The officers elected for the ensuing year are as follows:

President: H. H. Bartlett, Ann Arbor.
Vice-President: E. S. Brown, Ann Arbor.
Secretary-treasurer: L. R. Dice, Ann Arbor.
Editor: P. S. Welch, Ann Arbor.
Librarian: W. W. Bishop, Ann Arbor.

The following section chairmen were elected:

Anthropology: E. S. McCartney, Ann Arbor.
Botany: J. B. Pollock, Ann Arbor.
Economics: Z. C. Dickinson, Ann Arbor.
Geology and Mineralogy: L. M. Gould, Ann Arbor.
History and Political Science: Arthur S. Aiton, Ann Arbor.
Language and Literature: Oscar J. Campbell, Ann Arbor.
Mathematics: E. R. Sleight, Olivet.
Psychology: Samuel Renshaw, Kalamazoo.
Sanitary and Medical Science: C. C. Young, Lansing.
Zoology: H. M. MacCurdy, Alma.

L. R. DICE,
Secretary-Treasurer.

THE OHIO ACADEMY OF SCIENCE

THE thirty-fourth annual meeting of the Ohio Academy of Science was held at the Ohio State University on April 18 and 19, 1924, under the presidency of Dr. Kirtley F. Mather, of Denison University, Granville, Ohio. About 100 members were in attendance.

Dr. Herbert Osborn, chairman of the committee on necrology, read an appreciative memoir of Dr. T. C. Mendenhall, of Ravenna, Ohio, whose death occurred at his home on March 22, 1924. A member since 1912 and president in 1914, Dr. Mendenhall was always deeply and actively interested in the work of the academy and rarely ever missed an annual meeting. He was trustee of the McMillin Research Fund from 1916 to the time of his death. It is probably safe to say that no other member of the academy held the love and esteem and the commanding influence in the academy that Dr. Mendenhall did. His passing is an irreparable loss. The memoir will be published in full in the near future in the *Ohio Journal of Science.*

Fifty-nine new members were elected, and the following fourteen members were elected to fellowship: Ralph V. Bangham, John W. Baringer, Samuel Wood Chase, Guy W. Conrey, Floyd Carlton Dockeray, H. A. Gossard, Roy Graham Hoskins, Lawrence L. Huber, Thomas G. Phillips, Edmund Secrest, Ernest Rice Smith, Paris B. Stockdale, Herbert Anderson Toops and Charles J. Willard.

Officers for 1924–25 were elected as follows: *President,* E. N. Transeau, Ohio State University; *secretary,* William H. Alexander, U. S. Weather Bureau, Columbus; *treasurer,* A. E. Waller, Ohio State University; *vice-presidents—zoology,* R. V. Bangham, Wooster College; *botany,* Edmund Secrest, Ohio Agricultural Experiment Station; *geology,* G. W. Conrey, Ohio State University; *medical sciences,* R. G. Hoskins, Ohio State University; *physical sciences,* C. D. Coons, Denison University; *psychology,* F. C. Dockeray.

Quite a number of the members of the academy participated, by invitation, in a field meeting put on by the Ohio Forestry Association on September 21 and 22, 1923.

The scientific program was as follows:

PRESIDENTIAL ADDRESS

Geologic factors in organic evolution: KIRTLEY F. MATHER.

PUBLIC ADDRESS

How shall we measure the quantity of life? ALBERT P. MATHEWS.

PAPERS

Laboratory exercises in atomic structure: WM. LLOYD EVANS and JESSE E. DAY.

The valley of ten thousand smokes in 1923: KIRTLEY F. MATHER.

Recent work in endocrinology: R. G. HOSKINS.

The weather: W. C. DEVEREAUX.

Pressure and life: STANLEY G. ZINKE.

Glare (with demonstrations): F. C. CALDWELL.

Medical education in colonial America: F. C. WAITE.

The relation of fish production to forestation: RAYMOND C. OSBURN.

The application of radio in distance determination: GEORGE LEWIS.

A hydrogen sulfide delivery system: JESSE E. DAY.

Respiration in the orthoptera: M. O. LEE.

The nutrition of euglena gracilis: W. J. KOSTIR.

Pest hunts in Wood County: E. L. MOSELEY.

The development of the intestinal coiling of the minnow (campostoma anomalum): W. C. KRAATZ.

Morphology of gigantorhynchus (ancanthocephala): M. W. CASKEY.

The periodical cicada in Ohio: H. A. GOSSARD.

An Ohio record for the dragonfly (tachopteryx thoreyi): JAMES S. HINE.

Parasites of the black bass: R. V. BANGHAM.

Habits of the common water snake, particularly in its relation to fish: F. A. HANAWALT.

New terms suggested to designate the various modes of nutrition on organisms: W. J. KOSTIR.

Recent mammal records in Ohio: JAMES S. HINE.

Ecologic notes on some homoptera of the Southwest: HERBERT OSBORN.

The early differentiation of the longitudinal zones in the neural plate of rana: R. A. KNOUFF.

Two new hereditary tumors in drosophila: IRA T. WILSON.

The primitive lines in amblystoma: F. L. LANDACRE.

Comparisons of protozoan nuclei: MAYNARD M. METCALF.

A study of comparable developmental stages in chick and pig embryos: B. M. PATTEN.

The differentiation of the epichordal and prechordal portions of the brain in amblystoma: R. C. BAKER.

The spherical blackboard in the teaching of embryology: EDWARD L. RICE.

The effect of basal metabolism of ingested adrenalin chloride: FRED. A. HITCHCOCK.

Heredity defects of the human hand, with special reference to symphalangism: R. A. HEFNER.

A novel type of symphalangism (?) or hypodactyly (?): O. L. INMAN.

Some practical and theoretical aspects of lubricating oil emulsions as a scalecide: L. L. HUBER.

Interaction of the genes in the production of eye color in drosophila: W. P. SPENCER.

The development of forestry practice: EDMUND SECREST.

Botany: Opportunity: MAXIMILIAN BRAAM.

Present tendencies in high-school biological courses: WM. E. NIEHAUS.

The development of bisporangiate flowers in sagittaria latifolia: JOHN H. SCHAFFNER.

A case of teratological inflorescence in alsike clover: FREDA DETMERS.

Some new heritable characters of corn found in the culture at Ohio State University: MARION T. MYERS.

Studies of variation in the fleshy fungi: H. C. BEARDSLEE.

The trend of investigation in plant growth: H. C. SAMPSON.

The change of opposite to alternate phyllotaxy in hemp by means of photoperiodism: JOHN H. SCHAFFNER.

The physiology of stomata: J. D. SAYRE.

The diffusion of water vapor through small openings: J. D. SAYRE.

Water transfer in plant cells: H. M. BENEDICT.

Some filamentous algae from Iowa: L. H. TIFFANY.

The zygnemales: E. N. TRANSEAU.

The peculiar flora of the sand region west of Toledo: E. L. MOSELEY.

The distribution of the pine in Ohio: FOREST DEAN.

The economic features of the yellow poplar in Ohio: O. A. ALDERMAN.

Progress report on plantings on the slope of the dams in the Miami Conservancy District: A. E. WALLER.

Observations of a plant collector on the island of Hainan: F. A. MCCLURE.

The uredinales of Ohio—preliminary: W. G. STOVER.

The relation of weather conditions to the development of apple scab at Columbus in 1923: HOWARD W. JOHNSON.

The infection period of apple blotch in central Ohio in 1923: CURTIS MAY.

The relation of fusarium moniliforme to the ear, stalk and root-rot of corn: D. P. LIMBER.

Studies of toxin production in the fusarium wilt of tomato: IVAN E. MASSAR.

A bud sport in pelargonium accompanied by the loss of two chromosomes: PAUL B. SEARS.

Some Ohio inter-morainal lakes and lake beds: GEO. D. HUBBARD.

The age of the glacial drift in Licking County, Ohio: RALPH G. LUSK.

Some glacial pebbles and cobbles found beyond the glacial boundary in Muskingum and Guernsey counties: C. F. MOSES.

The composition of the Illinoian drift in Clermont County, Ohio: G. W. CONREY.

Drainage changes in the Warren-Youngstown-Sharon-New Castle areas: G. F. LAMB.

Erosion levels in the Colorado Plateau: ROBERT F. WEBB.

Differences in the form of species usually regarded as common to North America and Europe: AUG. F. FOERSTE.

Plant life in ordovician and silurian times: AUG. F. FOERSTE.

The positions occupied by orthoceroids while alive: AUG. F. FOERSTE.

An amphibian trail from the Pottsville formation: G. F. LAMB.

The Cleveland shale fishes of northern Ohio: J. E. HYDE.

Two recent papers on the earth's interior: WALTER H. BUCHER.

The importance of water conditions on the shallow oil sands of Ohio: KENNETH COTTINGHAM.

The structure of the Clinton sandstone in Ohio and its relation to oil and gas accumulation: ROBERT LOCKETT.

Clinton sand structure of northern Ohio in its relation to production: A. W. MELHORN.

A structural feature of Wood County, Ohio: J. ERNEST CARMAN.

The decline of mining activity in Colorado: FRANK R. VAN HORN.

The glass sands of Ohio: J. A. BOWNOCKER.

Bacterial precipitation in freshwater: ALLYN C. SWINNERTON.

The significance to sedimentation of the Amherst Berea deposits: J. E. HYDE.

Some broader correlations of the Richmond: W. H. SHIDELER.

The rock section at the O'Shaughnessy Dam: J. ERNEST CARMAN.

Effect of cutting upon the rate of hair growth: R. J. SEYMOUR.

Formation and structure of dental enamel: SAMUEL W. CHASE.

Status of the occupational disease question in Ohio, based on official figures; present tendencies: EMERY R. HAYHURST.

Recent studies on food accessories in a legume: H. H. M. BOWMAN.

Effect on nasal metabolism of adrenalin by mouth: F. A. HITCHCOCK.

Factors that influence the knee jerk: W. W. TUTTLE.

Effect of adrenalin on the temperature of the brain: W. P. SPENCER and M. W. CASKEY.

Relations of adrenals to bodily activities of the rat: E. P. DURRANT.

The effect of syphilis on dentition and on tooth structure: L. J. KARNOSH.

The nutritive value of a little-known bean: H. H. M. BOWMAN.

Blood sugar studies: E. C. ALBRITTON.

Calcium deficiency as a factor in psychopathy: FLORENCE MATEER.

Psychological method of studying: HAROLD E. BURTT.

A study in the evolution of concepts: GARRY C. MYERS.

Utilizing college records, including appointment blanks, to predict after-college success of students: LAURA CHASSELL TOOPS.

An investigation of the development of personality in children: O. R. CHAMBERS.

Notes on musical esthetics: PAUL R. FARNSWORTH.

The necessary postulates of empirical psychology: H. M. JOHNSON.

DEMONSTRATIONS

Yellow poplar wood: O. A. ALDERMAN.

Corn: MARION T. MYERS.

Lower jaw of a boar showing tusks: WILLIAM E. NIEHAUS.

Water snake (tropidonotus fasciatus) in the act of swallowing a creek sucker: F. A. HANAWALT.

Skeleton mount of common mole (scalopus aquaticus machrinus): W. H. CAMP.

Plaster cast of earthworm (lumbricus terrestris); cross-section: HENRY OLSON.

Examples of certain homoptera of the Southwest, with photographs of their habitats: HERBERT OSBORN.

Activity cages: E. P. DURRANT.

The structure of dental enamel: SAMUEL W. CHASE.

A novel form of symphalangism or hypodactyly: ONDNESS L. INMAN.

A new type of physiographic map: KIRTLEY F. MATHER.

WILLIAM H. ALEXANDER,
Secretary

COLUMBUS, OHIO

THE UTAH ACADEMY OF SCIENCES

THE seventeenth annual convention of the Utah Academy of Sciences was held on April 4 and 5, 1924, in the physics lecture room, University of Utah.

The following officers were elected for the ensuing year:

President, Professor William Peterson, Utah Agricultural College, Logan.

First vice-president, Professor Harold R. Hagan, University of Utah, Salt Lake City.

Second vice-president, Dr. Thomas L. Martin, Brigham Young University, Provo.

Council, Gerald Thorne, Salt Lake City, Dr. W. D. Bonner, University of Utah, and D. A. Shoemaker, Ogden.

Secretary, C. Arthur Smith, East High School, Salt Lake City.

Professor J. G. Olson, assistant bacteriologist of Utah, and Professor Robert S. Lewis, professor of mining and milling, University of Utah, were elected fellows of the academy.

Dr. Roy F. Newton, assistant director of metallurgy, University of Utah, was elected to membership.

After considerable discussion it was voted to recommend to the incoming officers that a number of committees representing various interests of a more or less economic nature be selected, the chairmen of which to be named from the resident past-presidents.

REPORT OF ANNUAL MEETING

The duties of these committees are to constitute an extension of the activities of the academy and do not in any sense change its original purpose, *viz.*, that of providing an outlet for reports on original scientific investigations by local scientists. This feature of the academy will be preserved.

These committees will make investigations in their respective fields and prepare reports which will be read at one of the sessions of the annual meetings.

The following papers were read:

THE PRESIDENT'S ADDRESS

Energy and its relations to human welfare: CARL F. EYRING, Brigham Young University.

PAPERS

Biographical sketch of the life and work of Dr. William A. Stephensen: J. G. OLSON, University of Utah.

Vulcanism in City Creek Canyon: HYRUM SCHNEIDER, University of Utah.

The chemical reactions of chloridizing: ROY F. NEWTON, University of Utah.

Some stock poisoning plants of Utah: A. O. GARRETT, East High School, Salt Lake City.

The capillary potential function: WILLARD GARDNER and B. M. WHITNEY, Utah Agricultural College.

Embryonic development of the Chinese mantid (illustrated): HAROLD R. HAGAN and L. W. SORENSON, University of Utah.

Embryonic development of the telson of the Chinese mantid: HAROLD R. HAGAN and MISS EVA HANSEN, University of Utah.

Effect of prolonged maintenance on subsequent growth and development in pigs: W. E. CARROLL, Utah Agricultural College.

Aerial photography applied to map-making: ROBERT S. LEWIS, University of Utah.

The capillary potentiometer as a meteorological instrument: WILLARD GARDNER and CHESTER A. CHAMBERS, Utah Agricultural College.

Need of manure on Utah irrigated land: D. W. PITTMAN, Utah Agricultural College.

Precambrian rock at the end of promontory range:[1] HYRUM SCHNEIDER and STANLEY SIEGFUS, University of Utah.

C. ARTHUR SMITH,
Secretary

[1] This paper did not assume that the rock is precambrian, it merely discussed evidences of it.