

results are shown graphically in four curves.—**MM. Clément and Rivière**: Attempts at the synthetic manufacture of mother-of-pearl by the production of chemical systems.—**A. A. Guntz**: Phosphorescent zinc sulphide. The crystalline structure of sulphide of zinc appears to play an important part in the phenomena of phosphorescence, as shown by the different duration of the luminosity of the two varieties and by the known fact that their pulverisation suppresses almost entirely the luminous emission.—**A. Job and R. Reich**: An attempt at the systematic extension of the preparation of organo-metallic compounds. Application to iron ethyl iodide. Organo-zinc compounds possess the advantage over the corresponding magnesium compounds that a large range of solvents can be used. The iron derivative,  $C_2H_5FeI$ , is made by the interaction of an ether solution of ferrous iodide with zinc ethyl iodide also in ethereal solution. The new iron compound was not isolated, but its existence in the solution was proved by its reactions with water and alcohol.—**M. Flajolet**: The perturbations of the magnetic declination at Lyons during the year 1920-1921.—**A. Petit**: The harmful action of farm-yard manure.—**A. Policard and Mlle. J. Tritchkovitch**: The direct fixation of fats by the sebaceous glands. The fat absorptions were followed by the addition of Soudan red (Daddi) to the food. The mechanism of the sebaceous glands appears to act in two waves. In the first, the classical theory, the fat is elaborated by the cell, but side by side with this there is a direct fixation of the fat brought by the blood.—**P. Portier and M. Duval**: The variation of the osmotic pressure of the blood of the freshwater teleostean fishes under the influence of the increased salinity of the surrounding water. The fish is incapable of maintaining a constant osmotic pressure like a mammal or a bird, but there is a clear tendency towards regulation in the carp, in which the osmotic pressure of the blood increases with an increase in the proportion of salts in the water in which it is placed.—**H. Cardot and H. Laugier**: The linguo-maxillary reflex.—**G. Bidou**: An orientation compass for the foot.—**C. Vaney and J. Pelosse**: Relations between the blood and the coloration of the cocoon in *Bombyx mori*.—**E. Fauré-Fremiet and Mlle. H. Garrault**: Constitution of the egg of the trout, *Trutta fario*.—**A. Helbronner and W. Rudolfs**: The attack of minerals by bacteria. The oxidation of blende. Certain bacteria are capable of converting blende into zinc sulphate: in minerals containing the sulphides of both zinc and lead, the lead is not attacked and only the zinc is rendered soluble.—**L. Fournier, C. Levaditi, A. Navarro-Martin, and A. Schwartz**: The preventive action in syphilis of the acetyl derivative of oxyaminophenylarsinic acid (sodium salt). Proofs of the prophylactic and preventive action of this salt against syphilis are given. The experiments were made both on animals and on man.

### Official Publications Received.

Madras Fisheries Department. The Common Molluscs of South India. By James Hornell. (Report No. 6 of 1921. Madras Fisheries Bulletin, Vol. 14.) Pp. 97-215. (Madras: Government Press.) 1 rupee.

Agricultural Research Institute, Pusa. Bulletin No. 125: The Weevil Fauna of South India, with special reference to Species of Economic Importance. By T. V. Ramakrishna Ayyar. Pp. 21+20 plates. (Calcutta: Government Printing Office.) 1-4 rupees.

Agricultural Research Institute, Pusa. Bulletin No. 126: Cawnpore-American Cotton, II. Further Field Trials (1918-1920), Spinning Trials and Market Organization. By B. C. Burt. Pp. 13. (Calcutta: Government Printing Office.) 4 annas.

Agricultural Research Institute, Pusa. Bulletin No. 127: The Coconut-Bleeding Disease. By S. Sundararaman. Pp. 8+6 plates. (Calcutta: Government Printing Office.) 8 annas.

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Department of the Interior: Canada. Publications of the Dominion Astrophysical Observatory, Victoria, B.C. Vol. 2, No. 1: The Radial Velocities of 594 Stars. By J. S. Plaskett and others. Pp. 127. (Ottawa: Government Printing Bureau.)

Department of Agriculture and Natural Resources: Weather Bureau. Annual Report of the Weather Bureau for the Year 1918. Part 3: Meteorological Observations made at the Secondary Stations during the Calendar Year 1918. Pp. 353. (Manila: Bureau of Printing.)

### Diary of Societies.

FRIDAY, JUNE 16.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 8.—A. C. Braham: The Final Support in Carbon Printing.

TUESDAY, JUNE 20.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Electrical Engineers), at 10 A.M. and 3.—T. Hardie: Presidential Address.—Gas Investigation Committee: Research on Aeration in Atmospheric Burners.—Seventh Report of the Gas Investigation Committee: Carburetted Water Gas Plant with Waste-heat Boiler.—Report of Institution Gas Research Fellowship: Dr. A. C. Monkhouse and Prof. J. W. Cobb: The Liberation of Nitrogen and Sulphur from Coal and Coke as Ammonia.—Report of the Life of Gas Meters Committee.—Report of Refractory Materials Research Committee.—A. T. Green: The Thermal Conductivity of Refractories at High Temperatures.—Miss D. A. Jones: The Standardisation of the After Contraction Test.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. Gordon Holmes: The Symptoms of Cerebellar Disease and their Interpretation (Croonian Lectures) (4).

ROYAL STATISTICAL SOCIETY, at 5.15.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—E. Peake: The Norwich School of Painters.

WEDNESDAY, JUNE 21.

INSTITUTION OF GAS ENGINEERS (at Institution of Electrical Engineers), at 10 A.M. and 3.—Dr. C. Carpenter: Some Gas Burners and a Moral.—Dr. G. Weyman: Increasing the Rate of Carbonisation of Coal.—W. B. Leech: Reconstruction Work at Beckton.

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 5.—W. H. Bidlake: The Continuity of English Architecture.

ROYAL METEOROLOGICAL SOCIETY, at 5.—J. E. Clark, H. B. Adames, and A. D. Margery: Report on the Phenological Observations for 1921.—L. S. Richardson, Dr. A. Wagner, and R. Dietzius: An Observational Test of the Geostrophic Approximation in the Stratosphere.

ROYAL MICROSCOPICAL SOCIETY, at 8.—A. Chaston Chapman: The Use of the Microscope in the Brewing Industry.—A. B. Klugh: The Plunger-Pipette.—E. A. Spaul: The Gametogenesis of *Nepa cinerea* (Water Scorpion).—J. Strachan: The Microscope in Paper Making.

THURSDAY, JUNE 22.

INSTITUTION OF GAS ENGINEERS (at Institution of Electrical Engineers), at 10 A.M.—Prof. C. V. Boys: A Recording and Integrating Gas Calorimeter.

ROYAL SOCIETY, at 4.30.—*Probable Papers*.—G. I. Taylor: The Motion of a Sphere in a Rotating Liquid.—Prof. T. R. Merton and D. N. Harrison: Errors arising in the Measurement of Unsymmetrical Spectrum Lines.—Dr. E. F. Armstrong and Dr. T. P. Hilditch: A Study of Catalytic Actions at Solid Surfaces. Part VIII. The Action of Sodium Carbonate in promoting the Hydrogenation of Phenol. Part IX. The Action of Copper in promoting the Activity of Nickel Catalyst.—E. A. Milne: Radiative Equilibrium: The Relation between the Spectral Energy Curve of a Star and the Law of Darkening of the Disc towards the Limb, with Special Reference to the Effects of Scattering and the Solar Spectrum.—C. W. Hünshelwood: The Structure and Chemical Activity of Copper Films and the Colour Changes accompanying their Oxidation.—R. C. Ray: Heat of Crystallisation of Quartz.

MALTHUSIAN LEAGUE (at Kensington Town Hall), at 8.—Miss Cicely Hamilton, Mrs. Seaton-Tiedeman, B. Dunlop, and Rev. G. Lang: Birth Control the Workers' Charter.

FRIDAY, JUNE 23.

PHYSICAL SOCIETY OF LONDON (at Imperial College of Science and Technology), at 5.—J. W. Fisher: An Experiment on Molecular Gyrostatic Action.—Prof. A. O. Rankine and C. J. Smith: The Viscous Properties and Molecular Dimensions of Silicane.—W. N. Bond: The Pressure-Gradient in Liquids flowing through Cones.—Dr. E. E. Fournier d'Albe: Demonstration of a Mercury-Drop Method of producing Visual Effects by Means of Sound.

### PUBLIC LECTURES.

(A number in brackets indicates the number of a lecture in a series.)

TUESDAY, JUNE 20.

KING'S COLLEGE, at 5.30.—Miss Hilda D. Oakeley: The Idea of Value in the History of Philosophy (1).

WEDNESDAY, JUNE 21.

ROYAL SOCIETY OF MEDICINE, at 5.—Prof. A. A. Hijmans van den Bergh: The Pathology of Hæmoglobin. (In English.)