

## **Wisconsin Academy review. Volume 1, Number 1 Spring 1954**

Madison, Wisconsin: Wisconsin Academy of Sciences, Arts and Letters, Spring 1954

<https://digital.library.wisc.edu/1711.dl/M7VWMQPYN447R8P>

<http://rightsstatements.org/vocab/InC/1.0/>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

# WISCONSIN ACADEMY REVIEW

WINTER, 1954



PUBLISHED QUARTERLY BY THE

WISCONSIN ACADEMY OF SCIENCES, ARTS AND LETTERS

# WISCONSIN ACADEMY REVIEW

Vol. 1

Winter 1954

No. 1

## C O N T E N T S

COVER DRAWING .....	Leonard Crunelle	
The Men on the Cover .....		1
The "Wisconsin Idea" and the Academy, E. B. FRED .....		2
The Academy Library, GILBERT H. DOANE .....		5
Books Destroyed in Beloit Chapel Fire, P. W. BOUTWELL .....		6
Archeological Work in Wisconsin, 1952-53, W. C. MCKERN .....		7
Action at the Council Meeting, ROBT. J. DICKE .....		8
Junior Academy News and Program Plans, JOHN W. THOMSON .....		9
My Construction of a TV Set, GENE UEHLING .....		10
Colchicine, MARK WEIGEL .....		11
Logic Machines, PAUL H. LEWIS .....		12
Questionnaire Replies and the Academy Directory, W.E. SCOTT.		14
Report from the Secretary, ROBT. J. DICKE .....		16
84th Annual Meeting; Welcome New Members; Donations		
Support Academy Projects; Publications Available for		
Purchase; The Transactions for 1954 and 1955		
State and Academy News .....		19
Honors and Awards .....		19
Positions Held .....		21
The Bookshelf .....	23 &	26
Articles and Papers .....		29
The Charter of the Academy .....		24
IN MEMORIAM .....		38
A - for Anachronism?, W. E. SCOTT .....		39
Constitution and By-Laws .....		40
Proceedings of the Academy's 83rd Annual Meeting .....		43
Academy Section, April 24, 1953; Academy Section,		
April 25, 1953; Junior Academy Section, April 25,		
1953; Annual Academy Dinner; Academy Business Meeting;		
Treasurer's Report; Endowments and Assets		
The Academy's Membership Distribution (with map) .....		48
President's Page, C. L. FLUKE .....	Back Cover	
Other Notes		
Dedication of New University Library, AOU Coming to Madison,		
AAAS Grant, Seminars on Fishery Biology, Soil Conservation-		
ists Form Wisconsin Chapter, 14th Annual Meeting, Wis.		
Society for Ornithology, State Board for the Preservation of		
Scientific Areas, Dictionary of Wisconsin Biography, New		
Periodicals of Interest, Natural Resources Committee of		
State Agencies, Historical Society Expansion, Vital Statis-		
tics on This Issue, Miscellaneous News		

WISCONSIN ACADEMY REVIEW is published quarterly in January, April, July and October by the Wisconsin Academy of Sciences, Arts and Letters, Madison, Wisconsin. Until the next annual meeting determines the future of this publication, it is being prepared by a Quarterly Committee consisting of FRED R. JONES, JOHN W. THOMSON, R. J. DICKE, C. L. FLUKE and WALTER E. SCOTT (Chairman). Address all correspondence regarding the publication and its contents to Walter E. Scott, 1721 Hickory Drive, Madison 5, Wis. and all other Academy business contacts to the Secretary-Treasurer, Robert J. Dicke, 6 King Hall, University of Wisconsin, Madison 6. Active membership fee of \$3.00 per year includes subscription to both WISCONSIN ACADEMY REVIEW and the annual TRANSACTIONS.

## THE MEN ON THE COVER



Although positive proof has not as yet been found, it is believed that the artist-sculptor LEONARD CRUNELLE of Chicago did the sketch on the cover of this issue in December 1919. It was recently discovered among the Academy's records filed with the State Historical Society. Crunelle evidently sent it to President E. A. BIRGE as an example of what was planned for one side of the medallion which was to be struck off in commemoration of the Academy's Semi-centennial celebration in 1920. The sketch was shown to some of the families of the men appearing on the medallion in order to secure their approval.

The photo of the reverse side of the medallion with this article indicates that the sculptor closely followed the sketch in his final design. The obverse side of the medallion, also shown here, bears the figure of Minerva tending the lamp of learning and a motto from Lucretius, Naturae species ratioque ("In Nature there is order"). The bronze medallion, 72 mm. high and 47 mm. wide was subscribed for by about 50 members and friends of the Academy and additional copies were sent to Wisconsin institutions and other Academies throughout the world.

According to a statement by E. A. BIRGE, the men figured on the medallion were selected as representative members of the Academy "for their intellectual eminence and for their services to the Academy, and in part for the periods in which their lives and activities fall." Three of them, Chamberlin, Hoy and Lapham, were charter members of the Academy, and the others were members very early in its history. Each served as president, except Lapham, who was its Secretary from the beginning until his death in 1875. They represented the pioneers who established modern learning in the State and others in several fields who made great contributions to knowledge of the State. Significantly, they also were selected from the amateur-hobbyist group as well as the collegiate-professional. These men were:

THOMAS CHROWDER CHAMBERLIN (1845-1928).  
Geologist; Professor, Beloit College; State  
Geologist, Wis.; President, Univ. of Wis.;  
Professor, Univ. of Chicago.

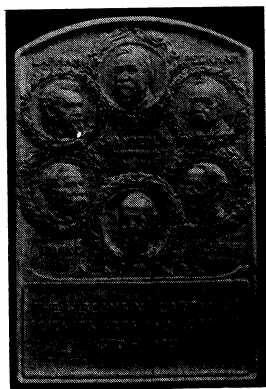
INCREASE ALLEN LAPHAM (1811-1875), of  
Milwaukee. Surveyor, naturalist, geolo-  
gist; State geologist, Wis. 1873-75.

GEORGE WILLIAMS PECKHAM (1845-1914), of  
Milwaukee. Teacher, librarian, zoologist.

ROLAND DUER IRVING (1847-1888), of Madi-  
son. Geologist; Professor, Univ. of Wis.;  
Geologist, Wis. and U.S. Geol. Surveys.

WILLIAM FRANCIS ALLEN (1830-1889), of  
Madison. Historian; Professor of Latin  
and History, Univ. of Wisconsin.

PHILO ROMAYNE HOY (1816-1892), of Racine.  
Physician, Naturalist.



## THE "WISCONSIN IDEA" AND THE ACADEMY\*

By E. B. FRED, President  
University of Wisconsin

The University is honored to have the Wisconsin Academy select its campus for the annual spring meeting.

Many of you have heard me speak before of the Wisconsin Idea, and I think that idea is best served by the free and unguarded exchange of information, ideas, and opinion between men and women of widely different fields. This idea is best served when people from all corners of the state, and from many academic institutions meet to speak for themselves in the fields for which they are best qualified, and to report on the work they have been doing.

The Academy is a necessary organization for Wisconsin; it takes an extremely important part in the cultural and scientific life of the state.

One of the unique contributions of the Academy is the way it brings together both humanists and scientists.

In these days of increasing specialization, I suspect that it does an entomologist good to talk to a Shakespearean scholar. And the Shakespearean scholar may well benefit from his talk with the entomologist.

Seriously, we are coming to a time when it will be imperative that people in the scientific and scholarly pursuits make themselves known, by word and deed, to those in the other walks of life. It is time we point out that there is a closer interaction between advances in science and the humanities and progress in the so-called practical arts than some popular conceptions might have it.

One of our leading industrial scientists has said that research is finding out what "you are going to do when you cannot keep on doing what you are doing now." I think he ran the risk of being glib when he said that, but if he wanted to put it another way, we might say that research -- scientific or humanistic -- is the best insurance against surprise. Research is a way of finding out what lies ahead and of obtaining the knowledge to cope with what can be foreseen, or of making improvements upon the situations we now face and would continue to face if we failed to carry on research.

The war brought out the fact very clearly that applied science rests upon the things that no one but a few specialists understand at first.

Let us take an example: Botanists and physiologists have worked for many years investigating the uptake of salts by plant cells. During the war, allied scientists tested the aquatic plants up and down the coast of Germany. At the mouth of certain rivers, these aquatic plants were found to contain abnormal quantities of iodine. This led to their locating explosive factories upstream from which iodine was a waste product, dumped into the river.

---

\*Address of Welcome at 83rd Annual Academy Meeting, Madison, April 24, 1953

Almost all knowledge will be useful at one time or another. There may be pure scientists and scholars, but there is little knowledge so pure as to be incapable of application. The distinction between pure and applied science was never clear, and it is now less clear than ever. Scientists and scholars know their work is important to mankind, even though no immediate practical value is apparent to anyone, the scientist or scholar included. The future strength and progress of our civilization depends upon the strength of our inquiry, both scientific and humanistic. As one of America's leading scientists has well said:

"The most impractical thing we can do is to give our whole attention to what we call practical research."

For these reasons, I think it is important that academies of sciences, arts and letters exist not only in greater number, and greater strength, but with members whose voices are determined to carry their message somewhat farther than they have been carried in the past. There are no geographical limits to research. Nor are there boundaries, so far as we can see, beyond which man's questing mind is unable to travel. The unknown is limitless.

In many fields, however, science long ago passed the limits of easy discovery. Natural scientists in many fields have learned to discover truth by indirect inference. Only very recently with the aid of the new proton microscope have we been able to photograph molecules. But they look like the models chemists constructed long ago from their knowledge of molecular behavior.

In other fields of inquiry, however, we are still pioneers. We will be a long time learning all of the species of plants and animals that inhabit the earth. We shall be a longer time learning why and how they live where they do and why they behave the way they do. We shall be even longer learning the same things about man.

Our soils are a basic resource. How much do we understand about how plants get the elements they need from the soil, and how they use them?

In Wisconsin, what undiscovered or unexploited geologic resources do we have?

How can we best use and conserve our water, our topsoil, our minerals?

How can our modes of living together be made better and more truly democratic?

How can the arts and literature be made available to give meaning to lives?

The questions are endless. They will be answered by the modern counterpart of the men who first explored our continent. The pioneer has always been a good investment. He initiates the discovery of continents, he lengthens our life expectancy, shortens our hours of toil, makes the hours of leisure more fruitful. Without the pioneer, in whatever field he may work, our society and our civilization would progress very slowly.

Our best insurance against such stagnation in the future is the sort of work that the Academy is doing to make scholarly and scientific pursuits seem worth while to its junior members.

Too often we overlook the fact that an active interest in science is lost because the rewards are too meager and the recognition absent or fleeting. The organization of the Junior Academy is an excellent force for meeting this problem among our youth.

These young members are the scientists and scholars, the teachers, the basic researchers, and the men and women who will meet the challenges of American industry and government tomorrow and the day after. Unless each year this annual crop of youngsters can be fitted into our economy, we shall fail to keep our society prosperous and dynamic.

Finally, I should like to say one more thing about bridging the chasms between our specialties. The most difficult problems confronting us and future generations lie in the field of the humanities and the social sciences. These problems have resulted largely from the changes forced upon us by our sciences and technology, changes we fail to understand completely. We need a better insight into the meanings and implications of science and technology, and we need to have the things we do understand taught to a broader segment of our people.

But above all I think it important that we not be uninformed or misinformed about these implications. I think it is an encouraging response to the needs of the times that scientists, engineers, and scholars are taking an intelligent interest in national and world affairs and in developments in other fields than their own, both as individuals and through professional societies such as the Academy. It is no longer unusual for professional groups to engage in discussion of current world and national problems or to hold seminars on human relations. But more can always be done to make such discussions add, in an important way, to the education of everyone.

The Wisconsin Academy has played an important role in the life of Wisconsin and her people since it was founded in 1870. We are proud of Wisconsin and her accomplishments, and the Academy has had no small part in the attainments for which Wisconsin is known.

The University is honored to have you meeting on our campus today.

#####

A NOTE FROM LIBRARIAN GILBERT H. DOANE

The new Memorial Library at the University of Wisconsin will be dedicated February 1st. There will be special exhibits of paintings by Wisconsin artists, rare books from the Thordarson Library and other collections, histories of the state and publications of the University of Wisconsin Press. During the day, from nine to four, there will be guided tours of the building. The dedication ceremony will be held in the Wisconsin Memorial Union theater at eight p.m. HOWARD MUMFORD JONES, Professor of English at Harvard University, will speak on "Books and the Independent Mind"; and the Pro Arte Quartet of the University of Wisconsin, with GUNNAR JOHANSEN at the piano, will play Brahms' Quintet in F Minor. The ceremony will be open to the public and tickets of admission will not be required.

## THE ACADEMY LIBRARY

By GILBERT H. DOANE, Librarian  
U. W. and Academy Libraries

One of the most valuable assets of the Academy is its library, which is made up entirely of the proceedings, transactions and journals of other academies and learned societies which have been received in exchange for the Transactions of the Academy. This collection contains about 30,000 volumes, but it is impossible to be accurate in this estimate because the University of Wisconsin Library has purchased a great many volumes to fill out incomplete sets, and whenever exchange relations have been cancelled, it has paid subscriptions to continue the sets.

For example, over twenty years ago the Royal Society of London informed the Academy's librarian that they did not consider the exchange an even one and could not afford to send all their publications in return for the Transactions of the Academy. The University Library immediately entered a subscription for the Philosophical Transactions of the Royal Society in order that the set might be kept up to date. This is but one of many instances in which exchange relations with the larger, more prolific societies or academies of Europe have been broken off and the University library has taken on the annual charge of keeping up the sets.

Of course, the scholars at the University have had direct access to the Academy's library and have used it heavily. The University has paid for this, in a sense, by supplying a librarian to attend to wrapping and mailing of each volume of the Transactions, to claim missing numbers and to conduct correspondence about them. The University Library has paid the cost of postage; and the cost of binding the publications received in exchange has been paid by the University.

Moreover, through the staff of the University Library, the collection of the Academy has been made available, not only to scholars on the campus of the University, but also to those using other libraries throughout the state and even the nation. Members of the Academy and other scholars have always been able to borrow through the system of inter-library loan any volumes in the Academy library, and the University Library paid the shipping charges.

It is virtually impossible to say just what belongs to the Academy and what belongs to the University Library in trying to estimate the size of the Academy's collection of learned and scientific serials. However, it is fair to state that the University Library puts several hundred dollars a year into binding alone, and another thousand or more into subscriptions which keep up sets originally received on exchange for the Transactions.

Although some of the larger European academies, as they have felt the pinch of increased cost of publication and noted the disparity in exchange, have cancelled their relations with the Academy, the Academy itself has rarely cancelled such a relationship with academies or societies whose publications bulk less than its own. Only when its opposite partner in exchange has ceased to publish and gone out of existence, has the relationship been broken, for the Academy continues to receive from several other academies much more than it sends and it has tried to pass on this generosity to organizations less fortunate than itself.



All the Academy's collection is recorded in the general card catalogue of the University Library and stands on the shelves inter-filed with the learned and scientific serials to which the University Library subscribes or which it receives through other agencies.

WISCONSIN ACADEMY  
OF  
SCIENCES, ARTS, AND LETTERS

So, in a sense, the Academy library has been merged into the University Library. However, its volumes bear a distinctive mark on the binding and contain a bookplate designating them as Academy property. In such a way, each volume has its entity as a possession of the Academy.

#####

### BOOKS DESTROYED IN BELoit CHAPEL FIRE

By P. W. BOUTWELL  
Department of Chemistry, Beloit College

On December 12, 1953, the eve of the traditional Beloit College Christmas Vespers, the Edward Dwight Eaton Chapel was completely gutted by fire starting through spontaneous combustion in the basement and rapidly spreading throughout the structure. No official estimate of the loss can be made until after the insurance appraisers have completed their work.

Some 15,000 to 20,000 volumes of older books, bound periodicals, and documents not in frequent demand had been stored in the basement of the chapel. It was at first thought that these books might be a total loss. While the loss is considerable it is not as great as feared. The volumes on the upper shelves suffered from fire damage while those on the lower shelves were under water. The books in the middle of the stacks came through with little damage. The most serious loss will be to the bound periodicals before the year 1900. The books are now being removed to another building and until this is completed, no accurate estimate of the loss can be made. While the insurance on both building and contents was substantial, many items including rare old books and journals cannot be replaced. Several members of the faculty whose offices were in the Chapel suffered rather heavy personal losses.

Plans are already under way for the immediate construction of a new chapel or, if the remaining walls prove safe, the rebuilding of the old chapel. Engineers and architects are now at work on the problem.

#####

### A. O. U. COMING TO MADISON

The American Ornithologists' Union, one of the older scientific societies in the country, will hold its next annual meeting Wednesday, September 8 to Sunday, September 12, 1954 in the Memorial Union on the campus of the University of Wisconsin. Professor A. W. SCHORGER of the Department of Wildlife Management at the University is chairman of the local committee on arrangements.  
---Joseph J. Hickey.

## ARCHEOLOGICAL WORK IN WISCONSIN, 1952-1953

By W. C. McKERN, Director  
Milwaukee Public Museum

Since its organization in 1947, all archeological work in Wisconsin has been done under the auspices of a cooperating group of professional archeologists and institutions interested in Wisconsin's prehistory, the Wisconsin Archeological Survey. At the present time, members of the Survey represent the following institutions and organizations: University of Wisconsin, Milwaukee Public Museum, Beloit College, Lawrence College, the Neville Public Museum in Green Bay, the Oshkosh Public Museum, the Manitowoc Museum, the Wisconsin State Historical Society, the Wisconsin Archeological Society, and the State Conservation Department. Several projects sponsored by the Survey in the course of the last fiscal year are worthy of special mention.

Considerable progress was made in the initial preparation of the Ancient Aztalan State Park site, including the building of roads, the installation of facilities for the visiting public, and the planting of trees. In addition, the restoration of the stockade about the Ancient Village was actually started, consisting primarily in the erection of log walls about the southeastern corner of the enclosure, although no section of the stockade had been completed. The experience gained in this initial work will greatly facilitate and expedite reconstruction activities in future.

Two excavation projects were carried out as a result of local emergencies that developed. The first excavation was conducted at the Schmitz site in Fond du Lac County. At this site, an area on the east side of Lake Winnebago was being commercially excavated for gravel. The crests of several high ridges were stripped off by bulldozers to obtain top soil. In this operation the remains of several burials were uncovered, and these were reported to the Milwaukee Public Museum. The Survey stepped in to conduct salvage operations. The site was first examined by ARTHUR NIEHOFF of the Milwaukee Public Museum, and later DAVID A. BAERREIS of the University of Wisconsin, accompanied by Messrs. WARREN WITTRY, ROBERT MAHER, ROBERT NERO, and RICHARD KESLIN, conducted excavations at the site. They were later joined for a period of several days by RICHARD GORSKI of the Manitowoc Museum.

Skeletal materials at the site were abundant and in excellent condition, although no undisturbed burials were found. In addition to the skeletal materials, cultural materials found at the site include pearl beads, artificially deformed crania, the remains of what appears to have been log-covered tombs, and items such as projectile points, shell beads, antler tips and the like. Nothing approaching culture identification has been attempted on the basis of these meager finds.

The second project was at a burial site, encountered through the efforts of commercial gravel excavations, on the south side of Lake Winnebago. Here again the work consisted of salvage operations. MR. LUNDSTED of the Oshkosh Public Museum, and HIROSHI DAIFUKU of the University of Wisconsin first examined the site. BAERREIS, with much the same personnel represented at the first site, then conducted excavations. This "dig" was one of the most successful in Wisconsin during recent years. The burial area appears to have been an early Indian cemetery. The remains of approximately forty-three individuals were recovered, and the associated burial goods included such cultural products

as elk-antler axes, a sandal-sole shell gorget, and a copper head-dress--all new discoveries for the Wisconsin area. The culture seems to have been relatively old, and may represent some manifestation of the Archaic era.

# # # # #

#### ACTION AT THE COUNCIL MEETING

By ROBERT J. DICKE, Secy.--Treas.

A Council Meeting was held September 9, 1953 at the University of Wisconsin with President C. L. FLUKE presiding and the following Council members in attendance: E. L. BOLENDER, R. J. DICKE, Secretary-Treasurer, G. H. DOANE, Librarian, W. C. McKERN, H. MEYER, Vice-President (Science), K. G. NELSON, A. W. SCHORGER, and by invitation W. E. SCOTT, Chm. Special Publications Committee and J. W. THOMSON, Chm. Junior Academy of Science.

A report was heard of the recommendations of the Special Publications Committee composed of W. E. SCOTT, Chm., G. H. DOANE, W. C. McKERN, President and Secretary. Recommendations of the committee were discussed and approved by the Council and the following motions passed: Moved that a quarterly bulletin be published along the lines suggested in the committee's report as an experimental publication program. Moved that a Quarterly Committee be appointed by the President with authorization to proceed with a program of publication of an academy quarterly. The President and Secretary were to be included on this committee as ex-officio members. (The Quarterly Committee appointed was as follows: FRED R. JONES, W. E. SCOTT, Chm., J. W. THOMSON, and the President and Secretary ex-officio).

The Secretary was directed by motion of the Council to place surplus volumes of the Transactions on immediate sale and to contact libraries, book dealers and the Academy membership for sale of volumes at a reduced price. (The revised price list for academy publications is published on p. 18).

An invitation from Lawrence College to hold our next annual meeting at their college was accepted.

# # # # #

SOIL CONSERVATIONISTS FORM WISCONSIN CHAPTER--On November 14, 1953, the preliminary organization meeting of the Wisconsin Chapter, Soil Conservation Society of America, was held at Madison. A. B. FOSTER (S.C.S. Milwaukee Regional Office) acted as Chairman. Speakers included EMIL TRUOG, Chairman of the U. W. Soils Department, and CYRIL KABAT, Chief of Wildlife Research for the Conservation Department. It was explained that the Milwaukee Chapter was being enlarged to include the entire state and that there were 171 Wisconsin members presently enrolled.

R. H. MUSSER, S.C.S. Regional Director and member of the Society's national council, announced that they had accepted Milwaukee's bid for the 1955 Annual Meeting which would bring about 400 soil conservationists to the state. He also announced that FRED A. WIRT, advertising manager for the J. I. Case Co. of Racine, was one of the national directors. An organization meeting will soon be held for the State Chapter. It will act on reports from Constitutional and Nominating Committees whose respective chairmen are I. O. HEMBRE, Soil Conservation Leader with the College of Agriculture, and JACK DENSMORE, District Conservationist, S.C.S., Madison.

## JUNIOR ACADEMY NEWS AND PROGRAM PLANS

By JOHN W. THOMSON, Chairman\*  
Junior Academy Committee

Ten years ago the Wisconsin Junior Academy of Science was founded by a committee of the Senior Academy and the College of Letters and Science of the University of Wisconsin. With the humble beginnings of a meeting at Marquette University on May 20, 1944, at which nine papers were presented, the Junior Academy has grown until over a hundred papers are presented at four district and two statewide meetings each year. From one person guiding the affairs, it has increased to an organization operated by four district committees and a state committee. Its aim is the discovery and encouragement of the science talented youth of Wisconsin and the program is enthusiastically received.

The activities planned for the Junior Academy this year include district meetings of Senior High School students at Appleton, Milwaukee, Stevens Point, and Eau Claire during late March and early April. A state meeting for students of the 7th, 8th, and 9th grades will probably be held in the central part of the state during May. The location will be decided upon later. At each of the senior district meetings, committees of Judges will select three representative papers for presentation at the State Academy meetings at Lawrence College, Appleton, on April 24.

By all means visit one of these enthusiastic gatherings of youthful scientists! They always enjoy meeting and talking with the members of Senior Academy. The dates and meeting rooms will soon be set by the area committees. Write the Junior Academy Committee chairman if you wish to be informed of these so that you may attend.

The Seminar Club of Bradford High School, Kenosha, sponsored by MARY A. DOHERTY, and the Science Club of West High School, Madison, sponsored by RICHARD BUTLER, are planning to issue numbers of the Test Tube Times this year. The Test Tube Times is sponsored by the science clubs of Wisconsin, a different club taking the responsibility for producing each issue. Never the same in form or print, it is always interesting and full of ideas. The issues are distributed to all of the science clubs of the state.

SISTERS DOLOROSA and LEOLA, formerly at Aquinas High School, La Crosse, and on the La Crosse area committee of the Junior Academy, have been transferred to De Padua High School, Ashland. They are busy founding an active science club there.

GERDON BESCH of Sturgeon Bay High School and a member of the Appleton area committee is at Harvard University this year, taking graduate work in education. CLIFFORD A. OLSON is continuing the splendid work of the Sturgeon Bay High School Science Club.

The Seminar Club of Bradford High School, Kenosha, is again sponsoring a science fair. The date is already set for May 3 and 4, 1954. Last year, 3,000 people came to see their fair. Put this date on your calendar for next spring!

New committee members this year include Rev. JOHN SCOTT, S.J. Campion High School, Prairie du Chien, on the La Crosse area committee, and ROBERT EHN, Wauwatosa Senior High School, on the Milwaukee area committee.

\*Address, 209 Birge Hall, University of Wisconsin, Madison, 6.

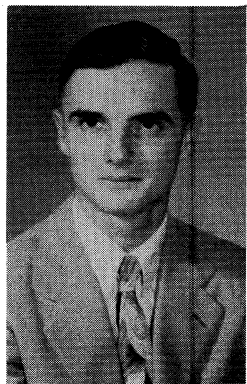
Especially for the benefit of those who have not had the chance of becoming acquainted with the work of our Junior members, and to give them a chance to publish brief reports of their work, each Wisconsin Academy Review will carry three articles by winners of the previous year's contest. The first three in this series follow this introduction.

### MY CONSTRUCTION OF A TV SET

By GENE UEHLING

Aquinas High School (La Crosse)

The parts I used for the construction of my TV set were obtained from DeForest Training, Inc. As I set to work at my project, I found that there were many parts to handle, and that it took much time to mount the parts. I wired four power supplies, a heater supply, a B- supply, the biasing supply, and the high voltage for the picture tube. I gained much valuable experience in handling the different supplies, as also in lacing the wires which run to the different parts of the set.



After completing this, I wired the intermediate frequency stage. In the intermediate type of intermediate frequency stage, there are three coils called stagger tuned IF coils. The sound and picture are amplified in the same stage and are separated at the first video amplifier tube. In performing this work, the wires must be kept short in order to eliminate undesired oscillation which might occur.

The sound from the first video amplifier is applied through the inductance, the limiter stage, the ratio detector, and a radio amplifier.

The video amplifier amplifies a video frequency of 30 cycles to 4 megacycles. This is obtained by small inductance in series with the plate load resistors and coupling condenser.

The automatic gain control controls the gain of the set with respect to poise ratio. We speak of two oscillators; the horizontal oscillator is made up of two tubes. The period of each line is 63.5 micro seconds. The wires are numerous, and care must be taken to prevent "shorts" and breakage. The vertical oscillator operates to form a field frequency that lasts 16,667 micro seconds. The high voltage for the CRT tubes comes from the high voltage supply and consists of about 17,000 volts with little current.

When working with the RF amplifier and front end, I encountered some difficulty, because this work covers twelve channels and great care had to be exercised in the placement of wires.

After the main construction work was done, I had to align the set as far as the ion, trap, the yoke, the focusing coil on the tube itself, the IF's, the oscillators, the sound inductance, and the ratio detector were concerned.

In building the set, I worked slowly and performed many tests with each stage to gain all the knowledge I could, as well

as to prove my work satisfactory. With an antenna and a booster, I receive good television from seven stations, plus other DX stations.

#####

### COLCHICINE

By MARK WEIGEL  
Columbus High School (Marshfield)

My work with colchicine includes its extraction from the corms of *colchicum autumnale* by the phosphotungstic method and the application of a 0.1% solution of it to plants in order to produce mutations.

Of the plants used, an African Violet fed with colchicine solution from a tray below the flower pot responded most quickly to the treatment increasing in size of flowers and leaves. It also started a perpetual flowering program that was never abandoned.

Injecting the heart of an Easter Lily bulb with colchicine solution when the plant was 2½ inches tall also produced unusual results. The lily grew to be 30 inches tall, had its blooming time advanced by two weeks and sprouted three times in one year, increasing from one to two stalks at its second growth and to eight at its third appearance.

The photomicrographs of the stomata of the leaves of the treated and an untreated lily (the control) conclusively proved that a mutation had been effected. The stomata were noticeably larger. So were the epidermal cells.

A similar observation was made of the leaves of white radishes of which the germinating seeds had been treated with 0.1% colchicine. Giantism was most pronounced in these plants and their growth extremely rapid. Daily measurements indicated more than an inch growth for every 24 hours for several weeks. In the end the radish plants stood a little over 5 feet and had roots (the radish) 8 inches long and 6 inches around.

A study of the root tips of the radish plants under an oil immersion microscope revealed even more reliable proof of mutation. In the root tip of an ordinarily grown radish the 2n chromosome count is 18. Treated cells showed 36 with a consequent increase in size of cells. Aceto-carmin with ferric acetate was used as the stain.



## LOGIC MACHINES

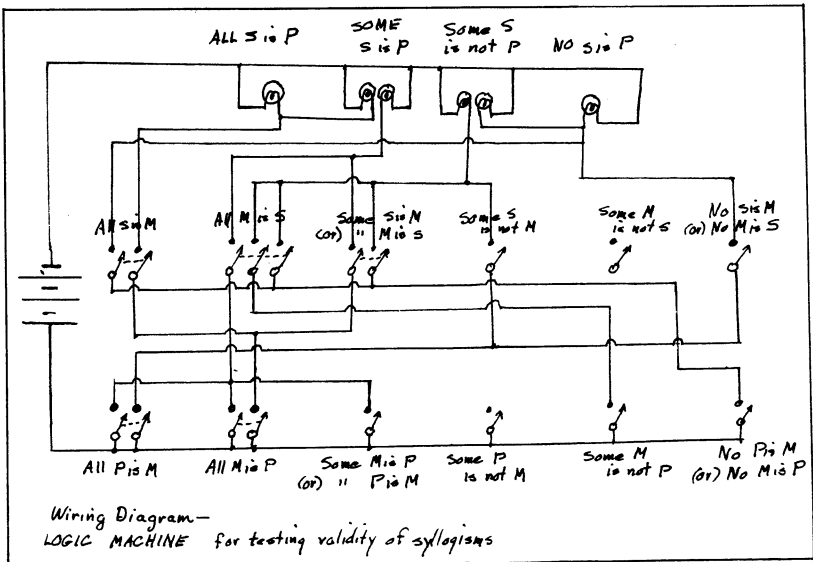
By PAUL H. LEWIS (Appleton)  
Engineering Student at Rose Polytechnic Institute

My interest in logic and logic machines was the result of reading an article on this subject by Martin Gardner (Scientific American, Mar. 1952). With this article he presented a very simple logic machine for testing the validity of syllogisms. It consisted of paper cards with partially covered windows. When these cards were placed in the desired combinations, a completely covered window indicated that the syllogism was valid.



Syllogistic logic is one of the earliest forms of formal logic, and it is also just about the simplest form. The building of an electrical logic machine would ordinarily be a tremendous job, but a machine to test syllogisms was a simple construction. The machine was built in accordance with Gardner's paper cards, but the combinations were changed to electrical circuits. The machine used no relays or tubes, and it was built at a cost of only a few dollars. All that it required was switches, light bulbs, and a source of power.

In order to test the validity of a syllogism, the syllogism would first have to be changed to corresponding symbols. This is accomplished by calling the subject of the conclusion "S", and the word in the predicate "P". The term that appears in the premises but not in the conclusion is labeled "M".



Thus, the syllogism--  
                     All birds have feathers  
                     No reptiles have feathers  
                     Therefore, no birds are reptiles  
 becomes--  
                     All S is M  
                     No P is M  
                     ∴ No S is P.

When the switches on the machine corresponding to the two premises are switched on, the valid conclusion, no S is P, is indicated by a light.

This syllogistic logic has been far surpassed by modern forms of logic, but machines for these new types become much more complex. At the present time, there is little practical use for these machines, but as the nature of scientific problems becomes more complex, new applications will undoubtedly be discovered.

The wiring diagram of the machine I built is shown here. It is my own design, but it is based on the same principles as Gardner's paper card machine. Someone interested in this subject might wish to build this machine.

#####

#### 1953 AAAS RESEARCH GRANT AVAILABLE

The Wisconsin Academy is an affiliate of the American Association for the Advancement of Science, and 155 of our Academy members are active members of this organization. As in the past, it is the policy of the AAAS to return fifty cents of the annual dues of each of its members to the state academy with which they are also affiliated.

This grant is to be used to promote a scientific research project, and is awarded each year to one of our members. Every member is eligible, and affiliation with an academic institution is not a prerequisite for application. Last year the AAAS Research Grant was awarded to Rev. F. C. Seymour of Tomahawk, Wisconsin to aid in his study of the flora of Lincoln County.

This year the Grant amounts to \$77.50. If you are interested in applying for this grant, kindly submit your name and a brief outline of your project to your Secretary as soon as possible. A deadline for submission of applications has been set for March 1, 1954. Selections will be made at a regular Council meeting.

###

PLAN TO ATTEND THE  
 84<sup>TH</sup> ANNUAL MEETING  
 AT LAWRENCE COLLEGE  
 APPLETON-APRIL 23-24!





## QUESTIONNAIRE REPLIES AND

## THE ACADEMY DIRECTORY

By WALTER E. SCOTT, Chairman  
Academy Quarterly Committee



Perhaps it is not fitting to begin a summary report on the Academy's recent questionnaire to its members with another question, but--- Can anyone classify the Entomological Humbug (Ornithis impossibilis) shown here? It was taken from the "Un-natural History" of L. Hopkins, published in St. Nicholas magazine in February, 1879.

There were 179 members who attempted to answer the more reasonable questions on the Academy's "Questionnaire for Directory and Quarterly Bulletin." A considerable amount of information was secured and much of it is used elsewhere in this issue. That for the Directory will be held for use in the April (Spring) issue of the Wisconsin Academy Review, so a follow-up request for cooperation can be made to those who failed to reply. It is planned that the Directory will be set up in the following manner: JONES, JOHN (A-1923), 1632 Northwest Highway, Madison. B.S., M.S. (Northwestern), Sc.D. (Wisconsin); Professor of Zoology, University of Wisconsin; Ornithology (P), Economic Zoology (P), Archeology (H), Philately (H).

In all cases an effort will be made to list the name, address, degrees and schools, position and title, and special subjects of study, both professional (P) and hobby (H), of all members. The year and capital letter in parenthesis will indicate when the individual first affiliated with the Wisconsin Academy and the present type of membership: A-Active; C-Corresponding; H-Honorary; J-Junior and L-Life. When no questionnaire information is available, the member's name, address, year of affiliation and membership class will be inserted as it appears on the official membership list.

In the 179 replies, 59 individuals listed positions held in scientific, literary or similar organizations; 84 had articles, papers or other productions published or displayed in 1953; 31 had books in press or nearing completion and 19 had received honors or awards in 1953. When asked whether they favored the Quarterly Bulletin idea in a general way, 116 answered "yes"; 16 qualified a "yes" answer depending upon available funds, 42 did not reply and 5 said "no". Many were enthusiastic with the idea as a needed medium of contact and exchange of ideas.

Probably the most encouraging part of the replies was the fact that 42 members (almost one out of four!) offered to serve as a Corresponding Editor or Reporter for the Wisconsin Academy Review in their special field. As it was originally planned, this system of reporters would not be put into operation until after the members had considered the Academy Review idea at the Annual Meeting in April. If it was decided that the bulletin should continue, reporters would be activated.

The list of potential reporters and their selected subjects is published below so that other members may be encouraged to offer their assistance (especially in vacant fields) and also to express appreciation to those who offered to help. News items of

the type in this issue will be welcome from anyone for the April "experimental" number, but detailed instructions would be forthcoming later to reporters if the project continues. Certainly this is a fine expression of interest in the future of the Wisconsin Academy and the purposes for which it was established. The list follows:

R. BANKS BLOCHER (Malvern, Pa.), Literature and History  
 PAUL W. BOUTWELL (Beloit), Chemistry, General and Beloit Col. News  
 DELMER C. COOPER (Madison), Cytology or Cytogenetics  
 GRANT COTTAM (Madison), Plant Ecology  
 LA VERNE L. CURRY (Mt. Pleasant, Mich.), Aquatic Biol., Midges, and Fisheries Biology  
 REV. L.A.V. DE CLEENE (Green Bay), Mathematics and Physics  
 ROBERT J. DICKE (Madison), Entomology  
 WILLIAM E. DICKINSON (Milwaukee), Reptiles  
 MILTON A. DRESCHER (Milwaukee), Library Science  
 C. L. FLUKE (Madison), Entomology  
 WILLIAM A. HIESTAND (W. Lafayette, Ind.), Comparative physiology and experimental zoology in general  
 FRANCIS D. HOLE (Madison), Soil Genesis, Classification & Mapping  
 AARON J. IHDE (Madison), History of Science  
 ROBERT H. IRRMANN (Beloit), English History  
 HARTLEY H.T. JACKSON (Washington, D.C.), Mammalogy  
 WILLIAM M. LAMERS (Wauwatosa), Civil War History  
 KENNETH M. MACKENTHUN (Madison), Water Pollution and Aquatic Biol.  
 WILL C. McKERN (Milwaukee), Anthropology  
 HENRY MEYER (Ripon), News of Ripon College Activities  
 HARLAND W. MOSSMAN (Madison), Fetal Membranes & Reproductive Tract of Mammals; Embryology & Comparative Anatomy and Human Anatomy  
 KATHERINE G. NELSON (Milwaukee), Geology  
 M. STARR NICHOLS (Madison), Water Conservation and Use  
 LOWELL E. NOLAND (Madison), Zoology  
 HARRY C. OBERHOLSER (Cleveland, O.), Ornithology  
 CYRIL C. O'BRIEN (Milwaukee), Psychology  
 HENRY J. PEPPLER (Milwaukee), Chemistry  
 GERARD A. ROHLICH (Madison), Sanitary Engineering  
 PETER J. SALAMUN (Milwaukee), Botany and Biology  
 WILLIAM B. SARLES (Madison), Bacteriology  
 JONATHAN D. SAUER (Madison), Ethnobotany  
 DON B. SCHLAFKE (Appleton), News from Inst. of Paper Chemistry  
 A. W. SCHORGER (Madison), Ornithology  
 LESTER W.J. SEIFERT (Madison), German spoken in Wis. and Methodology of Language Instruction  
 FRANK C. SEYMOUR (Dighton, Mass.), Flora  
 WILLIAM E. SIEKER (Madison), Lepidoptera of Wisconsin  
 JOHN W. THOMSON (Madison), Reporter on Jr. Academy Affairs  
 GENE UEHLING (La Crosse), Radio  
 GEO. VAN BIESBROECK (William Bay), Astronomy  
 RUTH I. WALKER (Milwaukee), Botany & News from the Ext. Division  
 S. A. WILDE (Madison), Forest Soils  
 J. GIBSON WINANS (Madison), Physics  
 WILHELM L. ZYCH (Milwaukee), Astrophysics

# # # #

HARTLEY H. T. JACKSON (Washington, D. C.) says of the Review experiment: "Excellent idea. We need something to hold our personalities in touch with each other."

## REPORT FROM THE SECRETARY

By ROBERT J. DICKE, Sec.-Treas.

Wisconsin Academy of Sciences, Arts and Letters

84th Annual Meeting at Lawrence College

Make plans for the Annual Meeting of the Academy to be held at Lawrence College, Appleton, on April 23 and 24, 1954. We have received a formal and very cordial invitation from the faculty of Lawrence College through two of our members, Professor W. Paul Gilbert and Don B. Schlafke. Local committees are being set up, and final plans will be announced early in February. The Junior Academy of Science will meet with us as usual.

A deadline of March 1, 1954 has been set for submission of titles to be read at the annual meeting. Application forms will be mailed to all members along with the general announcements. Titles will be accepted for inclusion in the program on the basis of general merit and priority will be given to early applications.

It will be a pleasure to meet at Lawrence College again. Our last meeting at the College was in 1934 and previous to that in 1928. Meeting places since our last at Lawrence College were as follows: 1935--Beloit College, 1936--University of Wisconsin, 1937--Milwaukee Public Museum, 1938--Ripon College, 1939--University of Wisconsin, 1940--Wisconsin State College, Oshkosh, 1941--Milwaukee Public Museum, 1942--University of Wisconsin, 1943--Marquette University, 1944--University of Wisconsin, 1945--postponed, 1946--University of Wisconsin, 1947--Milwaukee Public Museum, 1948--Wisconsin State College, Stevens Point, 1949--University of Wisconsin, 1950--Beloit College, 1951--Milwaukee-Downer College, 1952--Ripon College, and 1953--University of Wisconsin.

Welcome to New Members

The Academy membership on December 23, 1953 was 366 Active, 34 Life, and 11 Corresponding members for a total of 411. Our membership obviously must be increased. Promotion by all of us for memberships among our colleagues and friends is urgent. Our financial need is apparent, but is a relatively minor incentive compared to the realization that we will become a strong organization only when our membership includes all who are interested in the sciences, arts and letters from among our Wisconsin citizens and those interested in our great State and its scientific and literary contributions.

Since September 26 applications for Active membership have been received. We are pleased to announce the election and welcome into our organization the following men and women:

DAVID A. BAERREIS, University of Wisconsin  
 ROBERT M. BECKER, Madison  
 RUFUS A. BLANSHARD, University of Wisconsin  
 LAVERNE L. CURRY, Central Michigan College  
 EDWARD C. FULLER, Beloit College  
 GEORGE E. HAFSTAD, Middleton  
 F. N. HAMERSTROM, JR., Plainfield  
 GEORGE F. HANSON, State Geologist (U.W.), Madison  
 MARJORIE C. HOLDEN, Ripon  
 JOHN W. JENKINS, State Historical Society, Madison  
 RONALD E. LEWIS, Racine

W. HARTFORD McSHAN, University of Wisconsin  
DONALD L. MADER, University of Wisconsin  
JOHN C. NEESS, University of Wisconsin  
LEWIS F. NELSON, Kaukauna  
JOHN W. OCKERMAN, Chief of Topography (W.G.D.), Madison  
ROBERT E. RITZENTHALER, Milwaukee Public Museum  
CHARLES H. SAGE, Kimberly-Clark Corp., Neenah  
YALE SEDMEN, University of Wisconsin  
FRANK SETO, University of Wisconsin Wausau Extension Center  
DOUGLAS D. SORENSON, Mazomanie  
FREDERICK L. THOMAS, Madison  
Mrs. NOEL F. THOMPSON, Madison  
JAMES W. UNGER, Wisconsin State College, Oshkosh  
PHILIP H. WIEGAND, Wauwatosa  
WARREN L. WITTRY, State Historical Society, Madison

A nomination and application for Life Membership was received from GROVER C. NEFF of Madison. He is President of the Wisconsin Power and Light Company, and in 1946-47 was President of the Edison Electric Institute. In 1952 he received an Honorary Doctor of Engineering degree by the University of Purdue, and several years ago a citation from the Engineering Department of the University of Wisconsin. It is a pleasure to welcome him as a Life Member of the Wisconsin Academy.

#### Donations Support Academy Projects

For many years, it has been a customary practice for the Academy to award a recognition prize to winners of the Junior Academy Science Talent Search. In addition to an honorary election to Active membership in the Senior Academy and remission of dues for one year, winners are awarded a year's subscription to a science magazine of their choice. To help defray the cost of these awards, a donation of \$50.00 was received from the A. O. SMITH CORPORATION of Milwaukee, and \$25.00 from A. W. SCHORGER, Life Member and Past President of the Academy.

Recently donations were received from two of our Active Members in the amount of \$25.00 from C. M. GOETHE of Sacramento, California and \$5.00 from FRANCIS ZIRRER of Villa Park, Illinois. Goethe's donation was sent with the expressed intention of aiding graduate students to attain membership in our organization. It is the experience of all of us that students who would profit most from association with a professional organization are frequently unable to subscribe to membership due to other more pressing financial obligations. These donations, therefore, have been set aside to aid worthy graduate students to attain membership in the Wisconsin Academy with the remission of dues for at least one year.

Nominations for this award will be appreciated from among your senior or graduate students in any Wisconsin College or University. A brief statement of the student's academic qualifications and financial need should accompany your nominations. Our present fund will support 10 awards to Active membership, and selections shall be made by the Council during their next meeting. A deadline for submission of nominations has been set for March 1, 1954.

Publications Available for Purchase  
(Reduced prices for many volumes)

Price List

A new price list for Academy publications has been approved for the year 1954 as follows:

Complete sets, Volumes 1-42 (only 5 available) ...	\$100.00
Sets of Volumes 2-42 .....	50.00
Volumes 2, 20, 29, each .....	5.00
Volumes 3-19, 21-28, 30-38, each .....	1.00
Volumes 39, 40, 41 Part 1, 41 Part 2, 42 .....	3.00
Baker, F. C., The Fresh Water Mollusca of Wisconsin: 1928. 2 Volumes, set .....	10.00
Separates (from mutilated volumes), each .....	.50
Reprints (when available), each .....	.25

There is an ample supply of all volumes of the Transactions except 1, 2, 20 and 29. Only 5 copies of Volume 1 are available in our library, and these may be purchased only with a complete set. Place your order for Academy publications either with the Secretary or MISS CAROL BUTTS, 313 Library Building, University of Wisconsin.

The Transactions for 1954 and 1955

Plans are under way for publication of Volume 43 of the Transactions sometime in July 1954. To date, 12 manuscripts have been received and are being reviewed by the Publications Committee headed by FRED R. JONES.

Legislative appropriations for publication of the Transactions has been sharply reduced for the biennium 1954-55. Although an appropriation of \$6,000 was requested for this period, the State Legislature has granted the Academy a budget of only \$3,000. In past years, this appropriation has been \$5,000 for the biennium. Publication costs have greatly increased, however, and the present budget probably will not be sufficient for the printing of a single volume. The total cost of printing and binding 1,500 copies of Volume 42, for example, was \$3,603.00. Only \$2,289.69 was available from the 1952-53 budget, and the remainder of \$1,313.31 was necessarily taken from the Academy's savings. Unless the revenues of the Academy are appreciably augmented (principally through increased membership and/or by expanding our endowment fund), publication of a volume in 1955 is unlikely.

# # # # #

14th ANNUAL MEETING  
WISCONSIN SOCIETY FOR ORNITHOLOGY

The 14th Annual Meeting of the Wisconsin Society for Ornithology will be held in Madison April 30 to May 2, 1954. The papers and business sessions will be in the Memorial Union the first two days and field trips are scheduled for Sunday morning, May 2. The banquet will be on the evening of Saturday, May 1. ROBERT A. McCABE, Vice-president of the WSO, is in general charge of the program and is presently organizing his local committees.



# STATE AND ACADEMY NEWS

## HONORS AND AWARDS

Members were requested to list, on their recent questionnaire, any honors or awards received in 1953. Of the first 179 replies, 19 made such report as follows:

- ALLEN ABRAMS (Wausau) - Honorary Engineering Citation from University of Wisconsin
- EDWARD L. BOLENDER (Superior) - Dedication of College Annual (Wisconsin State College, Superior) to him
- MISS IRENE M. CULL (Peoria, Ill.) - Ten year service award for over ten years of government service
- PATRICK J. FLYNN (La Crosse) - First rating at the Jr. Academy La Crosse Section meeting and honorable mention at State meeting
- FREDERICK N. HAMERSTROM, JR. (Plainfield) - Elected a Corresponding member of the Hungarian Society of Ornithology
- ARTHUR D. HASLER (Madison) - Honorarium for paper on odor orientation from National Research Council of Canada and Sigma Xi lecture at University of Hawaii
- OLAF ANDREAS HOUGEN (Madison) - American lecturer at the Bunsen Society of Physical Chemistry, Duisburg, Germany
- HARTLEY H.T. JACKSON (Washington, D.C.) - Emeritus membership, American Society of Naturalists
- CLAUDE E. OBERDORFER (Milwaukee) - Elected to Alpha Omega Alpha Medical Society
- ROBERT C. POOLEY (Madison) - Fulbright Award to the Philippines
- JOHN E. POTZGER (Indianapolis, Ind.) - Research grant, American Philosophical Society--honor position of Director of Research at the Mont Tremblant Biological Station, Quebec, Summer of 1953
- A. W. SCHORGER (Madison) - Appointed to Wis. Conservation Comm.
- TERRY EARL SHARP (La Crosse) - Honorable mention in Junior Academy Westinghouse Science Talent Search--Westinghouse Scholarship
- OTTO STRUVE (Berkely, Calif.) - Honorary member, Royal Society of Edinburgh, Scotland
- GENE UEHLING (La Crosse) - Honorary award at State Junior Academy meeting and 2nd place in Future Scientist of America contest
- GEORGE VAN BIESBROECK (Yerkes Observatory, Williams Bay) - Burr prize of the National Geographic Society
- JOHN CHARLES WALKER (Madison) - 1953 National Award, Vegetable Growers of America
- WARREN L. WITTRY (Madison) - Lapham Research Medal of Wisconsin Archeological Society
- WILHELM LEON ZYCH (Milwaukee) - Second place in Milwaukee Section Jr. Academy Science Talent Search

Some other 1953 honors and awards received by either members or non-members of the Academy are noted as follows:

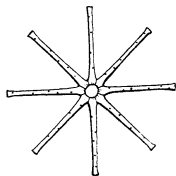
- ROBERT L. HALL (Madison) and ROBERT E. RITZENTHALER (Milwaukee) were awarded Lapham Research Medals by the Wisconsin Archeological Society for outstanding contributions to Wisconsin archeology....
- JOHN D. FERRY (Madison) was presented the Bingham Award by the Society of Rheology for his work in that field....CONRAD A.

ELVENJEM (Madison) was elected to the National Academy of Arts and Sciences. J. W. R. MARSHALL, JR. (Madison) was recipient of the William H. Walker Award of the American Institute of Chemical Engineers. ... HENRY J. RAHMLOW (Madison) was honored by the Wisconsin Bee Keepers Association for 15 years of service in their interest.

During the University of Wisconsin's fourth annual Wisconsin Pharmacists Institute, former Governor OSCAR RENNEBOHM (Madison) and MAX N. LEMBERGER (Milwaukee) received citations. .... Two discoveries made at the University of Wisconsin were listed among highlights of scientific happenings in 1953 by the editors of Science News Letter. These were the successful synthesis of lysine polypeptides by U.W. biochemists MAURICE GREEN and MARK STAHLKANN and the isolation of the complete enzymatic system from which living things obtain heat and energy from fatty acids by DAVID E. GREEN of the University's Enzyme Institute.

At the Eighth Annual Lake States Logging Congress held at Rhinelander, awards for "outstanding service to the timber industry in the Lake States area" were presented to ALBERT O. ANDERSON (Shawano), JOHN D. MYLREA (Mosinee), D. C. EVEREST (Rothschild), C. M. CHRISTIANSEN (Phelps), HAMILTON RODDIS (Marshfield), FOLKE BECKER (Rhinelander) and STANTON KEAD (Wisconsin Rapids). .... Posthumous honors were given to ALDO LEOPOLD with the dedication of the pine plantation in the University of Wisconsin Arboretum to him with statements by COL. J. W. JACKSON and A. W. SCHORGER. At the same time the main road through the Arboretum was dedicated to the late MAURICE E. McCAFFREY with remarks by University President E. B. FRED. .... A panel of 42 members of the Natural Resources Council of America also named ALDO LEOPOLD as one of the "ten most influential men in conservation"; of ten others given honorable mention, posthumously named Wisconsin's CHARLES VAN HISE.

Four of the ten Junior Academy members who were winners in the 1953 Science Talent Search and given Honorary active membership in the Academy for the year have been mentioned above. The others were: DAVID BRETTEINGEN (Madison), THOMAS HARRISON (Wausau) PAUL LEWIS (Appleton), DENIS O'HORA (Madison), CARL SCHWENDLER (Appleton), and MARK WEIGEL (Marshfield). .... In the conservation field, Assistant Attorney General ROY G. TULANE received the Milwaukee County Conservation Alliance Award for distinguished service; Milwaukee Journal farm editor LEWIS FRENCH and Professor FRED SCHMEECKLE (Wis. State College, Stevens Point) received citations from the National Association of Conservation Education and Publicity; retired Milwaukee Journal editorial writer FRED LUENING was given the Silver Acorn Award by the Citizens Natural Resources Association of Wisconsin; A. D. SUTHERLAND (Fond du Lac) a National Director of the Izaak Walton League of America, received one of the 20 Nash-Kelvinator Awards given in country-wide competition for service to conservation, CHARLES E. BROUGHTON (Sheboygan) was honored in a dedication ceremony for his efforts in the restoration of Sheboygan Marsh, and FRED WILSON was recently given a Merit Award by the Association of State Foresters for his many years of service to forestry.





# POSITIONS HELD IN ORGANIZATIONS

Data reported on  
questionnaires re-  
turned by Academy mem-  
bers showed that the  
following held positions  
in scientific, literary  
and similar organizations in  
November, 1953:

- M. ARLINE ALBRIGHT - Pres. Milw.Co.Soc.for Mental Health;  
Pres. Wis. Assn. Ed. & Voc. Guidance  
JOSEPH G. BAIER, JR. - Pres.Zeta Kappa Gamma (affiliate Sigma Xi)  
CARL A. BAUMANN - Editorial Board, Journal of Nutrition  
EDWARD L. BOLENDER - Member of Council, Wis.Academy  
R. ALEXANDER BRINK - Managing editor, Genetics  
FREDERICK L. BROWNE - Asst. Editor, Chemical Abstracts,AmChemSoc  
MRS. RALPH BUCKSTAFF - Treas. Astronomical League  
RALPH N. BUCKSTAFF - Pres. Milw. Astronomical Soc.  
DONALD H. CAMERON - Member Bd. Dir. Racine Public Library  
GEORGE H. CONANT - Member Biological Stain Commission  
MISS IRENE M. CULL - Botany Section Leader and Publicity Director,  
Peoria Academy of Science; Radio chm., Peoria BPW Club  
LA VERNE L. CURRY - Member membership comm. Mich. Academy  
JOHN T. CURTIS - Chm. State Bd. for Preservation Scientific Areas  
ROBERT J. DICKE - Sec.Treas. Wis. Acad.; Council AAAS  
GILBERT H. DOANE - Librarian, Wis. Academy  
MILTON A. DRESCHER - Sec'y, Ref.Sec., Public Libraries Division,  
American Library Assn.  
LOYAL DURAND, JR. - Nat'l Acad.Sci.-Nat'l Res.Council Committee  
Advisory to Office of Naval Research; Exec.Bd.,Nat'l Council of  
Geography Teachers; Nominating Comm.,Assn. Amer. Geographers  
CONRAD A. ELVEHJEM - Pres. Amer. Inst. of Nutrition; Member Food  
and Nutrition Bd., Nat'l Res. Council  
C. L. FLUKE - Pres., Wis. Academy  
ALBERT M. FULLER - A Director, Ridges Sanctuary, Inc., Baileys  
Harbor; member Bd. of Governors of Nature Conservancy  
FREDERICK N. HAMERSTROM, JR. - Member Leopold Award Com.Wildl.Soc.  
ARTHUR D. HASLER - Office Naval Res. AIBS adv.comm. on Biology &  
Hydrobiology; Nat.Res.Council comm.on Post-doctorate Fellow-  
ships; Exec.Comm.Madison Civic Music Assn.; Chm.Section on  
Orientation in Aquatic Animals at Nat'l Conf.on Orientation;  
Central Pacific Hydrobiol.Appraisal Comm. of AEC and ONR  
JOSEPH J. HICKEY - Treas. Nature Conservancy; Vice-pres. Inland  
Bird Banding Assn.; Vice-pres. Wis.Soc. Prof.Conservationists  
EDWIN E. HONEY - Chm. Placement Comm. Amer. Phytopatholog.Soc.  
OLAF ANDREAS HOUGEN - Chm.Awards Comm.,Am.Inst.Chem.Eng.  
HARTLEY H.T. JACKSON - Councilor Am.Soc.Mammalogists and Biol.  
Soc.,Washington; Pres.Baird Ornith. Club, Washington  
WILLIAM M. LAMERS - Pres.Bd.Trustees, Milw.Pub.Mus.; Pres. Milw.  
Municipal Art Comm.; Member Bd.Trustees, Milw. Pub.Library  
KENNETH M. MACKENTHUN - Sec.Treas. Midwest Benthological Society  
WILL C. MCKERN - Vice-Pres. Wis. State Historical Soc.  
HENRY MEYER - Vice-Pres. (Sciences) Wis. Academy  
WILLIAM SHAINLINE MIDDLETON - Vice-Pres.Assn. Amer.Med. Schools  
HARLAND W. MOSSMAN - Exec.Comm. Amer.Assn. Anatomists



FRANK H. NELSON - Critic, correspondent - Musical America, The Daily Reporter  
 KATHERINE G. NELSON - Council member, Wis. Academy  
 LEWIS F. NELSON - Curator State Historical Soc.; member Governor's Comm. on Human Rights  
 M. STARR NICHOLS - Governor, Optimist Club of Madison  
 LOWELL E. NOLAND - Member Exec. Comm. Amer. Micros. Soc. and Soc. of Protozoologists; member Council of Wis. Academy  
 HARRY C. OBERHOLSER - Vice-Pres. Cleveland (C.) Audubon Soc.  
 HENRY J. PEPPER - Editor, The Amalgamator, Am. Chem. Soc. local pub.  
 ETHAN B. PFEFFERKORN - Member Exec. Comm. Wis. Chap. Amer. Coll. Chest Physicians; member Council on Pub. Health, Am. Coll. Chest Physns.  
 ROBERT C. POOLEY - Chm. Comm. on Informing the Public, Nat'l Council of Teachers of English  
 JOHN E. POTZGER - Pres. Ecol. Soc. of Amer.; Editor Biol. Sec. School Science and Mathematics; Bd. of Gov. Nature Conservancy  
 WILLIAM B. SARLES - Chm. membership comm. Soc. Amer. Bacteriologists Vice-Pres. N. Cent. Branch Soc. Amer. Bacteriologists  
 A. W. SCHORGER - Member Council and Chm. Comm. on biography, AOU  
 HENRY A. SCHUETTE - Member Council Wis. Acad.; Fat Analysis comm. of Amer. Chem. Soc.; Chm. Philatelic Comm., Wis. Hist. Soc.  
 WALTER E. SCOTT - Chm. Wis. Academy Quarterly comm.  
 WALTER H. SNELL - Chm. New Eng. Forest Pest Comm.; Chm. R. I. Dutch Elm Disease comm.; Pres. R. I. Hort. Soc.; Treas. R. I. Bot. Club; Honorary Vice-Pres. Audubon Soc. of Rhode Island  
 W. D. STOVALL - Chm. Bd. Pub. Welfare; Dir. Wis. Div. Am. Cancer Soc.  
 JOHN CHARLES WALKER - Vice-Chm. Gov. Bd. AIBS  
 J. CARL WELTY - Member Wis. State Bd. for Pres. Scientific Areas  
 MARVIN D. WHITEHEAD - Chm. comm. on Phytopathological tech., Assn. Official Seed Analysts of N.A.  
 PHILLIP H. WIEGAND - Vice-Pres. Wis. Archeological Soc.  
 J. GIBSON WINANS - Member Audio-Visual Aids comm. Amer. Assn. Physics Teachers  
 WARREN L. WITTRY - Sec. Treas., Wis. Arch. Survey; Adv. Council Wis. Arch. Soc.; Treas. Charles E. Brown Chap., Wis. Arch. Soc.  
 WILLIAM J. WOODMAN - Membership Chm., Wis. Acad.  
 STILLMAN WRIGHT - Program chm., Biol. Seminar, F&W Serv. Cent. office

Other Wisconsin people holding significant positions in scientific, literary or similar organizations include: Professor MERLE CURTI (Madison), President of the American Historical Assn.; CYRIL KABAT (Madison), Chairman of the Mississippi Flyway Management Planning Committee; Professor FARRINGTON DANIELS (Madison), President of the American Chemical Society; Dr. C. G. REZNICHEK (Madison), President of the Wisconsin Academy of General Practice; WALLACE LO MOE (Milwaukee Journal), President of the Associated Press Managing Editors Assn.; Professor MILTON O. PELLA (Madison), Vice-Pres. Central Assn. of Science and Mathematics Teachers; CHARLES H. SAGE (Neenah) is Chairman of the Forest Industries Council and a sponsor of the Forest Products History Foundation; GEORGE E. SPRECHER (Madison), is a Vice-Pres. of the American Fisheries Society; Gov. WALTER J. KOHLER has been re-named Chairman of the American Cancer Society's Board of Directors; ALFRED J. STAMM (Forest Products Lab.) has been elected chairman of the Amer. Chemical Society's Div. of Cellulose Chemistry; CHARLES H. STODDARD (Minong) is a member of the organization committee of the proposed national Forest Conservation Society sponsored by MRS. GIFFORD PINCHOT; ERNEST F. SWIFT (Madison) is Chairman of the National Waterfowl Flyway Council and a Vice-Pres. of the International Assn. of Fish, Game and Conservation Commissioners and PAUL GRATKE (Milwaukee Public Library) was elected president of the Wisconsin Library Association.



According to questionnaire replies from Academy members, a number of them have books which are in the process of preparation, in press, or recently published. Those reported are:

- M. ARLINE ALBRIGHT (Milwaukee) - Six books in press of special interest to parents with speech-handicapped children
- JOSEPH G. BAIER, JR. (Milwaukee) - "Laboratory Manual for Elementary Zoology" (Burgess Pub. Co.)
- FREDERICK L. BROWNE (Madison) - Chapter on "Wood Properties that Affect Paint Performance" in "Organic Protective Coatings" by WILLIAM VON FISCHER and EDWARD G. BOBALKE (Reinhold Pub. Co.)
- RALPH N. BUCKSTAFF (Oshkosh) - Preparing tables of average weather data for every day in the year, from 50 years records
- IRVEN C. BUSS (Pullman, Wash.) - Preparing "The Birds of Dunn County, Wisconsin," an annotated list with discussion of historic trends and emphasis on game species
- HERBERT M. CLARKE (Madison) - "Laboratory Exercises for General Botany" with EVANS (Burgess Pub. Co.)
- MISS IRENE W. CULL (Peoria, Ill.) - "Wild Flowers", stories for children 8 to 12 with illustrations in color--looking for a publisher
- REV. L.A.V. DE CLEENE (Green Bay) - "St. Norbert's Manual" - a religious book
- CLIFFORD J. DENNIS (Ada, Okla.) - A laboratory manual for general entomology in the tentative stage
- LOYAL DURAND, JR. (Knoxville, Tenn.) - A geography text will appear in Spring, 1954 (Henry Holt & Co.)
- MARTHA S. ENGEL (Madison) - "You the Teacher", tentative title of book of lessons for Sunday School teachers to be published by Wartburg Press
- PAUL L. ERRINGTON (Ames, Iowa) - "Muskrat Populations", is a comprehensive treatment submitted to the Wildlife Management Institute for publication
- G. L. FLUKE (Madison) - "Catalogue of Neotropical Syrphidae" (Miguel Lillo Foundation, Tucuman, Argentina)
- G. M. GOETHE (Sacramento, Calif.) - "Elfin Forest" published in 1953 and another book planned for 1955
- OWEN J. GROMME (Milwaukee) - "Birds of Wisconsin", at least two years before completion
- OLAF ANDREAS HOUGEN (Madison) - "Chemical Process Principles", revised edition, Part I
- MERRITT Y. HUGHES (Madison) - An edition of John Milton's "Tenure of Kings and Magistrates," "Eikonoklastes," and "History of Britain" to constitute Vol. III of "The Complete Prose Works of John Milton" in preparation for Yale University Press
- AARON J. IHDE (Madison) - "History of Chemistry", a book to deal with the subject from its origins to the present

(continued on page 26)

## CHARTER OF THE ACADEMY

---

AN ACT to incorporate the Wisconsin Academy of Sciences, Arts and Letters.

*The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:*

SECTION 1. Lucius Fairchild, Nelson Dewey, John W. Hoyt, Increase A. Lapham, Alexander Mitchell, Wm. Pitt Lynde, Joseph Hobbins, E. B. Wolcott, Solon Marks, R. Z. Mason, G. M. Steele, T. C. Chamberlin, James H. Eaton, A. L. Chapin, Samuel Fallows, Charles Preusser, Wm. E. Smith, J. C. Foye, Wm. Dudley, P. Engelmann, A. S. McDill, John Murrish, Geo. P. Delaplaine, J. G. Knapp, S. V. Shipman, Edward D. Holton, P. R. Hoy, Thaddeus C. Pound, Charles E. Bross, Lyman C. Draper, John A. Byrne, O. B. Smith, J. M. Bingham, Henry Bætz, Ll. Breese, Thos. S. Allen, S. S. Barlow, Chas. R. Gill, C. L. Harris, J. C. Squires, George Reed, J. G. Thorp, William Wilson, Samuel D. Hastings, and D. A. Baldwin, at present being members and officers of an association known as "The Wisconsin Academy of Sciences, Arts, and Letters," located at the city of Madison, together with their future associates and successors forever, are hereby created a body corporate by the name and style of the "Wisconsin Academy of Sciences, Arts, and Letters," and by that name shall have perpetual succession; shall be capable in law of contracting and being contracted with, of suing and being sued, of pleading and being impleaded in all courts of competent jurisdiction; and may do and perform such acts as are usually performed by like corporate bodies.

SECTION 2. The general objects of the Academy shall be to encourage investigation and disseminate correct views in the various departments of science, literature, and the Arts. Among the specific objects of the Academy shall be embraced the following:

1. Researches and investigations in the various departments of the material, metaphysical, ethical, ethnological, and social sciences.
2. A progressive and thorough scientific survey of the state with a view of determining its mineral, agricultural, and other resources.
3. The advancement of the usual arts, through the applications of science, and by the encouragement of original invention.
4. The encouragement of the fine arts, by means of honors and prizes awarded to artists for original works of superior merit.
5. The formation of scientific, economic, and art museums.

6. The encouragement of philological and historical research, the collection and preservation of historic records, and the formation of a general library.

7. The diffusion of knowledge by the publication of original contribution to science, literature, and the arts.

SECTION 3. Said Academy may have a common seal and alter the same at pleasure; may ordain and enforce such constitution, regulations, and by-laws as may be necessary, and alter the same at pleasure; may receive and hold real and personal property, and may use and dispose of the same at pleasure; provided, that it shall not divert any donation or bequest from the uses and objects proposed by the donor, and that none of the property acquired by it shall, in any manner, be alienated other than in the way of exchange of duplicate specimens, books, and other effects, with similar institutions and in the manner specified in the next section of this act, without the consent of the legislature.

SECTION 4. It shall be the duty of the said Academy, so far as the same may be done without detriment to its own collections, to furnish, at the discretion of its officers, duplicate typical specimens of objects in natural history to the University of Wisconsin, and to the other schools and colleges of the state.

SECTION 5. It shall be the duty of said Academy to keep a careful record of all its financial and other transactions, and, at the close of each fiscal year, the President thereof shall report the same to the Governor of the State, to be by him laid before the Legislature.

SECTION 6. The constitution and by-laws of said Academy now in force shall govern the corporation hereby created, until regularly altered or repealed; and the present officers of said Academy shall be officers of the corporation hereby created, until their respective terms of office shall regularly expire, or until their places shall be otherwise vacated.

SECTION 7. Any existing society or institution having like objects embraced by said Academy, may be constituted a department thereof, or be otherwise connected therewith, on terms mutually satisfactory to the governing bodies of the said Academy and such other society or institution.

SECTION 8. For the proper preservation of such specimens, books and other collections as said Academy may make, the Governor shall prepare such apartment or apartments in the Capitol as may be so occupied without inconvenience to the State.

SECTION 9. This act shall take effect and be in force from and after its passage.

Approved March 16, 1870.

- HARTLEY H.T. JACKSON (Washington, D.C.) - "Mammals of Wisconsin", descriptions, distribution, habits, economics--about half written
- EMIL P. KRUSCHKE (Milwaukee) - "Hawthorns of Wisconsin," Part I, The importance of hawthorns and the collecting and mounting of herbarium specimens; manuscript completed; to be published in 1954
- WILLIAM M. LAMERS (Wauwatosa) - "William S. Rosecrans: A Biography", with MARY A. LAMERS
- WILLIAM SHAINLINE MIDDLETON (Madison) - "Physiological Methods in Clinical Practice," The Beaumont Lecture, Wayne Co. Med. Soc. (Chas. C. Thomas--in print)
- M. STARR NICHOLS (Madison) Co-author on monograph "Water Fluoridation as a Public Health Measure" (Am. Asso. for Adv. of Science)
- HARRY C. OBERHOLSER (Cleveland, Ohio) - "Bird Life of Texas" in 4 Vol. with 3,000 pages and 560 illustrations
- ROBERT C. POOLEY (Madison) - Texts, "America in Literature" and "England in Literature" by Scott, Foresman & Co.
- A. W. SCHORGER (Madison) - "The Passenger Pigeon: Its Natural History and Extinction" - to be published in 1954 by University of Wisconsin Press
- FRANK C. SEYMOUR (Dighton, Mass.) - "Flora of Lincoln County, Wisconsin", a manual for identification of vascular plants including species known to occur in adjacent counties
- WALTER H. SNELL (Providence, R.I.) - "6,000 Terms for Mycologists" (with ESTHER A. DICK) -submitted to publisher
- JOHN F. STAUFFER (Madison) - "A Textbook of General Botany" (with others--Macmillan co.)
- OTTO STRUVE (Berkeley, Calif.) - "Stellar Evolution" (Princeton University Press)
- FREDRIK T. THWAITES (Madison) - "Outline of Glacial Geology" recently reprinted
- CHARLES WELDON TOMLINSON (Ardmore, Okla) - Article on "Pennsylvanian Paleogeography of Southern Oklahoma" to appear in symposium volume on Southern Oklahoma sponsored by Ardmore Geological Soc. (Pub. by Amer. Assn. Petr. Geol.)
- S. A. WILDE (Madison) - "Forest Soils and Forest Growth", revised edition to be published by Chronica Botanica
- LOUIS ELSBERG WISE (Appleton) - Monograph #97 on "Wood Chemistry" Editorship shared with E. C. JAHN, published by Am. Chem. Soc.

Other recent books by Wisconsin authors or of special interest to Wisconsin people are listed below with quotations from a few review notices on several.

CHARLES PHILIP FOX (Rt. 4, Oconomowoc) received unusual reviews for his first book recently published by Century House, "Circus Parades: A Pictorial History of America's Greatest Pageant." The Christian Science Monitor called it "a rare and delightful volume of Americana" and The Billboard said "it ranks among the top two or three circus volumes in existence." The New York Times said that Fox "is a Milwaukee businessman whose dual hobby - circuses and photography - makes him the ideal chronicler of this bygone glory." The book contains over 250 black and white photos and eight pages of original color plates. The preface was written by CHARLES RINGLING NORTH. Autographed copies are available from the author for \$10.00 postpaid.

WALLACE BYRON GRANGE and his wife HAZEL GRANGE established The Flambeau Publishing Company, Babcock, Wisconsin, to publish his 314-page book, "Those of the Forest" which can be secured for

\$4.75. GRANGE also recently authored two other books, "The Way to Game Abundance" and "Wisconsin Grouse Problems." "Those of the Forest" is exceptional and different. Here is what two members of the Wisconsin Academy say about it:

"A different kind of a nature book written by a man whose senses and reactions are those of one who has lived intimately with nature as one of its own. The illustrations by another great naturalist, Dr. Olaus J. Murie, amply illuminate the fascinating text. Those of the Forest is a book that should not only be on the shelves of every school and other public library, but among every naturalist's, ecologist's, sportsman's, and philosopher's books for handy reading. It is a book that will be read long and often." -- HARTLEY H.T. JACKSON, Washington, D. C.

"It fascinated me. It will be regarded as a natural history classic. It is a book everyone in America should read."  
--HERBERT L. STODDARD, SR., Thomasville, Ga.

LUNA B. LEOPOLD edited "Round River: From the Journals of Aldo Leopold" (173 pp. Illustrated by CHARLES W. SCHWARTZ, Oxford University Press, \$3.00). J.V.K. WAGAR, in a review in the Journal of Forestry, states, "Round River is a more intimate view of the man and his life, of interest to anyone, but especially those who knew his detached writings better than the man. It combines hitherto unpublished journals, sketches, and essays, with the best saved until last. ... Those who read, think, or write of man's relationship to his total environment, find in 'Round River' most of the factors they ponder and much of everything on which ecological giants like Jefferson, Emerson, Thoreau, Whitman and J. T. Adams have expressed opinions."

Other books recently published (or to be published) by Wisconsin authors include: A new textbook on nuclear physics by U. W. physicist, Professor ROBERT G. SACHS (Addison-Wesley Pub. Co.); "The Folk Arts of Norway" (Univ. of Wis. Press) by MRS. JANICE S. STEWART; "Algonquin" (Henry Holt, \$2.50), an illustrated novel telling the story of a dog by DION HENDERSON (Milwaukee); the biography of Robert M. LaFollette, Sr. by FOLA LA FOLLETTE MIDDLETON; "Us, Incorporated" (Bobbs-Merrill, \$3.00) by WILLIAM F. STEUBER, JR. (Madison); "Northernnaire's Ginger and Her Woodland Orphans" by CARL MARTY (Three Lakes); "Pioneer's Mission," a biography of Lyman Draper by WILLIAM HESSELTINE (Madison); "Empire in Fur," children's stories of the fur trade of the upper Mississippi in 1837-38 by AUGUST DERLETH (Sauk City); reprint edition of "A Guide to Bird Watching" (Garden City Books) by JOSEPH J. HICKEY (Madison); revised edition of "The Ferns and Fern Allies of Wisconsin" (U.W.Press, \$3.50) by R. M. TRYON, JR., N.C. FASSETT, D.W. DUNLOP and M.E. DIEMER; "Farm and College: The College of Agriculture of the University of Wisconsin, A History" (U.W.Press, \$5.00) by W. H. GLOVER (Madison); "Nature's Messages: A Book of Wilderness Wisdom" (Rand McNally, \$3.50), by SAM CAMPBELL (Three Lakes); "Broadax and Bayonet: The Role of the United States Army in the Development of the Northwest, 1815-1860" (State Historical Society, \$4.00) by FRANCIS P. PRUCHA.

"The Challenge of Our Times" (Burgess Pub.Co., \$3.50) contains 28 essays by University of Wisconsin professors and is edited by FARRINGTON DANIELS and THOMAS M. SMITH. The book is divided into five parts with DANIELS, WILLIAM SARLES, MARSHALL CLAGETT and the late C. LEONARD HUSKINS presenting the history and problems of science in part I; ABBOT PAYSON USHER, NOBLE CLARK, RICHARD HARTSHORNE, MICHAEL B. PETROVITCH, LLEWELLYN PFANKUCHEN, CHESTER V. EASUM, EUGENE P. BOARDMAN and CHARLES W.M. HART on world political problems in part II; PFANKUCHEN and

THEODORE MORGAN in part III discussions of world organization; MORGAN and FRED HARRINGTON in part IV on what the U.S. can do and four concluding essays on "what we can do" by RALPH K. HUITT, RALPH O. NAFZIGER, MARK H. INGRAHAM and A. CAMPBELL GARNETT.

Some recent booklets are "Prehistoric Indians of Wisconsin" (Milwaukee Public Museum, 60¢) by ROBERT E. RITZENTHALER, "Farming Muck and Peat in Wisconsin" (free Circ. 456, UW College of Agriculture) by A. R. ALBERT and O. R. ZEASMAN and "Four Men and a Machine" (free from Kimberly-Clark Corporation, Neenah), an historical document commemorating their 75th Anniversary.

# # # # #

#### SEARCH FOR SCIENTIFIC AREAS

The State Board for Preservation of Scientific Areas is searching for certain types of plant and animal communities (on both public or private land) deserving of preservation for scientific study. Anyone knowing the location of unusual areas should contact Chairman JOHN T. CURTIS, Birge Hall, U.W., Madison. The Board states that open areas like prairie or marsh could be small, with two acres as a minimum and wooded areas have a 10-acre minimum with a 10-acre buffer desirable and 40 acres preferred. All types should be essentially free from artificial disturbance during the period of occupancy of the present community. A list of communities still needed includes:

Forest Types: Flood-plain hardwood forest, including willow-cottonwood; red birch-swamp white oak, silver maple-elm, and ash-basswood types; Jack pine barrens including areas suitable for sharp-tails; Upland spruce-fir forest; Red pine-white pine forest (preferably less than 100 years old); Maple-beech-hemlock forest in N.E. Wisconsin; Bur oak opening of any size, and good examples of any other forest type.

Open Communities: Sand dunes; sedge meadows, both very wet and fairly dry; open sphagnum bog and sand prairie which has not been grazed or plowed.

Aquatic Communities: Cattail marsh; reed marsh; other shoreline marsh; lakeshores on several different types of lakes without carp populations; river shores where not influenced by flowages and trout stream headwaters, with intact or controllable watersheds.

Members of the board also include ALVIN THRONE and ALBERT M. FULLER (Milwaukee), G. L. HARRINGTON and GEORGE E. WATSON (Madison), and CARL WELTY (Beloit). At their November meeting they approved the publication of a list of scientific areas established in Wisconsin to date and accepted and classified several additional areas, as follows: The Ridges Sanctuary in Door county; part of Cox Hollow pine forest in Iowa county; Council Grounds pine forest in Lincoln county; Trout Lake conifer swamp, High Lake spruce-fir forest, and Plum Lake hemlock forest, all in Vilas county; Devil's Lake red oak forest in Sauk county; part of Point Beach State Forest in Manitowoc county; and the Browntown hunting and fishing grounds in Green county. The group has stressed the fact that in all cases the animals as well as the plants should be taken into consideration.

# ARTICLES AND PAPERS



Of the 176 questionnaires returned as of December 27, there were 84 which reported some articles, papers or other productions published or displayed in 1953. Titles or descriptions of these productions are worthy of reference here as news but no attempt will be made to publish a complete and detailed bibliography because several listings were incomplete as to co-author and references.

Further information regarding any item of interest may be secured either from the author or the Academy Secretary. It is planned to list here the titles or descriptions under each name with reference to publication and co-authors when given. The item is mentioned only under the name of person reporting it and not following the name of each co-author, but it may be mentioned more than once if listed by several authors. This listing is incomplete and questionnaire reports for 1953 productions by other Academy members will be carried in future issues.

BAIER, JOSEPH G. JR.--Television and the Zoology Laboratory. Educational Focus

BAUMAN, CARL A.--Infrared spectra of some cholestanol derivatives.

J.Amer.Chem.Soc. with D. R. JOHNSON, D. R. IDLER, V. W. MELOCHE

--Factors affecting the stability of thiamine in a typical laboratory diet. J. Nutr. with A. A. KANDUTSCH

--Nitrogen balances and amino acid content of self-selected diets of women. J.Amer.Dietet.Assoc. with M. S. REYNOLDS and M. D. FUTRELL

--Separation and tentative identification of two new sterols from oats. J.Amer.Chem.Soc. with D. R. IDLER, S. W. NICKSIC, D. R. JOHNSON, V. W. MELOCHE, and H. A. SCHUETTE

--Microorganisms in the Intestines of rats fed penicillin.

J. Nutr. with J. GUZMAN-GARCIA and W. B. SARLES

--Citrovorum factor. Nutritional Aspects. J.Amer.Dietet.Assoc.

--Skin sterols. III. Sterol structure and the Liebermann-Burchard reaction. J.Biol.Chem. with D. R. IDLER

--Fat soluble vitamins. Annual Rev. of Biochem.

--Effect of dietary antibiotics on the growth of chicks receiving suboptimum amounts of thiamine by mouth or by injection. J. Nutr. with P. E. WAIBEL and W. W. CRAVENS

--Isolation of  $\Delta^7$ -stigmasterol from wheat. J.Amer.Chem.Soc.

with D. R. IDLER and A. A. KANDUTSCH

BOLENDER, EDWARD L.--The problems of Science Education and Science Teaching in this Modern Age. Radio address, WEBC

--Enemies of our Forests. Radio address, WEBC

BROWNE, FREDERICK L.--Effect of Coating Thickness on the Performance of House Paints under Different Programs of Maintenance. Official Dig., Fed.Paint & Varnish Prod. Clubs

--The Absorption of Water, Swelling, and Solubility of Free Films of Paints. (to appear) J.For.Prod.Res.Soc.



- CHURCHILL, WARREN S.--The walleye population of Escanaba Lake.  
Paper presented at Midwest Wildl. Conf.
- CLARKE, HERBERT M.--Observation on Members of the Genus Lycopodium I. Germination of Gemmae of L. lucidulum. Am.Fern Jour.  
--Demonstration of a method for growing fern prothallia. Am. Fern Soc.
- COOPER, BERENICE--The Abbe Prevost and the Modern Reader. Trans. Wis. Acad.
- COOPER, DELMER C.--Cytogenetics of Potatoes; Nature of Scab Resistance; and The presence of a mycorrhiza-like fungus in Potato tissue cultures. Co-author of above three papers presented at A.I.B.S. meetings
- COTTAM, GRANT--Article on Plant dispersion. (in press) Ecology
- CURRY, LA VERNE L.--An ecological study of the Family Tendipedidae of two fresh-water lakes in Isabella County, Michigan. A.I.B.S. meetings, Ecology and Limnology Sections
- DAVEY, CHARLES B.--Decomposition of hard maple sawdust by treatment with anhydrous ammonia and inoculation with Coprinus ephemerus. Trans.Wis.Acad.  
--Sawdust composts: their preparation and effect on plant growth. Soil Sci.Soc.Amer.Proc.
- DENNIS, CLIFFORD J.--The Membracidae of the University of Wisconsin Arboretum. Trans.Wis.Acad. with ROBERT J. DICKE
- DEUTSCH, HAROLD F.--Immunochemical Analysis of Egg White. Fed.Proc.  
--Fetuin: A Glycoprotein of Fetal Calf Serum. Fed.Proc.  
--The Cross-Reactions of Egg White Proteins of Various Species. J.Immunol.
- DICKE, ROBERT J.--Cattle lice control by clipping. J.Econ.Ent. with N. N. ALLEN  
--Barn flies and their control. UW Ext. Circ. 452  
--Sanitation management in housefly control. Soap & San.Chem.  
--The Membracidae of the University of Wisconsin Arboretum. Wis. Acad. Trans. with C. J. DENNIS  
--Maggot therapy of actinomycosis. J.Econ. Ent.  
--Chemical control of cheese mites. J.Econ.Ent. with K. D. IHDE and W. V. PRICE
- DOGGER, JAMES R.--The elongate flea beetle as a pest of peanuts. J. Econ. Ent. with W. H. LONG (to appear)
- DURAND, LOYAL, JR.--The Cheese Manufacturing Regions of Wisconsin. Wis.Acad.Trans.  
--Historische Geographie und Westwanderung der Kase-erzeugung im Amerikanischen milchwirtschaftsgebiet. Die Erde (in German)
- ELVEHJEM, CONRAD A.--About 25 papers published in journals such as the Jour. Biological Chem., Jour. Nutrition, etc.
- ENGEL, MARTHA S.--Edited set of 300 slides for use in high school biology for the Welch Mfg. Co. of Chicago, for 1953 catalog
- ERRINGTON, PAUL L.--A closer look at the Killers. Audubon Mag.  
--Of a lynx and a white cedar swamp. Cons.Volunteer  
--On Scandinavian literature in wildlife management and ecology. Jour. Wildlife Mgt.
- FISK, EMMA L.--Effects of 3-(p-Chlorophenyl)-1,1-Dimethylurea (CMU) on the Development of Earley and Other Plants. A.I.B.S. meeting report with ROY J. CHRISTOPH
- FLUKE, C. L.--Some Syrphid Fly Synonymy. Ent. News  
--New Syrphidae from North America. J.Kansas Ent.Soc.
- FLYNN, PATRICK J.--The effect of A.C.T.H. and Cortisone on the Eosinophil count of white rats. Talk at Jr.Acad. meeting
- GRABER, LAURENCE F.--A half century of alfalfa in Wisconsin. Wis. Bul. 502 XVIII
- GREENE, H. C.--Notes on Wisconsin Parasitic Fungi./Wis.Acad.Trans.  
--Preliminary Reports on the Flora of Wisconsin XXXVII Cyperaceae. Part I. Wis.Acad.Trans.

- Population changes in some native orchids of southern Wisconsin, especially in the University of Wisconsin Arboretum. Orchid Jour. with J. T. CURTIS
- HALL, NORRIS F.--Articles in Jour. Amer. Chem. Soc.
- HASLER, ARTHUR D.--Salmon science and the sense of smell. (ONR) Res. Rev. with WISEY and LARSON
- Factors initiating parent-stream behavior in salmon. Proc. Animal Orientation Conf., Am. Mus. Nat. Hist.
- Lachse werden ungeleitet. Fischwirt with WISBY and LARSON
- Animals, Chemical Sense in. The Encyclopedia Americana
- HICKEY, JOSEPH J.--Wildlife Review No. 72 with FREDERIC H. WAGNER
- HIESTAND, WILLIAM A.--Rapidly acquired tolerance of insects to anoxia. Physiologica Comparata et Oecologia with F.W. STEMMER
- Alcohol toxicity as related to (alloxan) diabetes, insulin, epinephrine and glucose in mice. Fed. Proc. with F.W. STEMMER, J. A. WIEBERS and W. T. ROCKHOLD
- Gasping patterns of the isolated respiratory centers of birds and mammals during anoxia, their phylogenetic significance and possible implication in hibernation. Physiol. Zool. with FRED W. STEMMER and JACOB E. WIEBERS
- An experimental study of the influence of pelage pigmentation on metabolic rate and its relationship to body temperature control and ecological distribution. Ecology with DONALD E. STULLKEN
- The effect of discontinuous barometric decompression on blood pressure. (to appear) Amer. Jour. Physiol. with JOSEPH P. BUCKLEY and L. D. EDWARDS
- HILE, RALPH--Fluctuations in the fisheries of State of Michigan waters of Green Bay. Fish. Bull. vol. 75 with GEORGE F. LUNGER and HOWARD J. BUETTNER
- HOLE, FRANCIS D.--Suggested Terminology of Describing Soils as Three-Dimensional Bodies. Soil Sci. Soc. Amer. Proc.
- What's in That Soil Map? Soil Surv. Bull. UW with others
- How Good is Your Soil? Crops and Soils
- HOUGEN, OLAF ANDREAS--Chemical Engineering Education in the United States and Europe
- HUFFER, RALPH C.--Report of Beloit College Committee on Self Study. (Joint author)
- HUGHES, MERRITT Y.--Edmund Spenser, 1552-1952. Trans. Wis. Acad.
- The Arthurs of *The Faerie Queene*. Etudes Anglaises
- IHDE, AARON J.--Beginnings of Chemical Education in Beloit, Lawrence and Ripon Colleges. Trans. Wis. Acad.
- Responsibility of the Scientist to Society. Sci. Monthly
- Learning the Scientific Method Through the Historical Approach School Sci. and Math.
- IRRMANN, ROBERT H.--The Christian Perspective in Liberal Arts Teaching at Beloit College. The Christian Scholar with PHILIP N. JORANSON, FREDERIC R. WHITE and J. R. WILLIAMS
- JACKSON, HARTLEY H.T.--Our flying mammals of the night. Aud. Mag.
- JONES, FRED REUEL--Testing for resistance to common leaf spot in alfalfa. Phytopathology (in press)
- KOWALKE, OTTO L.--Augustus James Rogers: Pioneer Electro-metallurgist of Wisconsin. Wis. Mag. Hist.
- KRUSCHKE, EMIL P.--Floral Four Flushers. Mus. Lore Mag.
- LARSEN, EDWIN MERRITT--Extraction of Zirconium and Hafnium with Various  $\beta$ -Diketones. J. Am. Chem. Soc. with GLENN TERRY
- Preparation and Properties of Zirconium and Hafnium Chelates of Certain  $\beta$ -Diketones. J. Am. Chem. Soc. with GLENN TERRY and JAMES LEDDY
- LEVI, HERBERT W.--Observations of two species of pseudoscorpions. Canad. Entom.
- Spiders of the Genus *Dipoena* from America North of Mexico. Amer. Mus. Novitates
- New and Rare *Dipoena* from Mexico and Central America. Am. M. Nov.

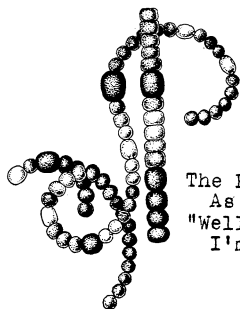
- MARCH, HERMAN W.--The Field of a Magnetic Dipole in the Presence of a Conducting Sphere. Geophysics
- MASON, ARNOLD C.--Diversions of Lava Flows at O Shima, Japan. Amer.Jour.Sci.
- MIDDLETON, WILLIAM SHAINLINE--Some Clinical Expressions of Diffuse Collagen Disorders. Med.Clin.N.Amer.
- MOSSMAN, HARLAND W.--The genital system and the fetal membranes as criteria for mammalian phylogeny and taxonomy. J.Mammalogy
- The regenerative capacity of the rabbit ovary. Anat. Rec. with BEN PANSKY
- NELSON, KATHERINE GREACEN--One Hundred Years of Earth Science at Milwaukee-Downer College. Trans.Wis.Acad.
- The Story the Rocks Tell in Wisconsin. The Trilobite
- NICHOLS, M. STARR--Inoculation Studies in Biochemical Oxygen Demand Determination on Sewage and Pulp Mill Waste. Sewage & Ind. Wastes with RAYMOND ZEHNPFENNIG
- NOLAND, WAYLAND E.--The Nitration of Monodeuterobenzene. J.Amer. Chem.Soc. with W. M. LAUER
- OBERDORFER, CLAUDE E.--Factors Controlling Metabolism in Mice. Presented at Mich. Acad. Sci. meeting
- Indications for Splenectomy. Marquette Med.Review
- O'BRIEN, CYRIL C.--The Role of Music in Guiding the Child. Educa.
- Atypical Tonal Memory. Jour. Psychology
- High School Humor. The Clearing House
- PAUL, BENSON H.--Forest Genetics in Relation to Wood Quality. Presented Lake States For.Genetics Conf.
- PEPLER, HENRY J.--Articles in Cereal Chem., Applied Microbiology
- POTZGER, JOHN E.--History of forests in the Quetico-Superior Country from fossil pollen studies. Jour.Forestry
- Nineteen bogs from southern Quebec. Canadian Jour.Botany
- Oak forests in the Laughery Creek valley, Indiana. Proc. Indiana Acad.Sci. with LELAND CHANDLER
- Secondary succession in stands of red maple-sweet gum-beech forests in Ripley County, Indiana. Butler Univ.Bot.Stud. with A. N. LIMING
- REIS, REV. RAYMOND H.--Variations in the pattern of renal vessels and their relation to the type of posterior vena cava in the cat (*Felis domestica*). with ALVIN RIECK
- ROHLICH, GERARD A.--Application of Air Flotation to Treatment of Oil Refinery Waste Waters. Ind. & Eng. Chem. (to appear)
- SALAMUN, PETER J.--Remnant Vegetation stands in Milwaukee County. Talk given at Wis.Acad. meeting
- Upland Forests of the Milwaukee Area. (to appear) Ecology with PHILIP B. WHITFORD
- Brachyelytrum erectum*. Paper on pres. Taxonomic Sec.A.I.B.S.
- SARLES, WILLIAM B.--Lysogenicity of *Bacillus megaterium*. Jour. Bact. with M. R. DECARLO and S. G. KNIGHT
- Microorganisms in the intestines of rats fed penicillin. Jour.Nutr. with J. GUZMAN-GARCIA and C. A. BAUMANN
- SAUER, JONATHAN D.--Herbarium specimens as records of genetic research. Amer.Naturalist
- Did man once live by beer alone? Part of symposium Amer.Anthro.
- SAUNDERS, JOHN W., JR.--The origin of the definitive wing contour in the embryonic chick, with special reference to the shaping of the elbow. Anat.Record (in press --abstract)
- SCHORGER, A. W.--Large Wisconsin beaver. J. Mammalogy
- The white-tailed deer in early Wisconsin. Trans.Wis.Acad.
- SCHUETTE, HENRY A.--The occurrence of  $\alpha$ -tetra cosone in certain natural sources. J.Biol.Chem.
- The hydrocarbons of ouricuri wax. J.Am.Oil Chem.Soc.
- Separation and tentative identification of two new sterols from oats. J.Am.Chem.Soc.

- SCOTT, WALTER E.--Preserving Wisconsin's Historic and Scenic Trees. Milw.Pub.Mus. Lore
- Pigeons and Sand Grouse; Swimming and Diving Birds. Chapters for Book of Knowledge
- SEYMOUR, FRANK C.--Oxycoccus as a Genus. Am.Mid.Nat.
- SHARP, TERRY EARL--The Effect of Extra-terrestrial atmospheres on the Tensile Strength of Metals. Pres. at Jr.Acad. meeting
- SNELL, WALTER H.--Samuel Chester Damon, II. Mycologia
- Development of the carpophore of Boletinus paluster. Mycologia with ARTHUR C. GENTILE
- The Curtis Collection at Brown University. Mycologia (in press) with ESTHER A. DICK
- SORENSEN, JUANITA S.--Stratiomyidae of Wisconsin. Trans.Wis.Acad. with C. L. FLUKE
- The Male Genitalia of the Stratiomyidae etc. Annals Ent.Soc. Amer. with C. L. FLUKE
- STAUFFER, JOHN F.--Penicillin production by pigment free molds. Ind. & Eng. Chem. with others
- Senior author of one and Junior author of three papers at A.I.B.S. meetings
- STEENBOCK, HARRY--Vitamin D and Intestinal Phytase. J.Biol.Chem.
- Vitamin D and Tissue Citrate. J.Biol. Chem.
- STOREY, OLIVER W.--Electrolytic Grinding or Machining of Metals. J.Electrochem.Soc.
- Electrochemical Industry in the Milwaukee-Chicago-Gary Industrial Area. Jour.Electrochem.Soc.
- THOMSON, JOHN W.--Lichens of Arctic America I. Lichens from West of Hudsons Bay. Bryologist
- TOMLINSON, CHARLES WELDON--Odd Geologic Structures of Southern Oklahoma. Bull.Amer.Assn.Petr.Geol.
- also articles in World Oil
- UEHLING, GENE--My Construction of a TV Set. Pres.at Jr.Acad.mtg.
- VAN BIESBROECK, GEO.--Observations of Comets. Astron.Jour.
- The relativity shift at the 1953 Feb.25 eclipse of the sun. Astron.Jour.
- Measures of Double Stars. Publ.of Yerkes Observatory
- WALKER, JOHN CHARLES--The physiology of Fusarium wilt of tomato. Phytopathology with R. P. SCHEFFER
- Two new scab-resistant cucumber varieties. Phytopath. with C. F. PIERSON and A. B. WILES
- Strain interrelationships in potato virus A. Wis.Agr.Expt. Sta.Res.Bull.180 with D. S. MacLACHLAN and R. H. LARSON
- Autogenous necrosis of cabbage. Phytopath.with G. S. POUND
- Metabolites of vascular fusaria of cabbage and cotton in relation to resistance. Phytopath. with N. N. WINSTEAD
- Production of vascular browning by metabolites from several pathogens. Phytopath. with N. N. WINSTEAD
- The role of pectic enzymes in fusarium wilt of tomato. Phytopath. with S. S. GOTHASKAR, R. P. SCHEFFER, M.A. STAHMANN
- WHITEHEAD, MARVIN D.--Parasitic herd in the pasture: plant disease. Southern Seedsman
- Observations on the genera coleopuccinia and Coleopucciniella (Uredinales). (in press) Am.J.Bot. with M.J. THIRUMALACHAR
- A Physotherma disease of barnyard grass. (in press) Science with M. J. THIRUMALACHAR
- Notes on two smuts reported from the United States. Torrey Bot.Club (in press) with M. J. THIRUMALACHAR
- WHITFORD, PHILIP B.--Native Vegetation of Milwaukee. Pres. at Wis.Acad. meeting
- A Survey of Forest Stands in the Milwaukee Area. Pres. at Ecol. Soc.
- WILDE, S. A.--Trees of Wisconsin. Coll. of Agr. UW

- WINANS, J. GIBSON--Demonstrations with Half Wave Plates. Am. Jour. Phys.  
 --Die Dissoziationsenergie Von Hg. Zeit & Phys. with M.P. HEITZ  
 --A Fast Electro-Optical, Hot-Gas Pyrometer. J.O.S.A. with G. H. MILLAR, O. A. UYEHARA and P. S. MYERS  
 WISE, LOUIS ELSBERG--Various scientific articles in Tappi and in The Paper Industry  
 WOLFE, HAROLD R.--Factors influencing the antibody production of chickens injected with a soluble antigen. Poultry Sci. with E. S. BROWN (in press)  
 --Precipitin production in chickens. IX. A quantitative study of the antibody response to nine different purified substances. Jour. Immunol. with M. H. SCHMIDT  
 --Precipitin production in chickens. X. Cellular changes in the spleen during antibody production. Jour. Immun. (in press) with T. MAKINODAN and R. RUTH  
 --Precipitin production in chickens. XI. Site of antibody production. Jour. Immunol. (in press) with T. MAKINODAN, R. RUTH  
 ZYCH, WILHELM LEON--A Simplified Explanation of Jet Propulsion. Pres. at Jr. Acad. meeting

#### DICTIONARY OF WISCONSIN BIOGRAPHY

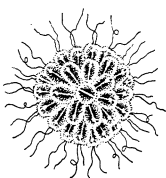
The State Historical Society is preparing a Dictionary of Wisconsin Biography and has requested the assistance of all citizens of the state in nominating candidates and in the preparation of sketches to be used. Research Associate CLEMENT M. SILVESTRO is heading up the project for the Society and a list of names selected up to September 1 may be secured from him. A Board of Editors representing all parts of the state review recommended names (only deceased persons are considered) and determine whether their qualifications are sufficient to warrant a place in the Dictionary. Members of the Wisconsin Academy should survey this proposed list to be sure that their colleagues of past years are included if they are deserving. The committee is also anxious to secure assistance from qualified persons in the preparation of brief biographical sketches on approved names.



Said the Scientist to the Protoplasm,  
 "Twixt you and me is a mighty chasm;  
 We represent extremes, my friend,  
 You the beginning, I the end."

The Protoplasm made reply  
 As he winked his embryonic eye,  
 "Well, when I look at you, old man,  
 I'm rather sorry I began."

--Author Unknown



## NEW PERIODICALS OF INTEREST

Within the last year or so several new periodicals which deserve the encouragement of Wisconsin citizens have been (or will be) issued. Information as to how they may be secured follows:

Creative Wisconsin is to be the new quarterly magazine of the Wisconsin Rural Writers' Association, with AL P. NELSON (Delafield) as Editor. It is to be sent to all members (general dues \$2.00, Sustaining, \$5.00) and anyone interested may join by contacting JOHN LONSDORF, Treasurer, Rt. 3, Birnamwood.

Lore is the new quarterly magazine of the Milwaukee Public Museum with Director W. C. McKERN as its Editor-in-Chief. It contains articles in all fields and may be secured by anyone interested through annual membership in Friends of the Museum. Send \$3.00 to Managing Editor A. W. BAUERNFEIND, Milwaukee Public Museum, 918 W. Wis. ave., Milwaukee 3, for Associate Contributor member.

Arboretum News is published by the University of Wisconsin Arboretum Committee and is distributed free to interested scientists and students who wish to follow operations on the Arboretum. Contact committee chairman A. F. GALLISTEL, Observatory Hill Office Bldg., Univ. of Wis., Madison 6.

The Wilderness News, "dedicated to the Preservation of the Three Lakes Wilderness Area" may be secured for \$1.00 a year by writing to Editor WALTER GOLDSWORTHY, P.O. Box 67, Three Lakes.

The Narrows Creek Ripple is published by the Narrows Creek Watershed Association in Sauk county and may be secured for \$1.00 annually by writing to its editor, HAROLD KRUSE, Loganville.

## NATURAL RESOURCES COMMITTEE OF STATE AGENCIES

Anyone interested in the future of the state's natural resources should become familiar with the work of the Natural Resources Committee of State Agencies which holds frequent meetings and has working groups studying many aspects of present-day problems. Copies of minutes and other information may be secured by writing to Secretary M. W. TORKELOSON, Director of Regional Planning, Bureau of Engineering, State Office Bldg., Madison 1, who also represents that agency on the committee.

Governor WALTER J. KOHLER is chairman *ex officio* and Conservation Director ERNEST SWIFT is vice-chairman. Other representatives of state agencies are: Conservation Dept., G. E. SPRECHER; Dept. of Agriculture, E. L. CHAMBERS; WALTER H. EBLING; Attorney General's office, VERNON W. THOMSON; Board of Health, OSWALD J. MUEGGE; Highway Commission, WILLIAM F. STEUBER; Legislative Council, GORDON A. BUBCLZ; HARVEY R. ABRAHAM; Public Service Comm., GEORGE P. STEINMETZ; WARREN CAKEY; Soil Conservation Committee, HARRY M. SCHUYLER; Dept. of Taxation, HARRY W. HARDER; Univ. of Wisconsin, IRA L. BALDWIN, RAYMOND J. PENN. Chairmen of the three major subcommittees which have numerous working groups reporting to them are IRA L. BALDWIN (Conservation Education); WALTER H. EBLING (Land Resources); GEORGE P. STEINMETZ (Water Resources).

## MISCELLANEOUS NEWS

THE

*Amalgamator* is a publication of the Milwaukee Section of the American Chemical Society published monthly September through May with HENRY J. PEPPLER as Editor and HARLEY C. LOEFFLER, Chris Hansen's Laboratory, West Allis 14, as Business Manager. It carries news and personal notes of interest and non-members may subscribe at \$2.00 per year. One note of special interest by C. C. MILLER, Chairman of the Section's Library Committee, tells of cooperative planning with MILTON DRESCHER, Chief of the Science and Industry Section of the Milwaukee Public Library, for building up the sets of bound scientific journals in that library as well as inter-library cooperation among Milwaukee industrial research libraries.

MRS. OSCAR RENNEBOHM, former first lady of the state, is chairman of the "Wisconsin's Own" library committee of the Wisconsin Federation of Women's Clubs. They are building a library in the state executive mansion at Madison which is made up only of books published by Wisconsin authors. In a recent report she stated the collection already had 808 volumes. Anyone wishing to contribute one of his books should send it to her at 201 Farwell Drive, Madison.

J. ALFRED HALL, Director of the U. S. Forest Products Laboratory, recently read a paper on "Opportunities and Responsibilities in Forestry Research" at the American Forestry Association Congress. ... D. C. EVEREST (Rothschild) was Chairman of the General Committee of the recent Wisconsin Silver Anniversary Forestry Conference. ... ROBERT J. DICKE, Secretary-Treasurer, represented the Academy at the 120th meeting of the Amer. Assn. for the Advancement of Science in Boston last month. Research reports and scientific papers were presented there by 14 UW Professors including C. R. BRYAN, ROBERT E. DUNCAN, WALTON C. GALINAT, J. A. HAYASHI, H. R. IRWIN, RUDOLPH E. LANGER, KARL P. LINK, LILLIA MARTINEZ-PIGO, W. J. MILLER, JAMES M. NAYLOR, KLAUS PATAU, ROBERT E. PARKS, JR., W. H. STONE and CLINTON N. WOOLSEY.

About 3,000 scientists from throughout the country attended meetings of organizations affiliated with the American Institute of Biological Sciences (AIBS) on the UW Campus last September. Over 30 Wisconsin scientists were authors (or joint authors) of papers presented. Among these were H. L. AHLGREN, DAVID ARCHBALD, D. M. BOONE, REID A. BRYSON, K. P. BUCHHOLTZ, JOHN E. BUTLER, RALPH L. DIX, J. S. ELFNER, W. H. GABELMAN, F. A. GILBERT, MARGARET A. GILBERT, K. C. HAMILTON, G. W. KEITT, HENRY MAHLER, ROBERT A. McCABE, CARLOS MILLER, JAMES NAYLOR, W. K. PORTER, ROBERT A. RAGOTZKIE, R. H. ROBERTS, PETER J. SALAMUN, FRED SCHMEECKLE, B. F. SHEMA, JULIUS SILBERGER, FOLKE SKOOG, H. J. STANGEL, B. ESTHER STRUCKMEYER, G. K. VOIGT, J. C. WALKER, RICHARD T. WARD, GEORGE H. WARE, and PHILIP B. WHITFORD.

CLEVELAND P. GRANT and his wife RUTH GRANT, wildlife photographers with headquarters at Mineral Point, spent the late summer photographing wildlife in British Columbia. They also took some movie sequences for WALT DISNEY, including buffalo on the National Bison Range. A considerable part of Disney's new film, *Vanishing Prairie*, will be their film. ... WALTER ROWLANDS is general chairman of the University's annual 1954 Farm and Home Week to be held at Madison, February 1-5. ... JAMES SCHWALBACH, in charge of the UW rural art program, has announced dates for 12 rural shows which end in an exhibit at the Memorial Union, Madison, May 22 to June 16 - the 15th State Rural Art Show. ... The editor of the Wisconsin Library Bulletin is Mrs. Orilla Blackshear (Madison).

## HISTORICAL SOCIETY EXPANSION

Under the able leadership of Director CLIFFORD LEE LORD, the Wisconsin State Historical Society is not only growing in membership but increasing its many services to the people of the state. In a recent interview with the Wisconsin State Journal he outlined the expansion and changes now possible in the Historical Society building at Madison because the University Library has moved into its own new building. With this new year, work will begin on remodeling the Historical Society building and it is hoped the job will be completed within the year. Some of these changes will be the opening of the "front door" facing east for the main entrance, establishment of a "museum of Wisconsin" on the main floor with exhibits displaying the state's history from prehistoric days to the present, and an information desk and sales counter inside the entrance. There will be ample room for newspapers previously kept in dead storage, much more reading room and better facilities for microfilm study, as well as cubicles set aside on the mezzanine and third and fourth floors for special study work of graduate students and University faculty. The State Historical Society Museum will be continued on the fourth floor.

## VITAL STATISTICS ON THIS ISSUE

This issue of the Wisconsin Academy Review is being published in 600 copies and printed by a Madison firm, Litho Productions, Inc. The estimated cost, including typing but not postage for distribution, is \$220. This is about 37¢ each--a figure which can be reduced considerably if the number of copies of future issues can go to a larger membership. The editorial work was done by WALTER E. SCOTT and the typing and assistance in editing by his wife, GERTRUDE M. SCOTT.

The money assigned by the Council for this project of two experimental issues is from the Academy's general operating funds and does not in any way reduce money set aside for publication of the Transactions. However, it is realized that unless this type of publication is desired by members of the Academy and found worthy of support by the people of the state, it must either be reduced in size or abandoned. The obvious purpose for this publication is to build the Academy's membership strength and increase its potential service to the state as a catalyst and clearing house for all worthy activities in the fields of sciences, arts and letters. Academy members are urged to inform the officers as to their reactions to the program and publication project. A final decision relative to continuation of the Wisconsin Academy Review will be made by the members at the Annual Meeting at Appleton in April.

Acknowledgments for Drawings - Drawings and sketches used in this issue not credited elsewhere come from: St. Nicholas, July 1874, "An Observing Landsman," p.13; UW College of Agr. bulletin "Cooperation, Principles and Practice," men in conference, p.21; book catalogue cover of Eric Lundberg, Walpole, N.H., heading for The Bookshelf, p.23; "Handbook of Selected Biological References" U.S. Dept. of Health, Edu. & Welfare, man at microscope, p.29 and sketches of microorganisms, pp. 20 and 34.



IN MEMORIAM

We regret to announce that three distinguished members of our Academy passed away recently. HALSTON J. THORKELSON died May 1, 1953 at Sheboygan, Wisconsin. During his long and distinguished career he was a member of the University of Wisconsin faculty as an instructor in mechanical engineering, business manager of the University for seven years, and until his retirement in 1943 Vice-President of the Kohler Company. Mr. Thorkelson was elected to Life Membership on April 23, 1948 and was a faithful member of the Academy from the time of his election to Active membership in January, 1905.

Prof. S. B. SHIVELY died July 26, 1953 at Lincoln, Nebraska. Prof. Shively was formerly on the teaching staff of the Wisconsin State College, Superior. In 1950, and until the time of his death, he was a professor of Botany at the Nebraska Wesleyan University. He is survived by his wife who resides at 5127 Walker, Lincoln.

ESTHER HURLEY DEWEERDT died November 8, 1953 at her home in Beloit, Wisconsin. Dr. deWeerd was a distinguished psychologist and nationally prominent authority on mental health. She was a member of the Beloit College faculty from 1923 to 1933, and was director of the Wisconsin Association of Mental Health for 17 years. She is survived by her husband, Dr. Ole N. deWeerd, a long time member of our organization.

SEMINARS ON FISHERY BIOLOGY

EDWIN L. COOPER, Chief of Research for the Fish Management Division of the Wisconsin Conservation Department, has organized a type of "biology seminar" for research and administrative personnel in that division. The second such discussion was held January 19-20 at Oshkosh. All Area fishery biologists attend these sessions. Program topics and discussion leaders include:

ROBERT T. PROBST, Life history and management of lake sturgeon  
JOHN H. KLINGBIEL, A report of a survey of 12 trout streams surveyed in 1952

VERNON A. HACKER, Fishery management program of Big Green lake  
OSCAR M. BRYNILDSON, Watershed evaluation project

THOMAS L. WIRTH, Fish management problems in Lake Michigan and Green Bay with special emphasis on sea lampreys & yellow perch  
EDWIN L. COOPER, Role of area biologist in Wis. fish management  
RICHARD F. HARRIS, Function of the Fishery Board in Wisconsin.

Subjects included in the first seminar in October 1953 were:  
EDW. SCHNEEBERGER, The role of the area biologist in fish management in Wisconsin.

DONALD MRAZ, Carp and game fish studies at Delafield hatchery ponds  
C. W. THREINEN, Largemouth black bass study on Browns and

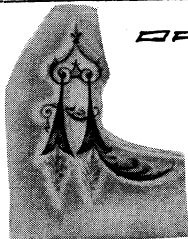
Turtle lakes  
STANLEY KMIOTEK, Possible factors limiting muskellunge production at Spooner ponds

JOHN KLINGBIEL, Rate of exploitation of fish populations in Escanaba Lake, summer of 1953.

LYLE CHRISTENSON, Returns from spring and fall plantings of legal-sized trout

THOMAS WIRTH, Use of otter trawls in lake investigations

E. L. COOPER, Records of lake and stream inventory and their use in fish management



## == FOR ANACHRONISM?

The questionnaire reply from one member of the Academy posed a very excellent question when he suggested the Academy perhaps is an anachronism--out of place because it is incongruous with present day conditions. He stated: "One hates to be a wet blanket, but it seems to me that nowadays there are so many people engaged in the 'Sciences, Arts and Letters' in, or about, Wisconsin, that a newsletter about them all would be about as thick as a dictionary. It could hardly be complete. By the same token, the value of an 'Academy' to bring all these people together seems to me questionable. I admire some of the things the Academy has done, but can't help feeling that it is perhaps, after all, an anachronism."

Maybe he's right. In the first years of the Academy there were few specialized organizations in the fields of sciences, arts and letters and there were few places to publish scholarly papers. Now, there are separate organizations with their journals for the ornithologists, archeologists, mathematicians, soil scientists, rural writers, artists, foresters, and dozens of others. It would be easy to make a case for the idea that there are too many such groups and publications. So why not admit that the Academy is an anachronism and no longer needed? Why not let it die?

Possibly the Wisconsin Academy would be worth preserving into the future if it were only for historical and sentimental reasons, but if it is to be a vital force in the State's affairs, it must serve a present-day need and fulfill a purpose. Based on the report of a special committee, the Council agreed that there is need for an Academy publication which would cover the highlights of the State's many activities in the sciences, arts and letters. They hoped that this could serve the purpose of keeping workers in all specialties acquainted with developments in fields related to their own and in general. They believed that this opportunity for encouragement and coordination of all special interest groups was a true function of the Wisconsin Academy. If the Academy could succeed in this activity, it could hardly be called an anachronism. It would require some change in emphasis and much more work.

So far as the Wisconsin Academy Review is concerned, there never has been any intention or hope expressed that it would cover all State news of activities in the sciences, arts and letters. The Academy always has been strong in the field of sciences and possibly will continue that tradition, but only experience will show what types of information will be considered most valuable in a news-type bulletin. Certainly, any encouragement to the Junior Academy program or to individual students or scholars must be considered significant and a primary Academy function. If some day most of the important items of this type could be recorded in a single medium of expression, it might be worth reading and preserving. Perhaps most significant are the personalities concerned: that we may better know, appreciate and publicly recognize the efforts of our colleagues and fellow workers.

If "A" today does stand for "Anachronism" to any extent, let's all do our part to make it mean instead, proudly and worthily--THE ACADEMY.

--Walter E. Scott

THE CONSTITUTION AND BY-LAWS OF THE WISCONSIN ACADEMY  
OF SCIENCES, ARTS AND LETTERS

(April 24, 1953)

Constitution

ARTICLE I--NAME AND LOCATION

This association shall be known as the Wisconsin Academy of Sciences, Arts and Letters, and shall be located at the city of Madison.

ARTICLE II--OBJECT

The object of the Academy shall be the promotion of sciences, arts and letters in the state of Wisconsin. Among the special objects shall be the publication of the results of investigation and the formation of a library.

ARTICLE III--MEMBERSHIP

The Academy shall include six classes of members, viz.: life members, honorary members, sustaining members, patrons, corresponding members and active members, to be elected by ballot.

1. Life members shall be elected on account of special services rendered the Academy. Life membership may also be obtained by the payment of one hundred dollars and election by the Academy. Life members shall be allowed to vote and to hold office.

2. Honorary members shall be elected by the Academy and shall be men who have rendered conspicuous services to science, arts or letters.

3. Sustaining members shall be elected by the Academy or the Council and shall pay annual dues of \$10. They shall have the same rights and privileges as active members, and shall be specially listed in the membership roll in recognition of their support of the Academy's work.

4. Patrons shall be elected by the Academy in recognition of special services or contributions. An account of such contributions shall be published to the membership in the minutes of the meeting at which the patron is elected. Patrons shall have the rights and privileges of active members during the year following their election.

5. Corresponding members shall be elected from those who have been active members of the Academy, but who have removed from the state. By special vote of the Academy men of attainments in science or letters may be elected corresponding members. They shall have no vote in the meetings of the Academy.

6. Active members shall be elected by the Academy or by the council, and shall enter upon membership on payment of the first annual dues.

ARTICLE IV--OFFICERS

The officers of the Academy shall be a president, a vice-president for each of the three departments, sciences, arts and letters, a secretary, a librarian and a treasurer. These officers shall be chosen by ballot, on recommendation of the committee on nomination of officers, by the Academy at an annual meeting and shall hold office for one year. Their duties shall be

those usually performed by officers thus named in scientific societies. It shall be one of the duties of the president to prepare an address which shall be delivered before the Academy at the annual meeting at which his term of office expires.

#### ARTICLE V--COUNCIL

The council of the Academy shall be entrusted with the management of its affairs during the intervals between regular meetings, and shall consist of the president, the three vice-presidents, the secretary, the treasurer, the librarian, and the past presidents who retain their residence in Wisconsin. Three members of the council shall constitute a quorum for the transaction of business, provided the secretary and one of the presiding officers be included in the number.

#### ARTICLE VI--COMMITTEES

The standing committees of the Academy shall be a committee on publication, a library committee, and a membership committee. These committees shall be elected at the annual meeting of the Academy in the same manner as the other officers of the Academy, and shall hold office for the same term.

1. The committee on publication shall consist of the president and secretary and a third member elected by the Academy. They shall determine the matter which shall be printed in the publications of the Academy. They may at their discretion refer papers of a doubtful character to specialists for their opinion as to scientific value and relevancy.

2. The library committee shall consist of five members, of which the librarian shall be ex-officio chairman, and of which a majority shall not be from the same city.

3. The membership committee shall consist of five members, one of whom shall be the secretary of the Academy.

#### ARTICLE VII--MEETINGS

The annual meeting of the Academy shall be held at such time and place as the council may designate. Summer field meetings shall be held at such times and places as the Academy or the council may decide. Special meetings may be called by the council.

#### ARTICLE VIII--PUBLICATIONS

The regular publication of the Academy shall be known as its Transactions, and shall include suitable papers, a record of its proceedings, and any other matter pertaining to the Academy. This shall be printed by the state as provided in the statutes of Wisconsin.

#### ARTICLE IX--AMENDMENTS

Amendments to this constitution may be made at any annual meeting by a vote of three-fourths of all members present; provided, that the amendment has been proposed by five members, and that notice has been sent to all the members at least one month before the meeting.

#### By-Laws

1. The annual dues shall be three dollars for each active member, to be charged to his account on the first day of January of each year. Membership shall be available to a husband or wife of active members for an annual dues of one dollar, providing that only one copy of the Transactions shall be received by the family group.

2. The annual dues shall be remitted for the secretary-treasurer and librarian during their term of office.

3. As soon as possible after January first of each year the secretary-treasurer shall send to members statements of dues payable, and in case of non-payment shall, within the succeeding

four months, send a second and, if necessary, a third notice.

4. The secretary-treasurer shall strike from the list of members the names of those who are one year or more in arrears in the payment of their dues, and shall notify such members of this action offering at the same time to reinstate them upon receipt of the dues in arrears plus the dues for the current year.

5. Each member of the Academy shall receive the current issue of the Transactions provided that his dues are paid. Any member in arrears at the time the Transactions are published shall receive his copy as soon as his dues are paid.

6. The fee received from life members shall be set apart as a permanent endowment fund to be invested exclusively in securities which are legal as investments for Wisconsin trust companies or savings banks. The income alone from such fund may be used for the general purposes of the Academy.

7. The secretary-treasurer shall receive annually an allowance of three hundred dollars for services.

8. The secretary-treasurer shall be charged with the special duty of editing and overseeing the publication of the Transactions. In the performance of this duty he shall be advised by the committee on publication.

9. The Transactions shall contain in each volume: (a) a list of the officers of the Academy, (b) the minutes of the annual meeting and (c) such papers as are accepted under the provisions of Section 10 of these By-Laws and no others.

10. Papers to be published in the Transactions must be approved as to content and form by the committee on publication. They must represent genuine original contributions to the knowledge of the subject discussed. Preference shall be given to papers of special interest to the state of Wisconsin and to papers presented at a regular meeting of the Academy. The privilege of publishing in the Transactions shall be reserved for the members of the Academy.

11. The Constitution and By-Laws and the names and addresses of the members of the Academy shall be published every third year in the Transactions. The Constitution and By-Laws shall also be available in reprint form from the secretary-treasurer at any time.

12. Amendments to these By-Laws may be made at any annual meeting by vote of three-fourths of all the members present.

13. The nominations committee shall be appointed at least three months prior to the date of the annual meeting.

WISCONSIN ARCHEOLOGICAL SOCIETY  
CELEBRATES GOLDEN ANNIVERSARY

The Wisconsin Archeological Society celebrated its Golden Anniversary (1903-1953) by publishing each 1953 issue of its publication, The Wisconsin Archeologist, with a golden cover. The Society now holds its regular meetings the fourth Monday of each month (8:00 pm) at the Finney Neighborhood Library in Milwaukee. Dues for annual members, including their publication, are only \$2.00. ROBERT RITZENTHALER of the Milwaukee Public Museum is their Editor; DR. E. G. BRUDER, President; KERMIT FRECKMANN, Secretary and ARTHUR NIEHOFF (Milwaukee Public Museum) Treasurer.

## PROCEEDINGS OF THE ACADEMY'S 83RD ANNUAL MEETING

The 83rd Annual Meeting of the Academy was held April 24 and 25, 1953 at the University of Wisconsin with headquarters at Eabcock Hall. Total registration was 132 members and guests representing 14 Wisconsin communities. The following program was presented:

## ACADEMY SECTION April 24, 1953

The meeting was called to order by President KATHERINE G. NELSON introducing EDWIN B. FRED, President of the University of Wisconsin, who welcomed the Academy to the University campus (p.2). Prof. C. A. HERRICK served as chairman during the morning session and Prof. AARON J. IHDE, chairman during the afternoon session for presentation of the following papers:

MERLE CURTI, University of Wisconsin: The making of an American Community; Trempealeau County; GLENN R. ESENTER and RAYMOND H. REIS, Marquette University: A study of the renal vascular patterns and the types of venae cavae posterior of man; ROBERT P. HANSON and GORDON SCOTT, University of Wisconsin: Flyways and equine encephalomyelitis; HARRY H. CLARK (read by M. Y. HUGHES), University of Wisconsin: The influence of science on American literary criticism, 1860-1910; LOUIS PIERRO and JOHN W. SAUNDERS, JR., Marquette University: The effect of circulating thyroid hormone on keratinization and pigmentation of the embryonic skin in the barred rock fowl; WILLIAM F. READ, Lawrence College: Preliminary work on the stratigraphy of the "Upper magnesian" in East-Central Wisconsin; ROBERT H. IRRMANN, Beloit College: A Harvard graduate goes West; Robert Adams Coker and the Highland School in the 1830's (by title only); RAYMOND H. REIS and JOHN LEE, Marquette University: Spontaneous change of form in single clones of Peimatohydra oligactis; GIAN N. G. ORSINI, University of Wisconsin: T. S. Eliot and the doctrine of dramatic conventions; HEINRICH E. K. HENEL, University of Wisconsin: The range of poetry; DEAM H. FERRIS, University of Wisconsin: Experimental transmission of vesicular stomatitis virus by certain biting diptera; WILLIAM J. WOODMAN, University of Wisconsin: Biting lice (Mallophaga) of Wisconsin; WALTER C. QUEVEDO and JOHN W. SAUNDERS, JR., Marquette University: Inhibition by phenylalanine of the synthesis of melanin pigments by living cells; JOHN C. DOWLING, University of Wisconsin: Age groups in Spanish literature of the golden age.

## ACADEMY SECTION April 25, 1953

Prof. HARLAND W. MOSSMAN served as chairman during presentation of the following papers: S. A. WILDE, University of Wisconsin: Climatic-zonal and bio-genetical classification of forest humus; DONALD L. MADER, University of Wisconsin: Microbiological characteristics of forest humus; CHARLES B. DAVEY, University of Wisconsin: Evaluation of composted fertilizers by microbiological methods; G. K. VOIGT, University of Wisconsin: Determination of the effect of applied biocides on soil fertility by chemical and biological methods; PETER J. SALAMUN, Wisconsin State College, Milwaukee: Remnants of natural vegetation in Milwaukee County; PHILIP B. WHITFORD, University of Wisconsin, Milwaukee Extension: A survey of remaining forest stands near Milwaukee; RUFUS A. BLANCHARD, University of Wisconsin: Thomas Carew and the cavalier poets; CYRIL C. O'BRIEN, Marquette University: The growth of psychology with some present implications and attendant problems; AARON J. IHDE and JAMES W. CONNERS, University of Wisconsin: Early chemical industry in Wisconsin;

J. KAPLER and J. P. O'BRIEN, Marquette University: The X-ray-induced erythematous reaction in the rabbit ear in relation to the temperature prevailing during exposure; NICK J. TOPETZES, Marquette University: The selection of graduate students; W. GOJMERAC and J. P. O'BRIEN, Marquette University: Radiosensitivity of amphibian larvae and adults in relation to temperature prevailing during and subsequent to exposure to X-radiation.

#### JUNIOR ACADEMY SECTION April 25, 1953

The morning and afternoon sessions were conducted by co-presidents MARJORIE CALL, Appleton Nature Club, Appleton High School, and MARK WEIGEL, Science and Camera Club, Columbus High School, Marshfield. Papers presented by Junior Academy of Science members were as follows: DAVID BRETTEINGEN, West High Science Club, West High School, Madison: The repeating graphic pattern of square root mantissas and its use; DENNIS O'HARA, Science and Camera Club, Edgewood High School, Madison: An electronic photographic exposure calculator; WILLIAM ZYCH, Science and Camera Club, Messmer High School, Milwaukee: A simplified explanation of jet propulsion; GENE UEHLING, Aquinas Science Club, Aquinas High School, La Crosse: Construction of a television set; TERRY SHARP, Science Club, Central High School, La Crosse: Effects of extraterrestrial atmospheres on tensile strength of metals; PATRICK FLYNN, Aquinas Science Club, Aquinas High School, La Crosse: The effect of ACTH and cortisone on the eosinophil count on white rats; THOMAS HARRISON, Science Club, Wausau Senior High School, Wausau: Seeing heat with thermocouples; DUANE JAECKS, Chemistry Club, Lincoln High School, Wisconsin Rapids: Spectroscopic analysis; MARK WEIGEL, Science and Camera Club, Columbus High School, Marshfield: Colchicine; PAUL LEWIS, Appleton Nature Club, Appleton High School, Appleton: Logic machines and their development; DIANE GABERT and GRACE MEIER, Science Club, Sturgeon Bay High School, Sturgeon Bay: Our experiments with *Drosophila*; CARL SCHWENDLER and D. LORENZ, Appleton Nature Club, Appleton High School, Appleton: A frog's heartbeat in relationship to natural and unnatural elements.

#### ANNUAL ACADEMY DINNER

The annual academy dinner was held on April 24, 1953 at the First Baptist Church in Madison. Sixty-five members and guests were present. Prof. C. L. FLUKE served as toastmaster, and Prof. S. F. DARLING announced the winners of the Wisconsin Science Talent Search. The presidential address, A Geologist's Point of View on Appreciation of Our Surroundings, was delivered by President KATHERINE G. NELSON. An illustrated travelogue A Naturalist in the Pacific was presented by Prof. ARTHUR D. HASLER.

#### ACADEMY BUSINESS MEETING

The annual business meeting was held in Babcock Hall with President KATHERINE G. NELSON presiding.

A Resolution adopted by unanimous vote was as follows:

"WHEREAS: The Wisconsin Academy of Sciences, Arts and Letters has lost in death eight of its distinguished members during the year 1952-53 and

"WHEREAS: The Academy wishes to recognize its indebtedness for their inspiration, devotion and leadership,

"BE IT RESOLVED: That the Wisconsin Academy of Sciences, Arts and Letters herewith expresses its lasting appreciation given throughout the years by Professor R. C. FRIESNER, Mr. WILLIAM HOBBS, Mrs. ANGIE K. MAIN, Professor ERIC R. MILLER, Doctor GLENN H. NELSON, Doctor C. AUDREY RICHARDS, Professor ROBERT K.

RICHARDSON, Professor CASIMIR ZDANOWICZ

and, further,

"BE IT RESOLVED: That a copy of this Resolution be inscribed in the official minutes of the organization."

C. A. HERRICK

RUTH I. WALKER

April 24, 1953

A Committee on nominations composed of E. L. BOLENDER, A. J. IHDE, W. C. McKERN, R. H. REIS and L. E. NOLAND, Chm., presented the following slate of officers, all of which were unanimously elected for the Academy year 1953-54:

President: CHARLES L. FLUKE, University of Wisconsin

Vice-President (Science): HENRY MEYER, Ripon College

Vice-President (Arts): MARY L. DOHERTY, Mary D. Bradford High School, Kenosha

Vice-President (Letters): HARRY H. CLARK, Univ. of Wisconsin

Secretary-Treasurer: R. J. DICKE, University of Wisconsin

Librarian: GILBERT H. DOANE, University of Wisconsin

Library Committee: GILBERT H. DOANE, C. A. ELVEHJEM, ALBERT M. FULLER, HAZEL SEGUIN and ROBERT ESSER

Publication Committee: The President, the Secretary, and FRED R. JONES

Membership Committee: The Secretary, LOIS ALMON, WILLIAM E. DICKINSON, and WILLIAM WOODMAN

It was moved and passed that an amendment be made to the by-laws as follows: The nominations committee shall be appointed at least three months prior to the date of the Annual Meeting. It was further moved that the following amendment to the constitution be proposed and considered for adoption at our next annual meeting: An elective Library Committee will be terminated, and the former duties of this committee will become the responsibility of the Librarian and the Council.

A discussion concerning modification of the Academy's publications was introduced. Suggestions were made to the effect that the Transactions should be issued in parts throughout the year, or that a quarterly bulletin should be established in addition to the Transactions. It was moved and passed that a committee of three be appointed to study these suggestions and to present a plan for adoption by the Academy at its next annual meeting.

It was moved that a vote of thanks should be extended to Professor HALVOR O. TEISBERG for his contributions to the Academy throughout the many years he served as its Librarian.

Committees in charge of the 83rd annual meeting were as follows:

Program and Arrangements: R. J. DICKE, Chm., DEAN FERRIS, C. L. FLUKE, M. Y. HUGHES, R. J. MUCHENHIRN and W. J. WOODMAN

Academy Reception: HERMINE M. DICKE, EMMA L. FISK, HELEN C. WHITE, and PATRICIA WOODMAN.



## TREASURER'S REPORT

(April 1, 1953)

RECEIPTS

Carried forward from Treasury March 31, 1952.....	\$ 2,124.06
Dues received from April 1, 1952 to March 31, 1953...	970.00
Sale of Academy publications .....	223.45
Sale of Reprints for Volume 41 of <u>Transactions</u> .....	177.63
Interest on endowment and savings .....	98.59
Sale of matured U. S. Treasury Bond 12394D .....	500.00
Receipts from Junior Academy of Science .....	35.20
Grant-in-aid for research from A.A.A.S. ....	80.50
State of Wisconsin (for publication of Transactions).	2,710.31

## Contributions:

Anonymous (for Junior Academy prizes)...	\$ 50.00
D. J. Stewart .....	7.00
F. Zirrer .....	2.00

59.00

Total Receipts

59.00

\$ 6,978.74

DISBURSEMENTSCost of publishing Volume 41 of Transactions:

Printing and binding 1600 copies .....	\$ 2,705.75
Engraving costs .....	74.66
Cost of reprints of Volume 41 .....	162.00
A.A.A.S. Grant-in-aid to Rev. F. C. Seymour .....	80.50
Purchase of 25 shares Massachusetts Investors Trust.	540.25
Transfer of interest on endowment and savings to	
Savings Account 3262 .....	98.59
Expenses of Junior Academy of Science .....	103.80

## Operating expenses:

Envelopes, stationery, etc. ....	\$ 26.00
Annual meeting, programs, etc. ....	95.96
Postage .....	85.00
Safety deposit box rental .....	4.80
	\$211.76

211.76

Secretarial allowance to Robert J. Dicke ..... 300.00

Contribution to A.A.A.S. Academy Conference ..... 5.00

Total Disbursements \$ 4,282.31

Balance on hand April 1, 1953 2,696.43

\$ 6,978.74

/s/ Robert J. Dicke  
 Robert J. Dicke  
 Secretary-Treasurer

The Auditing Committee has examined the accounts of the  
 Treasurer and has found them in order.

/s/ R. A. McCabe  
 R. A. McCabe

/s/ A. W. Schorger  
 A. W. Schorger, Chm.

ENDOWMENTS AND ASSETS

(April 1, 1953)

1.	U. S. Treasury Coupon Bond 1692B .....	\$ 1,000
2.	U. S. Savings Bond Registered Series G-M1696059G .	1,000
3.	U. S. " " " " G-C1563347G .	100
4.	U. S. " " " " G-C1563348G .	100
5.	U. S. " " Series F-D494206F .....	500*
6.	U. S. " " " F-M989457F .....	1,000*
7.	U. S. " " " G-C3389339G .....	100*
8.	U. S. " " " G-C3457898G .....	100*
9.	U. S. " " " G-C3512841G .....	100*
10.	U. S. " " " G-C3560656G .....	100*
11.	U. S. " " " G-C3564110G .....	100*
12.	U. S. " " " G-C4154451G .....	100*
13.	U. S. " " " G-C5044011G .....	100*
14.	U. S. " " " G-C5044012G .....	100*
15.	U. S. " " " G-C5074307G .....	100*
16.	U. S. " " " G-C5074308G .....	100*
17.	U. S. " " " G-C5463975G .....	100*
18.	25 Shares Massachusetts Investors Trust .....	\$540.25**

Total Amount of Endowment \$ 5,340.25

19.	U. S. Savings Bond Series G-C2386504G .....	100*
20.	U. S. Savings Bond Series G-C2386505G .....	100*
21.	U. S. " " " G-C2386506G .....	100*
22.	U. S. " " " G-C2386507G .....	100*

Current Assets Invested in U. S. Bonds \$ 400

23. Savings Account No. 3262 (4/1/53) ..... \$460.13

GRAND TOTAL ..... \$ 6,200.38

\* Value of bond at maturity

\*\* Current value

/s/ Robert J. Dicke  
Robert J. Dicke  
Secretary-Treasurer

The contents of the safe deposit box and the savings accounts were found in order as reported above for the date April 1, 1953.

Auditing Committee:

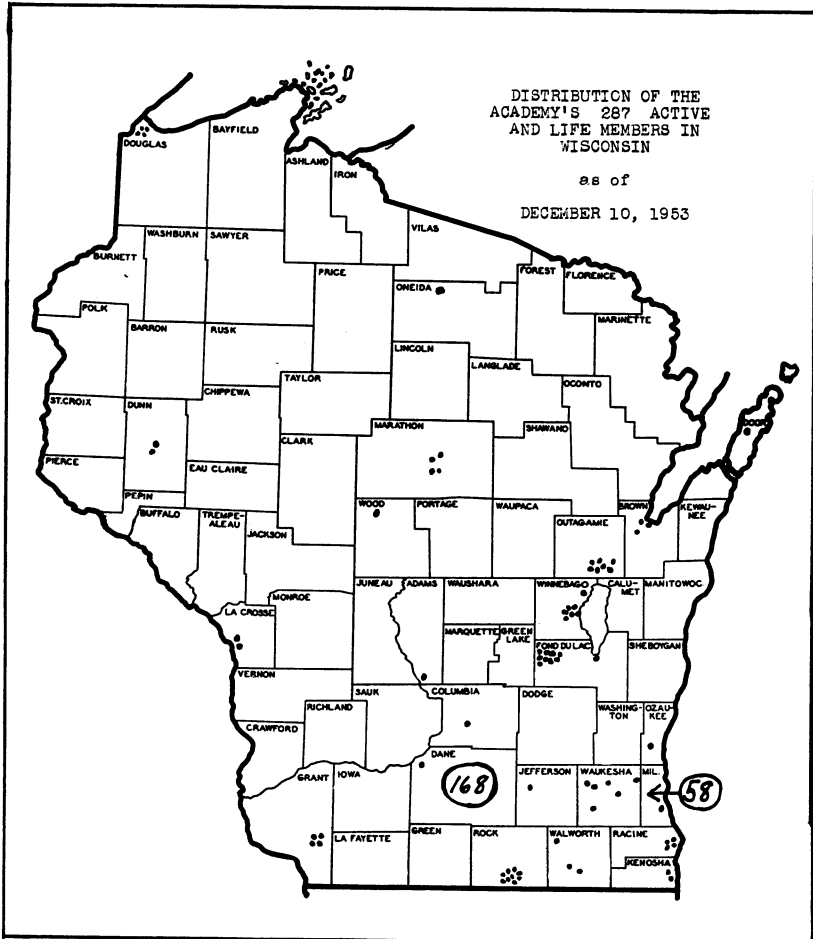
/s/ A. W. Schorger  
A. W. Schorger, Chm.

/s/ R. A. McCabe  
R. A. McCabe

## THE ACADEMY'S MEMBERSHIP DISTRIBUTION

An analysis of the Academy's membership distribution as of December 10, 1953 revealed a serious condition so far as state-wide interest was concerned. Of 287 Active and Life members living in the state, 226 were residents of the Madison and Milwaukee areas and only 61 were from other localities! What probably was even more serious is the fact that there were no members at all in 47 of the 71 counties or at several of the state's colleges! The survey also showed that 71 of the Academy's 358 Active and Life members (as of this date) lived outside Wisconsin.

It is obvious that the Wisconsin Academy cannot begin to fulfill its purpose unless it secures many more members throughout the state. It is hoped that the Wisconsin Academy Review will stimulate some of the necessary interest to accomplish this. Anyone interested in Academy membership should inform the Secretary-Treasurer of such interest. Teachers, scientists, students and scholars--both professional and non-professional--are welcome.



OFFICERS OF THE WISCONSIN ACADEMY OF SCIENCES  
ARTS AND LETTERS

PRESIDENT

Charles L. Fluke, University of Wisconsin

VICE-PRESIDENT (SCIENCE)

Henry Meyer, Ripon College

VICE-PRESIDENT (ARTS)

Mary L. Doherty, Kenosha

VICE-PRESIDENT (LETTERS)

Harry H. Clark, University of Wisconsin

SECRETARY-TREASURER

Robert J. Dicke, University of Wisconsin

LIBRARIAN

Gilbert H. Doane, University of Wisconsin

COUNCIL

The President

The Vice-Presidents

The Secretary-Treasurer

The Librarian

Past Presidents:

Charles E. Allen

Paul W. Boutwell

A. W. Schorger

H. A. Schuette

L. E. Noland

Otto L. Kowalke

W. C. McKern

E. L. Bolender

Katherine G. Nelson

COMMITTEES

Publications:

The President, ex officio

The Secretary, ex officio

Fred R. Jones

Library:

Gilbert H. Doane

C. A. Elvehjem

Albert M. Fuller

Hazel Seguin

Robert Esser

Membership:

The Secretary, ex officio

Lois Almon

William E. Dickinson

William Woodman

REPRESENTATIVE ON THE COUNCIL OF THE A.A.A.S.:

Robert J. Dicke, University of Wisconsin

## *A Message from the President*

With this first issue of the Wisconsin Academy Review it seems appropriate to tell you a little about the Junior Academy activities. Perhaps many of you do not know about the splendid work of this Junior group, especially the Annual State Science Talent Search conducted by the Academy in collaboration with the Westinghouse Science Talent Search. Each year there are twelve winners, chosen by six standards: (1) The performance on the scholastic aptitude examination, (2) The high school scholastic record, (3) The relative ranking in the high school graduating class, (4) Extra curricular activities, (5) The statements of the high school teachers concerning character and likelihood of success, and (6) The essay by the candidate on his scientific project.

Last year's winners will be reported on in the "Review" by John Thomson, chairman of the Junior Academy committee. Through the president's office letters of recommendation about these winners are sent to Institutions chosen by them for advanced education. The successes of these talent winners stirs the heart and helps us all to appreciate some of the fine things the Academy is doing.

With this beginning of the "Review" we send an urgent plea to the members for help in building a larger and better Academy. You can do this by offering to report about activities in your field, and by urging prospective members to join our ranks.

The Academy is steeped with historic interest and as you receive copies of the "Review," read it from cover to cover, and may the enthusiasm that at present is found in the committee encourage you to support the Academy with whole hearted effort.

C. L. FLUKE,  
President