

"The Excretion of Salicylate in Various Clinical Conditions," by R. W. Scott (by invitation), T. W. Thoburn (by invitation) and P. J. Hanzlik.

"Salicylate Oedema," by R. W. Scott (by invitation), J. L. Reyecraft (by invitation) and P. J. Hanzlik.

"The Favorable, Antagonistic Effect of Magnesium Sulphate against Poisonous Doses of Sodium Oxalate," by F. L. Gates and S. J. Meltzer.

"Further Observations on the Pathological Changes in the Tissues of the Rabbit, as a result of Reduced Oxidation," by G. H. Martin (by invitation), C. H. Bunting (by invitation) and A. S. Loevenhart.

DECEMBER 29, 2.00-5.00 P.M.

*Joint Demonstrations by the Pharmacological and Physiological Societies*

"A Signal Magnet which writes either upwards or downwards," by W. Hale.

"Some New Apparatus," by D. E. Jackson.

"An Improved Lever for Frog's Heart and Muscle Strips," by A. H. Ryan.

"The Inhibitory Effect of Stimulation of the Central End of the Vagus Nerve upon the Contractions of an Active Expiratory Muscle in the Chicken," by A. L. Meyer (by invitation).

"Demonstration of a Gas-Analysis Apparatus," by Yandell Henderson.

"The Motion Picture as an Aid in Teaching Physiology," by J. A. E. Eyser and W. J. Meek.

"Pathescope Films used to illustrate Physiological Demonstrations to Students," by Alexander Forbes.

"Motor Phenomena of the Stomach and Cap as observed Roentgenographically," by Gregory Cole (by invitation).

"Photographs representing the Growth of Chickens Fed with Definite Mixtures of Food-stuffs under Laboratory Conditions which have heretofore not led to Success," by Thomas B. Osborne and Lafayette B. Mendel.

"Microscopic Demonstration of Absence of Chromatolytic Change in the Central Nervous System of the Woodchuck (*Marmota Monax*)," by A. T. Rasmussen (by invitation) and J. A. Myers (by invitation).

"Glycogen in the Blood Vessels of the Liver," by G. Carl Huber and J. J. R. Macleod.

"A Method of Recording Fundamental Heart Sounds Directly from the Heart," by Carl J. Wiggers and A. Dean, Jr. (by invitation).

"Exhibit of Photographically Recording Apparatus for studying the Dynamics of the Circulation," by Carl J. Wiggers.

DECEMBER 30, 9.30-12.00 M.

"Studies on Tolerance and Cumulation: Experiments with Tartrates, Citrates and Oxalates," by W. Salant and A. M. Swanson (by invitation).

"The Effect of Morphin and Opium on Psychological Reaction Time," by D. I. Macht and S. Isaacs (by invitation).

"On the Drug-fastness of Spirochætæ against Certain Arsenical, Mercurial and Iodid Compounds in Vitro," by H. Noguchi and S. Akatsu (by invitation).

"On the Relative Toxicity of Salvarsan and Neosalvarsan," by L. Pearce and W. H. Brown.

"The Action of Ethylenediamin," by H. G. Barbour and A. M. Hjort (by invitation). (Read by title.)

"The Influence of Eserin upon the Partially Excised Sphincter Pupillæ," by D. R. Joseph.

"The Mutually Antagonistic Actions of Adrenin and Eserin upon the Sphincter Pupillæ," by D. R. Joseph.

"The Effects of Pituitrin and of Adrenin of the Pupil of Gangliectomized Rabbits," by T. S. Githens and S. J. Meltzer.

"The Prolonged Reaction of the Blood Vessels of the Rabbit's Ear to the Local Injection of Adrenin," by J. Auer and S. J. Meltzer.

"The Effect of Ergotoxin on the Temperature of Rabbits," by T. S. Githens.

"A Respiratory Factor in the Production of Adrenin Pulmonary Oedema in Rabbits," by F. L. Gates and J. Auer.

At the second executive session of the society on Friday noon, December 29, a vote of thanks was unanimously tendered the authorities of Cornell Medical School for their hospitality and efficient arrangements and to the local committee for its efforts in behalf of the visiting members and guests.

JOHN AUER,  
Secretary

ROCKEFELLER INSTITUTE

## SOCIETIES AND ACADEMIES

### THE TENNESSEE ACADEMY OF SCIENCE

THE seventh meeting (fifth annual meeting) of the Tennessee Academy of Science was held on December 1, 1916, at George Peabody College for Teachers, Nashville, Tenn. President Samuel M. Bain presided. The following papers were read and discussed:

"The Development of Transportation on the Great Lakes," by Professor A. E. Parkins, Peabody College, Nashville.

"An Apparatus for Moisture Determination,"

by Professor A. S. Eastman, University of the South, Sewanee.

"Chemists' Present Opportunities and Duties," by Dr. J. I. D. Hinds, Castle Heights School, Lebanon.

"Some Practical Applications of Bacteriological Research," by Dr. Herman Spitz, Nashville.

"The Raison d'être of the Tennessee Academy of Science," by Dr. Samuel M. Barton, University of the South, Sewanee.

"The Origin of Reelfoot Lake," by Dr. A. H. Purdue, State Geological Survey, Nashville.

"Following the Compass across Sahara," by Dr. D. W. Berky, University of the South, Sewanee.

"James M. Safford," by Dr. J. T. McGill, Vanderbilt University, Nashville.

"West Indian Hurricanes: Their Origin, Movement and Extent," by Roscoe Nunn, U. S. Weather Bureau, Nashville. (Discussed by R. S. Maddox, State Forester, Nashville.)

Annual address of the president: "The Interrelation of Plant and Animal Pathology," by Professor Samuel M. Bain, University of Tennessee, Knoxville.

The election of officers for the ensuing year resulted as follows:

*President*, Samuel M. Barton, University of the South, Sewanee, Tenn.

*Vice-president*, Archibald Belcher, Middle Tennessee State Normal School, Murfreesboro, Tenn.

*Editor*, A. H. Purdue, State Geologist, Nashville, Tenn.

*Secretary-Treasurer*, Roscoe Nunn, U. S. Weather Bureau, Nashville, Tenn.

The president appointed as members of the executive committee, Dr. Brown Ayres, University of Tennessee, Knoxville, Tenn., and Dr. John T. McGill, Vanderbilt University, Nashville, Tenn.

ROSCOE NUNN,  
*Secretary*

NASHVILLE, TENN.

#### THE BIOLOGICAL SOCIETY OF WASHINGTON

THE 560th meeting of the society was held in the Assembly Hall of the Cosmos Club, Saturday, November 18, 1916, called to order by President Hay at 8 P.M. with 86 persons in attendance.

On recommendation of the council, Irwin Hoffmann was elected to active membership.

Under the heading, brief notes, exhibition of specimens, Dr. O. P. Hay exhibited one of the cervical vertebrae of a deer from a deposit in Florida. He called attention to the fact that the

remains of Florida deer have usually been referred to the existing species, *Odocoileus osceola*. A comparison of this vertebra with the corresponding one from recent deer, other than the Florida deer, showed that possibly the extinct Florida deer was a different species from the existing deer. Dr. Hay said that there were no examples of cervical vertebrae of Florida deer for making comparisons, and until such examples were seen the identification of the extinct deer must remain doubtful.

Under the same heading Dr. Paul Bartsch called attention to a hybrid duck which he had lately seen exposed for sale in the markets. It was a cross between the black mallard and the domestic duck.

The regular program consisted of two papers:

H. Pittier: "Forests of Panama," illustrated by lantern slides.

Professor Pittier gave first a condensed review of the results to the present date of the botanical part of the biological survey of Panama, undertaken under the auspices of the Smithsonian Institution. Then he showed how the distribution of the main ecological types of vegetation is dependent upon the régime of the winds and of the rainfall. Mixed dicotylous forests cover at least six tenths of the area of the Isthmus, the rest being occupied by savannas and park-like formations. Rain-forests with evergreen foliage extend over the entire northern watershed and part of Darien on the south side. Other forests of the southern slope belong to the type called monsoon-forest and are characterized by the presence of many species with deciduous foliage. The xerophytic character of the vegetation is more marked in the broken forests of the savanna-belt, without, however, assuming an extreme degree. The change in the composition of the vegetation with the increase in altitude has been dwelt upon by several travelers and botanical explorers of the Isthmus; it is very gradual but nevertheless very radical. Several genera of trees observed at high altitudes are gregarious; there are, for instance, oak-forests, subtropical or even temperate in their general appearance. Lantern slides illustrating types of forest, or of individual trees and flowers, were shown at the conclusion of the lecture.

J. H. Paine: "Scientific Photography in the Study of Insects," illustrated by lantern slides.

During the last half of the meeting Dr. H. H. T. Jackson was acting secretary.

M. W. LYON, JR.,  
*Recording Secretary*