

Dufour in the study of the longitudinal Zeeman phenomenon.—Giorgio Piccardi : Thermal method for the study of gaseous systems.—S. Berlingozzi and P. Badolato : Action of chloropicrin on phenol. In the presence of potassium hydroxide, this reaction results in elimination of the nitro group, which effects oxidation and is reduced to ammonia, the principal products formed being ortho- and para-hydroxybenzaldehydes and the corresponding acids; considerable quantities of pararosanolic acid are also produced, probably by condensation of the phenol with the salicylaldehyde.—Clara di Capua and Maria Arnone : Hardness of lead-cadmium and lead-tin alloys. The hardness curve for the former alloys changes its direction suddenly at about 1 per cent. of cadmium, this indicating, like the curve for electrical conductivity, the extent of the solubility of cadmium in lead in the solid state at the ordinary temperature. With lead-tin alloys the hardness curve is altered entirely in character by reheating the cast alloys for a long time at 150°. Tin dissolves from 1 to 2 per cent. of lead, and the latter about 10 per cent. of tin at the ordinary temperature.—Giulia Degli Innocenti : Eocene fossils from Istria.—M. Sella : Differential characters of the early stages of *Orcynus thynnus*, *Orcynus alalonga*, and *Auxis bisus*.—Enrico Fossamancini : Eocene fossiliferous rocks of Ladak : specimens collected by the Italian Expedition into Central Asia, 1913-1914.—Tullio Gayda : Influence of adrenaline on the tone of striated muscle.—Gaetano Viale : Behaviour of the catalase in the blood on variation of the surrounding temperature. When the air temperature is low, the catalase-content of the blood increases considerably.—Ermanno Giglio-Tos : Supposed migration of the chromosomes towards the poles during the ana-phase of karyokinesis. The view that such migration occurs is untenable.

### Official Publications Received.

- Proceedings of the Royal Society of Edinburgh. Session 1923-1924. Vol. 44, Part 2, No. 11: The Theory of the Mechanical Analysis of Sediments by Means of the Automatic Balance. By R. A. Fisher and Prof. Sven Odén. Pp. 98-115. (Edinburgh: R. Grant and Son; London: Williams and Norgate.) 1s. 6d.
- Department of Agriculture, Ceylon. Annals of the Royal Botanic Gardens, Peradeniya. Vol. 8, May 1924. Edited by T. Petch. Pp. 170. (Peradeniya: Department of Agriculture; London: Dulau and Co., Ltd.) 8 rupees.
- Wisconsin Geological and Natural History Survey. Bulletin No. 52A-D, Soil Series No. 16-19: Soil Survey Reports of South Part of North Central Wisconsin, Wood County, Portage County, and Door County. Pp. 108+86+79+72+14 plates+4 maps. Bulletin No. 54A-D, Soil Series No. 23-26: Soil Survey Reports of Buffalo County, Jackson County, Waupaga County, and Outagamie County. Pp. 76+85+84+78+14 plates+4 maps. (Madison, Wis.)
- United States Department of Agriculture. Miscellaneous Circular No. 18: Instructions for Banding Birds. By Frederick C. Lincoln. Pp. 28. 10 cents. Farmers' Bulletin No. 1086: How Insects affect the Rice Crop. By J. L. Webb. Pp. 10. 5 cents. (Washington: Government Printing Office.)
- Sammlung von Hilfstafeln der Hamburger Sternwarte in Bergedorf. G: Hilfstafeln für photographische Himmelsaufnahmen. Pp. iv+G11. (Hamburg.)
- Department of Commerce: U.S. Coast and Geodetic Survey. Isostatic Investigations and Data for Gravity Stations in the United States established since 1915. By William Bowie. (Special Publication No. 99: Serial No. 246.) Pp. iv+91. (Washington: Government Printing Office.) 25 cents.
- Zoologische Mededeelingen uitgegeven vanwege 's Rijks Museum van Natuurlijke Historie te Leiden. Deel 8, Aflevering 1, 31 Mei. Pp. 72. (Leiden: E. J. Brill.)
- Koninklijk Magnetisch en Meteorologisch Observatorium te Batavia. Verhandelingen No. 12: A new Determination of the Eastern Longitude of Batavia. By Dr. J. Boerema. Pp. ii+27. (Batavia: Javasche Boekhandel en Drukkerij.)
- Board of Education. Report for the Years 1921 and 1922 on the Science Museum. Pp. 23. (London: H.M. Stationery Office.) 9d. net.
- Tulum: an Archaeological Survey of the East Coast of Yucatan. By S. K. Lothrop. (Publication 335.) Pp. vii+179+27 plates. (Washington: Carnegie Institution.)
- Alcohol and Human Efficiency: Experiments with moderate Quantities and dilute Solutions of Ethyl Alcohol on Human Subjects. By Walter R. Miles. (Publication No. 333.) Pp. x+298. (Washington: Carnegie Institution.)
- Ministry of Agriculture and Fisheries. British Empire Exhibition, 1924: Guide to the Agricultural Exhibit in Gallery 2 of the Government Pavilion. Pp. 66. (London: Fleetway Press, Ltd.) 6d.

### Diary of Societies.

MONDAY, JUNE 23.

ROYAL SOCIETY OF MEDICINE (Odontology Section), at 8.—Prof. A. Hopewell-Smith: The Non-innervation of Dentine.

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.30.—Presentation of Royal Gold Medal.

TUESDAY, JUNE 24.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS (at Langham Hotel, Regent Street), at 9.30 A.M.—E. Herring: Research Work. Its Past, Present, and Future.—A. F. Baillie: Oil Fuel as applied to Central Heating.

ROYAL COLLEGE OF PHYSICIANS, at 5.—Sir Leonard Rogers: Researches on Leprosy and their Bearing on the Treatment of Tuberculosis. (Croonian Lectures.)

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Capt. R. S. Rattray: Rites de Passage in Ashanti.

WEDNESDAY, JUNE 25.

INSTITUTION OF NAVAL ARCHITECTS (at Institution of Civil Engineers), at 10 A.M.—Sir John H. Biles: Ship Design.—S. F. Staples and Capt. D. J. Munro: Advanced Naval Bases.—G. S. Baker: Steering in Shallow Waters.—J. Anderson and R. Steele: Passenger Ship Design from an Independent Point of View.

GEOLOGICAL SOCIETY OF LONDON, at 5.30.—F. Raw: The Development of *Leptoplastus salteri* Callaway and other Trilobites (Olenidae, Ptychopariidae, Conocoryphidae, Paradoxidae, Phacopidae, and Mesonacidae).—Miss Mabel Elizabeth Tomlinson, with an Appendix by A. S. Kennard and B. B. Woodward: The River-Deposits of the Lower Valley of the Warwickshire Avon.

RADIO SOCIETY OF GREAT BRITAIN (at Institution of Electrical Engineers), at 6.—J. Hollingworth: A Résumé of Modern Methods for the Measurement of Radio Signal Strength. (Lecture.)

THURSDAY, JUNE 26.

ROYAL SOCIETY OF MEDICINE (Combined Meeting of Laryngology and Otology Sections), at 2.30.

ROYAL SOCIETY, at 4.30.—Prof. J. W. Nicholson: The Electrification of two Parallel Circular Disks.—J. F. Fulton: The Influence of Initial Tension upon the Magnitude and Duration of the Mechanical Response in Skeletal Muscle.—J. R. H. Coutts, E. M. Crowther, B. A. Keen, and S. Odén: An Automatic and Continuous Recording Balance. (The Odén-Keen Balance).—Dr. R. W. Lunt: Chemical Studies in Gaseous Ionisation. Part I. and Part II.—D. W. Dye: A Self-Contained Standard Harmonic Wavemeter.—To be read in title only.—Prof. W. L. Bragg: The Influence of Atomic Arrangement on Refractive Index.—G. S. Currey: The Colouring Matter of the Blue Pansy.—R. Snow: Conduction of Excitation in Stem and Leaf of *Mimosa pudica*.—R. Azuma: Thermodynamic Phenomena exhibited in a Shortening or Lengthening Muscle.—H. Taylor: The Ionic Nature of Haemoglobin.—Prof. A. V. Hill and H. S. Gasser: The Dynamics of Muscular Contraction.—Dr. J. Stephenson: The Blood-Glands of Earth-worms of the genus *Pheretima*.—H. Muir Evans: Supplementary Note on the Poison Gland of Trygon.—E. M. Crowther and A. N. Puri: The Indirect Measurement of the Aqueous Vapour Pressure of Capillary Systems by the Freezing Point Depression of Benzene.—B. Cavanagh: Activity-Measurement by the Partition Method. I.—Dr. J. E. Jones: The Determination of Molecular Fields. Part I. and Part II.—C. J. Smith: An Experimental Study of the Viscous Properties of Water Vapour.—E. M. Crowther and J. R. H. Coutts: Discontinuity in the Dehydration of certain Salt Hydrates.—W. R. Dean: The Elastic Stability of an Annular Plate.—R. C. Johnson and W. H. B. Cameron: The Effect of Argon on certain Spectra.—Dr. G. R. Goldsborough: The Possible Ellipticity of Saturn's Ring.—E. C. Titchmarsh: The Double Fourier Series of a Discontinuous Function.

ROYAL COLLEGE OF PHYSICIANS, at 5.—Sir Leonard Rogers: Researches on Leprosy and their Bearing on the Treatment of Tuberculosis. (Croonian Lectures.)

FRIDAY, JUNE 27.

ROYAL SOCIETY OF MEDICINE (Combined Meeting of Laryngology and Otology Sections), at 10 A.M.

INSTITUTION OF NAVAL ARCHITECTS (at Institution of Civil Engineers), at 10.—Sir Archibald Ross: A Retrospect of Marine Engineering and Possible Lines of Development.—G. J. Lugt and H. Hunter: A New Type of Double-Acting Diesel Engine for Marine Purposes.—W. H. Riddlesworth: Displacement—Draught Formulae.

PHYSICAL SOCIETY OF LONDON (at King's College), at 5.—Professor O. W. Richardson: The Electron Emission Constants of Metals.—L. Hartsborn: A Method of measuring Very Small Capacities.—Demonstrations: Fluorescence of Transparent Fused Silica, Dr. W. E. Curtis; Selenium Photometer, Dr. F. C. Toy; A New String Galvanometer, Prof. E. Whitton.

SATURDAY, JUNE 28.

ROYAL SOCIETY OF MEDICINE (Combined Meeting of Laryngology and Otology Sections), at 10 A.M.

### PUBLIC LECTURES.

TUESDAY, JUNE 24.

UNIVERSITY COLLEGE (Department of Applied Statistics and Eugenic), at 5.30.—Prof. Raymond Pearl: Some Recent Experimental and Statistical Studies on the Alcohol Problem.

THURSDAY, JUNE 26.

UNIVERSITY COLLEGE, at 5.30.—Prof. A. F. Pollard: Reconciliation in Anglo-American History.