SCIENCE

176. The total attendance of members at the ten meetings of the year was 350; 192 members attended at least one meeting. The total membership of the society is now 547, a gain of 43 during the year.

The publication of the New Haven colloquium lectures, delivered at the last summer meeting, has been generously undertaken by Yale University. The volume will probably appear next fall.

The following papers were read at the meeting:

S. E. SLOCUM: 'The rational basis of mathematical pedagogy.'

F. L. GRIFFIN: 'On the law of gravitation in binary systems.'

JAMES MCMAHON: 'A differential property of the lamellar vector field.'

J. I. HUTCHINSON: 'A method of constructing the fundamental region of a discontinuous group of linear transformations.'

JAMES PIERPONT: 'Multiple integrals.'

OSWALD VEBLEN: 'Collineations in a finite projective geometry.'

W. R. LONGLEY: 'Some particular solutions in the problem of n bodies.'

MAX MASON: 'The expansion of an arbitrary function in terms of normal functions.'

R. D. CARMICHAEL: 'On Euler's  $\phi$ -function.'

ARTHUR RANUM: 'On the group of classes of congruent matrices.'

W. B. CARVER: 'Sets of quadric spreads connected with the configuration  $\Gamma_{n,r}$ .

C. J. KEYSER: 'Circle range transversals of circle ranges in a plane: a problem of construction.'

C. J. KEYSER: 'Concerning the analytic treatment of geometric involution.'

A. B. COBLE: 'A generalization of the plane Hesse configuration.'

A. B. COBLE: 'Involutory Cremona transformations.'

W. E. STORY: 'Denumerants of double differentiants.'

VIRGIL SNYDER: 'Birational transformations of curves of high genus.'

T. E. MCKINNEY: 'On the continued fractions representing properly and improperly equivalent real numbers in a system of continued fractions depending on a variable parameter.'

H. E. HAWKES: 'On elementary divisors.'

E. B. WILSON: 'Rotations in higher dimensions.'

EDWARD KASNER: 'Systems of extremals in the calculus of variations.'

EDWARD KASNER: 'The motion of a particle in a resisting medium.'

**R. P. STEPHANS:** 'Note on a system of curves of class n and order 2(n-1).'

D. E. GILLESPIE: 'On the construction of an integral of Lagrange's equation in the calculus of variations.'

F. R. SHARPE: 'The general circulation of the atmosphere.'

The following papers from the program of Section A of the American Association for the Advancement of Science were also laid before the society:

G. B. HALSTED: 'The sect carrier and the set sect.'

HARRIS HANCOCK: 'On a fundamental theorem of Weierstrass by means of which the theory of elliptic functions may be established.'

G. A. MILLER: 'On the minimum number of operations whose orders exceed two in any finite group.'

The informal dinner, always arranged in connection with each meeting of the society, adds much to the pleasure of these occasions. Despite the many distractions incident to the general gathering of scientists, over forty members attended the dinner on Friday evening and passed a few pleasant hours in social intercourse and renewal of old acquaintance.

The Chicago Section met on the same days as the society. The next meeting of the society, and also of the San Francisco Section, falls on Saturday, February 23.

> F. N. Cole, Secretary

THE AMERICAN PHYSIOLOGICAL SOCIETY

At the meeting of the society, held in New York City, December 27, 28 and 29, the following officers were elected:

President—William H. Howell, Johns Hopkins University.

Secretary-Lafayette B. Mendel, Sheffield Scientific School, Yale University.

Treasurer-Walter B. Cannon, Harvard Medical School. Additional Members of the Council-Graham Lusk, University and Bellevue Hospital Medical College; John J. Abel, Johns Hopkins University.

The following were elected to membership:

Dr. Roswell Parker Angier, instructor in psychology, Yale University.

Dr. Philip A. Shaffer, instructor in pathological Chemistry, Cornell University Medical School.

Dr. Alexis Carrel, The Rockefeller Institute for Medical Research.

Dr. Eugene L. Opie, associate of the Rockefeller Institute for Medical Research.

Dr. Charles George Lewis Wolf, instructor in physiological chemistry, Cornell University Medical School.

Dr. Howard Davis Haskins, instructor in organic and physiological chemistry, Medical Department, Western Reserve University.

Dr. Donald R. Hooker, assistant in physiology, Johns Hopkins University.

Dr. John A. English Eyster, instructor in physiology, Johns Hopkins University.

Dr. John Raymond Murlin, assistant professor in physiology, University and Bellevue Hospital Medical College.

Dr. Ross Granville Harrison, associate professor of anatomy, Johns Hopkins University.

## PROGRAM

### Wednesday, December 26, 8:30 P.M.

Smoker, at the Murray Hill Hotel, Park Avenue and Forty-first Street.

### Thursday, December 27, 10 A.M.

Physiological Laboratory, the University and Bellevue Hospital Medical College, Twenty-sixth Street and First Avenue.

General business. Reading of papers.

R. H. CHITTENDEN: 'The Minimal Proteid Requirement of Some High Proteid Animals.'

G. T. KEMP and L. D. HALL: 'The Formation of Fat in Animals Fattened for Slaughter.'

W. P. LOMBARD: 'The Rate of Loss of Weight of Normal Man.'

G. LUSK: 'The Influence of Mechanical Work in Phlorhizin Diabetes.'

J. R. MURLIN (by invitation): 'The Sparing Action of Gelatin.'

P. A. SHAFFER (by invitation): 'The Effect of Muscular Activity on Kreatinin Excretion; with Preliminary Observations on the Excretion of Kreatinin in Health and Disease.' O. FOLIN: 'The Occurrence and Formation of Alkylamines and Alkylureas.'

W. SALANT: 'The Formation of Sugar from Amino-acids.'

G. B. WALLACE and J. S. DIAMOND: 'The Effects of Cocaine on the Liver.'

W. SALANT and G. M. MEYER: 'On the Elimination of Radium in Normal and Nephrectomized Animals.'

W. KOCH: 'The Relation of Inorganic Salts to Lecithin and Kephalin.'

C. L. ALSBERG, L. J. HENDERSON, H. B. WEBSTER and R. FITZ: 'Contributions to the Physiology of the Phosphates.'

C. L. ALSBERG and G. W. HALL: 'Concerning Glycolysis.'

A. S. LOEVENHART, G. PEIRCE and C. G. SOUDER: 'Some New Observations on the Action of Lipase.'

J. R. MANDEL and P. A. LEVENE: 'Nucleins of Codfish Roe.'

J. A. MANDEL and P. A. LEVENE: 'Glucothionic Acid in Pus.'

The secretary presented the question of proteid nomenclature for discussion.

The election of the council was held at 12 M.

### Friday, December 28, 10 A.M.

Physiological laboratory, the College of Physicians and Surgeons, 437 West Fifty-ninth Street. General business. Reading of papers.

C. F. HODGE and O. P. DELLINGER: 'Functions and Structures in Amæba proteus.'

J. DAWSON (by invitation): 'Physiological Reactions of *Physa.*'

R. S. LILLIE: 'Production of Artificial Parthenogenesis in *Asterias* Through Momentary Raising of Temperature.'

E. P. LYON and O. P. TERRY: 'Preliminary Report on the Enzymes of Unfertilized and Fertilized Eggs.'

G. N. STEWART: 'Experiments on Resuscitation.'

Y. HENDERSON: 'Artificial Regulation of the Heart-rate.'

J. ERLANGER and J. R. BLACKMAN: "On the So-called 'Ligature of Stannius in the Mammalian Heart.'"

A. J. CARLSON: 'On the Mechanism of the Socalled Refractory Period of the Heart.'

A. J. CARLSON: 'On the Relation of the Normal Rhythm to the Sodium Chloride Rhythm of the Heart.'

W. T. PORTER: 'Vasomotor Reflexes.'

C. W. EDMUNDS: 'The Influence of the Digitalis Series up the Velocity of the Blood Stream.' F. S. LEE: 'The Cause of the Treppe.'

F. S. LEE: 'Methods of Studying Fatigue.' (A demonstration.)

C. L. ALSBERG: 'Demonstration of the Adiabatic Calorimeter of Richards, Henderson and Frevert.'

The election of new members was held between twelve and one o'clock.

The afternoon session was devoted to informal demonstrations.

Saturday, December 29, 10 A.M.

Rockefeller Institute for Medical Research, Sixty-sixth Street and Avenue A.

Joint session with the Section (K) of Physiology and Experimental Medicine of the American Association for the Advancement of Science.

R. M. YERKES: 'The Functions of the Ear of the Dancing Mouse.'

S. J. MELTZER and J. AUER: 'The Effect of Section of one Vagus upon the Secondary Peristalsis of the Œsophagus.'

F. P. UNDERHILL and L. B. MENDEL: 'On the Alleged Adaptation of the Salivary Glands to Diet.'

C. H. NEILSON (by invitation): 'Adaptation of Saliva to Diet.'

W. KOCH and H. S. REED: 'The Effect of Phosphorus Starvation on Aspergillus niger.'

W. J. GIES: 'New Chemical Facts about Tendon and Compound Proteins.'

W. J. GIES and W. N. BERG: 'A Further Study of Peptolysis.'

L. LOEB (by invitation): 'The Action of Blood Serum and Tissue Extracts on the Coagulation of the Blood.'

W. B. CANNON: 'Some Observations on the Esophagus after Bilateral Vagotomy.'

L. B. STOOKEY and M. MORRIS: 'Concerning the Pharmacological Action of Salicylic Acid.'

P. A. LEVENE and J. E. SWEET: 'Nuclein Metabolism Experiment on a Dog with Eck's fistula.'

P. A. LEVENE, W. A. BEATTY, D. R. MACLAURIN and C. H. RUILLER: 'Protein Analysis.'

J. AUER: 'Demonstration of Normal Gastric Peristalsis in the Rabbit.'

J. AUER and S. J. MELTZER: 'Peristalsis of the Rabbit's Cæcum' (with demonstration).

A. CARREL (by invitation): 'Preservation of Blood Vessels in Cold Storage.'

S. J. MELTZER: 'Demonstration of the Failure of Regeneration of the Cervical Ganglion Twentysix Months after its Removal.'

The members of the society were invited to luncheon on Thursday, Friday and Saturday, at one o'clock. A scientific exhibition was held at the American Museum of Natural History during convocation week, under the auspices of the New York Academy of Sciences. The purpose of the exhibition is to collect and demonstrate objects showing the most recent advances in the different departments of science. The Committee on Physiological Exhibit consisted of William J. Gies, chairman; Joseph Erlanger, William H. Howell, Frederic S. Lee, Jacques Loeb, Warren P. Lombard, Graham Lusk, S. J. Meltzer, Lafayette B. Mendel, William T. Porter, Edward T. Reichert, G. N. Stewart.

The next meeting of the society will be held in conjunction with the Congress of American Physicians and Surgeons in Washington, May, 1907.

> LAFAYETTE B. MENDEL, Secretary

# THE AMERICAN SOCIETY OF VERTEBRATE PALEONTOLOGISTS

THE fifth annual meeting of the American Society of Vertebrate Paleontologists was held in the American Museum of Natural History, New York City, on Wednesday and Thursday, December 26 and 27, 1906. The following members were present:

Mr. Barnum Brown, American Museum of Natural History, New York City, N. Y.

Dr. Bashford Dean, Columbia University, New York City, N. Y.

Dr. Marcus S. Farr, Princeton University, Princeton, N. J.

Mr. J. W. Gidley, U. S. National Museum, Washington, D. C.

Mr. Walter Granger, American Museum of Natural History, New York City, N. Y.

Mr. W. K. Gregory, American Museum of Natural History, New York City, N. Y.

Dr. O. P. Hay, American Museum of Natural History, New York City, N. Y.

Dr. L. Hussakof, American Museum of Natural History, New York City, N. Y.

Professor F. B. Loomis, Amherst College, Amherst, Mass.