

The larvæ live in crude oil in incredible numbers. The eggs seem to be deposited outside the oil and the larvæ enter the oil as soon as they hatch. The maggots float in the oil whether it is of the heaviest or lightest specific gravity. All the crude oils observed are lighter than water, but the larvæ sink in water. Even when the animals are motionless in crude oil, they remain on the surface with only the breathing tube visible. If the larvæ are put into such products of petroleum as distillate or kerosene, or such substances as olive oil, they live for from 24 to 48 hours. They do not float in these fluids and it seems likely that the chemical nature of the substances is not the only unfavorable condition. The maggots swarm about the bodies of animals like moths or caterpillars caught in the oil and doubtless feed on them. Yet if the larvæ are kept in oil taken direct from the pump or in that filtered through asbestos, they seem to do equally as well, even to pupating. It seems unlikely that organic particles could be present in such oil, and it is an interesting problem whether the animals can obtain nutriment directly from petroleum. Pupation takes place very readily in the laboratory. The proportion of pupæ formed from larvæ kept in fresh pumped or filtered oil is as large as that in oil taken from pools around tanks or wells. The adults and larvæ do not seem to be phototropic, yet the pupæ have temporary positive phototropism. The paper included a description of larval movements.

MAURICE A. BIGELOW,
Secretary of Section F

THE AMERICAN PHYSIOLOGICAL SOCIETY

THE twenty-fourth annual meeting was held in Baltimore and Washington, December 26-29, 1911. Two business sessions and five scientific sessions were held in Baltimore. Two of the scientific sessions were joint meetings with the Biochemical and the Pharmaceutical Societies.

An unusual number of papers and demonstrations—in all sixty-seven—were presented and discussed, and the sessions were well attended, eighty-six of the society's one hundred and ninety members being present at the meeting.

At the first session in Baltimore President Meltzer made a brief and appropriate reference to the late Professor H. P. Bowditch, one of the founders of the society, at the conclusion of which the members present arose and remained standing for one minute as a token of respect to the memory of Dr. Bowditch. This was followed by the

reading of a memorial address on Professor Bowditch by W. B. Cannon.

The following papers and demonstrations were presented at the Baltimore sessions:

W. W. Osterhaut: The Effect of Anesthetics on Protoplasmic Permeability.

F. S. Lee and A. M. Guenther: Some of the General Physiological Properties of Diaphragm Muscle.

J. Auer: The Action of the Digitalis Group upon the Heart and its Similarity to Cardiac Anaphylaxis.

P. E. Howe (by invitation) and P. B. Hawk: A Comparison of the Data from Two Fasts Each Exceeding One Hundred Days in Length and made upon the same Subject.

J. Erlanger: Observations on the Physiology of Purkinje Tissue.

W. B. Howell: Antithrombin.

W. J. Meek: Relation of the Liver to Fibrinogen Formation.

Th. Hough: The Influence of Different Degrees of Muscular Activity on the Alveolar Tension of Oxygen and Carbon Dioxid.

Y. Henderson: A Brief Report upon the Pikes Peak Expedition.

A. S. Loevenhart: A Contribution to the Theory of the Respiration.

W. T. Porter: The Vaso-motor Nerves of the Heart.

W. T. Porter: Remarks on the Relation of the Phrenic Nerve to the Spinal Respiratory Cells.

T. S. Githens and S. J. Meltzer: The Effect of the Removal of the Heart upon Morphitized Frogs.

T. Sollmann and P. J. Hanzelik (by invitation): Post-mortem Absorption by the Lymph Vessels.

Y. Henderson: Some New Respiration Apparatus.

W. Salant: A Modified Langendorff Apparatus for Perfusion of Isolated Heart.

G. W. Fitz: A Perfected Model of the Shadow Pupillometer.

W. T. Porter: An Improved Membrane Manometer.

A. J. Carlson: A Method for Studying the Movements and Tonus of the Empty Digestive Tract by the Means of the X-ray.

C. C. Guthrie: Some New Apparatus.

H. Cushing: The Hemodynamic Action of the Cerebrospinal Fluid.

J. R. Murlin and H. C. Bailey: The Urine of Late Pregnancy and the Puerperium.

C. W. Greene: The Storage of Fat in the Sal-

mon Muscle Tissue and its Resorption during the Migration Fast.

H. C. Bradley: Intestinal Absorption.

J. J. R. Macleod: The Relation of the Suprarenal Gland to Sugar Production by the Liver.

V. C. Myers and G. O. Volovic: Metabolism in Experimental Fever with Special Reference to Creatinine Elimination.

T. B. Osborne and Lafayette B. Mendel: The Rôle of Proteins in Growth.

A. B. Macallum: The Rôle of Surface Tension in the Distribution of Salts in Living Matter.

L. B. Kleiner and S. J. Meltzer: A Comparison of the Effects of Subcutaneous and Intramuscular Injections of Adrenalin upon the Production of Glycosuria.

H. B. Williams, J. A. Riche and Graham Lusk: The Hourly Chemical and Energy Transformations in the Dog which Follow the Ingestion of Meat.

A. Hunter: The Iodine Content of the Thyroid Glands of Sheep Fed Mainly upon Marine Algæ.

E. B. Meigs and L. A. Ryan: The Chemical Constituents of the Ash of Smooth Muscle.

H. Cushing and C. Jacobson: Further Studies on the Relation of the Neurohypophysis to the Assimilation of the Carbohydrates.

D. R. Joseph and S. J. Meltzer: The Effect of Stimulation of the Peripheral End of the Splanchnic Nerves upon the Pupils.

W. E. Garrey: Compression of the Heart Nerves of *Limulus* and the Mechanisms of Heart "Block."

S. Simpson: Some Problems in Hibernation.

D. E. Jackson: A Note on the Pharmacological Action of Vanadium.

C. Brooks: The Blood Pressure of the Normal Unanesthetized Animal under Various Conditions.

W. B. Cannon: The Effects of Stimulation of the Peripheral End of the Splanchnic Nerves.

S. J. Murlin and J. R. Greer: The Relation of Heart Action to Respiratory Metabolism with Determination of Internal and External Respiratory Quotients.

W. G. MacCallum: Further Studies on the Nature of Tetany.

G. W. Fitz: The Principle of the Shadow Pupillometer.

W. P. Lombard: The Pressure in the Small Blood Vessels of the Skin.

C. J. Wiggers: Respiratory and Cardiac Variations in Pulse Pressures.

A. J. Carlson: The Condition of the Digestive Tract in Parathyroid Tetany.

H. Lussky and A. J. Carlson: Further Studies

of the Aceto Nitrile Test for Thyroid Substance in the Blood.

S. A. Matthews: The Effect of Eck's Fistula on the Formation of Bile (dog).

C. Voegtlin and B. M. Bernheim: Further Studies on the Function of the Liver in Various Metabolic Processes.

A. Woelfel: The Place of Fixation or Reconjugation of the Amino Acids in the Body.

J. A. E. Eyster: Electrocardiogram Studies.

E. D. Brown and T. Sollmann: Effect on Blood Pressure Produced by Traction on the Carotid Artery.

E. M. Ewing and H. C. Jackson: A Study of the First Diastolic Rise (c wave) and First Diastolic Fall (x fall) in the Venous Pulse.

J. G. Wilson and F. H. Pike: A Note on the Relation of the Semi-circular Canals to the Motor System.

W. E. Burge: Separation of Pepsin and Rennin by a New Method.

H. H. Hagan and J. K. Armond: The Relation of Calcium to the Cardioinhibitory Function of the Vagus.

E. B. Meigs: Microscopic Studies of Living Smooth Muscle.

S. Simpson: The Curve of Growth in the Dog.

E. L. Ross and P. B. Hawk: Further Studies on the Effects of Etheranesthesia on Metabolism.

F. S. Lee and M. Levine: The Action of Alcohol and Water on Muscle.

J. Aner and S. J. Meltzer: (1) The Respiratory Effect of Electrical Stimulation of the Central End of the Vagus Nerves in Dogs. (2) Inhibition of Respiration by Distention of the Lungs of Dogs under Intratracheal Insufflation.

C. Brooks: The Action of Sodium Citrate on the Circulation.

C. W. Greene: The Absorption of Fat by the Salmon Stomach.

C. W. Greene and Mr. Skaer: The Absorption of Fat by the Mammalian Stomach. (Preliminary communication.)

H. McGuigan and O. Mostrom: Studies on the Convulsive Reflex Produced by Strychnine, (a) Habit, (b) As Modified by Epinephrine.

W. E. Garrey: Temperature Coefficient of Nerve Cells of the Ganglionated Cord of *Limulus* Heart.

The program for the joint session with Section K, American Association for the Advancement of Science, in Washington, consisted of a symposium on Acapnia and Shock. Papers were presented by Y. Henderson, W. H. Howell, G. W. Crile, J.

Erlanger and S. J. Meltzer. The general discussion was participated in by W. T. Porter, J. J. R. Macleod, G. W. Crile, A. J. Carlson, G. T. Kemp and Y. Henderson.

The following persons were elected to membership in the society:

Rockefeller Institute—A. E. Cohn, I. S. Kleiner, F. W. Bancroft.

Johns Hopkins University—L. G. Rowntree, G. H. Whipple, W. E. Burge.

University of Pennsylvania—R. M. Pearce, A. I. Ringer.

University of Syracuse—F. P. Knowlton, C. G. Rogers.

Columbia University—H. A. Stewart.

University of Nebraska—A. E. Guenther.

University of Wisconsin—H. C. Bradley.

University of California—T. C. Burnett.

Western Reserve University—P. W. Cabb.

Starling-Ohio Medical School—R. G. Hoskins.

University of Chicago—A. B. Luckhardt.

The relation of the society to the *American Journal of Physiology* continues as in the past, and A. J. Carlson, W. H. Howell, F. S. Lee, G. Lusk, S. J. Meltzer and W. T. Porter were appointed to constitute the editorial committee for the publication of the *Journal* during 1912.

In the past the annual meeting of the society has occupied three days of the convocation week. But owing to the rapidly increasing number of workers in the society the number of papers submitted for the meetings has already become too great for proper presentation and discussion, in spite of the recent organization of the Biochemical and the Pharmacological Societies. It is generally felt that much of the value of these meetings is lost when time is lacking for adequate discussion of the scientific program. At the second business session this question was considered and the following measures in the way of remedy were proposed and discussed:

1. Extending the time of the meeting to four or more days.

2. Meeting in two or more sections according to subjects.

3. Two or more meetings annually—one in the west and one or more in the east.

4. Limiting the number of papers (each member is at present virtually limited to one communication).

5. Dispense with the formal reading of papers, and devote the time to their discussion on the basis of printed abstract.

6. Changing the time of the meeting to May or June.

7. A closer affiliation with the Biochemical and the Pharmacological Societies.

After a prolonged and earnest discussion the question was referred to the council with instructions to report at the next annual meeting, which will be held in Cleveland, Ohio, in December, 1912.

The following officers were elected for the year 1912:

President—S. J. Meltzer, New York.

Secretary—A. J. Carlson, Chicago.

Treasurer—W. B. Cannon, Boston.

Members of the Council—J. Erlanger, St. Louis, and F. S. Lee, New York.

The arrangements effected by the Baltimore members and friends of the society contributed greatly to the success of the meeting. The headquarters of the three societies were located in the same hotel, and practically all the visiting members were housed in this same hotel. The local members had agreed to dispense with private entertainments, and in their place had arranged for all members and visiting friends an informal dinner followed by a smoker on the evenings of December 27 and 28. By this delightful informality the members were kept together and opportunities afforded for social intercourse and informal conferences and discussions. It was generally felt that this feature should be perpetuated in future meetings.

A. J. CARLSON,
Secretary

UNIVERSITY OF CHICAGO,
January, 1912

THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS

THE sixth annual meeting of the American Society of Biological Chemists was held in Baltimore and Washington, December 27–29, 1911. The sessions in Baltimore, held in affiliation with the American Physiological Society and the American Society of Pharmacology and Experimental Therapeutics, in the physiological building of the Johns Hopkins Medical School, were well attended, over forty of the members being present.

The single session in Washington, at the McKinley High School, a joint meeting with the Biological Section of the American Chemical Society, was of exceptional interest from the standpoint of the character of the papers presented and the discussions which they elicited. The following