W. B. Fite: "Some theorems concerning groups whose orders are powers of a prime." L. L. Smail: "Some generalizations in the the-

ory of summable divergent series.'' C. E. Love: "On the asymptotic solutions of

C. E. Love: "On the asymptotic solutions of linear differential equations." Virgil Snyder: "Algebraic surfaces invariant under an infinite discontinuous group of birational transformations (second paper)." L. L. Silverman: "On the equivalence of defini-

tions of summability."

R. M. Winger: "Self-projective rational curves of the fourth and fifth order."

The next meeting of the society will be held at Columbia University on Saturday, February 22.

> F. N. COLE. Secretary

## THE OHIO ACADEMY OF SCIENCE

THE twenty-second annual meeting of the Ohio Academy was held at Ohio State University, Columbus, O., on November 28, 29 and 30, the president of the society, Professor Bruce Fink, of Miami University, presiding. On Thursday evening an informal reception was given at the Ohio Union Club, where assignment of rooms were made to the visiting members, and a pleasant social period was thoroughly enjoyed by all. The sessions on Friday and Saturday were in the general lecture room of the Physics Building.

The address of President Fink on "Botanical Instruction in Colleges" occurred at 1:30 P.M., Friday, while the evening was given up to a dinner and smoker.

The complete program follows:

"New and Rare Plants added to the Ohio List in 1912," J. H. Schaffner.

"Some Applications of Biometry to Agricultural Problems," A. G. McCall.

"The Influence of Topography on Bird Migrations," Lynds Jones.

"Experiments in Fertilization," R. A. Budington.

"Heredity (Eugenics)," W. F. Mercer.

"The Ohio Biological Survey," Herbert Osborn. "Notes on some Rare Ohio Mosses," Clara G. Marks.

"Effect of Road Oil on Rubber Tires," Errol L. Fox and Chas. P. Fox.

"Notes on Ohio Oaks," W. R. Lazenby.

"The Mississippian-Pennsylvanian Unconform-

ity and the Sharon Conglomerate," G. F. Lamb. "The Primary Motor Column of the Central

Nervous System of Amblystoma and its Relation to the Motor Nerves," C. E. Coghill.

"Note on the Tactile Reactions of some Orbweaving Spiders in their Webs," W. M. Barrows.

"Balanoglossus and the Origin of the Central Nerve Tube in Vertebrates," M. M. Metcalf.

"Additions to the Cedar Point Flora," E. L. Fullmer.

"Seeds and Seedling of some Forest Trees," W. R. Lazenby.

"Lorain County Myxomycetes," F. O. Grover. "The Cerebral Ganglia of the Frog Tadpole,"

F. L. Landacre and Marie F. McLellan.

"An Ancient Lake in Ohio with Unlevel Shorelines," Geo. D. Hubbard.

"Terraces associated with the Terminal Moraine near Delafield, Wisconsin," C. G. Shatzer.

"An Ecological Study of Forest Types near Columbus," F. B. H. Brown.

"Algæ of Lorain County, Ohio, with Notes on their Distribution," Susan P. Nichols.

"Yerba Mate (Paraguay Tea)," Chas. P. Fox. "Mississippian Conglomerates in Northern Ohio," G. F. Lamb.

"Charts illustrating Feeble-mindedness," W. F. Mercer.

"A Supernumerary Appendage in Otocryptops sexspinosus, and a Theory of Heterorhythmic Development," L. B. Walton.

"The Soaring Flight of Birds," Lynds Jones. "The Aquarium at the Naples Station," Stephen R. Williams.

"Geography of the Balkan Peninsula" (lantern slides), N. M. Fenneman.

"A Botanical Survey of the Sugar Grove Region" (lantern slides), Robert Griggs.

"The Fauna of the Conemaugh Formation," Clara G. Marks.

"A Preliminary Report on the Crayfishes of Ohio,'' C. I. Turner.

"Induced Modifications in the Pigment Development of Spelerpes Larvæ," A. M. Banta.

"Review of the Genus Dero (Aquatic Oligochates) with a Description of Two New Species," L. B. Walton.

"The Composition of a Typical Prairie," J. H. Schaffner.

"A List of Plants Collected in Cuyahoga County and New to the County or to Ohio," Edo Claassen.

"The Effects of Changes in Sea Beds on the Fauna and Lithology of the Richmond Period," G. M. Austin.

"The Application of Physics to Agriculture," A. G. McCall.

"The Resistance of Aluminum Oxide Films," H. E. Graber.

"The Differentiation of Diffraction Effects from the Extra Transmission of Electric Waves," C. R. Weinland.

"The Spectrum of Cored Carbons," C. D. Coons. "The Effect of a Constriction in a Discharge Tube," R. F. Earhart.

"The Production of Light by the Firefly," C. R. Fountain.

"The Hall Effect and Allied Phenomena in Magnetic Alloys," A. W. Smith.

"Twist in Nickel and Steel Rods due to a Longitudinal Magnetic Field," S. R. Williams.

"The Effects of Temperature and Potential on the Thermionic Emission Heated Wires," Charles Sheard.

"The Scattering of Gamma Rays by Matter," S. J. Allen.

"Some Peculiarities of the High Frequency Graphite Arc," A. D. Cole.

## DEMONSTRATIONS

Charts showing Distribution of Mitosis in the Central Nervous System of *Amblystoma* as Correlated with Functional Development, G. E. Coghill and S. W. Camp.

A Supernumerary Appendage in Otocryptops sexspinosus (Chilopoda), L. B. Walton.

Fine Crystals of Hopeite and of Tarhuttite, Two Rare Hydrous Phosphates of Zinc from Africa, Geo. D. Hubbard.

Maps and Diagrams Illustrating an Ecological Study of Forest Types, F. B. H. Brown.

The committee on the State Biological Survey reported that a definite organization had finally been accomplished through the cooperation of twelve educational institutions of the state and that a limited fund would at once be available toward beginning the work. The survey will be in charge of the director, Professor Herbert Osborn, of Ohio State University, and an administrative board consisting of a representative from each cooperating institution. The report was accepted and the committee dismissed.

The society adopted resolutions expressing its sense of loss in the death of three members during the year, Dr. Joshua Lindahl, Dr. P. A. Hobbs and Dr. H. L. True. Dr. Lindahl served the society as its president in 1900, and during his residence in Ohio had always taken an active interest in the success of the academy.

A resolution requesting legislation along the following lines was also adopted:

Resolved, that it is the sense of this academy that the legislature of Ohio should pass a law designed to make it impossible for the insane, the feeble-minded and the confirmed criminals to propagate their kind. That to this end we commend to its attention and study the laws providing for sterilization already in force in six of the United States. That copies of this resolution be sent to the several county and city medical societies of Ohio, asking their cooperation in the accomplishment of this purpose.

After adopting additional resolutions expressing the appreciation of the society for the courtesies extended by the faculty and others connected with the university, and furthermore thanking Mr. Emerson McMillan, of New York, for his continued donations to the research funds of the society, the academy adjourned to meet at Oberlin next November.

A department of physics was organized and 21 new members added, making the total membership 214.

The following officers were elected for the coming year:

President—Professor L. B. Walton, Kenyon College, Gambier, Ohio.

Vice-presidents—(Zoology) Professor Charles Brookover, Buchtel College, Akron, Ohio; (Botany) Professor F. O. Grover, Oberlin College, Oberlin, Ohio; (Geology) Professor August Foerste, Dayton, Ohio; (Physics) Dr. T. C. Mendenhall, Ravenna, Ohio.

Secretary—Professor E. L. Rice, Ohio Wesleyan University, Delaware, Ohio.

Treasurer—Professor J. S. Hine, Ohio State University, Columbus, Ohio.

Librarian—Professor W. C. Mills, Ohio State University, Columbus, Ohio.

Executive Committee—(ex-officio) Professor L. B. Walton, Gambier, Ohio; Professor E. L. Rice, Delaware, Ohio; Professor J. S. Hine, Columbus, Ohio; (elective) Professor S. J. Allen, University of Cincinnati, Cincinnati, Ohio; Professor C. G. Shatzer, Wittenberg College, Springfield, Ohio.

Board of Trustees-Professor W. R. Lazenby, Ohio State University, Columbus, Ohio.

Publication Committee-Professor J. H. Schaffner, Ohio State University, Columbus, Ohio.

> L. B. WALTON, Secretary

GAMBIER, OHIO, December 4, 1912.