

THE AMERICAN PHYSIOLOGICAL SOCIETY

THE twenty-eighth annual meeting of the American Physiological Society was held in conjunction with the constituent societies of the Federation of American Societies for Experimental Biology in the physiological laboratory of the Harvard Medical School, Boston, Mass., December 26 to 29, 1915. There was an unusually large attendance of the members. No less than 63 scientific papers, 23 demonstrations and 4 papers by titles were presented on the program.

The initial joint meeting with the biochemists, pharmacologists and pathologists Monday morning, the twenty-seventh, was opened by a symposium on "Food Accessories" in which the discussion was led by Drs. L. B. Mendel, E. V. McCollum and Carl Voegtlin. The high scientific excellence of this first joint meeting is indicated by the list of names of participants, namely, W. H. Howell, Jacques Loeb, W. B. Cannon, Otto Folin, A. L. Meyer, E. K. Marshall, Leo Loeb, J. B. Murphy and Harvey Cushing.

The complete list of papers and demonstrations is as follows:

Symposium.—"Food Accessories." Discussion opened by T. B. Osborne and L. B. Mendel, Casimir Funk, E. V. McCollum, Carl Voegtlin.

"The Formation and Structure of the Fibrin Gel," by W. H. Howell.

"Experiments on the Mechanism of Osmosis," by Jacques Loeb.

"Further Observations on Over-activity of the Cervical Sympathetic," by W. B. Cannon and R. Fitz (by invitation).

"Some New Observations on the Uric Acid Content of the Blood," by Otto Folin and R. D. Bell (by invitation) with the assistance of G. Le B. Foster.

"On Continuous Insufflation Through the Humerus in Fowl," by A. L. Meyer (by invitation) and S. J. Meltzer.

"The Influence of the Adrenals on the Kidney," by E. K. Marshall and D. M. Davis (by invitation).

"Heredity and Internal Secretion in the Origin of Cancer in Mice," by Leo Loeb.

"The Effect of X-rays on Cancer Immunity," by James B. Murphy.

"The Presence of Posterior Lobe Secretion in the Cerebro-spinal Fluid," by Harvey Cushing and Gilbert Horrax (by invitation).

"The Influence of Gastrectomy on Subsequent Pancreatectomy in Dogs," by J. R. Murlin and J. E. Sweet.

"The Distribution of Suprarenin-yielding Tissue in Different Animals," by M. E. Fulk (by invitation) and J. J. R. Macleod.

"The Action of Minimal Doses of Adrenalin," by Walter J. Meek.

"The Effects of Suprarenal Feeding on the White Rat," by R. G. Hoskins and Augusta D. Hoskins (by invitation).

"Adrenalin Content of the Blood in Conditions of Low Blood Pressure and 'Shock,'" by E. A. Bedford (by invitation), and H. C. Jackson.

"Rhythmical Changes in the Resistance of Dividing Sea-urchin Eggs to Hypotonic Sea-water," by Ralph S. Lillie.

"Mass-action in the Activating Effect of Butyric Acid on Unfertilized Starfish Eggs," by Ralph S. Lillie.

"The Permeability of Animal and Plant Cells," by W. J. V. Osterhout.

"On the Role Played by Electrolytes in Determining the Permeability of Protoplasm," by G. H. A. Clowes.

"Three Types of Muscular Response in *Sea-anemones*," by G. H. Parker.

"The Relation of Certain Muscles to Oxygen," by F. S. Lee, A. E. Guenther and H. E. Meleney (by invitation).

"Influences Affecting Voluntary Muscular Work—Especially Age and Tobacco," by Warren P. Lombard.

"The Function of the Kidney When Deprived of its Nerves," by Wm. C. Quinby.

"Electrocardiographic Studies in Normal Infants," by Edward B. Krumbhaar.

"The Time Relations of Auricular Systole," by C. J. Wiggers.

"The Movements of the Mitral Valves in Relation to Auricular and Ventricular Systoles," by A. L. Dean (by invitation).

"Further Researches on the Relation of the Chronotropic Action of the Vagus to the Nodal Tissues," by H. Steenbock, J. A. E. Eyster and Walter J. Meek.

"The Tension of Carbon Dioxide and Oxygen in Venous Blood at Rest and at Work," by W. M. Boothby (by invitation) and I. Sandiford (by invitation).

"The Chief Physical Mechanisms Concerned in Clinical Methods of Measuring Blood-pressure," by Clyde Brooks and A. B. Luckhart.

"Haemodynamical Studies," by R. Burton-Opitz.

"The Mechanism of the Arterial Compression Sounds of Korotkoff," by Joseph Erlanger.

"The Responses of the Vaso-motor Mechanism to Different Rates of Stimulation," by Charles M. Gruber.

"Vaso-motor Summations," by E. G. Martin and P. G. Stiles.

"Blood Changes Following Hæmorrhage and Infusion," by Theodore Hough and J. A. Waddell (by invitation).

"Experimental and Clinical Studies on Mental Defectives. III. The Relation of Systolic and Diastolic Blood Pressures and Their Power of Adjustment to Body Position," by A. W. Peters and C. D. Blackburn (by invitation).

"Prolonged Uniform Intravenous Injections," (lantern), by R. T. Woodyatt.

"The Deglutition Center in the Medulla Oblongata," by F. R. Miller.

"Demonstration of the Agglutination of Bacteria in Vivo," by Carroll G. Bull (by invitation).

"A Method of Obtaining Suspensions of Living Somatic Cells of the Higher Animals," by Peyton Rous and F. S. Jones (by invitation).

"Analogous Antagonistic Effects Exerted by Electrolysis and Anesthetics on Physical Systems and Living Cells," by G. H. A. Clowes.

"The Action Current of Glands," by W. B. Cannon and McKeen Cattell (by invitation).

"A New Type of String Galvanometer and Accessory Apparatus," by Horatio B. Williams.

"Apparatus for the Investigation of Cardiodynamics," by Robert Gesell.

"A Circulation Model," by A. L. Prince (by invitation).

"An Improved Slide for Blood Counting," by Theodore Hough.

"A Motor-driven Airblast Interrupter for Artificial Respiration," by W. B. Cannon.

"A Mine Rescue Breathing Apparatus," by Yandell Henderson.

"A Method of Studying Respiration in the Rat," by H. G. Barbour and L. L. Maurer (by invitation).

"Insufflation Through the Humerus in Fowl," by A. L. Meyer (by invitation), and S. J. Meltzer.

"A Simplified Procedure for the Determination of Carbon Dioxide Tension in the Alveolar Air," by W. McK. Marriott.

"A Quantitative Pump for Prolonged Intravenous Injections," by R. T. Woodyatt.

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

"Apparatus for Recording Graphically the Movements of Melanophores," by Raymond Spaeth (by invitation).

"Further Studies on the Elective Localization of Streptococci," by Edward C. Rosenow.

"On Nephelometric Methods; Reagents for the Estimation of Proteins, Nucleic Acids, Purin Bases, Uric Acid, Phosphorus and Ammonia (Graves' Reagent)," by P. A. Kober.

"The Perfected 'Shadow Pupillometer,'" by George W. Fitz.

"A Simple Rheostat for Laboratory Use," by E. G. Martin.

"A Motor Driven Circuit Breaker," by E. G. Martin.

"The Mode of Action of Ultra-violet Radiation in Destroying Hormones, Proenzymes, Enzymes and Living Cells," by W. E. Burge.

"Initial Length, Initial Tension and Tone of Auricular Muscle in Relation to Myo- and Cardiodynamics," by Robert Gesell.

"Is the Contraction of Smooth Muscle Accompanied by Heat-production?" (second communication), by C. D. Snyder.

"The Experiment of Valsalva," by Percy M. Dawson and P. C. Hodges (by invitation).

"Comparative Studies in the Physiology of the Gastric Hunger Contractions in the Amphibia and the Reptilia," by T. L. Patterson (by invitation).

"Localization by Faradic Stimulation in the Floor of the Fourth Ventricle," by F. R. Miller.

"Direct Evidence of Duodenal Regurgitation and its Influence upon the Chemistry and Function of the Normal Human Stomach," by W. H. Spencer (by invitation), G. P. Meyer (by invitation), and P. B. Hawk.

"The Diuretic Action of Tissue Extracts," by Frank P. Knowlton.

"The Appearance of Sugar in the Digestive Secretions in Phloridzin Glycosuria," by Roy G. Pearce.

"The Rapidity with which Alcohol and Some Sugars are Available as Nutriment," by H. L. Higgins.

"Some Results of Studies on Electrical Changes in Glands," by W. B. Cannon and McKeen Cattell (by invitation).

"The Action of the Depressor Nerve on the Pupil," by J. Auer.

"Evidence Showing the Metaphore to be a Disguised Type of Smooth Muscle," by Raymond Spaeth (by invitation).

"The Voluntary Innervation of Skeletal Muscle," by E. G. Martin and R. W. Lovett (by invitation).

"Comparison of the Chemical Changes in the

Central Nervous System in Pellagra and in Animals on an Exclusive Vegetable Diet," by M. L. Koch (by invitation), and Carl Voegtlin.

"A Study of a Lecithin-glucose Preparation," by Ernest L. Scott.

"Effect of Excluding Pancreatic Secretion from the Intestine on the Absorption of Nitrogen and Fat," by Joseph H. Pratt.

"The Fat of the Blood in Relation to Heat-production, Narcosis and Muscular Work," by J. R. Murlin and J. A. Riche (by invitation).

"The Fat and Lipase Content in the Blood in Relation to Fat Feeding and to Fasting," by C. W. Greene and W. S. Summers (by invitation).

"Some Practical Applications of Feeding Experiments with Albino Rats," by Thomas B. Osborne and Lafayette B. Mendel.

"The Influence of Chemical Substances on Immune Reactions, with Special Reference to Oxidation," by Aaron Arkin.

"The Effect of Thyro-parathyroidectomy on the Blood Coagulation Time in the Dog," by Sutherland Simpson and A. T. Rasmussen (by invitation).

"Detection with the String Galvanometer of Afferent Impulses in the Brain-stem and Their Abolition with Ether Anesthesia," by A. Forbes and R. H. Miller (by invitation).

"A Smooth-muscle Nerve Preparation," by C. D. Snyder.

"Cinematograph and Lantern Demonstration of Some Effects of Lesions of the Nervous System," by F. H. Pike.

"On the Secretory Discharge of the Pituitary Body Produced by Stimulation of the Superior Cervical Ganglion," by V. N. Shamoff (by invitation).

"Concerning the Action of Various Pituitary Extracts on the Isolated Intestinal Loop," by V. N. Shamoff (by invitation).

"The Influence of Certain Cereal Foods on the Gastric Secretion," by C. C. Fowler (by invitation), M. E. Rehfuss (by invitation), and P. B. Hawk.

"Changes in the Composition of the Body of Fasting Lobsters," by Sergius Morgulis.

"A Note on the Contractility of the Musculature of Auriculo-ventricular Valves," by Joseph Erlanger.

"The Psychic Secretion of Gastric Juice," by R. J. Miller (by invitation), M. E. Rehfuss (by invitation), and P. B. Hawk.

Notwithstanding the limited time of fifteen minutes allowed for each paper and its discus-

sion, there was sustained interest in the meetings throughout the six sessions. This was contributed to in no small part by the vigorous discussions. The secretary feels that this was one of the most fruitful features characterizing the meetings.

Of the business transactions the most important to the progress of physiological science was the vote to collaborate with the British Physiological Society in the publication of "Physiological Abstracts." It was the feeling that the society owed it to the younger physiologists and to the ever-growing fields of practical research in the subject to make the results of physiological investigation available in the English language.

The Council reported an unusually prosperous year in the publication of the *American Journal of Physiology*, and it was recommended and the society voted to take steps to increase the circulation of the *Journal*, especially among the membership. The hope was expressed that an increased circulation would make possible both a reduction in the cost per volume of the *Journal* to members and an increase in the size of the volumes.

An unusual number of new members were elected as follows: Walter R. Bloor and Walter M. Boothby, Harvard Medical School; Thornton M. Carpenter, Nutrition Laboratory of the Carnegie Institution; George H. Baitsell, A. L. Prince and Reynold A. Spaeth, Yale University; T. S. Githers, Rockefeller Institute; Edward C. Day, Syracuse University; C. K. Drinker, Katherine R. Drinker, E. K. Marshall, George Peirce and D. W. Wilson, Johns Hopkins University; N. R. Blatherwick, Department of Agriculture, Washington; Herbert S. Gasser, University of Wisconsin; Addison Gulick, University of Missouri; C. W. Hooper, Hooper Foundation, San Francisco; Benjamin Kramer, University of Iowa; Walter L. Mendenhall, Dartmouth College; Maud L. Menton, Barnard Skin and Cancer Hospital, St. Louis; S. W. Ranson, Northwestern University.

The officers elected for the ensuing year are: *President*, W. B. Cannon; *Secretary*, C. W. Greene; *Treasurer*, Joseph Erlanger; *Member of the Council for 1916-1919*, W. J. Meek.

A hopeful feature of the meeting was the fact that the attendance persisted through the entire series of six sessions, a fact that was contributed to in no small measure by the active cooperation and boundless hospitality of the "Local Committee."

CHAS. W. GREENE,
Secretary

UNIVERSITY OF MISSOURI,
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