of raw pork products, though, perhaps, on the other hand, it would tend to encourage the custom of eating raw pork among those persons who knew of the existence of a trichina inspection and of its purpose, and thus the good the inspection did in one way would be largely offset by the evil it did in another. The protection afforded by such an inspection would of course apply only to those pork products prepared under federal supervision and would not extend to products prepared in local establishments, or in private homes, even though the pork used came from animals slaughtered in inspected establishments, inasmuch as the special inspection for trichinæ would be given only to those hogs which were expressly intended to be used in the preparation of products of kinds customarily eaten raw. Nor would such an inspection afford any protection from the danger of contracting trichinosis through imperfectly cooked pork, as hogs not intended to be manufactured into products customarily eaten raw would not be inspected for trichinæ. The partial inspection in question, however, would cover the class of pork which seems particularly likely to be the most fertile source of trichinosis in so far as meats originating from establishments under federal inspection are concerned, and the consumer of raw pork products would thus be protected in large measure so long as he limited himself to those products specially labeled as inspected for trichinæ.

The results of the experiments recorded in this article naturally suggest the possibility of substituting refrigeration for microscopic inspection as a prophylactic measure. It is perhaps rather venturesome to express an opinion at the present time as to the extent to which refrigeration might be used practically as a preventive of trichinosis, but, if it be granted that it is desirable to institute measures which will serve to protect the consumer of raw pork products, leaving out of consideration the question of a general microscopic inspection of all hogs slaughtered, it seems to the writer, in view of the defects inherent in microscopic inspection even at its best, that refrigeration (provided the data at present in hand are confirmed by further investigation) promises to afford a means of preventing trichinosis of far greater certainty, easier to apply, and less expensive than any method of trichina inspection yet devised. Instead of a microscopic inspection of the hogs from which raw pork products were to be prepared there would be required simply the refrigeration of the pork at a certain temperature for a certain length of time. It is possible, considering that the refrigeration of foods is becoming more and more general, keeping pace with the development of improved and more economical methods, that sooner or later the general refrigeration of pork, without reference to whether it is to be eaten raw or cooked, may become desirable and feasible as a prophylactic measure against trichinosis. For the present, however, it is probable that the use of refrigeration for this purpose is likely to have only a more limited application such as that which has been suggested, leaving for future development its possible further extension, all of which is of course contingent primarily upon the confirmation of the results of the experimental work recorded in this paper, and secondarily upon various other things, such as the effects of refrigeration upon the meat and the expense involved in the artificial production of cold.

Further investigation of this interesting question of the effect of cold upon trichinæ is in progress, and it is hoped that conclusive data as to the exact temperatures and time required to render trichinous meat innocuous will be available at an early date.

B. H. RANSOM

BUREAU OF ANIMAL INDUSTRY,
U. S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C.

November 22, 1913

THE AMERICAN PHYSIOLOGICAL SOCIETY

THE 26th annual meeting of the American Physiological Society was held at the University of Pennsylvania and at the Jefferson Medical School, Philadelphia, December 28–31, 1913. One hundred and eighteen of the members of the society were present at the meeting. This, I think, was

the largest attendance in the history of the society. This large attendance was due, in part, to the fact that the societies representing the biochemists, the pharmacologists, the experimental pathologists, the anatomists, the zoologists and the naturalists met in Philadelphia at the same time. This is a most excellent plan, and should be made a fixed policy of the biological societies. The members of all the biological societies had joint dinners and smokers the three evenings of the meeting.

Two of the scientific sessions of the Physiological Society were joint meetings with the Biochemical and the Pharmacological societies. The scientific program was as usual a lengthy one and comprised a number of papers of unusual importance. The number and general high grade of the demonstrations was also a feature of the meeting. The following is a list of the scientific communications:

"Phlorhizin Glycosuria before and after Thyroidectomy," by Graham Lusk.

"Studies in Diabetes: (1) The Effect of Different Compounds on Glycogenesis; (2) The Mechanism of Antiketogenesis," by A. I. Ringer and E. M. Fraenkel.

"Some Problems of Growth: (*a*) The Capacity to Grow; (*b*) The Rôle of Amino Acids in Growth," by L. B. Mendel and T. B. Osborne.

"Further Studies in the Comparative Biochemistry of Purine Metabolism," by Andrew Hunter.

"Changes in Fats during Absorption," by W. R. Bloor.

"Immunization Against the Anti-coagulating Effect of Leech Extract," by Leo Loeb.

"Anaphylaxis in the Cat and Opossum," by C. W. Edmunds.

"Vividiffusion: Report on Preliminary Results," by J. J. Abel, L. S. Rowntree and B. B. Turner.

"A Method of Dialyzing Normal Circulating Blood and Some of Its Applications," by C. L. V. Hess and H. McGuigan.

"A Biological Test for Iodin in the Blood," by A. Woelfel and A. L. Tatum.

"Further Studies of the Excretion of Acids," by L. G. Henderson and W. W. Palmer.

"Studies on Blood Plates," by T. F. Zucker.

"The Condition of the Blood in Hemophilia," by W. H. Howell.

"Some Physiological Factors Affecting the Coagulation Time of Blood," by W. B. Cannon and W. L. Mendenhall.

"The Action of Epinephrin on the Heart," by J. A. E. Eyster.

"Two Types of Reflex Fall of Blood Pressure," by P. G. Stiles and E. G. Martin.

"Dicrotism and the Brachial Flow Pulse (with lantern demonstrations)," by A. W. Hewlett.

"The Periodic Cardio-vascular and Temperature Variations in Women," by Jessie L. King.

"Acceleration of the Heart in Exercise," by H. S. Gasser and W. J. Meek.

"On the Constancy of Blood Pressure and Vasomotor Reactions in the Anesthetized Dog," by R. G. Hoskins and H. Wheelon.

"The Relative Systolic Discharge of the Left and the Right Ventricles," by A. L. Prince.

"The Effect of Vagal Stimulation on the Location of the Pacemaker of the Mammalian Heart," by W. J. Meek and J. A. E. Eyster.

"The Effect of Pulsation on Filtration," by R. A. Gesell.

"The Action of Pilocarpin on the Cerebrospinal Fluid," by F. C. Becht.

"The Osmotic Properties of Clam's Muscle," by E. B. Meigs.

(*a*) "Sources of Surface Tension in Striated Muscle," (*b*) "Maximum Surface Tension in Striated Muscle," by W. N. Berg.

"Some Characteristics of Mammalian Muscle," by F. S. Lee.

"Some Results Obtained by the Use of Quantitative Faradic Stimuli in Physiological Investigation," by E. G. Martin.

"Faradic Stimuli: A Physical and Physiological Study," by J. Erlanger and W. E. Garrey.

(*a*) "The Metabolic Gradient in the Nerve Fiber," (*b*) "The Action of Anesthetics on the CO_2 Production in the Nerve Fiber," by S. Tashiro.

"Proof that the Propagation of the Nervous Impulse Obeys the Laws of Propagation of Electricity along Conductors with Distributed Capacity," by A. C. Crehore and H. B. Williams.

"Saline Perfusion of the Spinal Centers in Frogs: The Effect of Calcium and Potassium Chloride," by R. D. Hooker and S. O. Reese.

"Variations in the Reflex Responses through Medullary Centers," by H. C. Jackson and E. M. Ewing.

"Evidences in the Cerebral Cortex of Mental Equipment and Intellectual Development," by E. L. Mellus.

"The Influence of Surroundings on Foveal Vision," by P. W. Cobb.

"The Effect of Strychnin on Reflex Thresholds," by E. L. Porter.

"The Influence of the Vagi on Renal Secretion," by R. G. Pearce.

"Stimulation of the Semi-circular Canals," by F. H. Pike.

"Demonstration of Vividiffusion," by J. J. Abel, L. G. Rowntree and B. B. Turner.

"The Determination of Blood Sugar," by P. A. Shaffer.

"Intestinal Peristalsis in *Homarus*," by F. R. Miller.

"Methods for Studying the Pharmacology of the Circulation," by C. Brooks.

"The Contour of the Intraventricular and the Pulmonary Arterial Pressure Curves by two new Optically Recording Manometers," by C. J. Wiggers.

"Some Time-saving Laboratory Methods," by C. C. Guthrie.

"A Graphic Method for Recording the Coagulation of Blood," by W. B. Cannon and W. L. Mendenhall.

"Some Mutual Relations of Oxalates, Salts of Magnesium and Calcium: Their Concurrent and Antagonistic Actions," by F. L. Gates and S. J. Meltzer.

"A Method of Obtaining Successive Contrast of the Sensations of Hunger and Appetite," by A. J. Carlson.

"Further Observations on the Pyramidal Tracts of the Raccoon and Porcupine," by S. Simpson.

"A New Apparatus for Demonstration of the Dioptrics of the Eye and the Principles of Ophthalmoscopy and Retinoscopy," by A. Woelfel.

"Simple Experiments on Respiration for the Use of Students," by Y. Henderson.

"Convenient Modification for Venous Pressure Determinations in Man," by R. D. Hooker.

"Device for Interrupting a Continuous Blast of Air. Designed Especially for Artificial Respiration," by R. A. Gesell and J. Erlanger.

"A Simple Liver Plethysmograph," by C. W. Edmonds.

"An Artificial Circulation Apparatus for Students," by W. P. Lombard.

"A Simplified and Inexpensive Oxadase Apparatus," by H. H. Bunzel.

"An Improved Form of Apparatus for Perfusion of the Excised Mammalian Heart," by M. Dresbach.

"Sugar Consumption in Eviscerated Animals," by J. J. R. Macleod and R. G. Pearce.

"On the Rapid Disappearance from the Blood of Large Quantities of Dextrose Injected Intravenously," by I. S. Kleiner and S. J. Meltzer.

"Further Observations on the Metabolism of Depancreatinized Dogs," by J. R. Murlin.

"Transfusion of Blood in Severe Diabetes Mellitus," by R. T. Woodyatt and B. O. Raulston.

"The Cause of Diabetic Polyphagia," by A. B. Luckhardt.

"Preliminary Report on Work with a Respiration Calorimeter in Bellevue Hospital," by E. F. DuBois.

"The Rôle of Nascent Oxygen in Protecting the Body from Self-digestion," by W. E. Burge.

"The Effect of Castration on the Hypophysis in the Rabbit," by A. E. Livingston.

"The Secretion of Gastric Juice during Parathyroid Tetany," by R. W. Keeton.

"The Brain-Adrenal-Thyroid-Liver-Pancreas Syndrome (Kinetic System)," by G. W. Crile.

"The Variations in the Hunger Contractions of the Empty Stomach with Age," by T. L. Patterson.

"The Control of the Hunger Mechanism," by A. J. Carlson.

The following persons were elected to membership in the society: E. F. DuBois, Cornell University Medical School; O. C. Glaser, University of Michigan; E. M. Ewing, Bellevue Medical School; S. Tashiro, University of Chicago; A. L. Tatum, University of Chicago; H. Laurens, Yale University; J. E. Sweet, University of Pennsylvania; E. Lodholz, University of Pennsylvania; G. Fahr, Johns Hopkins Medical School; J. H. King, Johns Hopkins Medical School; R. E. Gesell, Washington University, St. Louis; O. O. Stoland, University of South Dakota; E. L. Porter, Harvard Medical School; P. E. Howe, Columbia University; H. A. Mattill, University of Utah; Mabel P. FitzGerald, New York City.

This makes the total membership of the society 210.

The most important matter in the way of business was the ratification of the work of the conference committee appointed at the Cleveland meeting establishing the Federation of American Societies for Experimental Biology. One of the aims of this federation is the coordination of the scientific work of the annual meetings, a successful beginning of which was made this year. But a great deal of the credit for this successful beginning is due to the splendid facilities offered by the Philadelphia institutions, and the careful planning and hard work of the local committee.

The Washington University presented an invitation to meet in St. Louis next year. The society voted in favor of meeting in St. Louis, but the final decision is left with the executive committee of the federation.

The editorial committee (Drs. Porter, Carlson, Erlanger, Howell, Lee, Lusk, Macallum) was instructed by the society to report at the next annual meeting on the relation of the *American Journal of Physiology* to the American Physiological Society and to propose measures to improve the facilities for publication on the part of American physiologists.

Officers for the year 1914.—President, W. B. Cannon; *Secretary,* A. J. Carlson; *Treasurer,* J. Erlanger; *Members of the Council,* F. S. Lee, S. J. Meltzer.

A. J. CARLSON,
Secretary

UNIVERSITY OF CHICAGO,
January 10, 1914

THE AMERICAN PHYTOPATHOLOGICAL SOCIETY

THE society met in affiliation with the American Association for the Advancement of Science in the state capitol at Atlanta, Ga., December 30, 1913, to January 2, 1914.

The following officers were elected:

President, Dr. Haven Metcalf, U. S. Department of Agriculture, Washington, D. C.

Vice-president, Dr. Frank D. Kern, Pennsylvania State Agricultural Experiment Station, State College, Pa.

Member of Council, Dr. H. R. Fulton, North Carolina Agricultural Experiment Station, West Raleigh, N. C.

Chief editors of *Phytopathology* were elected as follows: Dr. L. R. Jones, for one year; Dr. C. L.