

"Factors Governing the Darkening of a Photographic Plate by X-rays," by J. S. Shearer.

"The Wave-length Sensibility Curve for Isolated Crystals of Selenium between 200 $\mu\mu$ and 450 $\mu\mu$," by L. P. Sieg and F. C. Brown.

"The Variation of Equilibrium Conductivity of Selenium with the Intensity of Illumination," by F. C. Brown.

"The Effect of Variation of Temperature on the Coefficient of Recombination of Electrons in Selenium Crystals," by Kathryn J. Dietreich.

Saturday, 2 P.M.

"A Null Method with Photo-electric Cells," by F. K. Richtmyer.

"New Tests of Einstein's Photo-electric Equation," by R. A. Millikan.

"Factors Affecting the Relation between Illumination and Photo-electric Current," by Herbert E. Ives, Saul Dushman and E. Karrer.

"The Theory of Adsorption," by Irving Langmuir.

"The Law of Stokes and the Removal of Particles from Fluids," by W. W. Strong.

"Ionization Potential of an X-ray Tube," by E. C. Drew. (Introduced by Horace C. Richards.)

"Parson's Magneton Theory of Atomic Structure," by David L. Webster.

"A Conducting Paint," by M. James.

"Mechanical Strain and Thermo-electric Power," by Walter P. White.

"Recent Results and Conclusions Regarding Specific Heats at Moderate and High Temperatures," by Walter P. White. (By title.)

"Geometrical Tripods and Stands," by Lyman J. Briggs.

"Changes in Electrical Resistance Accompanying Thermal Expansion," by Arthur W. Gray.

"The Ballistic Use of a Moving Coil Galvanometer in Measuring Discharges Obeying the Exponential Decay Law," by A. G. Worthing.

"The Mobilities of Ions in Air," by E. M. Welisch.

"The Effect of a Magnetic Field on the Initial Recombination of the Ions Produced by X-rays," by J. E. M. Jauncey. (By title.)

"An Accurate Method for the Measurement of the Conductivity of Electrolytes," by W. A. Taylor and H. L. Curtis. (By title.)

The thanks of the society were extended to the Washington members for the lunch generously provided on Saturday for all visiting physicists and to the Bureau of Standards for numerous courtesies extended.

On Friday evening a large number of the members in attendance dined together at the Cosmos Club. This pleasant feature was arranged for and carried out by Dr. L. J. Briggs of the Bureau of Plant Industry.

The attendance at all sessions was good, and there was considerable profitable discussion of papers. On account of the length of the program, a number of local members courteously yielded their time to others and presented their papers by title only.

A. D. COLE,
Secretary

THE ENTOMOLOGICAL SOCIETY OF AMERICA

THE ninth annual meeting of the Entomological Society of America was held at the University of Pennsylvania on December 31, 1914, and January 1, 1915, in affiliation with the American Association for the Advancement of Science. The meetings were all well attended, but from the shortness of the time and the amount of business to be transacted several papers had to be read by title.

The annual public address was delivered on Wednesday evening, December 30, at the Academy of Natural Sciences by Professor Stephen A. Forbes, of the University of Illinois, on the subject: "Ecological Foundations of Applied Entomology." At the same meeting Dr. Henry Skinner, of the Academy of Natural Sciences, gave "A History of the Entomological Society of America." The visiting entomologists were entertained by the local entomologists at a smoker after the addresses.

The following papers were presented:

"Food Habits of Some Colorado Aphids," by C. P. Gillette.

"The Poison Glands of *Automeris io* Fabr.," by Cornelia F. Kephart.

"Geographical Distribution of Neuropteroid Insects, together with Analysis of Our Insect Fauna," by Nathan Banks.

"The Biology of *Nymphula maculalis* Clemens," by Paul S. Welch. Read by title.

"Modification of Tiger-beetle Colors by Temperature and Moisture," by V. E. Shelford.

"Life-history, Development and Work of Unspotted Tentiform Leaf-miner of Apple," by L. Haseman. Read by title.

"Pupal Characters Used in the Classification of the Sphingidae," by Edna Mosher. Presented by the secretary.

"Results of Twenty-five Years' Collecting of the Tachinidæ," by J. M. Aldrich.

"Notes on Capsid Life-histories," by Mortimer D. Leonard.

"Notes on the Life-histories of Certain Membracidæ," by W. D. Funkhouser.

"A Photographic Record of the Development of the Female *Lepidosaphes ulmi* Linn.," by R. A. Cooley.

"On Proper Generic Concepts," by C. H. Tyler Townsend.

"The Homology of the Genitalia of *Benacus griseus*," by Anna Grace Newell.

"The Nemocera not a Natural Group of Diptera," by Frederick Knab.

"Studies on the Morphology of the Head and Mouth-parts of Diptera," by Alvah Peterson. Read by title.

"Interpretation of the Codling-moth Data from Colorado," by C. P. Gillette.

"Modification of the Color Patterns of *Cicindela* by Temperature and Moisture," by V. E. Shelford. Read by title.

"Suggestions for Discovering Affinity and Phylogeny," by Nathan Banks.

"Insect Notes from Colorado," by C. P. Gillette.

"The Modification of the Subcostal Vein in the Wings of Insects," by Alex. D. MacGillivray. Read by title.

"The Olfactory Sense of Coleoptera," by N. E. McIndoo.

"The Ecology of Plague," by James Zetek. Read by title.

"Importance of Observations Apparently Unimportant," by F. M. Webster. Read by title.

"Life-history Studies on the Cercopidæ and Jassidæ," by Herbert Osborn.

"An Insect Enemy of the Four-lined Leaf-bug," by C. R. Crosby. Read by title.

The greater part of the morning of the first was devoted to the business meeting at which was reported the election of Rev. Charles J. S. Bethune, Professor John Henry Comstock, Professor Charles Henry Fernald and Mr. Eugene Amandus Schwarz as honorary fellows.

The following members were elected as fellows: Nathan Banks, J. Chester Bradley, W. E. Britton, C. T. Brues, H. T. Fernald, Glenn W. Herrick, J. S. Hine, O. A. Johannsen, A. L. Melander, A. P. Morse, P. J. Parrott, Edith M. Patch, A. L. Quaintance, J. A. G. Rehn, W. A. Riley, Annie

Trumbull Slosson, E. M. Walker, H. F. Wickham and E. B. Williamson.

One of the most important features of the meeting was the establishment of the Thomas Say Foundation. A serial for the publication of works dealing with American systematic entomology of such size as to preclude of their publication in the ordinary channels. The publication was placed in the charge of a temporary committee consisting of J. M. Aldrich, Nathan Banks, Morgan Hebard, E. P. Van Duzee and Alex. D. MacGillivray.

The following officers were elected for 1915:

President—Professor Lyman V. Kellogg, Leland Stanford Junior University.

First Vice-president—Professor James S. Hine, Ohio State University.

Second Vice-president—Mr. J. M. Aldrich, U. S. Bureau of Entomology.

Secretary-treasurer—Alex. D. MacGillivray, University of Illinois.

Additional Members of the Executive Committee—Mr. C. T. Brues, Bussey Institution; Professor William A. Riley, Cornell University; Professor T. D. A. Cockerell, University of Colorado; Mr. J. A. G. Rehn, Philadelphia Academy of Natural Sciences, and Professor A. L. Melander, Washington Agricultural College.

Member of Committee on Nomenclature—Nathan Banks, U. S. Bureau of Entomology.

The society decided to hold a summer meeting in August at San Francisco in affiliation with the American Association and the annual meeting in December at Columbus,

ALEX. D. MACGILLIVRAY,

Secretary

INDIANA ACADEMY OF SCIENCE

THE Indiana Academy of Science held its thirtieth annual meeting in Indianapolis, December 4-5. The attendance was the largest and the interest the greatest in many years. Over 100 new members were added to the roll this year. The following papers were presented:

"Science in Its Relation to Conservation of Human Life," address by the retiring president, Mr. Severance Burrage.

Symposium: Some Scientific and Practical Aspects of the Problem of Feeble-mindedness.

"The Feeble-minded Family," by Amos W. Butler.

"The Problem of Feeble-mindedness," by Dr. G. S. Bliss.

"The Feeble-minded and Delinquent Boy," by Dr. F. E. Paschal.

"The Feeble-minded and Delinquent Girl," by Dr. E. E. Jones.

"Feeble-mindedness in the Public School," by Miss Katrina Myers.

"The Alcohol Problem in the Light of Coniosis," by Robert Hessler.