

THE INDIANA ACADEMY OF SCIENCE

THE Indiana Academy of Science held its fortieth annual meeting at Purdue University, Lafayette, Indiana, December 4 to 6, 1924.

The following program, including 95 titles, was presented:

Dec. 4—Meeting of Executive Committee.

Dec. 5—General Session.

Business Session at which 108 new members and three fellows were elected.

Stephen Francis Balcom: In memoriam: R. W. MCBRIDE.

Robert Greene Gillum: In memoriam: L. J. RETTGER.

William Allen McBeth: In memoriam: L. J. RETTGER.

John C. Shirk: In memoriam: AMOS BUTLER.

Presentation of papers of general interest.

The research committee of the Indiana Academy of Science: ARTHUR L. FOLEY.

The conservation commission and its work: STANLEY COULTER.

The reported origin of Indian corn from Teosinte: PAUL WEATHERWAX.

City "smogs" in periods of general fair weather: JOHN H. ARMINGTON.

Variations among Indiana counties in land values, roads and death rates: STEPHEN S. VISHNER.

Types of errors made in Purdue English test by high school boys: GERALDINE FRANCES SMITH.

President's Address—Flora of Indiana: On the distribution of the ferns, fern allies and flowering plants: C. C. DEAM.

SECTIONAL MEETINGS

Botany

Mechanical injuries caused by weeds and other plants: ALBERT A. HANSEN.

Phenomena exhibited by fungi when grown in close proximity: C. L. PORTER.

Factors influencing cyanide injury in greenhouse plants: H. D. BROWN.

*Age of scale bark formation in *Carya ovata*:* F. M. ANDREWS.

Vegetable regions of Indiana: I. C. HOFFMAN.

The Purdue garden of medicinal plants: C. J. ZUFALL.

Michikoff wheat: A. T. WIANCKO.

Hydrogen-ion concentration in certain plant juices: F. M. ANDREWS.

Further studies with pH indicators and acid production by the colon typhoid group: P. A. TETRAULT.

Observations upon the isolation of nitrifying organisms: I. L. BALDWIN.

Cabbage diseases and their control: CHARLES GREGORY.

Wheat smuts in Indiana: CHARLES GREGORY.

Observations concerning the disease susceptibility of cereals and wild grasses: E. B. MAINS.

*Physiologic specialization in the leaf rust of wheat; *Puccinia triticina*:* E. B. MAINS.

Cladosporium leaf-mold of tomato fruit invasion and seed transmission: MAX. W. GARDNER.

Some rusts of composite life history: H. S. JACKSON.
Indiana plant diseases, 1923 and 1924: MAX. W. GARDNER.

Some new materials that I have found valuable in teaching botany: BLANCHE MCAVOY.

Some ways of stimulating students' interest in botany: C. J. ZUFALL.

*A variation of *Trillium declinatum*:* RAY C. FRIESNER.

*An unusual *Impatiens biflora*:* F. M. ANDREWS.

The differential staining of fungi in host tissue: E. J. KOHL.

The Uredinales and Ustilaginales of Indiana—IV: H. S. JACKSON.

Recent Indiana weeds, 1924: ALBERT A. HANSEN.

*Water hemlock, *Cicuta maculata*, a biennial in Indiana:* ALBERT A. HANSEN.

A preliminary list of lichens of Delaware County, Indiana: BLANCHE MCAVOY.

Notes on Grasses—II: PAUL WEATHERWAX.

Indiana Fungi—VIII: J. M. VAN HOOK.

Further notes on comparative growth in grazed and ungrazed woodlots at Purdue: BURR N. PRENTICE.

Chemistry—Mathematics—Physics

Methods of determining the composition of amalgams: M. G. MELLON.

A note on the behavior of cobaltous hydroxide: LOUIS AGASSIZ TEST.

Farming as a chemical industry: R. H. CARE.

Fertilization of lawns: S. D. CONNER.

Rhythmic crystallization of sodium sulphate in thin agar films: F. O. ANDEREGG and G. W. DAUBENSPECK.

Influence of other elements upon carbon migration in iron and steel: E. G. MAHIN and R. C. SPENCER.

An outline of chemical literature: M. G. MELLON.

A chemical investigation of the water of Devil's Lake, North Dakota: G. A. ABBOTT.

Some suggestions for research in mathematics: WILL E. EDINGTON.

A functional derivation of the area of the triangle: K. P. WILLIAMS.

A special case of a differential equation of infinite order: H. P. DAVIS.

Resonating reflectors for amplifying and directing sound signals: ARTHUR L. FOLEY.

Multiple horns as sound amplifiers: ARTHUR L. FOLEY.

Selective resonance of sound amplifying horns: ARTHUR L. FOLEY.

Photographic method of measurement of per cent. of polarization and some of its applications: B. A. HOWLETT.

Sound waves from explosions: JOHN E. SMITH.

Photography as a means of measuring rate of detonation: JOHN E. SMITH.

Amplification constant of a transformer, principle of the neurodyne: R. R. RAMSEY.

The effect of ultraviolet light and X-Rays on the stability of matter: ARTHUR L. FOLEY.

The acoustic laboratory room: ARTHUR L. FOLEY.

The formation of alpha rays by simple means: CHARLES P. KNIPP and N. E. SOWERS.

Geology—Geography

Sub-Trenton stratigraphy in Indiana: W. N. LOGAN.

The valley form and its development: CLYDE E. MALOTT.

The genesis of the Ohio River: GERARD FOWKE.

The Upper Chester of Indiana: CLYDE E. MALOTT.

Observations on areal geology of Jasper County, Indiana: THOMAS M. BUSHNELL.

Relation of Mt. Carmel and Heltonville faults to the Dennison anticline: RALPH ESAREY.

Notes on the finding of chlovaastrolite in Morgan County, Indiana: FRANK B. WADE.

Some contrasts among Indiana counties in educational respects: STEPHEN S. VISHNER.

Identification of two fossil leaves from Iowa, one from Arizona and a "tree trunk" from Kansas (by title): ALBERT B. REAGAN.

A West Coast honeymoon (by title): ALBERT B. REAGAN.

The Isleta Indians (by title): ALBERT B. REAGAN.

Zoology

Distribution of the photoreceptors of the earthworm, Lumbricus terrestris: WALTER N. HESS.

Function and structure of photoreceptors of the earthworm, Lumbricus terrestris: WALTER N. HESS.

Further observations on the function of the earwig forceps: W. P. MORGAN.

Euthenics and life histories: ROBERT HESSLER.

Exaltation of an attenuated strain of Trypanosoma Brucei: C. A. BEHRENS.

Formaldehyde antidotal to ivy poisoning: ROBERT HESSLER.

Further note on the treatment of Rhus poisoning: O. P. TERRY.

Vitamin C in the liver of chickens fed on scorbutic diets: C. W. CARRICK.

Larvae of the cherry fruit fly, Rhagoletis cingulata, as a pseudoparasite: M. W. LYON, JR.

Studies in life history and control of hog lungworms (by title): GEORGE ZEBROWSKI.

Rate of growth and age of sexual maturity of certain sessile organisms: B. H. GRAVE.

The relation of animal pest control to conservation: JOHN J. DAVIS.

Records of Indiana dragonflies—I: B. ELWOOD MONTGOMERY.

New records of the short tailed shrew in Indiana: M. W. LYON, JR.

Finds of Mammut americanum in Delaware County, Indiana: R. A. GANTZ.

Technique of handling planaria in the laboratory: S. A. RIFENBURGH.

A comparative study of the nest habits of the meadow lark, towhee and rose-breasted grosbeak: SIDNEY R. ESTEN.

Some observations on the summer birds of Winona Lake, Indiana: LOUIS AGASSIZ TEST and SIDNEY R. ESTEN.

The specificity of hemolysins (by title): ROSCOE R. HYDE.

The reaction of yeast-absorbed complement with heated sera (by title): ROSCOE R. HYDE.

On homologous hereditary characters among phylogenetically related animals (by title): HORACE W. FELDMAN.

The physical basis of personality (by title): GEORGE ZEBROWSKI.

An infestation of upholstered furniture by (Lasioderma serricorne, Fab.) the cigarette beetle: HOWARD E. ENDERS.

Annual Address

Positive and negative valences: a historic account of the development of valence: DR. W. A. NOYES.

In connection with the academy meetings and just preceding, the entomologists of Indiana held an all-day informal session, December 4, this being their second annual conference.

A botanists' dinner, complimentary to Dean Stanley Coulter and Dr. J. C. Arthur, of Purdue University, was held Friday noon (December 5) in the Purdue Memorial Union building, 106 members of the academy attending. Professor D. M. Mottier presided as toastmaster. Talks were made by Dr. J. M. Coulter, Dr. William Trelease, Dean Stanley Coulter and Dr. J. C. Arthur.

The annual academy dinner was held in the evening preceding the annual address and was attended by 150 members of the academy, 16 of whom were ex-presidents. Short talks were made by Dean Stanley Coulter, who acted as toastmaster; Dr. C. H. Eigenmann, Dr. William Trelease and Dr. E. C. Elliott.

The officers of the Lafayette meeting were: C. C. Deam, State Forester, *president*; C. M. Smith, Purdue University, *vice-president*; Flora C. Anderson, Indiana University, *secretary*; Alma M. Bell, Indiana University, *assistant secretary*; W. M. Blanchard, De Pauw University, *treasurer*; H. F. Dietz, State Conservation Commission, *press secretary*; J. J. Davis, Purdue University, *editor*.

The following officers for the year 1925 were elected: E. R. Cumings, Indiana University, *president*; Charles Stoltz, South Bend, *vice-president*; Flora C. Anderson, Indiana University, *secretary*; J. B. Dutcher, Indiana University, *assistant secretary*; W. M. Blanchard, De Pauw University, *treasurer*; H. F. Dietz, State Conservation Commission, *press secretary*; J. J. Davis, Purdue University, *editor*.

It was recommended to the executive committee that the next annual meeting of the academy be held at Indiana State Normal and Rose Polytechnic Institute, Terre Haute.

J. J. DAVIS,
Acting Press Secretary