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ANNUAL REPORT
OF THE
OHIO ACADEMY OF SCIENCE
Fiftieth Meeting
1940

THE OHIO ACADEMY OF SCIENCE
Organized 1891 Incorporated 1892
Affiliated with the American Association for the Advancement of Science

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J. D. SAYRE, term expires.....	1943
DWIGHT M. DELONG, term expires.....	1943

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LAMEY, CARL A.	THOMAS, EDWARD S.
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REPORT OF THE FIFTIETH ANNUAL MEETING OF THE OHIO ACADEMY OF SCIENCE

In line with a resolution and plan adopted by the Academy at its annual meeting in 1937 (the 47th), the meeting in 1940 was devoted almost exclusively to the celebration of the "Golden Anniversary." This anniversary was held on May 9, 10 and 11, at Ohio State University and was generally conceded to be an outstanding event in the history of science in Ohio. To do justice to the event as a whole, to the officers and members who labored so long and so hard to bring the event to a happy fruition, and to the many notable scientists who contributed so generously of their time and talent to the success of the celebration, would require a very sizable volume. The determination on the part of the officers and members of the Academy to publish just such a volume, one that will be a memorial worthy of the event and the participants, in the not too distant future is very strong, and our hopes are very high that some way of bringing this about will be found.

In the meantime, it seems fitting that a very brief report of the meeting should be made and printed in the usual manner. Obviously many of the usual features of the annual meeting of the Academy had to be omitted or modified. This applies particularly to the fine sectional meetings and programs that usually form such a vital part of the annual meeting. Instead, the scientific portion of program took the form of symposia of great and general interest participated in by the most eminent scientists of the country, both home and abroad.

For example, on Friday morning (May 10), three concurrent symposia were discussed by the most eminent authorities: (1) A Symposium on *Hearing*, discussed by Dr. R. H. Stetson of Oberlin College and Dr. E. A. Culler of the University of Illinois; (2) A Symposium on the *Basic Factors in Conservation*, discussed by Dr. Guy W. Conrey of the Ohio Agricultural Experiment Station, by Dr. Frank J. Wright of Denison University, and by Dr. E. N. Transeau, Ohio State University; (3) A Symposium on *Radiation and the Cancer Problem*, ably discussed by Dr. E. U. Condon of the Westinghouse Research Laboratories, by Dr. Isadore Lampe, of the University Hospital, University of Michigan, and by Dr. Francis Carter Wood, of Saint Luke's Hospital, New York.

Friday afternoon was devoted to one great general meeting in the University Chapel at which three outstanding addresses were made: (1) "Forests on a Changing Earth" by Dr. R. W. Chaney, of the University of California; (2) "Application of Airplane Photography to Geographic Studies" by Dr. John L. Rich of the University of Cincinnati; and (3) "Industry and Science" by Dr. Charles F. Kettering of the General Motors Research Corporation.

Then on Saturday forenoon four concurrent symposia: (1) A Symposium on the Nervous System, discussed by Dr. Herbert S. Gasser, Director of the Rockefeller Institute, by Dr. R. W. Gerard, of the University of Chicago, and by Dr. John F. Fulton, of Yale University; (2) A Chemical-Physical Program, discussed by Dr. Edward Mack of the Battelle Memorial Institute, Dr. M. S. Newman, Ohio State University, and by Dr. H. S. Booth, Western Reserve University; (3) A Genetics-Speciation Program, discussed by Dr. Laurence H. Snyder, of Ohio State University, by Dr. Warren P. Spencer, of the College of Wooster, and by Dr. David C. Rife, Ohio State University; and (4) A Botanical Program in which Dr. A. E. Waller of Ohio State University, Dr. J. H. Gourley, of Ohio Agricultural Experiment Station, Dr. Paul B. Sears of Oberlin College and Dr. E. Lucy Braun participated.

The meeting really began on Thursday evening, May 9, with a very large general gathering in the University Chapel. At this first meeting the Governor of Ohio, the Honorable John W. Bricker, extended the greetings of the State of Ohio to the assembled scientists, and President Howard L. Bevis of the Ohio State University welcomed the Academy and its friends to the University, to which President William Lloyd Evans responded for the Academy. Following these exchanges of greetings, the audience was treated to a masterly address on "Sound Patterns," wonderfully illustrated, by Dr. Harvey Fletcher of the Research Staff of the Bell Telephone Company.

As usual, Friday evening was given over to the annual banquet, always a most interesting event. The banquet was held in the Hall of Mirrors at the Deshler-Wallick Hotel, with a capacity attendance, and was presided over by President-Emeritus William McPherson. The event of the annual banquet is always the Presidential Address. Doctor Evans chose for his topic, "A Present-Day Examination of the Postulates of John Dalton." He made the story or history of the atom as

revealed by the ever increasing scientific light of knowledge through the years most interesting and informing.

Just preceding the Presidential Address, Dr. James P. Porter of Ohio University gave a very full history of the Ohio Academy of Science during the fifty years of its existence.

Under the new constitution the only opportunity the Academy as a whole has to consider the business affairs of the Academy is at the annual banquet. It was therefore necessary to hear brief reports from officers and committees, to hold the annual election and transact any other business deemed proper. These reports will be published in full in the memorial volume (if and when published) and only a rèsumé given at this time.

The Nominating Committee nominated and the Academy elected the following officers for the ensuing year:

- President* Stephen R. Williams, Oxford
- Secretary* William H. Alexander, Columbus
- Treasurer* Edward S. Thomas, Columbus
- Joint Administrative Board, O. J. S.* { A. W. Lindsey, Granville
James R. Patrick, Athens
- Trustee Research Fund* Paul B. Sears, Oberlin
- Committee on Conservation* { T. H. Langlois, Columbus
J. D. Sayre, Wooster
D. M. DeLong, Columbus

The Committee on Membership reported the election of 127 new members during the year and the restoration of three. Fellowship in the Academy was bestowed by the Council on the following persons, viz.:

- JOHN G. ALBRIGHT Case School of Applied Science
- HARVEY CLAYTON BRILL Miami University
- G. E. COGHILL Gainesville, Fla.
- ELIZABETH ELEANOR COYLE College of Wooster
- OLIVER DANIEL DILLER Ohio Agricultural Experiment Station
- WILLIAM CLARENCE EBAUGH Denison University
- PAUL E. FIELDS Ohio Wesleyan University
- ALFRED BENJAMIN GARRETT Ohio State University
- ROY I. GRADY College of Wooster
- FRANK ALEXANDER HARTMAN Ohio State University
- JAMES ARTHUR HERRICK Kent State University
- CHARLES D. HODGMAN Case School of Applied Science
- HARVEY EVERETT HUBER Ohio Northern University
- HOWARD WILFRED JOHNSON Bureau of Plant Industry, U. S. D. A.
- CHARLES F. KETTERING General Motors Research Corporation
- HAROLD P. KNAUSS Ohio State University
- ALFRED LANDE Ohio State University
- ROBERT DONALD LEWIS Ohio State University
- WARREN C. MILLER Bedford High School, Bedford, Ohio

M'DELLA MOON.....	Bluffton College
DWIGHT MUNSON MOORE.....	University of Arkansas
CHRISTIAN NUSBAUM.....	Case School of Applied Science
M. L. POOL.....	Ohio State University
MILTON PORTER PUTERBAUGH.....	Ashland College
HARMON A. RUNNELS.....	Ohio Agricultural Experiment Station
ROBERT S. SHANKLAND.....	Case School of Applied Science
JULIUS F. STONE.....	Ohio State University
CLARENCE EGBERT TAFT.....	Ohio State University
MILTON B. TRAUTMAN.....	Franz Stone Laboratory
RICHARD THURMAN WAREHAM.....	Ohio State University
ABRAHAM H. WIEBE.....	Tennessee Valley Authority
JOHN H. WOLFE.....	Ohio State University

The meeting was characterized not only by an unusually rich program, excellent in every way, but by at least two other notable features: (1) The number and quality of the exhibits, assembled and arranged by the Committee on Exhibits under the enthusiastic and resourceful leadership of Dr. Glenn W. Blaydes of Ohio State University. Note that at the time of the printing of the program there were ninety-nine *centralized* and forty *fixed* exhibits ready for the opening day of the centennial; others came in later. These exhibits in themselves showed marked cleverness and ingenuity on the part of the exhibitors; (2) One of if not *the* most significant forward step made at this annual meeting was the organization of a *Junior Academy Section* of the Ohio Academy of Science, largely due to the persistent, intelligent, skillful, enthusiastic leadership of Dr. Charles W. Jarvis of Ohio Wesleyan University, materially aided in the final steps by the inspirational talks and helpful suggestions of Dr. Otis W. Caldwell of the American Association for the Advancement of Science. Special credit should also be given to Mr. Orville Linebrink of the Columbus Schools for his untiring aid in interesting other schools in the Junior Academy. We understand there are now some ninety science clubs, members of the Junior Academy and these are well distributed over the State. We wish we had the space and the ability to describe adequately some of these papers, demonstrations and exhibits put on by these youngsters; they would do credit to any group. Take as an example the "Dissecting of a Pig Embryo," a demonstration put on by four girls from the Walnut Hills High School of Cincinnati under the sponsorship of Miss Etta Elberg; or, the demonstration by two boys from the New Philadelphia High School entitled "Experiments Using Dry Ice," sponsored by Miss Leila E. Helmick. Both performed in a masterly manner.

There were other features, of course, and other items of

interest in the various reports but lack of space forbids further review, except that we must give a small part of the Treasurer's report that you may have some idea as to the financial affairs of the Academy. The report covers the year ending December 31, 1939, and was duly audited. See following.

As to the report of the Trustees of the Research Fund it may be sufficient to say that it shows grants paid \$198.52, with a balance in the checking account of \$193.93, and assets (bonds, stock, etc.) to the value of \$1,737.50.

So much then for the Fiftieth Anniversary! May the One Hundredth Anniversary witness even greater things!

WILLIAM H. ALEXANDER, *Secretary.*

Report of the Treasurer

Dear Mr. Alexander:

I enclose a financial statement of the condition of the Ohio Academy of Science as of December 31, 1939. The books have been audited and the opinion of the auditor is herewith attached.

Cordially yours,

Eugene Van Cleef, *Treasurer.*

BALANCE SHEET AS AT DECEMBER 31, 1939

Assets

CURRENT EXPENSE FUND:

Cash in bank—Current.....	\$ 27.37
Cash in bank—Semi-Centennial Celebration.....	100.00
Undeposited Cash.....	2.50

Total cash.....	\$ 129.87
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Dues receivable 1938.....	\$ 75.00
Dues receivable 1939.....	170.00

Total Dues receivable.....	245.00
Bonds—Consolidated Federal Farm Loan 3% 1945-55.....	1,300.00

Total assets current expense fund.....	\$1,674.87
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RESEARCH FUND:

Cash on deposit.....	\$ 193.93
Banc Ohio Securities Company Stock (cost).....	437.50
Bonds—Fort Hayes Hotel—Columbus, Ohio (cost).....	1,300.00

Total assets research fund.....	1,931.43
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Total assets.....	\$3,606.30
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Liabilities, Deferred Credits and Net Worth

LIABILITIES:

None.

DEFERRED CREDITS TO INCOME:

Reserve for uncollected dues 1938 and 1939.....	\$ 245.00
1940 dues collected in 1939.....	37.50

Total deferred credits to income.....	\$ 282.50
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NET WORTH:

Ohio Academy of Science—	
Current expense fund—surplus.....	\$1,292.37
Research fund—surplus.....	1,931.43
Semi-Centennial Celebration—surplus.....	100.00
Total surplus (schedule 1).....	<u>3,323.80</u>
Total liabilities, reserves and net worth.....	\$3,606.30
ANALYSIS OF CHANGES IN SURPLUS DECEMBER 31, 1939	
Surplus, December 31, 1938.....	\$3,414.98
Deduct:	
Decrease in surplus—current expense fund.....	\$ 65.59
Decrease in surplus—research fund.....	125.59
Total deductions.....	<u>191.18</u>
Surplus—Current and Research Funds.....	\$3,223.80
Surplus—Semi-Centennial Celebration.....	100.00
Total Surplus, December 31, 1939.....	<u>\$3,323.80</u>

STATEMENT OF INCOME AND EXPENSE FOR THE YEAR ENDING DECEMBER 31, 1939

INCOME:

Dues for the year 1939.....	\$1,202.50
Grants for research.....	150.00
Sale of publications.....	7.65
Interest on bonds.....	39.00
Total income.....	<u>\$1,399.15</u>

OPERATING EXPENSES:

Speakers.....	\$ 25.00
Clerical assistance.....	20.70
Postage and telegraph.....	85.75
Office supplies and expenses.....	25.55
Expenses of officers to meetings.....	62.70
Printing:	
Proceedings, Ohio Journal of Science.....	\$138.25
Other.....	155.87
Total printing.....	294.12
Subscriptions, Ohio Journal of Science.....	675.00
Research grants.....	150.00
Secretary's honorarium.....	100.00
Safety Deposit box rent.....	3.30
Bond treasurer.....	5.00
Auditing expense.....	15.00
Bank charges.....	9.62
Total operating expenses.....	<u>1,471.74</u>
Net operating deficit for the year 1939.....	\$ 72.59
OTHER INCOME:	
Dues collected for prior years:	
1937.....	\$ 2.50
1938.....	90.00
Total other income.....	<u>\$ 92.50</u>
OTHER EXPENSE:	
1938 subscriptions, Journal of Science.....	85.50
Net other income.....	<u>7.00</u>
Net deficit for the year.....	\$ 65.59