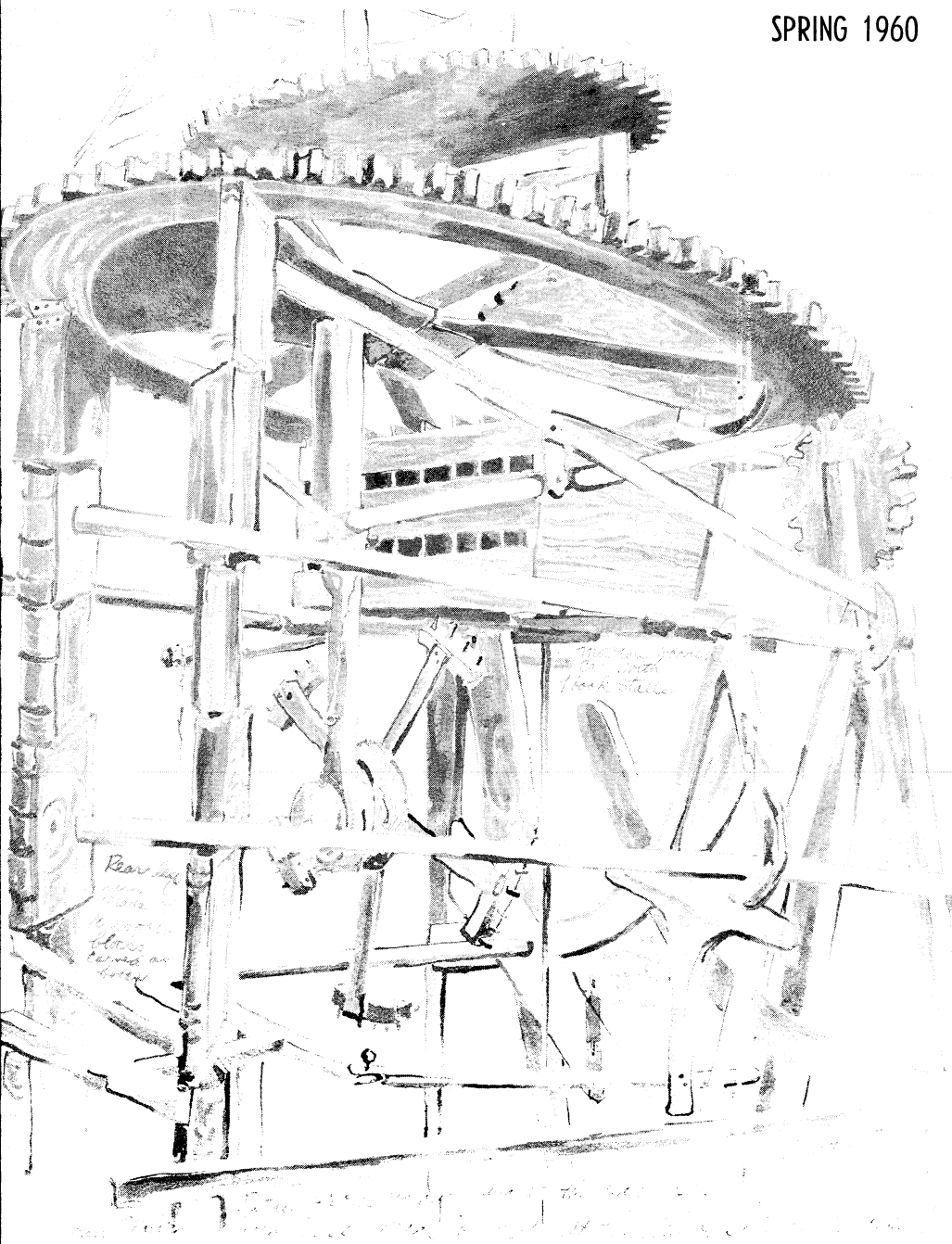
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WISCONSIN ACADEMY REVIEW

SPRING 1960



PUBLISHED QUARTERLY

THE WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS

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THE TIDE OF HISTORY IN WISCONSIN LAKES*

By Alice E. Smith, Chief of Research
State Historical Society



Of all Wisconsin's wealth of natural resources, the first to be exploited by white men were the two great lakes that border it for 450 miles on the north and east. Surprisingly, Lake Superior was known to white men earlier than Lake Michigan. The area that became Wisconsin was probably first sighted and explored, and certainly first missionized, from the greatest of the Great Lakes. A decade before Jean Nicolet's voyage of 1634 brought him to the shore of Green Bay the French missionaries in Canada knew that there was a "very great lake" above Lake Huron and that Indians mined copper somewhere on its shores or islands.

Governor Champlain's map of the western lakes, drawn before he left Canada in 1629 and published in 1632, shows the lake we know as Superior, labeled "Grand lac," as well as its connection with Lake Huron by way of the St. Mary's River and the Sault Ste. Marie. The explorer who furnished this information is believed to have been Etienne Brule, one of the governor's interpreters who journeyed widely in the western wilderness. It is thought that Brule may even have reached the western end of the lake and have given his name to the trout stream in modern Douglas County, the Brule. All this, it will be noted, preceded the better known voyage of another of Champlain's explorers, Jean Nicolet, in which we believe he discovered Lake Michigan and landed at Red Banks on Green Bay, clothed in his "grand robe of China damask," and carrying "thunder in both hands."

A plaque on the Lake Superior shoreline between Ashland and Bayfield commemorates the establishment of the first known white habitation in Wisconsin. Three centuries ago this winter, 1659-60, the French traders, Radisson and Groseilliers, followed the southern border

* - Paper presented on symposium on Wisconsin lakes at Academy's 90th Anniversary meeting, May 7, 1960, Madison.

of Superior, erected a rude shelter at the head of Chequamegon Bay, then moved inland to an unidentified lake, believed to have been the historic Lac Court Oreilles in modern Sawyer County. In the summer of 1660 they emerged from the lake country and started homeward. Enchanted with the unspoiled Wisconsin wilderness, Radisson in later years pictured the time when white men should inhabit this beautiful region of woods and waters which, to him, seemed a "laborinth of pleasure." A year later, in 1661, Wisconsin's first missionary, Father René Menard, celebrated Mass at Chequamegon Bay and soon lost his life in a search for Indian converts who had moved to that same Lac Court Oreilles. Before the decade of the 1660's ended, Menard's successor, Father Allouez, had skirted the entire coast of Lake Superior. His map of its shores appeared in the Jesuit Relations of 1670-71.

By this time activities, religious and secular, were shifting to Lake Michigan's shore, introducing names that have become familiar in Wisconsin history: Perrot, André, La Salle, and many others. In 1673 Louis Jolliet and Father Jacques Marquette made a canoe voyage over the Fox-Wisconsin waterway and "discovered" the Upper Mississippi, thus opening to white penetration Wisconsin's third great water boundary and culminating a stirring half century of exploration.

All these discoveries had been made by the French; all the perilous voyages had been made over the paddle-and-portage route from Montreal up the Ottawa River and through Lake Nipissing to Lake Huron, thence by way of the Sault to Lake Superior or through the Straits of Mackinac to Lake Michigan.

What brought these French voyagers to this remote untamed land? With some it may have been mere curiosity, the thrill of venturing into the unknown; with others, a patriotic desire to extend the frontiers of the great monarchs, Louis XIII and XIV.

Unquestionably a driving force from the start was the exchange of European goods for the Indians' seasonal catch of furs, a motive that was to overshadow all others and give a name to an era. But in the first wave of expansion the chief role was played by the missionaries, eager to spread the true faith among the people who dwelt in darkness.



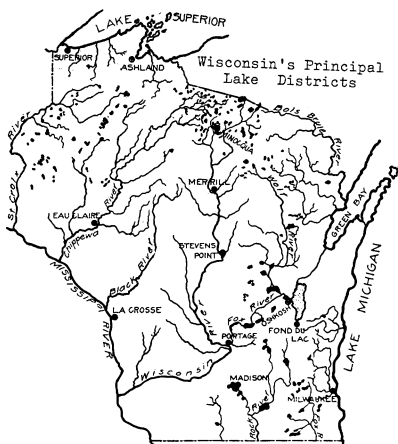
Trader and priest, adventurer and king's emissary, they all approached Wisconsin by the great freshwater

seas that border it. One among them, Father Hennepin, has pointed out our indebtedness to these early pilots to our shores: "Those who shall be so happy as to inhabit that noble country cannot but remember with gratitude those who discovered the way by venturing to sail upon unknown lakes."

With the passing decades great changes occurred that vitally affected life on both sides of the Atlantic. In the western Wilderness Indian nations at times battled one another, at times defied the encroaching whites, at times led great canoe caravans eastward to assist one or the other combatant in "civilized" warfare near the coast. By virtue of wars and treaties French territory in the New World became British domain, and before long the British standard south of the Great Lakes was in turn replaced by the stars and stripes.

Throughout the military and political upheavals the Upper Country's great industry, the fur trade, continued relatively uninterrupted. The quest for furs drove traders ever deeper into the immense pine forests. There they built their winter shelters, often called forts by virtue of the stockades that enclosed them. Frequently these wintering posts were located on lakes, especially places where a navigable stream met a lake, thus affording ease in travel as well as fish for food. More important, Indians would be near, since the natives sought lake and river shores for village sites for the identical reasons as the whites.

Long before the name Wisconsin first appeared on any map of this area many of our lakes were known to French traders by names that still persist, either in the original French or in translations. Familiar examples are Lac Vieux Desert and Lac du Flambeau in the Wisconsin River system, Rice Lake and Court Oreilles in the Chippewa, and Clam (shown as Shell or La Coquille in early maps) and Yellow (shown as Jaune) in the St. Croix. Lakes Superior and Michigan became busy highways of traffic as the fleets of bateaux and Mackinac boats of the American Fur Company moved back and forth between numerous Wisconsin posts and Mackinac



Island, the entrepot of John Jacob Astor's western enterprise.

As the thin vanguard of settlement pressed northward and westward towards the Wisconsin area, the United States government negotiated the purchase of Indian tribal claims to the terrain and dispatched surveyors to mark town and range lines. With more than deliberate speed land promoters rushed into the territory, laying out townsites destined, in their glowing literature, to become thriving metropolises. Old trading posts situated where stream met lake were still the most favored locations: witness the well-known ports on the Lake Michigan coast from Kenosha northward to Marinette and the Lake Winnebago cities of Fond du Lac, Oshkosh, and Neenah-Menasha.

The busy promoters designed networks of canals to lead inland from these ports to less fortunately situated villages, thus providing transportation for all manner of watercraft which would bring them into close communication with the major rivers and the Great Lakes. Few of the town planners looked beyond economic needs. A refreshing exception was James Duane Doty. In selecting (and lobbying the enactment of) a capitol site for Wisconsin Territory Doty considered all the usual values: lake frontage on a river system, feasibility of canal connections with Lake Michigan ports, and central situation in the occupied part of the territory. He also considered beauty of surroundings. In a transport of delight over the happy choice of Wisconsin's capitol site he proclaimed Madison to be "a spot unrivalled by any seat of government in the world."

But Badger planners in the 1830's were underestimating the force of a new invention, the railroad, already in operation in eastern states and in Europe. The centuries-old ascendancy of water transportation was ending, bringing a revolution in the economy. Beginning in 1851, Wisconsin laid 900 miles of railroad trackage by the opening of the Civil War, and by the time the state reached its greatest mileage in 1916, it had nearly 7,700 miles of road.

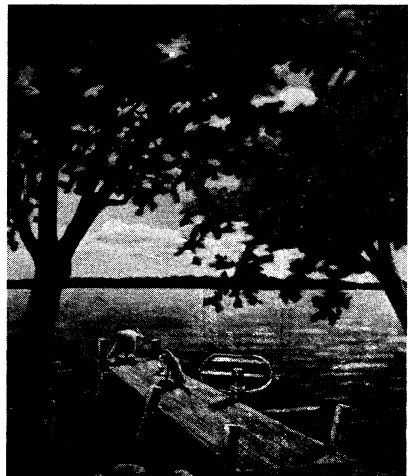
The reversal from water to land locomotion had fateful consequences for Wisconsin's lakes, large and small. The utilitarian values of lakes declined, the surge to water for recreation had not yet begun. Passenger travel on the Upper Lakes, which reached its heyday in the twenty-year period after 1833, dropped abruptly as immigrants turned from the steamboat to the railroad. From being all-purpose carriers, Great Lakes steamers and sailing craft evolved into the huge transport ships that we know today, prized for their ability to move heavy

cargoes with dispatch and economy. Lake and river frontages lost their earlier popularity as prospective village sites; in a sense water locations were liabilities since streams had to be bridged and lakes interfered with the direct lines of railroad construction.

Americans were characterized as materialistic, "insensible to the wonders of inanimate nature," their eyes fixed upon another sight--the magnificent spectacle of their own subjugation of nature. In the farmer's work-a-day world lakes held little attraction. As evidence of affluence the well-to-do of the villagers erected sumptuous town dwellings, rather than summer lake cottages; their beflouced and petticoated women folk sought recreation on shady croquet lawn rather than on sunny beach.

Life in America was changing rapidly and radically as the 19th century waned, raising the status of Wisconsin's lakes. The recession of the frontier permitted more ease of living; the spread of urban life sent city dwellers to rural spots for rest and recreation. Certain lakes become synonymous with organized cultural and social welfare movements: Lake Monona with the tent Chautauqua; Lake Geneva with the YWCA camps; Lake Beulah with the Milwaukee University Settlements camp for workingmen. Excursions to Wisconsin lakes by rail or steamer became popular; fishermen thronged the northern resort hotels. Families built summer lake homes, some of them elaborate establishments staffed with servants, others mere shelters on water fronts where the owners roughed it during vacation periods. Inching up their skirts for bicycle riding and abandoning their long black hose on the beaches, women began their stride towards unencumbered athletic freedom. Inventions accelerated the back-to-nature movement. The automobile and the improved highways made Wisconsin's 8,700 lakes more accessible, the outboard motorboat made them more enjoyable--for the owners, at least.

Science joined the procession. Young Edward A. Birge who came to the University of Wisconsin in 1875 found new values in Lake Mendota. Beginning as an individual student of the biological characteristics of





the lake, Dr. Birge attracted fellow scholars and expanded his search for the secrets of science to other fresh water lakes, making the University a

noted center for the study of limnology. As early as 1902 one of his co-workers asserted: "The lakes of Wisconsin are of no small importance to the state. If all other considerations be set aside, their money value is many times that of an equal area of good farm land. ... The sci-

entific aspect of the lakes is no less important." No cloistered scholar, Dr. Birge served for a number of years as secretary of the struggling Board of Fish Commissioners and from 1898 to 1919 directed the Wisconsin Geological and Natural History Survey. His career exemplifies the ways in which one particular lake scientist sparked development of the conservation movement in Wisconsin.

In an educational union of university laboratory and state agencies such as this, the term "conservation of natural resources" became a familiar one on college campus, in public schools, and in the public mind. A state department of conservation undertook a comprehensive program of development that looked to a wide, yet wise, use of our resources heritage as population increased and the tourist trade became a leading industry in Wisconsin.

It was a motley array of factors that brought the rise in the tide of lake appreciation in Wisconsin: technology, science, urbanization, population advance, rise in recreation, economic change, even change in fashion. Through economic ebb and flow that rise has continued. Today we are witnessing an unprecedented trend upward: water sports are on the increase; cities are expanding lakeside parks and bathing beaches; the opening of the St. Lawrence Seaway awakens hopes for a revival of extensive water transportation.

More significant, the subject of water supply and use is engaging the serious attention of the populace. The elaborate multi-purpose program under way in our state forecasts a new era in the study, the use, and the appreciation of our water resources and perhaps the eventual attainment of that "laborinth of pleasure" in our lakes and forests that Radisson dreamed of three centuries ago.

###

JOHN MUIR IN THE SIXTIES*

By Elsa Horn Stiles
Sheboygan, Wisconsin

Reflections upon John Muir's student days become vivid and persistent after 100 years. I first learned about him as a great forest ecologist and glacial explorer in my University of Minnesota botany courses 40 years ago. To the general citizenry of the United States, he is presented as the "Father of our National



Parks" with his name attached to a glacier in Alaska and a redwood grove near San Francisco. It was not until I found a reprint of his essay "Out of the Wilderness" in Atlantic Harvest several years ago that I learned he had been a student at the University of Wisconsin. This led me avidly to his other writings. Since I am a student at Wisconsin this centennial year of his first saunterings on the campus in 1860, my interest in his student days is overwhelming.

In the study of his entire life, however, his student days are soon overshadowed. His progress to maturity and his successes become all absorbing. His qualities of integrity, keen appreciation, persistent fight for preservation of national areas for the sake of the nation as well as the land suggest to the student of his life that its greatness lies in the realm of Lincoln's. One can wish that he had accepted invitations to lecture at Harvard and elsewhere. So should his philosophy in poetic prose be better known and introduced into the realm of literature.

At the University of Wisconsin his name is attached to a portion of the campus seen from the north window of his North Dormitory room on the second floor. It is aptly marked on a boulder Muir Knoll, for he must have traversed it more than any area on his way to Lake Mendota. He is also honored by several portraits in both two and three dimensions but always as an old man. In a letter dated 1902 to a life-long friend, he wrote, "No wonder time is touching us here and there. Nevertheless it always seems a joke to be called old--as far as I know I feel just about as young now as 40 years ago."

To those coming newly to the campus there is almost no evidence that he is remembered or featured as the tall rustic young man of genius he was at age 22 in 1860. An awareness of his personal equipment could well be an inspiration to many a freshman. His courses of study and courses of action could be a Wisconsin heritage to the whole campus community in the early 1960's.

It is the aim of this presentation to focus attention upon this phase of the man and the University. For it is here in his

* - Abridged by the author from a paper presented at the 90th Anniversary meeting of the Academy in Madison, May 7, 1960. Sketch of John Muir as a young man in the 1860's also by Mrs. Stiles.

twenties that the emerging facets of his potential converge and then diverge to the national boundary--as a heritage to every citizen. In many of his letters and most of his writings Wisconsin appears as a point of reference for half a century.

At 21, John, like many youths of his time and after, was free from his father's dominance and involuntary farm labor. But where would he go and what could he do? In his indecision and reluctance to leave his mother, he remained home another year. For the 11 years since his family came to within 20 miles of Madison from Dunbar, Scotland, John, the eldest of seven children, helped to convert two pieces of land into two homes and two farms. The two days a year free time and the part of Sundays not devoted to church and chores were glorious hours for swimming in the lake and running or riding or sliding over the wooded hills.

When he was about 15 or 16, he began to thirst for knowledge but was allowed almost no book of his choice nor even five minutes time to read before going to bed at 9 p.m. In exasperation, his father one evening gave him permission to get up as early as he liked in the morning to read before 5 a.m. The next morning he awoke at one o'clock, overjoyed at this sudden avalanche of time. Since the temperature in the cellar where he could light a candle without disturbing the household was below freezing and therefore below reading, he began to work at making the gadgets and meters and clocks which ticked in his mind. To his father's annoyance, John kept this up indefinitely until he had made single and combined barometers, thermometers, hygrometers, pyrometers, a self-setting sawmill and various clocks. The largest had four dials and a 14-foot pendulum. One clock was designed in the form of a scythe with arrows on the pendulum to signify the flight of time. It also indicated the days of the week and months of the year and controlled the setting of fires and up-setting of beds for early risers and remained a good timepiece for over 50 years. A drawing John made of this clock together with many other inventive drawings are preserved in a large folder in the manuscript balcony of the State Historical Society.

A friendly neighbor encouraged him to exhibit some of his things at the State Fair in Madison, after which any machine shop in the country would welcome his labor. Thus it was that in September 1860, in his shirt sleeves, with three whittled wonders on his shoulders, Muir found his way to the "Temple of Art" where Daniel Read, Professor of English Literature at the University, was in charge. To his surprise and delight, he was allowed space and lumber to set up his two clocks and sensitive thermometer, winning \$15 plus the admiration of crowds and a newspaper reporter, who like the friendly neighbor, sensed his original genius and gift for entertaining.

But John's parched thirst for knowledge enticed him like a mirage during off-duty hours at the Fair to the adjacent campus. The University was then 12 years old and its three buildings topped a hill overlooking Lake Mendota to the north and the Capitol between two lakes to the east. Entranced, he walked its paths imagining that being one of its 228 students was a state next to heavenly bliss.

To seek his needed fortune, he was lured to a machine shop in Prairie du Chien by a fellow inventor exhibitor of an iceboat with promises of work and money-making. He found a place to room and board at the Mondell House with the Pelton family who accepted his household help minus the time he needed for studying

mechanical drawing, geometry and physics. His friendships there became life-long with intermittent correspondence covering 53 years. When work and wages at the machine shop turned into waiting and wanting, he found his way again to "Madison's midwinter icy mountain."

Encouraged by a friendly student who had seen him at the Fair and who assured him he could live on a dollar a week for food, he applied to Acting President Sterling for admission. When Sterling, a Princeton man, delved into John's Latin, he and Professor Butler found that he virtually knew the University grammar text by heart, because it, together with the Bible, had been whipped into him under the influence of threshings both at home and at Dunbar grammar school at ages 8-11. After a few weeks of preliminary training, Professor Butler recommended promotion and Muir was admitted as a full-fledged member of the First-Year Class listed in the University Catalogue of 1860-61, with tuition of \$10.50 paid in full. He took chemistry and geology under Carr; mathematics and physics under Sterling because he wanted these subjects. He took English Literature under Read and Latin and Greek under Butler because his mother wanted him in the ministry. This combination, together with other subjects he chose during three years, kept him listed in the catalogues as a Special Student under "Irregular Gents," and did not lead to a degree. But to a greater degree it led to greater Degrees. At least four Universities--Yale, Harvard, Wisconsin, California--some 30 years later bestowed upon him their highest honorary recognition.

In the interplay of influences upon his life while a student, five persons can be presented somewhat dramatically in the development of Muir's emerging potential.

Dr. Ezra S. Carr, his geology professor, had been a student at Harvard under Louis Agassiz, whose studies of glaciers in his native Alps led to his theory of a glacial epoch. Carr carried Agassiz's field trip methods of enthusiastic teaching to his own students at Wisconsin. This directed Muir's native fondness for wildness into scientific channels which led to his later discovery of many glaciers in North America, 65 of which were residual in the Sierra Nevada, and led to a technique for studying their action. When Carr allowed Muir to browse in his office and home libraries, John was able to read Agassiz's glacial thesis in the original French because this also had been whipped into him in grammar school. John's visits and work in the Carr home at 114 W. Gilman street interested Mrs. Carr, who also became aware of his genius and potential as a leader of men and proceeded not only in Madison but in California as well to groom him for the contacts which his later work and national role demanded. His letters to her from 1866-79 are compiled under the title "Letters to a Friend" and listed under rare books at the Historical Library.

A third person who directed one of Muir's potential facets was J. D. Butler, Professor of Classics. Because John had already learned the Latin grammar in Scotland, he spent most of his Latin study time whittling out his clock desk, since ingenious inventions constantly shifted into gear in his mind. In a letter from Canada dated Nov. 12, 1865, he writes: "---you ask Emily when I am going to return to the States. I think likely next summer or fall. I may then complete my studies at the University --it seems as though I could not be contented with the little education I now have. You seem to think that nature has designed me

for an inventor--well, strange to say, when your letter came I had just completed a bargain with my employers to invent a set of new machinery for the rake factory and also to manufacture a thousand dozen of rakes--it seems as though I should be dragged into machinery whether I would or no--for the last three or four months I have been inventing machinery about 24 hours a day..."

If John did not learn his Latin lessons well, he learned his English composition lessons better. Whether he had these under Read or Butler is not clear. At any rate, he was introduced to Emerson, Wordsworth, Thoreau. Seeing in John an original and noting that he spoke as he thought, Butler admonished him to write as he spoke. In view of the fact that Muir subsequently became an author; that influence, income, immortality came through his writings, this was a happy sequence. His friendship and correspondence with the Butlers also extended over many years. In his book, "My First Summer in the Sierras," Muir refers to Wisconsin, Madison and Butler 15 times and reminisces, "--when I was leaving the University, Butler said 'Now, John, I want to hold you in sight and watch your career. Promise to write me at least once each year.'" In a letter dated May 23, 1865 to Emily Pelton, Muir wrote, "I was much delighted a few weeks ago by a long letter from Prof. Butler's little boy containing a lithograph of our Wisconsin University. I could see my room windows and of course many other objects which caused a flood of memories inwoven with my very being to take fire all at once."

A fourth person to influence Muir effectively was a fellow student named Griswold. Griswold picked a flower from the locust tree near the entrance of North Hall on a very early day of John's first June on the campus. On studying the structure of the locust flower they were able to note its similarity to a garden pea and to all legumes, tracing it to its name in a textbook key. While many students are frustrated by the difficulties of a botanical key, John was charmed by the structural harmony it revealed. Hitherto he had only noted the outer beauty of flowers. Now he was so struck by the inner beauty of floral relationships that he henceforth not only took botany as a course of study but practiced it as a life-long course of action. First he studied the flowers along Lake Mendota, then during the summer harvests the flowers of his home fields, then those in adjacent states. His "Thousand Mile Walk to the Gulf" was only the first of his long walks alone and unarmed through other miles of trackless fields, woods, swamps, mountains, forests, or glaciers, gathering, identifying, and noting God's evolving floral order.

A fifth personality influencing John was Increase Lapham, Wisconsin's ardent conservationist, whom John watched pacing up and down the "highroads" of some state officials and timber-wasting men. Lapham's technique in arousing public opinion on a state-wide basis became Muir's pattern for arousing public opinion against land thievery, soil destruction, grazing devastation, forest slaughter on a national basis. Stemming this tide earned for him the title "Father of our National Parks."

- - -

(Editor's Note: The remainder of Mrs. Stiles' story will be presented in an early issue of the Review.)

RESEARCH AND DEVELOPMENT IN THE WISCONSIN ECONOMY*

By Willis G. Scholl, Executive Vice President
Allis-Chalmers Manufacturing Company

I have been asked to talk about the role research and development plays in our Wisconsin economy. I would like to discuss this role in three phases. First, as it relates to an industrial organization such as Allis-Chalmers. Secondly, the contribution industrial organizations, universities, and other institutions are making in the field of research. Third, to conclude by commenting about the results of research and development on the State's economy and the necessity for a willingness to accept the decisions which research provides. However, first it might be well to give you a brief background of Allis-Chalmers to provide a setting for my subsequent remarks.



Photo by Currys

Our company considers itself an active participant in the economic and industrial development of the State. You may be surprised to know that our company had its beginning in 1847, a year before Wisconsin became a State. Since that time it has grown to the point where we have twenty-four plants; eighteen in the United States and six in other countries. Here in Wisconsin we have four plants; one at West Allis, which is our home office and our largest plant, one at Wauwatosa, a recently acquired plant in Appleton, and one in La Crosse. These plants provide approximately 17,000 jobs in Wisconsin, and we spent approximately 159 million dollars in the State last year. So you can see why we feel we are such an integral part of the economy and why we are so keenly interested in the future of Wisconsin.

Our company had its original beginning when it first made grist mills to grind wheat into flour. Later it manufactured water wheels which turned the mills, and thus started what was later to become the Allis-Chalmers Manufacturing Company.

* - Abridged version of paper presented at Governor's Conference on Resource and Industrial Development, Lake Delton, Wisconsin, June 1-2, 1960.

We have diversified since that time and today we manufacture heavy electrical equipment including steam and hydraulic turbines and generators for the electric power industry, as well as transformers, switchgear and controls. We also manufacture a full line of farm machinery, heavy road construction equipment such as crawler and rubber-tired tractors and other earthmoving equipment, as well as machinery for mining and processing industries including complete cement plants, and machinery for the paper industry. More recently we have become active in the atomic energy field.

Essential to this growth and diversification has been the Company's willingness to invest in basic research and product development. New design, new products, and new applications have all enabled Allis-Chalmers to remain competitive and grow these many years.

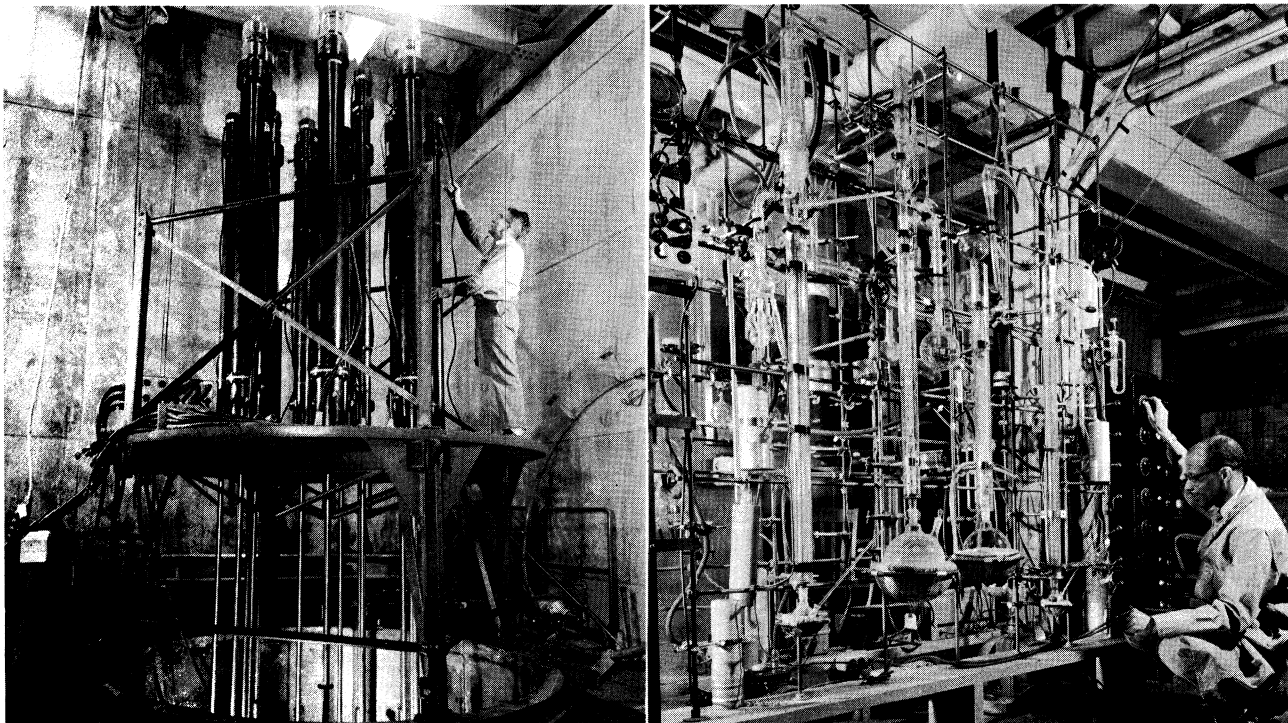
Never before in the history of our country has there been such a demand of industry for greater and increased efforts in research and development. Last year this country spent over 12 billion dollars on research and development. Our Company alone invested approximately 30 million dollars. And presently one out of nine employees is engaged in research and product development. This trend will undoubtedly continue and even increase, particularly with the increased competition we are facing from foreign countries.

Let me cite a few of the developments that are underway at present in our research and manufacturing facilities, which may interest you.

We believe that Atomic Energy will soon be economically feasible for commercial power plants in high cost fuel areas, and equipment manufacturers like ourselves are participating with members of the electric utility industry in this development. However, thus far only Government-financed atomic plants have been put into operation.

In addition to our research in atomic energy at our Greendale, Wisconsin Laboratory, we are working on another form of nuclear power which is called thermo-nuclear fusion. This program has not advanced to the stage of atomic energy, but we believe it holds great promise as a major scientific breakthrough.

Allis-Chalmers and the Radio Corporation of America have designed and fabricated a research facility at Princeton University at a cost of over 25 million dollars to attempt to bring about this thermo-nuclear fusion of atoms at a temperature of one-hundred million degrees or



Left - Control rod drive mechanisms and control rod drive mounting bridge are mounted above reactor tank in critical facility building at A-C Research Laboratories. Right - New dielectric fluids are synthesized in this complex distillation tower. Chemist James Millington is in charge of experiments.

more. All of the heavy apparatus for this project was done in our own plants and much of it at our West Allis Works.

Those of you from the northern area of the State may be interested to know that we have recently developed a Kiln-Grate system which is a further improvement on the process of pelletizing of taconite ore concentrate, now used in the Silver Bay area. This pelletizing process, which Allis-Chalmers pioneered in developing, is one of the most successful used today. However, this new system which is being built will be used for the first time in Upper Michigan and will provide a more uniform product and is useable on a greater variety of concentrates. Research and development of these types of processes are conducted on an around-the-clock basis at our Carrollville research facility near Milwaukee.

You have probably heard of our experimental fuel cell powered tractor, the result of still another research project seeking power generation by direct conversion of gases. If this proves to be feasible, the fuel cell might be practical on electrical systems for peaking purposes, as well as for driving farm and construction machinery and most probably many other self-propelled units, including those on the sea and in the air. Efficiencies as high as seventy per cent or even as much as eighty per cent may be attained as compared to forty per cent in the ordinary internal combustion engine.

Many other industrial companies in the State are involved in research and development programs. Pharmaceutical firms, for instance, spent 200 million dollars as an industry on research last year. Here is an industry that lives almost entirely by research, and many of the drugs we now have in our medicine cabinets are the products originally conceived in the laboratories of these Wisconsin companies.

The paper industry in Wisconsin has made significant contributions to research, not only in their own fields, but they have found uses for their waste products. One paper company produces over half of our synthetic vanilla from a waste product called lignin. The food industry, like the pharmaceutical companies, must live by research. Much fine work is being done in this field among the food companies in the State.

Wisconsin is fortunate in having so many excellent research facilities and organizations other than those of industry. Forest Products Laboratory in Madison is known throughout the world for its work on wood products and their derivatives. The Institute of Paper Chemistry in

Appleton is unique in its research services, and their accomplishments have been recognized throughout the entire paper industry. All of us are familiar with the outstanding contributions that our scientists have made at the University of Wisconsin and Marquette University. Some of the great advances these past few years have come from professors at these great schools. The names of these men are all familiar to us. I think it is significant, too, that Madison was recently chosen as the location for the Midwestern Universities Research Association work, better known as MURA.

In addition to the research organizations mentioned above, there are a number of private organizations that are active in research and provide the opportunity for smaller companies who, unable to do the research themselves, have their research done for them.

Unfortunately, the accomplishments of research often go unnoticed unless some major breakthrough or discovery is made that has a glamorous appeal. Basic research particularly requires extreme patience, dedication, and understanding of its value. The tremendous strides made in technology these past twenty to thirty years never would have been accomplished unless we had kept faith in this work. And I might add that this is the reason why such large investments are needed, and why it is sometimes difficult to see immediate tangible results per dollar invested. ...

All the research and development work done in Wisconsin will have little effect unless someone has the fortitude to take the results and act upon them. Industry, through its research programs, is literally investing millions in increased job opportunities for its population, but no jobs are created unless managers put into action the results of these new developments. ... Our company is very optimistic about the future of Wisconsin or we perhaps would not have invested over 46 million dollars in capital expenditures in the State these past ten years. Our confidence is based on knowing that the people of the State will solve their problems fairly and squarely once they know and understand the facts given them by research.

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The Wisconsin Academy's newest Life member, FREDERICK K. WEYERHAEUSER, Chairman of the Board, The Weyerhaeuser Company, spoke on "Research, Mainspring for Lumber's Future" on June 3 at the Forest Products Laboratory's Golden Anniversary program in Madison.

INTRODUCING EDWARD G. LOCKE

Last September, Edward G. Locke became the sixth director in the U. S. Forest Products Laboratory's 50-year history. A native of Portland, Oregon, he graduated from Oregon State College in 1928 and received his Ph.D. in organic chemistry from Ohio State University in 1932. After some years as a chemist and as assistant professor of chemical engineering at Oregon State College, he joined the Forest Service in 1944. He was put in charge of the Portland unit of the newly created Forest Utilization Service after World War II and upon coming to the Laboratory supervised a broadly expanded program of research on production of industrial chemicals from low-grade wood and harvesting and milling residues. He was chief of the wood chemistry division for eight years prior to becoming director of the Laboratory.



The U. S. FOREST PRODUCTS LABORATORY observed its Golden Anniversary at Madison, Wisconsin on June 2-4, 1960. Exhibits and demonstrations were shown at the Open House, and virtually all forest products industries, as well as education, science, and government were represented by participants in the several events. The Laboratory received several plaques from industrial organizations recognizing its outstanding accomplishments. Among them were citations from the National Lumber Manufacturers Association, American Institute of Timber Construction, Home Manufacturers Association, American Paper and Pulp Association, and the Dept. of Agriculture's highest honor, its distinguished service award. Intensive multiple use of forests was advocated by Ervin L. Peterson, Asst. Sec'y of Agriculture, who asserted that products research is first in importance to achieving these multiple values.



REMARKS ON THE GOLDEN ANNIVERSARY OF THE FOREST PRODUCTS LABORATORY*

By Richard E. McArdle, Chief
U. S. Forest Service

The Forest Service passed its 50th birthday a few years ago. Within five years after its creation the Forest Service was operating a forest products laboratory. This I think, is evidence that forest utilization research has been a main point of the Forest Service program from the very beginning.

Henry Solon Graves had succeeded Gifford Pinchot as Chief of the Forest Service only a short time before he came to Madison in June 1910, to help dedicate the new laboratory then just opening for business in a building the University had erected for the purpose. Graves outlined an ambitious program for the new laboratory.



The work of the laboratory, he said, would be founded on the principle that the raw material of forests be made to meet "in the highest degree" the real requirements of the people. The first necessity, said Graves, "is to determine the properties of the various woods." How far have we come in fifty years?

I think we have learned enough about the mechanical properties of our principal commercial species to say that wood has become a true engineering material. Its strength has been defined. The nature and control of certain physical properties--shrinkage and swelling, moisture movement through its structure, surface and internal stresses, effects of moisture on strength--have been explored to the extent that seasoning and use conditions are much better understood. Processes for curbing shrinkage have been discovered. But we still have a long way to go to realize fully the aspirations of the founders for complete control at insignificant cost.

Mr. Graves next indicated the need to find ways to prolong the service life of wood. He directed that ex-

isting preservatives be examined for their true worth and that treating methods be investigated. That has long since been done. In addition, better methods and better preservatives have been developed. We are now looking into ways of preserving wood without using toxic chemicals. We have come a long way beyond that first assignment.

Another aspect of the laboratory's work specified by the Chief Forester was investigations of "the multitude of problems of wood utilization." He singled out paper and the byproducts of papermaking as a major field. I think his aspirations here have been rather dramatically fulfilled. The laboratory's development of semichemical pulping is rapidly becoming a major means of bringing into use extensive hardwood forests largely unsuited for construction lumber. This development and its more recent variant, cold soda pulping, yield 50 to 75 percent more pulp from wood than the older chemical processes, thereby curtailing waste and pollution. But perhaps even more significant has been the fundamental chemical research that has made possible many notable achievements such as dissolving pulps for plastics, synthetic fibers, films, and other products in which wood, as wood, is unrecognizable.

Yet we are still only on the threshold, the very edge, of chemical utilization. What we need is definite and clear. We need chemical processes that will convert into widely useful things the low-grade, small timber that now in a sense wastes much of our forest land. We need those processes to help pay the cost of rehabilitating those forests, making them more productive.

Moreover, we are faced with a steadily declining forest resource base. Enormous pressures are building up for use of land. Within the next few decades urbanization, highway construction, agricultural needs, recreational needs, and other requirements of an expanding population will probably reduce our commercial forest land base one-fourth and our timber-growing capacity by a third.

Couple declining forest acreage with declining timber quality, and you have the best argument I know for accelerating forestry research of every kind. The work here at Madison is vital to the forestry progress we much achieve in the next relatively few years.

* - Presented at the Golden Anniversary Dinner, Forest Products Laboratory, June 2, 1960.

EARLY WISCONSIN INSURANCE COMPANIES—THE LIFE FIELD

By David J. Behling*
Director, Field Publications
Northwestern Mutual Life Insurance Co.

Life insurance was founded in this country before the Revolutionary War, and the United States enjoys the distinction of being the home of the oldest continuous exclusive life insurance company in the world - The Presbyterian Ministers Fund - which began operations in February, 1759, in Philadelphia.

The records relating to early life insurance in Wisconsin are poorly preserved and it is therefore impossible to present an absolutely accurate history of the business in the state. However, available data disclose many more companies previous to 1860 having the right to engage in the life insurance business than most people would believe. Indeed, the charter of almost every insurance company organized in Wisconsin in an early day had provisions covering the three great insurance features of those times - fire, marine, and life. It was the profitable fire and marine policies that most strongly appealed to incorporators, and the right to "make all kinds of insurance upon life or lives" was granted merely because it was a part of the British practice that was being followed.

Green Bay has the distinction of being the home of the first insurance company in the state - The Wisconsin Insurance Company at Green Bay, incorporated by Act Number 29, Laws of 1838, approved January 9, 1838. This company had very liberal powers, with full right to engage in all manner of insurance business, including life. But either that feature did not appeal to its incorporators or else they never tried for the business, since it never attained to any prominence as a life insurance institution.

Another opportunity that was lost to Wisconsin in the life field was in the incorporation of the Wisconsin Marine and Fire Insurance Company, created by Act Number 36 of the territorial laws of 1839, with headquarters at Milwaukee. This company, which through a series of changes and mergers has become prominent as the Marine National Exchange Bank, was permitted by its charter to do a life insurance business. But so lightly did the incorporators hold this grant that they omitted reference to it in the corporate name. Had this feature appealed more strongly to them, in view of the company's strength and future development it might well have become one of the foremost life insurance institutions of the country.

* - David J. Behling, new Treasurer of the Academy, was introduced with a distinguished portrait in the Fall 1959 issue of the Review.

During the next twenty years twenty-one organizations with the right to sell life insurance were chartered in Wisconsin. Most of these, however, were almost entirely concerned with fire and marine coverage, and only four of them even mentioned life insurance in their corporate names:

<u>Date of Inc.</u>	<u>Name of Company</u>	<u>City</u>
1853	Marine, Fire and Life Insurance Company, afterward Commercial Insurance Company	Milwaukee
1853	Phoenix Marine, Fire and Life Company of Wisconsin	Manitowoc
1857	The Mutual Life Insurance Company of the State of Wisconsin, now The Northwestern Mutual Life Insurance Company	Milwaukee
1859	The Mutual Life Insurance Company of the City of Madison	Madison

Of these pioneer Wisconsin life companies only The Northwestern Mutual has survived to the present time. It was organized in Janesville in 1857 under its original name, but moved to Milwaukee several years later, where, in 1865, it assumed its present name. It now has over \$10 billion of life insurance in force, is the sixth largest life insurance company in the world and with assets of over \$4 billion is exceeded in that respect by only twelve other organizations of any type in the United States.

Aside from special acts relating to the incorporation of insurance companies, the first statute written into the books in Wisconsin, with reference to the business of life insurance, was one attempting to regulate it. This was Chapter 232, Laws of 1950, providing for the incorporation of all manner of insurance companies with regulations as to the observance of preliminary steps thereto, and requiring agents of out-of-state companies to file with the Secretary of State a verified statement showing the amount of capital of his company and the manner in which it was invested. This law also required a Wisconsin deposit to protect policyowners. As to Wisconsin companies it gave various directions concerning their affairs and business methods.

The first Insurance Code in the State was adopted on March 14, 1870 as Chapter 59, Laws of Wisconsin. It imposed a legal standard of solvency and its provisions governing investments have at all times prevented stock or speculative dealings with the policyowners' funds and it safeguarded the organization of life insurance companies in the State, imposing conditions protective of policyowners. This original law has since guarded well the life insurance interests of the State's citizens. # # #

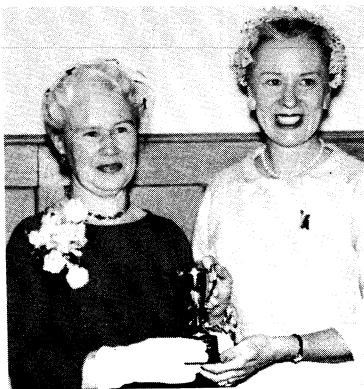


HAZEL L. KUEHN Librarian— A Retirement Profile

Mrs. HAZEL KUEHN, reference librarian who has been responsible for helping Wisconsin legislators in their search for almost any type of information, retired recently. She began work with the State Legislative Reference Library in 1918 as a clerical employe, and is the only recent member of the staff who had worked under its founder, Dr. Charles McCarthy. When she left the Library in 1925, she was a library assistant, and she returned in that capacity in 1938. Since 1942 she had been supervising librarian in charge of the reference section, one of the nation's outstanding legislative reference collections. Also, she had been directly responsible for the biennial compilation of the Blue Book, the 1960 issue being the ninth done under her supervision. M. G. TOEPEL, chief of the Library, calls her "very nearly indispensable" and adds: "Her encyclopedic knowledge of state government, her technical competence and her tremendous enthusiasm for her work has won her a host of friends among legislators and patrons generally." Mrs. Kuehn joined the Academy in 1956.

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HONOR TO MARIAN PAUST



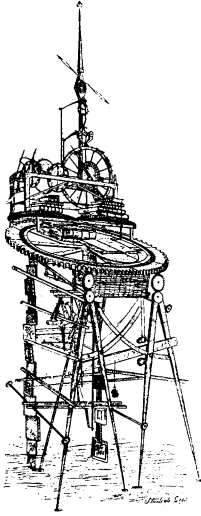
Academy member MARIAN PAUST, (left) wife of Martin Paust, Jr. of Richland Center, recently received the 10th Annual Writers Cup Award sponsored by Theta Sigma Phi Alumnae, honorary journalism sorority. First Writers Cup award in the field of poetry, it was presented by Mrs. Albert W. Brown of Madison, at the Ladies of the Press breakfast. Some of Mrs. Paust's poems have appeared in the Review and she has won many prizes and awards during the past few years. She is a member of the Madison branch,

National League of American Pen Women, and a number of state and national poetry groups.

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A NOTE ON THE COVER

Mrs. Elsa Stiles returned to school last September after many years of family and community responsibilities. She and her husband live in Sheboygan, but last September she asked for and was granted a "leave of absence" by that understanding man, to accompany a son and daughter to Madison where they all enrolled in the University. She had already received her B.A. at Minnesota and an M.S. from Oregon State University and was a faculty member in the Dept. of Botany at Kansas State from 1926-34. She joined the Academy in 1955.



Most of her work at Wisconsin was taken in the art department and it was in Professor Dean Meeker's drawing class that she made the drawing of John Muir's reading table which appears on the cover of the Review. Muir designed this gadget so as to provide himself automatically with a different book every 20 minutes over a three-hour reading period. The view of the mechanism which Mrs. Stiles shows us is from the rear. The adjoining sketch is Muir's own which appeared in his "Story of My Boyhood and Youth." The original desk may be seen in the museum of the Wisconsin Historical Society, a regular destination for drawing classes at various times.

A comment made at the time the desk was in use has been furnished by Mrs. Stiles: "Prof. Sterling's daughter, Grace, as a little girl accompanying her mother upon a visit to John's room remembered that her mother told him he had omitted only one item in this ingenious set-up. He should have carved a hand which would automatically come up to box his ears if he had not learned his lessons well." Mrs. Stiles' spirited and sympathetic rendering of Muir's invention shows her appreciation of it, (see her article on p. 55) and perhaps of Muir's place as an inveterate fabricator of devices to promote the convenience and even the regularity of his daily round. In this desire he joins such distinguished historical figures as Thomas Jefferson whose furnishings at Monticello exhibit the same objectives.--Frederick Logan

INTERNATIONAL SOIL SCIENCE CONGRESS

THE INTERNATIONAL SOCIETY OF SOIL SCIENCE will hold its 7th CONGRESS in the United States this summer at Madison. Tours of the nation from New York to Wisconsin and also south and west to California will precede and follow the formal program. About 400 scientific papers will be presented at the sessions from August 15 to 23 at the Wisconsin Center and Memorial Union buildings on the UW campus. Exhibits dealing with soil conservation, conservation in general, and related industrial apparatus, equipment and supplies used in soil science will be shown in the Center Building and adjacent Armory.

The SOIL SCIENCE SOCIETY OF AMERICA, of which Academy member L. G. MONTHEY is Secretary-Treasurer, is sponsoring the Congress. More information may be obtained from Academy member EMIL TRUOG (Soils Bldg., U. W., Madison), who is Manager of the Congress and Chairman of the Finance Committee.

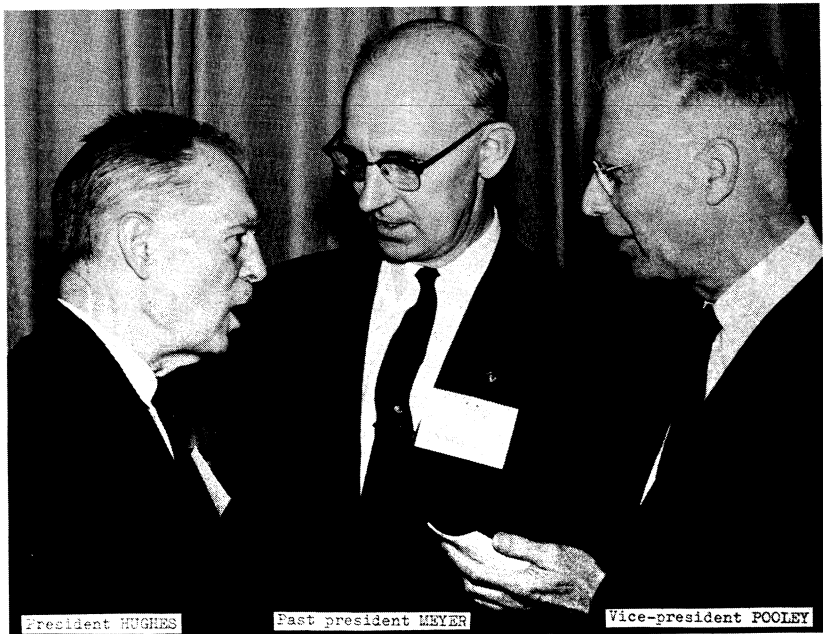
INTRODUCING NEW OFFICERS OF THE WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS

The Academy turns to the third discipline in its name for its president this year - Professor MERRITT Y. HUGHES of the Humanities Research Institute at the University of Wisconsin. While his field is Renaissance literature, his particular interest in John Milton led to several books on this author, the latest a one-volume work published in 1957, "John Milton: Complete Poems and Major Prose." He received his B.A. from Boston University, an M.A. and D. Litt. from the University of Edinburgh in Scotland and his Ph.D. from Harvard. Formerly a professor in the Dept. of English, he was appointed to the faculty of the Humanities Research Institute upon its activation in September, 1959. He joined the Academy in 1940.

Vice-president in Letters is Professor ROBERT C. POOLEY, who became an Academy member in 1951. He is Chairman of the Dept. of Integrated Liberal Studies at the University of Wisconsin and Professor of English. Eighteenth century literature and life and modern English grammar and usage are his particular interests. Receiving his B.A. and M.A. degrees at the Colorado College of Education, he came of Wisconsin to take his Ph.D. Among his publications are the recent book, "Teaching English Grammar" and an article on English Literature in the new edition of the Encyclopedia of Educational Research.

President-elect CARL WELTY is Chairman of the Dept. of Biology at Beloit College, where he is Professor of Zoology. Ornithology is both a hobby and a part of his profession, to which is added the study of animal behavior. After receiving an A.B. at Earlham College and an A.M. at Haverford, he took his Ph.D. at

(continued on p. 74)



President HUGHES

Past president MEYER

Vice-president POOLEY



ADDRESS OF WELCOME—

The Wisconsin Academy, as you are all aware, observes its 90th anniversary this year, and the University of Wisconsin takes great pleasure in welcoming you to our campus to observe this auspicious event.

Throughout its history, the Academy has performed a unique function in the intellectual life of Wisconsin, bringing together men and women of diverse interests and varied professions--both scientists and individuals dedicated to the scholarly arts, educators, administrators, lawyers, engineers, medical scientists, and professionals, as well as earnest hobbyists whose intense interest led them to accomplish work of enduring value, professional in every respect save the fact that it was not the manner by which they earned their livelihood.

Evidently Wisconsin possesses the only state academy, with the exception of that of our neighbor state of Michigan, which is dedicated to the advancement of knowledge in not only the sciences but also the arts and letters. It does not seem likely that the founders of the Academy could have realized that the need would so soon arise for organizations to foster a sense of unity rather than to further compound the problems that have been brought about by the rapid growth of diversity and specialization in our professional lives.

Specialization must be accepted as inevitable in our age of astonishing progress. Organizations such as the Wisconsin Academy, dedicated to the advancement not of one field but of the entire spectrum of intellectual endeavor, become particularly valuable. For this reason we can expect the Academy to play an increasingly vital role in the intellectual and cultural life of the state.

The Academy seems to be uniquely equipped to assume leadership in the performance of some exceedingly important contemporary tasks. Among those which we might mention are the efforts we must make to span the gaps between our specialties and, perhaps more important, to shorten the cultural lag that must occur before general adoption of new and significant ideas or new and useful facts.

In the vigor of our intellectual and scientific life, the present day is strongly reminiscent of the period in history we know as the Renaissance. But at the same time that we see progress all around us we become conscious of ever broadening chasms. As we plunge ahead in our quest of the unknown, as we undertake the task of improving our political, economic, social institutions, as we raise the general levels of health, welfare, and education, we become aware simultaneously of the fact that individuals can no longer hope to understand, except in the most general terms, the fields in which other specialists, who literally live next door, spend their productive hours and days. This could easily become a serious difficulty. We are at the dawn of a period of progress and adjustment which will, within a few decades, make our world seem as old and out-of-date as the horse-and-buggy era seems to us today.

Perhaps they planned better than they realized, but we can extend our gratitude to the founders of the Academy for creating

Presented by Conrad A. Elvehjem, President, University of Wisconsin

an intellectual and cultural vehicle so admirably suited to our time. I think we can all expect the Academy, in the last decade of its first century, to expand its influence and importance in the life of the people of the state of Wisconsin. Indeed, it should be a matter of serious concern if it does not. Organizations such as the Academy represent the many disciplines which literally have changed the world; they must now represent these disciplines during the period in which our political and economic lives adjust to the new facts of life which have been created in the age of scientific exploration and expansion.



...While there may appear to be chasms between our specialties, it is nevertheless true that a discovery in one field--biology or physics for example--sends a wave of suggestion and implication into all aspects of thought. A single quiet laboratory or library can be the source of enormous changes, not only in the physical aspect of the world but in our view of the world--and hence in our philosophies, arts, and literature. It is quite true that we are now working on aspects of nature and thought which will bring changes in our lives that are now quite impossible to predict.

It becomes imperative, therefore, that we have a continual awareness among all members of the human community--scientist, scholar, citizen, governmental leader, housewife, or teacher--concerning the meaning of the changes that are being wrought in not only our way of life but in our way of thinking about life. We have a great need for organizations devoted to the communication of these new ideas, to the discussion of problems, and to bridging the chasms between our specialties.

Wisconsin has contributed in an important way to human advancement, and the Academy has had no small part in these accomplishments. The TRANSACTIONS have provided an effective repository of information on Wisconsin's resources and the thought of our scientists and scholars. The exchange program has provided the state with an exceptional library of the world's scholarly and scientific publications. The program of the Junior Academy has afforded unusual opportunities to our future scientists and scholars.

We are proud of our Wisconsin Academy. It has been served by many dedicated men and women--individuals with foresight and a conviction that the sciences, the arts, and letters can make the world a better, more interesting and varied, place to live, and that these disciplines have much to contribute to the welfare of men everywhere. Wisconsin has often served as a pilot plant for the testing of new social and political ideas; the Academy has had the opportunity to furnish an example of how to effectively bridge the areas between specialties, between thought and deed, between the world of ideas and the world of what we term practical affairs, between the sciences and the humanities. These chasms are, in the last analysis, largely imaginary--the result of limitations in time, strength, and ability of the human mind to grasp more than a single major idea at one time. The Academy, taking as its province the broad range of scientific and cultural events, affords an opportunity that exists in very few other places in the world.

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the University of Chicago. For some years he has been active on the State Committee for the Preservation of Scientific Areas representing the private colleges and is shown at one of their field inspections. He joined the Academy in 1935.

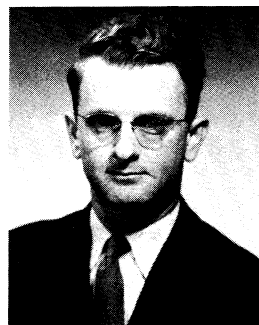


Vice-president in Arts CYRIL C. O'BRIEN is a lecturer in psychology and Professor of Education at Marquette University. He is also consulting psychologist at Allis-Chalmers Mfg. Co. and carries his professional interest in industrial and educational psychology over into his hobby of the psychology of music. He holds several degrees from Canadian universities and received doctorates from the Universities of Montreal and Ottawa. An Academy member since 1950, he held this same vice-presidency two years ago, when his photograph appeared in the Spring 1959 Review.

Prof. WILLIAM B. SARLES, vice-president in Sciences, is Professor and Chairman in the University of Wisconsin's Dept. of Bacteriology. An Academy member since 1933, he received all of his higher degrees at Wisconsin. His professional interests include ecology of microorganisms, microorganisms in the intestinal tract and limnology. He is a member of the trustees for Biological Abstracts and an author, with several colleagues, of textbooks on "Microbiology: General and Applied" and "Experiments in General Bacteriology." He is chairman of the University of Wisconsin's committee on lake studies, and is shown acting as leader of the Academy's Symposium on Wisconsin Lakes at the 90th Anniversary meeting.



TED J. McLAUGHLIN, new Secretary of the Academy, is Associate Professor of Speech at UW-Milwaukee. He received both his M.A. and Ph.D. from the University of Wisconsin. Since joining the faculty in 1949 he has served on various committees, and acted as Secretary of the Faculty from 1957-59. Besides memberships in several Speech Associations, he is also active in the Friends of Art of the Milwaukee Art Center as Operations Chairman. He was co-editor of "Classified Bibliography of Group Discussion," 1948, and author of articles in various professional speech journals. An Academy member since 1954, he will be assisted by his wife, Helen, in his secretarial duties.



Once again the Academy has a trained librarian in charge of its extensive collection. ROGER E. SCHWENN, who received his M.A. in Library Science from the University of Wisconsin, was formerly secretary and was introduced in the Fall 1958 Review. Treasurer DAVID J. BEHLING's "introduction" appeared in the Fall 1959 issue.

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COON VALLEY: FROM INDIANS TO NORWEGIAN PIONEERS TO ATOMIC AGE

By Arnold O. Haugen
Iowa State University, Ames

From the names on the mail boxes and the landscape in Coon Valley, Vernon County, Wisconsin, one might easily imagine he were in Norway. This has been so since the first white settlers, Helge Guldbrandsen and his wife Agnete, viewed the landscape and decided to make this beautiful area their home. It was in 1849 they arrived and unloaded their few worldly possessions. For the first year, only Indians were the Guldbrandsen's neighbors, but then more and more "Norskies" arrived, a large percentage of them from Guldbrandsdalen, Norway. Pioneer life and conditions in the valley are described in Norwegian by H. R. Holand (1928, Augsburg Pub. Co.) in his "Coon Valley."

Where is Coon Valley, and what sort of a place was it when Helge first saw it? Coon Valley stretches eastward from the Mississippi near Stoddard, located 12 miles downstream from La Crosse. Its length is about 25 miles. The surrounding ridges and hills are high and steep, some reported to rise to 500 feet. Sheer rock bluffs occur in places. For many years in pioneer times the valley was known as Helgedalen (Helge's Valley) after its first settler. The name Coon Valley later came into common usage because raccoons were particularly abundant in the area.

A fire, which had swept through the lower reaches of the valley some years previous to Helge's arrival in 1849, had affected habitat condition for wildlife. Here oak openings with luxuriant growths of grasses were surrounded by scattered patches of small and often bushy woods referred to as "smaaskog." In the upper sections of the valley, stands of unburned timber included larger trees which provided timbers for the settlers' log cabins.

Food and cover conditions on the land made the area a favored place for many species of wildlife. This was fortunate for the pioneers as they had little except fish and game to live from during the first year or two of settlement. Brook trout were plentiful in Raccoon Creek in those times. Boys caught fish in their bare hands and flipped them from the stream. With the use of gun and fishpole there was no lack of meat and fish in the settlers' huts. Such a diet should have been a refreshing delicacy to the old Scandinavian "Lutefisk eaters."

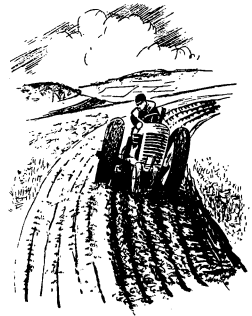
Prairie chickens, quail, ruffed grouse, wolves and foxes were abundant, was also the "proud" eagle that nested in the high bluffs. The abundance of bear and deer ("hjort") furnished many a feast for the valley's better hunters. Andreas Klomsten, an old Viking in the central part of the valley, was one of the more ardent hunters. On one occasion he marketed five deer carcasses in La Crosse for the magnificent sum of \$50--big money in those days. Another time, while on his way to town to market two bucks, he killed a third, which was added to the lot to be sold.



Frequent encounters with pig-stealing bears provided both anxious and amusing moments. For instance, take the time Rönög Sandbakken drove away a pig-stealing bear with no other weapon than a chunk of wood and a pitchfork. A commotion in the pigen caused her to rush out to see what was bothering their pig. To be sure, the porker had to be defended as their winter's source of pork depended on it. As Rönög rounded the woodpile, she instinctively grabbed the root of an oak and bashed it against the ribs of the unwelcome raider. At the same instant she grabbed a pitchfork and buried the tines in the critter as it reared up on its hind legs and let out a roar. Only then did she realize she had tackled a bear. At that, she let out a scream and dashed for the house as the bear, equally startled, scrambled for the woods and safety. No telling which was the most surprised, the Norse housewife or the bear.

The last bear that author Holand remembers in the valley was shot in 1874 in "Springdalen" (Spring Coulee), in Coon or Christiania townships. There are no references to the later dwindling of populations of some other species of wildlife. No mention was made as to whether wild turkeys were ever found in the area.

The prowess of the transplanted Vikings as marksmen is exemplified by Hans Nilsen who used his long-barreled rifle to shoot flies on the barn wall. Old Hans Dalen at 70 years was reported as still able to hit the bullseye at 200 yards. The reputation as most famous of all old-time hunters and shooters belonged to Erland Sundstuen.



Fame in more recent times came to Coon Valley following the establishing of the United States Soil Erosion Service in 1933. Coon Valley became the first conservation demonstration area established by the newly-formed Service and was known as the "Coon Valley Erosion Project." Again, the Norskies chalked up another first, one of many firsts for which Vikings are well known in history.

The appearance of Coon Valley today with terraces, contour farming, grassed waterways, stream bank improvements and pine plantings is far different from that of 111 years ago. However, even though some species of game such as bear, wolves, and passenger pigeons are gone, some other game animals such as quail, rabbits, squirrels, the pheasant (a foreign Johnny-come-lately), and the trout in some of the tributaries received a new lease on life with the advent of conservation farming. There is now a peaceful and heart-warming appearance to the valley. Nature to be commanded must be obeyed. Coon Valley residents have learned to work and live with nature. Intelligent land use gives con-



sideration to both soil and water, and the creatures that live on the land and in the streams. Yes, Helge Guldbrandsen would still be proud of his valley, if he could see it today.

HALL OF LEARNING

The study course is Spirit; the language is Love.
 In the lexicon of this classroom,
 the pronoun, first persons, is ever plural,
 with God and man strangely correlative.
 Second and third persons are in a mirror,
 echoing tones they hear, reflecting the I images.
 Adjectives are warm and lyrical: "Blessed, pure,
 meek, merciful, peaceful, righteous."
 Nouns are: "whatsoever things are true,
 honorable, lovely, praiseworthy --
 think on these things."
 Verbs are gentle, yet cable-strong:
 "bear, believe, suffer, hope, endure."
 Think also on these things.

The music is cosmic: songs by birds,
 purling of waters, susurrance of leaves,
 harp of the wind, throbbing organ of the sea,
 and all the myriad voices of a universe
 "declaring the glory" night and day.
 The study hall is Solitude where in the Silence
 "the still, small voice" is heard.
 The theme assigned is Living,
 Slanted for both here and hereafter.

---Louise Leighton

* * * * *



Represented among our country's leading poets in The Golden Year, the 50th anniversary volume of The Poetry Society of America, Academy member Louise Leighton of Baraboo has recently been accorded another of numerous honors: namely election as current Poet Laureate of Wisconsin in the Wisconsin Federation of Women's Clubs contest. She has been granted life memberships in the Fellowship of Poets and the Regional Writers' Association in Wisconsin and the League of Minnesota Poets, and is also a member of The Poetry Society, London. Her two volumes of poetry are "The Great Carrying Place" and "Journey to Light." Examples of her art and poetry have appeared in previous issues of the Academy Review.



THE BOOKSHELF

HAWK & WHIPPOORWILL
 Edited by August Derleth

Poetry Journal (Poems of Man and Nature)
 First issue April 1960. Subscriptions
 for the present are solicited at \$1.00
 for any two consecutive issues.

The prospectus of this highly meritorious magazine is too intimately revealing--and characteristic of the distinguished editor--to be neglected in a review:

"The magazine is edited by August Derleth at Place of Hawks, Sauk City, Wisconsin, U.S.A. He solicits subscriptions and, from poets, manuscripts. He has few tabus, though he confesses that experimental verse will have to have impressive impact to find a berth in H & W, and he respectfully suggests that poets who sentimentalize nature and who are in the habit of using obfuscating or purple language, words like 'neath, ne'er, et al., and capitalizing words like truth, beauty, etc., could find editors with a more friendly disposition toward their wares in other quarters. But the editor will read all work submitted, short or long, and he hopes in time to have a sufficiently large subscription list to enable him to pay for poems, though--owing to a rather wider knowledge of writing and publishing than the average editor--he is not sanguine about it.

"It will be published irregularly, which is to say whenever the editor feels that enough good material has been accepted to fill an issue. In any case, however, the magazine will appear not less than twice a year and not more than four times."

Volume One/Number One contains the work of such worthies as Jesse Stuart, Fred Lape, and the editor himself. "The Editor's Post" and "Contributor's Notes," at the end, are themselves delightfully conceived. They are not only informative but sometimes iridescent in their own reflection of such lines as the following from Joseph Payne Brennan:

When finally I gained the road
 And saw the farmhouse lights aglow,
 I marvelled that a wood I knew
 Could lose me in its charm of snow.

--Raiph Alan McCanse

WISCONSIN TALES & TRAILS
 Edited by Leroy Gore

Volume 1, Number 1; Spring 1960
 Quarterly magazine; \$5 annually
 200 Milw.ave.E., Ft. Atkinson, Wis.

A new regional publication with quite rich popular appeal--and with valid literary quality, as well--has begun publication at Fort Atkinson. Wisconsin tales & trails, not too ingeniously

sub-titled "The Land Where Dreams Come True," will immediately win acclaim for its editor, LEROY GORE. His approach throughout is engaging; the format is calculated to win the approval of very exacting tastes; and the tone should satisfy even the most zealous booster organization. Seriously, the magazine has undeniable merit.

Assessment of periodicals of this kind, identified with some particular geographical area, will almost inescapably call for comparison with the prime example in America--the deservedly admired Arizona Highways. Distinguished photography generously proportioned, almost lavish in supply, and beautifully done in color oftentimes, should indeed make Wisconsin tales & trails vie with its counterpart from the great Southwest. Somewhat to be discounted are certain black and white drawings done, a few of them, too sketchily; but they may not lack their appreciative viewers. The contents of the magazine deal authentically with great names (for instance those of Sinclair Lewis and Wisconsin's August Derleth) and with indigenous literary productions. Wisconsin's aborigines, alluring vacation spots, impressive natural resources, lake (and now sea-way!) transportation, political leaders and social or economic issues historically significant are all of them only obvious materials in the roster of tales & trails; but they are capably exploited. Among other special features is an industrial profile, an informative report on aluminum manufacture in Wisconsin, that should serve as downright source material for researchers. Surely this well-contrived local color publication has made auspicious beginnings. Copies of it should be in every local library and school-room, and even every Wisconsin home. -- Ralph Alan McCanse

OUR COUNTY—OUR STORY

Portage County, Wisconsin
By Malcolm Rosholt

Portage Co. Board of Supervisors
Stevens Point, Wisconsin
1959 (600 pp.) \$5.25

This certainly is one of the better county history books and the Portage County Board of Supervisors deserve commendation for the project as well as the author. Although it contains thousands of names (and a 36 p. index!) it is more than the story of people, towns, villages, and cities--it contains reports from the observations of early settlers, the history of logging, road building, education and agriculture. Here is the story of land use (and even misuse) told through the lives of the people who lived the story. It contains over 30 illustrations and will help open the way to further study through its valuable bibliography.

--W.E.S.

THE WISCONSIN SOCIOLOGIST

Vol. I No. 1 - June 1960
Edited by HUGO O. ENGELMAN
U.W.-Milwaukee

The recently-formed Wisconsin Sociological Association has copyrighted this first issue of their technical publication of 30 mimeographed pages. It contains two articles of which the major one is "Two Generations of Mental Isolation: Latvians in Northern Wisconsin." There also are two book reviews and a suggestion for a series of informal round-table-type discussions by members. The second annual meeting of the association is announced for Saturday, October 22, at Carroll College, Waukesha.

--W.E.S.

WHO IS WHO IN WISCONSIN

John M. Moore, Editor

Moore's Who is Who Publications
 P. O. Box 2745 Terminal Annex
 Los Angeles, 54, California
 351 pp. 1960 \$20.00
 (Library or State, \$17.50)

President R. MILLER UPTON of Beloit College was a member of the honorary advisory board on this publication. Editor Moore introduces himself as a native son of Wisconsin and points out that this is a "first edition." It contains a 12 p. sketch of Wisconsin history by WELDON F. HEALD. Biographical sketches of at least 32 Wisconsin Academy members (please forgive any oversights) include the following: John A. Beale, Karl A. Bostrom, E. M. Dahlberg, Conrad A. Elvehjem, Lawrence J. Fitzpatrick, John G. Fowlkes, Jean F. Frederickson (wife of Henry A. Schuette), William B. Hesseltine, Victor Hicks, Clara Hussong, Dr. Arnold S. Jackson, Robert W. Kastenmeier, Sarah J. Kee, J. Martin Klotsche, Douglas M. Knight, Susan L. Leighton, L. J. Lins, John A. Lonsdorf, Louise C. Marston, Ralph A. McCanse, Benson H. Paul, Fred O. Pinkham, Oscar Rennebohm, Margaret D. Schorger, Henry A. Schuette, Walter E. Scott, Robert D. Steele, Dr. William D. Stovall, R. Miller Upton, Lester Van Horn, Karl O. Werwath, and Frank P. Zeidler. No doubt the second edition will include many more members of the Wisconsin Academy. -- W.E.S.

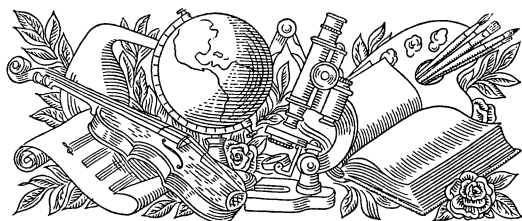
**MISCELLANEOUS BOOKS
AND BOOKLETS**

These recent publications of interest are free from sources listed unless otherwise indicated. * indicates author or editor is Academy member.

From Conservation Department (Box 450, Madison, 1): "Fish Habitat Development" by D. JOHN O'DONNELL and C. W. THREINEN; Tech.Bull.20 "Relation of Weather, Parasitic Disease and Hunting to Wisconsin Ruffed Grouse Populations" by ROBERT S. DORNEY and CYRIL KABAT; "Research in Wisconsin, 1958-59" Ed. by RUTH L.HINE; "Twenty-Sixth Biennial Report;" "Racine and Kenosha County Wetlands" (limited edition); "Wisconsin Game Kill and License Sales Charts" (Rev.1959); "Game and Fur Harvest Report 1959-60;" "The 1959 Big Game Seasons - A Summary Report;" "Muskellunge Studies" (Annual Progress Report for 1960)* by LEON D. JOHNSON; "Recreational Values of the Wolf River Basin, Wisconsin"* by HAROLD C. JORDAHL; "Lawrence Creek Trout Research Project" (Annual Progress Report for 1960) by ROBERT L. HUNT; "Primary Wood Using Industries of Wisconsin" (Rev.list with U.W. Extension Service); "Annual Report - Forest Pest Conditions in Wisconsin - 1959;" "Nursery Tree Distribution and Tree Planting Report - 1959;" "Annual Forest Fire Report - 1959;" "Inventory of Forest Resources - Juneau Co. Forest" (and also Bayfield Co. Forest); map - "The Mighty Mississippi - Recreational Guide from the Headwaters to St. Louis"* (sponsored by the Upper Miss.R.Cons.Com. with EDWARD SCHNEBERGER on the production planning group); and leaflet on "Princess Point Wildlife Area" in Jefferson County.

From Other State Agencies: U.W.College of Agr. (Bulletin Mailing Room, Madison, 6): "Some Preliminary 1960 Census Population Changes for Wisconsin Counties"* by D. G. MARSHALL et al; "Wisconsin's Population - Changes and Prospects (Rev.March 1959)* by D. G. MARSHALL; "Nature Conservation - a 4-H Project" by DON NIENDORF; "Ranch Style Purple Martin House"* by GLENN BARQUEST and ROBERT ELLARSON; "Tornado! How to Protect Your Home and Family" by RANDALL C. SWANSON; "What's New in Farm Science (Fall, 1959)" and "Forestry Research Notes" (Nos. 52-58 inclusive).
 From State Committee on Water Pollution (St.Bd.Health, St. Office Bldg.): "The Chemical Control of Aquatic Nuisances"* by KENNETH M. MACKENTHUN.

(Continued on p. 90)



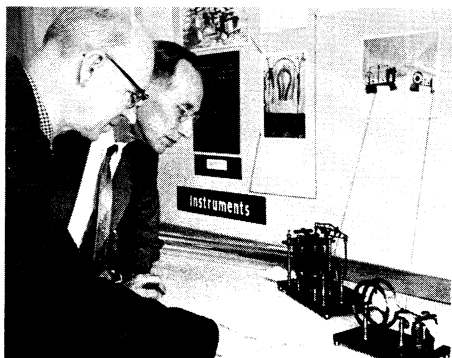
STATE AND ACADEMY NEWS

THE ACADEMY'S 90th ANNIVERSARY MEETING AT MADISON

By Walter E. Scott, Editor

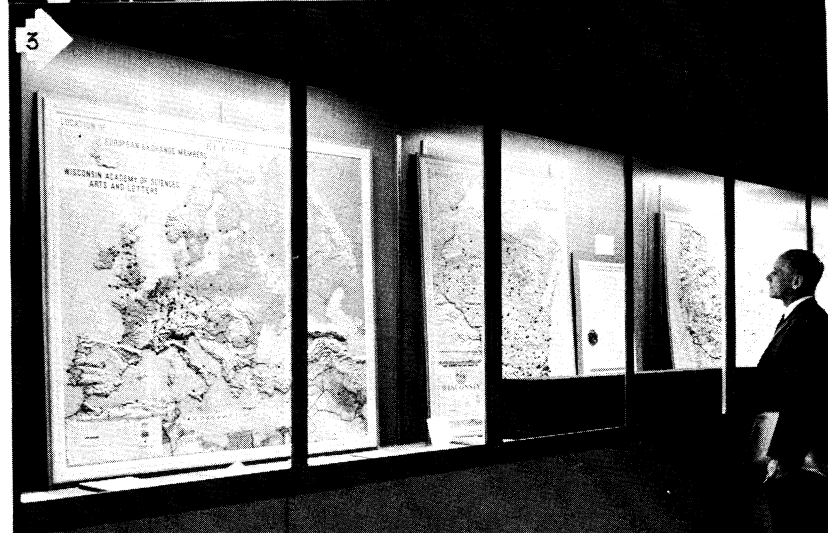
In spite of front page headlines such as "Bad Weather Continues in Most of State," about 200 members of the Wisconsin Academy and its affiliated Junior Academy of Science participated in the 90th Anniversary meeting at the Wisconsin Center in Madison on May 6-8. Rain and wind may have reduced the hoped-for attendance and caused a shift indoors from most of the Sunday field trips, but all participants in the formal announced program were present. From all standpoints, it was a completely successful meeting. The Friday evening reception attracted almost 100 people and about 60 weathered the Sunday "field trip" storm. On Saturday about 150 attended the evening banquet and even more were at the luncheon.

Professor CARL WELTY of the Beloit College Biology Department was chosen president-elect. New President, elected last year, is Prof. MERRITT Y. HUGHES of the University of Wisconsin Institute of Humanities. Vice-presidents in the three departments are: Sciences, WILLIAM B. SARLES, UW Dept. of Bacteriology, Madison; Arts, CYRIL O'BRIEN, Marquette University lecturer in psychology, and Letters, ROBERT C. POOLEY, UW Dept. of English. TED J. McLAUGHLIN, UW-Milwaukee Speech Dept., was elected secretary replacing ROGER SCHWENN, extension librarian at the UW in Madison, who was chosen librarian. Re-elected treasurer is DAVID BEHLING, Northwestern Mutual Life Insurance Co., Milwaukee, and two Academy editors continuing their positions are Prof. STANLEY BECK, UW Entomology department, annual TRANSACTIONS editor, and WALTER E. SCOTT, Wisconsin Conservation Department, quarterly Wisconsin Academy Review editor.



Carroll College in Waukesha was selected as the location for the Academy's 1961 annual meeting under the leadership of Biology Professor ROY CHRISTOPH and BENJAMIN F. RICHASON, Jr. of the Geography Dept. Symposium subject will be "Conservation Problems and Practices in Southeastern Wisconsin." The Academy Council accepted an invitation to hold the 1962 meeting at Wisconsin State College in La Crosse.

Meyer (left) and Welty at Mazuchelli Biol. Lab, Edgewood College.



Among the usual reports of committees and officers, there was good news from Treasurer DAVID J. BEHLING, who reported a balance on hand when his books were closed on April 15 of \$2,135.66 in addition to an Endowment Fund balance of \$7,172.24. He stated that there were a few small outstanding bills but also substantial income since the books were closed. The last TRANSACTIONS had been paid for, and the only big problem remaining was how to pay for the next TRANSACTIONS now being prepared for publication late this year. The Council has some hopes for state assistance on this.

At the annual business meeting the constitution was amended to create two new classes of membership - Institutional for \$50.00 and Student for \$1.00 (See p. 41 of Winter, 1960 Review for exact wording of this amendment - fees will appear in by-laws). A resolution honoring the memory of members deceased during the past year mentioned LUCIA RUSSELL BRIGGS, HERBERT P. EVANS, VERNOR C. FINCH, ALFRED J. WOJTA, E. J. B. SCHUBRING, WALTER W. SMITH and J. S. SUPERNAW, M. D.

Professor JOHN W. THOMSON, who has been chairman of the Wisconsin Junior Academy of Science since its beginning about 15 years ago, was presented with a Life membership certificate at the banquet in appreciation for his work. Also, at this 90th Anniversary banquet, Miss ELOISE GERRY, FARRINGTON DANIELS and JOSEPH H. MATHEWS, all of whom joined the Academy about four decades ago, were given Life membership recognition.

Besides these honored guests at the banquet (including PRESIDENT and MRS. ELVEHJEM), winners of the Wisconsin Science Talent Search were announced. VIRGINIA PERNER (Columbus High School, Marshfield) won the four year full tuition scholarship to Marquette University. She also was cited for the most original work in the Junior Academy contest along with RICHARD DERICKSON (Blue River High School). Rev. ALFRED W. SWAN, of the First Congregational Church, presented the following invocation at the banquet:

"O Thou from Whom all skill and science flow, grant to us in this company the wonderment of the world about. And deprive us not of knowledge of the world within, where 'pity, peace and love' abide, that fitly furnished with life's whole view we may enter into our goodly heritage.

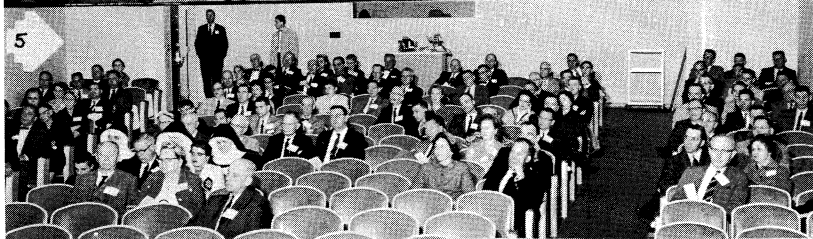
"For the exchanges with familiar friends, for the discovery of the new, we thank thee.

"And now for this food from the bounty of the earth, and from the labor of hands and minds in our behalf, we thank them and Thee, Who art all glorious, and Who dost appear to us daily in the Son of Man - our obedient thanks."

Some actions of interest taken at earlier Council meetings on April 1 and May 6 are as follows:

1. In reply to a questionnaire from the Executive Committee of the American Association for the Advancement of Science, affirmative replies were given to questions as to whether a strong National Junior Academy of Science should be formed under the jurisdiction of the local Senior Academy and sponsored by the AAAS.

OPPOSITE PAGE Meeting photos by Gerhard R. Schulz: Top - D. John O'Donnell (W.C.D.) inspecting exhibit of Wisconsin lake photographs; Middle - Joint luncheon of Senior and Junior Academies; Bottom - Exhibit prepared by Harold F. Williams on location of Wisconsin Academy exchanges viewed by Walter E. Scott.



2. Moved to establish a committee authorized to prepare prospectus for a Junior Academy movie which might be financed by outside sources.

3. Moved to establish a committee to study possible revision of the Science Talent Search procedures and program.

4. Heard a favorable report from the special committee which met with U. W. President CONRAD ELVEHJEM and his aide on budgets, Professor WILLIAM H. YOUNG, on March 9 when assurances were secured for U. W. assistance in financing the TRANSACTIONS in future years through sale of exchange copies to the U. W. Library. This special committee consisted of President MEYER, President-elect HUGHES, Vice-president (Sciences) AARON J. IHDE, Treasurer BEHLING, Junior Academy Chairman THOMSON and Librarian SCOTT. The Junior Academy of Sciences also received favorable reaction for future U. W. support.

5. Approved Life membership for the Vice-president of the University of Rhode Island, H. A. BROWNING, who had been an Academy member for 40 years without interruption. Decided to invite him, as well as others previously so selected (FARRINGTON DANIELS, CHARLES DRESCHLER, Miss ELCISE GERRY, JOSEPH H. MATHEWS, WALTER H. SNEEL and WILLIAM N. STEIL) to be honored guests at the 90th Anniversary banquet. --- W. E. S.

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Prof. Arthur Hasler talking to Sunday tour group on workings of U. W. Hydrobiology Laboratory.

OPPOSITE PAGE Meeting photos by Gerhard R. Schulz: Top - Past-president Otto Kowalke registering with assistance of Professor and Mrs. Joseph J. Hickey and John W. Thomson; Middle - Over 100 in attendance at Wisconsin Lakes Symposium; Bottom - Professor Menahem Mansoor presenting his paper to the humanities section.

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VISIT the Wisconsin Academy 90th Anniversary Exhibit in the U. W. Memorial Library at Madison in display cases on both sides of the main stairway at second floor, on show through September, 1960. Prepared by Reference Librarian LOUISE HENNING (assisted by Exchange Librarian LAUREL NELSON) it includes significant publications, the Golden Anniversary medallion and sketches about Academy leaders in past years.





STATE HISTORICAL SOCIETY

Director LESLIE H. FISHEL, Jr. reports that the State Historical Society's recent membership drive resulted in a gain of over 700 new members. The total membership now stands at over 4,700. ... State Archeologist WARREN WITTRY recently has transferred to Springfield, where he has accepted the position of Curator of Anthropology for the Illinois State Museum. ... The Society recently issued an important new publication, "Dictionary of Wisconsin Biography," which is available at \$11.00 and will be reviewed later.

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BELOIT COLLEGE (Prof. Carl Welty, Reporter)

A new college library to cost about \$1,200,000 will be built next year on the Beloit College campus. The new library will house twice the number of volumes now owned by the college - 170,000 volumes. ... Two alumni of the college who prefer to remain anonymous have given \$30,000 to equip and operate a small limnological laboratory, a part of the biology laboratory eventually to be housed in the new science hall now in the blueprint stage of planning. The new laboratory will be called the Smith Limnological Laboratory in honor of Professors E. G. Smith, former chemistry professor at Beloit, and his son Gilbert Smith, the algologist of Stanford University. ... Prof. BARTHOLOMEW KUNNY of the Dept. of Biology will spend the next school year studying the macroscopic bottom fauna of small freshwater streams in Wisconsin under grants from the Lilly Foundation and the National Science Foundation. ... Beloit College is embarking this coming year on a foreign study program for its students. More than 30 students will be in overseas colleges and universities and some already started with summer sessions. An "European Communities Seminar" under Geography Professor JOHN H. KEMLER, will take more than a dozen students to Brussels, Belgium. ... Prof. CARL WELTY has been elected a member of the Board of Trustees, Wisconsin Chapter of the Nature Conservancy.

MILWAUKEE PUBLIC MUSEUM (Wallace N. MacBriar, Jr.,
Publicity Chairman)

The Milwaukee Public Museum recently has published a "Handbook of Wisconsin Fishes" available at 75¢ per copy.

... Director STEPHAN F. BORHEGYI was elected President of the Wisconsin Archeological Survey at their annual meeting in Madison and also recently was elected Vice-chairman of the newly formed Wisconsin Chapter of the Nature Conservancy. ... The Museum was fortunate in securing the George Berg Insect Collection of swallowtail butterflies containing several thousand specimens from throughout the world. JAMES R. NEIDHOEFFER, museum research associate in entomology and a member of the Board of Directors of the Friends of the Museum, Inc., made possible this very desirable purchase. ... Last March the Museum's Audio-Visual Center handled the greatest number of bookings in any one month in the history of the Museum, with a total of 14,408 Audio-Visual films, filmstrips, objects and specimens distributed to Milwaukee schools, organizations, and individuals. This was 3,224 more bookings than during the same period in 1959. ... Many temporary and newly-constructed

OPPOSITE PAGE Meeting photos by Duane W. Hopp: Top - Professor Gerard A. Rohlich explaining U.W. Hydrology Laboratory; Middle - "Council of War" about revised field trip program between Professors Grant Cottam and Robert A. McCabe and Walter E. Scott with Professor and Mrs. Robert J. Muckenhirn in the foreground; Bottom - Proof that a short field trip was taken in the U. W. Arboretum (between spells of rain).

permanent exhibits have appeared in the Museum in recent months. Three temporary cases have been opened, displaying materials collected during Director BORHEGYI's recent research trip to Guatemala. In the Museum's rotunda is displayed an exhibit of pottery found at Lake Amatitlan and other lakes of the vicinity. This material, recovered from the bottom of the lakes through skin diving techniques, is representative of Maya culture of about 1,000 years ago. ... The Museum's Weekend Lecture Series, which was completed in March for the 1959-60 season, showed an attendance of 77,685, which exceeded last year's patronage by 3,227.... Assistant Director ALBERT M. FULLER has been elected one of the Board of Trustees, Wisconsin Chapter of the Nature Conservancy.



Notes from the MARQUETTE UNIVERSITY News Bureau

A. BERNARD DROUGHT, dean of Marquette's College of Engineering, is the new president of the Marquette chapter of the Society of Sigma Xi. ... A graduate program in nuclear engineering, leading to the master of science degree, will be introduced at Marquette in September as also will be a program of graduate studies in sociology. ... A new member of the Quarter Century Club at Marquette includes ARTHUR G. BARKOW, professor of physics. ... JOHN W. SAUNDERS, Jr., chairman of the biology department, will present his studies of cellular death at the International Congress of Cell Biology in Paris next September. ... Dr. ELSTON L. BELKNAP is co-editor of "Work and the Heart," a publication resulting from the Wisconsin Conference on Work and the Heart conducted at Marquette.



UNIVERSITY OF WISCONSIN (Notes from U.W. News Service)

The University of Wisconsin has received a \$1 million grant from the Ford Foundation for a research, education and extension program in urban problems. FRED H. HARRINGTON, vice-president - academic affairs, heads the faculty committee planning the program. ... A language center for study of Telugu and Hindi, supported by the U. S. Office of Education, will get underway at the University in September. ... The University's 75th anniversary Summer Sessions is scheduled June 20-August 12. ... Professor JOSEPH J. HICKEY of the Dept. of Forestry and Wildlife Management, has been elected secretary of the newly formed Wisconsin Chapter of the national Nature Conservancy. Professors GRANT COTTAM, ARTHUR HASLER and HUGH ILTIS were elected members of the Board of Trustees. ... A newly organized UW department of statistics will


SUMMER INSTITUTES IN 1960 FOR COLLEGE AND HIGH SCHOOL SCIENCE, MATHEMATICS AND ENGINEERING TEACHERS

Summer Institutes in 1960 for College and High School Teachers of Science, Mathematics, and Engineering were announced by the sponsoring National Science Foundation and are in progress at the following institutions: University of Wisconsin, Marquette University, University of Wisconsin-Milwaukee, Wisconsin State College-River Falls and at Pigeon Lake Camp in Chequamegon National Forest by the State Colleges. Academy members in charge of such programs include Professor R. M. DARNELL (Marquette), PETER J. SALAMUN (U.W.-Milw.) in Field Biology Course and JAMES W. UNGER (of Wis. State College-Oshkosh at Pigeon Lake Camp).

offer instruction, research, and consulting services for scholars in other departments using statistical methods. Headed by Prof. GEORGE E. P. BOX, it will begin service in the fall. ... Prof. R. BYRON BIRD won a \$1,000 George Westinghouse award for outstanding ability shown by a young teacher in engineering. The award was given by the American Society for Engineering Education. ... President CONRAD A. ELVEHJEM has been appointed by President Eisenhower to a six-year term on the National Science Board. ... Prof. JOHN C. WALKER, plant pathologist, has been awarded an honorary doctor of science degree by University of Göttingen, West Germany. ... Prof. SAMUEL MERMIN received the D. C. Everest award of \$1,000 from the State Historical Society of Wisconsin at its annual meeting. Awards of merit went to Emeritus Dean GEORGE C. SELLERY and to Prof. MERLE CURTI. ... Profs. R. A. BRINK, W. ROBERT MARSHALL, Jr., and DAVID E. GREEN were elected to the American Academy of Arts and Sciences. ... Prof. WILLIAM B. HESSELTINE, UW historian, is author of "Lincoln's Plans of Reconstruction," published by Confederate Publishing Co., Tuscaloosa, Ala. ... Some 500 books of 19th century English literature have been donated to the UW Memorial Library in honor of the late Prof. ARTHUR BEATTY, longtime member of the English faculty who died in 1943. ... The University has received a citation for "major research on the nutritive value of meat" from the National Live Stock and Meat Board. ... The University of Wisconsin-Milwaukee will observe the 75th anniversary of state-supported higher education in Milwaukee this year with a series of conferences, symposia, lectures, and other special events.

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LAKELAND COLLEGE (Bob Spatt, Reporter)



Six new members recently added to the Lakeland College Board of Trustees are RICHARD S. FALK, assistant to the president and secretary of the Falk Corp., Milwaukee; ROBERT P. VOLLRATH, vice-president and secretary of the Vollrath Co., Sheboygan; WILLIAM H. KOHL, vice-president of H. C. Prange Co., Sheboygan; Mrs. MARETA KAHLLENBERG, Two Rivers; CARL J. KOHLER, secretary of the Kohler Co., Kohler; and C. H. VAN ABEL, secretary-controller of the C. Reiss Co., Sheboygan. ... WILLIAM WELTI, professor of biology, has been named to succeed WILLIAM C. BECKMANN as dean of instruction effective this fall, according to President ARTHUR M. KRUEGER. The new dean is a graduate of Mission House Academy, received his bachelor's degree from the University of Arkansas, and his master's degree from the University of Wisconsin, where he has completed all residence and course work for his doctorate. During the past three summers he has been a visiting professor of biology at Idaho State College.

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NEW POSITIONS MRS. F. N. HAMERSTROM was elected President of the Wisconsin Society for Ornithology in June and EUGENE ROARK was selected editor of their quarterly bulletin, The Passenger Pigeon. ... Conservation Commissioner PAUL J. OLSON was elected Chairman

ACKNOWLEDGMENTS for credits not shown elsewhere: Map, p. 51, from "Inland Lakes of Wisconsin;" sketches: p. 49 & 50 from copyrighted Minnesota Naturalist, Winter, 1958 (with permission); p. 54 (by Byron Jorns) from "Farms or Forests;" pp. 75 & 76 from "Soil Conservation - a Teacher's Guide;" photos: p. 53, painting by Academy member Lester Williams of Green Lake; p. 69 (upper) and 77 (by Carmie Thompson) from Madison Capital Times; p. 69 (lower) and p. 71 from Wisconsin State Journal; p. 74 (top) by Robert Espeseth, W.C.D. and (center) by Peter Salamun; pp. 81 & 85 by Duane Hopp.

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of the newly formed Wisconsin Chapter, Nature Conservancy and Attorney WILLIAM E. SIEKER of Madison is its Treasurer. Academy members on the first Board of Trustees (not mentioned elsewhere) include Mrs. GORDON E. KUMMER (Milwaukee), GEORGE C. BECKER (Stevens Point), and JACOB SHAPIRO (Oshkosh). ... WILLIAM M. LAMERS, Assistant Supt. of Schools in Milwaukee, is President of the Milwaukee Public Museum Board. ... REID A. BRYSON of the U.W. Meteorology Dept. is director of a government project studying climatology of the arctic tundra region this summer. Other Academy members with him on the project are ERWIN HIEBERT, JAMES A. LARSEN, ROBERT J. MUCKENHIRN, JOHN W. THOMSON and ROBERT A. RAGOTZKIE. ... Former Milwaukee Mayor FRANK P. ZBIDLER has been awarded a Ford Foundation grant to study and evaluate the nation's urban renewal effort. ... LAWRENCE J. FITZPATRICK of Madison has been elected a member of the Board of Directors of the Commercial State Bank. ... Milwaukee's Port Director, HARRY C. BROCKEL, recently was re-elected Chairman of the Wisconsin Great Lakes Commission. ... GERARD A. ROHLICH was invited to present a paper this summer at the first Brazilian Congress on Sanitary Engineering in Rio de Janeiro. # # #

PUBLICATIONS AVAILABLE - Continued from page 80

From Wis. Geological and Natural History Survey (U.W., Science Hall): "Ground-Water Supplies in Wisconsin and Illinois Adjacent to Lake Michigan" by ROBERT E. BERGSTROM and GEORGE F. HANSON. From State Dept. of Agr. (448 W. Washington ave., Madison) "Dutch Elm Disease in Wisconsin" (1959 annual report). From Wis. Dept. of Resource Development: "Wisconsin Manufacturers and Foreign Trade" and "On Wisconsin - a State of Power and Plenty," New York Times Adv. Supplement for June 5, 1960. From Coordinating Committee on Higher Education (Wis. Center Bldg., Madison 6): "A Survey of Physical Facilities at Wisconsin State Colleges and University of Wisconsin - Fall 1958" by Frederick E. Schwehr. From State Soil Cons. Committee, (Soils Bldg., UW, Madison 6): "Inter-Agency Agreement for Planning and Developing Community Watersheds in Wisconsin."

From Other Sources: Lakes States Forest Expt. Station (St. Paul, 1, Minn.): "The Forest Insect and Disease Situation, Lake States, 1959" by DONALD C. SCHMIEGE and GERALD W. ANDERSON; "Trends in the Wisconsin Charcoal Market" by JOHN R. WARNER and BURTON L. ESSEX; "How to Release Conifers in the Lake States with Chemicals" by JOHN L. AREND and EUGENE I. ROE; leaflet on "Coulee Experimental Forest" and 36th Annual Report for 1959 by Director M. B. DICKERMAN. From National Park Service (U.S. Dept. Interior, Washington 25, D.C.): "Remaining Shoreline Opportunities in Minnesota, Wisconsin, etc." and "Cur Fourth Shore--Great Lakes Shoreline Recreation Area Survey." From Wis. Power and Light Co. (Madison, Wis.): "Garden Trees for Street and Home." From Forest Supervisor (Rhinelander, Wis.): Map of "Nicolet National Forest." From Ice Age Park and Trail Foundation of Wis., Inc. (1412 First Wis. Nat'l Bank Bldg., Milwaukee 2): "Hiking Trails in the Ice Age Park of Wisconsin - No. 1 - Dundee Shelter Hike." From Great Lakes Fishery Commission (1319 N. University ave., Ann Arbor, Mich.): "Annual Report - 1958."

Available for a price: Vol. 10, No. 4 (Winter, 1959) of Naturalist on "Lake Superior" from Minnesota Natural History Society (315 Medical Arts Bldg., Minneapolis 2, Minn.) for \$1.00. "Seasonal Abundance and Vertical Movements of Planktonic Crustacea in Lake Michigan" by LARUE WELLS 9Fishery Bull. 172, U.S. Fish & Wildlife Service) from Supt. of Documents, Washington 25, D.C., 25¢.

AN INDEX TO GENERA AND FAMILIES OF PLANTS TREATED TO DATE
IN THE PRELIMINARY REPORTS ON THE FLORA OF WISCONSIN
IN THE WISCONSIN ACADEMY TRANSACTIONS

By Harold F. Williams
Plant Industry Division
Wisconsin Dept. of Agriculture

A vast amount of information on Wisconsin plants has been published under the above title since 1929. Gathered together this would form a volume of about 450 pages and list all the known Wisconsin species of plants in nearly 400 genera and families together with their distribution shown on county outline state maps and much other information as to abundance, critical characters, habitat, etc.

Yet this solid, scientific achievement of immense practical value is largely unavailable to conservationists, students, state authorities and others continually or occasionally dealing with Wisconsin plants for lack of a readily available index. In several cases the titles of the papers do not state the families treated and only one the genera. While it is understood that data on the groups indexed here has accumulated since publication and by no means all Wisconsin taxa are included, it is believed that the following index will make the published data more available and useful.

A single example of the great value of this information may be given out of the multitude that could be cited. In the present concern about Dutch Elm Disease, it is important to know what elm species occur in the state, how they are distinguished and where they grow. The answers are to be found under *Ulmus*, Preliminary Report number 23 in volume 28 of the Transactions, page 191.

After the scientific group name in the following index, is first the Preliminary Report number, next the Transactions volume number and last the page number in that volume. At the end of the index is a complete list of the Preliminary Reports to date. This list is annotated to the extent of noting errors in serial numbering and inclusion of family names treated but not so stated in the titles.

Following the Preliminary Reports is a short bibliography of the most important general works covering Wisconsin flowering plants and which include those genera not yet treated in the Preliminary Reports. There are excellent works dealing with Wisconsin grasses, legumes, ferns, orchids and other groups references to which can be found in the Greene and Curtis bibliography of Wisconsin vegetation.

Editor's Note: HAROLD F. WILLIAMS has been a member of the Wisconsin Academy since 1946. In his work he has found it useful to bind these "preliminary reports" together and index them for ready reference. He now offers the index to others interested in this series and plans to make reprints available to professors of botany and their students. The late NORMAN C. FASSETT deserves much credit for this series which he started and of which he wrote the largest number of reports.

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The Preliminary Reports

Note: Where botanical orders were given as the title and families not included, these latter are given here after a colon. In the printed papers there are two numbers 31 and two numbers 33. These are distinguished here by 31a and 31b, 33a and 33b. The second number 31 should have been 32 according to a footnote to number 33a but since there was no number 32 printed it is thought best to omit that number here.

1. Juncaginaceae, Alismaceae. Norman C. Fassett. 1929. 24: 249-256.
2. Ericaceae. Norman C. Fassett. 1929. 24: 257-268.
3. Lobeliaceae, Campanulaceae, Cucurbitaceae. Kenneth L. Mahony. 1929. 24: 357-361.
4. Lycopodiaceae, Selaginellaceae. Leonard R. Wilson. 1930. 25: 169-175.
5. Coniferales: Taxaceae, Pinaceae. Norman C. Fassett. 1930. 25: 177-182.
6. Pinales: Typhaceae, Sparganiaceae. Norman C. Fassett. 1930. 25: 183-187.
7. Betulaceae. Norman C. Fassett. 1930. 25: 189-194.
8. Aceraceae. Norman C. Fassett. 1930. 25: 195-197.
9. Elatinaceae. Norman C. Fassett. 1930. 25: 199-200.
10. Haloragidaceae. Norman C. Fassett. 1930. 25: 201-203.
11. Ranunculaceae. Lois Almon. 1930. 25: 205-214.
12. Polypodiaceae. Edith W. Breakey and Ruth I. Walker. 1931. 26: 263-273.
13. Fagaceae. David F. Costello. 1931. 26: 275-279.
14. Hypericaceae. Willard T. McLaughlin. 1931. 26: 281-288.
15. Polygonaceae. Kenneth L. Mahony. 1932. 27: 207-225.
16. Xyridales: Eriocaulaceae, Xyridaceae, Commelinaceae, Pontederiaceae. Norman C. Fassett. 1932. 27: 227-230.
17. Myricaceae, Juglandaceae. Norman C. Fassett. 1932. 27: 231-234.
18. Sarraceniales: Sarracenaceae, Droseraceae. Florence B. Livergood. 1932. 27: 235-236.
19. Saxifragaceae. Norman C. Fassett. 1932. 27: 237-246.
20. Malvales: Malvaceae, Tiliaceae. Alice M. Hagen. 1932. 27: 247-249.
21. Geraniales: Linaceae, Oxalidaceae, Geraniaceae, Rutaceae, Polygalaceae, Euphorbiaceae, Callitrichaceae. Norman C. Fassett. 1933. 28: 171-186.
22. Cornaceae. A. A. Drescher. 1933. 28: 187-190.
23. Urticaceae. David F. Costello. 1933. 28: 191-196.
24. Salicaceae. David F. Costello. 1935. 29: 299-318. (No. XLV in the title, XXIV in the contents.)
25. Arales: Araceae, Lemnaceae. (Lemnaceae in collaboration with Lawrence E. Hicks.) Norman C. Fassett. 1937. 30: 17-20.
26. Convolvulaceae. Sidney O. Fogelberg. 1937. 30: 21-25.
27. Lentibulariaceae. John W. Thomson, Jr. 1940. 32: 85-89.
28. Caprifoliaceae. Dorothy R. Wade and Douglas E. Wade. 1940. 32: 91-101.
29. Anacardiaceae. Norman C. Fassett. 1940. 32: 103-106.
30. Rhemnales: Rhamnaceae, Vitaceae. Richard W. Pohl. 1940. 32: 107-111.

- 31a. Solanaceae. Norman C. Fassett. 1943. 35: 105-112.
 31b. Boraginaceae. Emil P. Kruschke. 1944. 36: 273-290.
 (Should have been No. 32 according to footnote on 33a.)
 32. No number 32 printed.
 33a. Ranunculaceae. (Error for Ranunculales.) The following families are included: Ranunculaceae, Nymphaeaceae, Ceratophyllaceae, Berberidaceae, Menispermaceae, Lauraceae. Norman C. Fassett. (1946) 1947. 38: 189-209.
 33b. Najadaceae. James G. Ross and Barbara M. Calhoun. 1951. 40(2): 93-110. (33a and 33b were both printed as No. 33.)
 34. Lilliales: Juncaceae, Dioscoreaceae, Liliaceae, Amaryllidaceae, Iridaceae. Joan A. McIntosh. 1950. 40(1): 215-242.
 35. Araliaceae. N. C. Fassett and H. J. Elser. 1950. 40(1): 83-85.
 36. Scrophulariaceae. Peter J. Salamun. 1951. 40(2): 111-138.
 37. Cyperaceae. Part I. (Exclusive of Carex.) H. C. Greene. 1953. 42: 47-67.
 38. Rubiaceae -- Madder Family. Emil K. Urban and Hugh H. Iltis. (1957) 1958. 46: 91-104.
 39. Phrymaceae -- Lopseed Family. Hugh H. Iltis. (1957) 1958. 46: 105.
 40. Asclepiadaceae -- Milkweed Family. Gottlieb K. Noemesi and Hugh H. Iltis. (1957) 1958. 46: 107-114.
 41. Labiatae -- Mint Family. Robert C. Koepfen. (1957) 1958. 46: 115-140.
 42. Rosaceae I -- Rose Family I. Harriet Gale Mason and Hugh H. Iltis. (1958) 1959. 47: 65-97.

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 Fernald, Merritt Lyndon. 1950. Gray's Manual of Botany, Eighth Ed. American Book Co., N.Y., N.Y. 1632 pp.
 Gleason, Henry A. 1952. The New Britton and Brown Illustrated Flora..., 3 Vols. The New York Botanical Garden, N.Y., N.Y.
 Greene, H. C. and Curtis, J. T. 1955. A Bibliography of Wisconsin Vegetation. Milwaukee Public Museum, Publications in Botany, No. 1., Milwaukee, Wis. 84 pp.

BOOKS ON WISCONSIN FLORA

Published by the University of Wisconsin Press, 430 Sterling Ct.,
 Madison 6, Wisconsin

By N. C. FASSETT -

- "Leguminous Plants of Wisconsin" (1939, o.p.)
 "Spring Flora of Wisconsin" (3rd Ed., 1947, \$2.50)
 "Grasses of Wisconsin" (1951, \$3.00)
 "A Manual of Aquatic Plants" (\$6.50)

By R. M. TRYON, et al -

- "The Ferns and Fern Allies of Wisconsin" (1940, \$3.50)

By JOHN T. CURTIS -

- "The Vegetation of Wisconsin" (1956, \$7.50)

Also a Bulletin of the Milwaukee Public Museum by ALBERT M. FULLER
 "Studies on the Flora of Wisconsin, Part I - The Orchids"
 (1933, o.p.)

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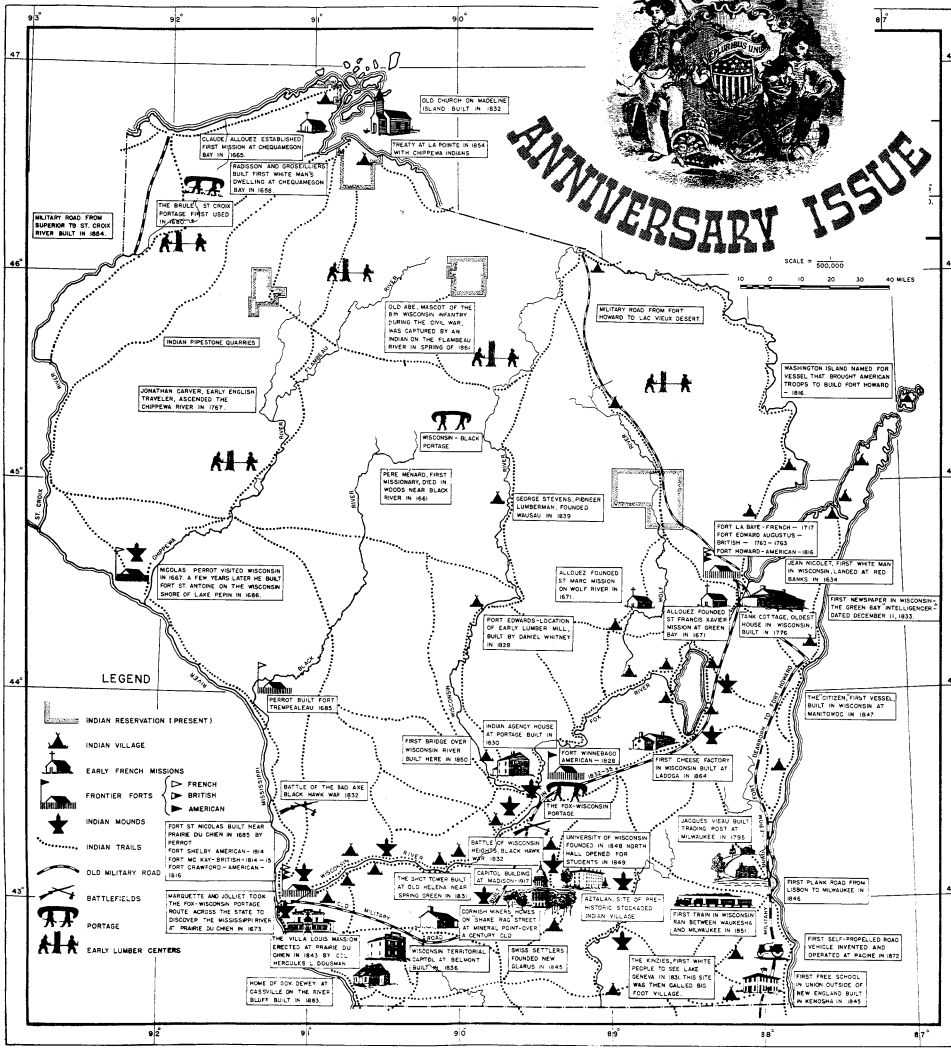
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ANNIVERSARY ISSUE



This Historical Map is plate XVI (page 28) in "A Park Parkway and Recreational Area Plan" published by the Wisconsin State Planning Board (Bulletin 8) in January, 1939.