

PARIS.

Academy of Sciences, February 9.—M. Henri Deslandres in the chair.—P. A. Dangeard: The plastidome, vacuome, and spherome in *Selaginella Kraussiana*.—G. Charpy: The minute fissures in steel ingots. The mode of formation and method of detection of minute cavities in steel ingots are described, together with an account of their alteration during rolling and forging.—M. Leclerc du Sablon was elected a correspondant for the section of botany in succession to the late M. Farlow, and M. Luglon correspondant for the section of mineralogy in succession to M. Walcott, elected foreign associate.—C. Rabut: The reduction of contact transformations.—R. Birkeland: A reduction of Abelian integrals.—J. Bourquart: The Quaternary glaciation of Central Albania.—L. and E. Bloch: Some new spark spectra in the extreme ultra-violet. Measurements for wavelengths between 1855 and 1500 Å.U. are given for the ultra-violet spectra of cadmium, bismuth, nickel, and silver.—J. A. Le Bel: New observations on cathetermic phenomena.—D. Gauthier: The synthesis of α -ketonic tertiary alcohols. A correction relating to the constitution of a body previously described.—J. Guyot and L. J. Simon: The action of water on methyl chlorosulphonate.—A. Mailhe and F. de Godon: The catalytic formation of ether oxides. Calcined alum is an excellent reagent for the conversion of ethyl alcohol into ether, with a yield of 71 per cent. This reaction has been extended to propyl alcohol (yield of ether 54 per cent.), isopropyl alcohol (yield 10 per cent.), isoamyl alcohol (yield 28 per cent.), and mixtures of alcohols. In the last case mixed ethers can be prepared.—P. Bertrand: The normal succession of the coal flora in the Gard coal basin.—L. Besson: Extraordinary haloes.—A. Loubière: The fungi of Brie cheese.—E. F. Galiano: The histology of the branchial hearts of *Sepia officinalis* and their appendices.—V. Galippe: Researches on the evolution of the protoplasm of certain plant-cells by the method of culture.—G. Bertrand and M. Brocq-Roussou: The destruction of rats by chloropicrin. Both the rat and the rat-flea are readily destroyed by the vapour of chloropicrin, and, as this substance is without action upon cloth materials and dyes, it can be utilised for the destruction of rats in ships.

Books Received.

A Course of Practical Chemistry for Agricultural Students. By L. F. Newman and Prof. H. A. D. Neville. Vol. i. Pp. 235. (Cambridge: At the University Press.) 10s. 6d. net.

A Treatise on the Mathematical Theory of Elasticity. By Prof. A. E. H. Love. Third edition. Pp. xviii+624. (Cambridge: At the University Press.) 37s. 6d. net.

Pastimes for the Nature Lover. By Dr. S. C. Johnson. Pp. 136. (London: Holden and Hardingham, Ltd.) 1s. net.

Department of Applied Statistics, University of London, University College. Drapers' Company Research Memoirs. Biometric Series. X.: A Study of the Long Bones of the English Skeleton. By Karl Pearson and Julia Bell. Part i.: The Femur. Text, chaps. i. to vi., pp. v+224; Atlas, pp. vii+plates lix; and Tables of Measurements and Observations. Part i., section ii. Text, pp. 225-539; Atlas, pp. vii+plates lx-ci. (Cambridge: At the University Press.) Part i., Text and Atlas, 30s. net; part i., section ii., Text and Atlas, 40s. net.

Tanks in the Great War, 1914-1918. By Brevet-Col. J. F. C. Fuller. Pp. xxiv+331+vii plates. (London: John Murray.) 21s. net.

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The Heron of Castle Creek, and other Sketches of Bird Life. By A. W. Rees. Pp. 218. (London: John Murray.) 7s. 6d. net.

The Soil: An Introduction to the Scientific Study of the Growth of Crops. By Sir A. D. Hall. Third edition. Pp. xv+352. (London: John Murray.) 7s. 6d. net.

Medieval Medicine. By Prof. J. J. Walsh. Pp. xii+221. (London: A. and C. Black, Ltd.) 7s. 6d. net.

Laboratory Manual of Elementary Colloid Chemistry. By E. Hatschek. Pp. 135. (London: J. and A. Churchill.) 6s. 6d.

Euclid in Greek. Book i. With Introduction and Notes. By Sir Thomas L. Heath. Pp. ix+239. (Cambridge: At the University Press.) 10s. net.

Sleeping for Health. By Dr. E. F. Bowers. Pp. 128. (London: G. Routledge and Sons, Ltd.) 2s. 6d. net.

Animal Foodstuffs: Their Production and Consumption, with Special Reference to the British Empire. By Dr. E. W. Shanahan. Pp. viii+331. (London: G. Routledge and Sons, Ltd.) 10s. 6d. net.

Intermediate Text-book of Magnetism and Electricity. By R. W. Hutchinson. Pp. viii+620. (London: W. B. Clive.) 8s. 6d.

The Mineralogy of the Rarer Metals. By E. Cahen and W. O. Wootton. Second edition. Revised by E. Cahen. Pp. xxxii+246. (London: G. Griffin and Co., Ltd.) 10s. 6d.

The Running and Maintenance of the Marine Diesel Engine. By J. Lamb. Pp. xii+231+4 plates. (London: C. Griffin and Co., Ltd.) 8s. 6d.

Memoirs of the Geological Survey, Scotland. Special Reports on the Mineral Resources of Great Britain. Vol. xi.: Iron Ores (continued). The Iron Ores of Scotland. By M. Macgregor and others. Pp. vii+240. (Edinburgh: H.M.S.O.; Southampton: Ordnance Survey Office.) 10s. net.

Motion Study for the Handicapped. By F. B. Gilbreth and Dr. L. M. Gilbreth. Pp. xvi+165. (London: G. Routledge and Sons, Ltd.) 8s. 6d. net.

Qualitative Analysis in Theory and Practice. By Prof. P. W. Robertson and D. H. Burleigh. Pp. 63. (London: E. Arnold.) 4s. 6d. net.

Tychonis Brahe Dani Opera Omnia. Edidit J. L. E. Drever. Tomus vi. Pp. v+375. (Hauniae: Libraria Gyldendaliana.)

Moses: The Founder of Preventive Medicine. By P. Wood. Pp. xi+116. (London: S.P.C.K.) 4s. net.

Manual of American Grape-Growing. By W. P. Hedrick. Pp. xiii+458+xxxii plates. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd.) 15s. net.

Diary of Societies.

THURSDAY, MARCH 4.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Lt.-Col. E. Gold: The Upper Air: (i) Modern Methods of Investigation, and their Application in the War.

ROYAL SOCIETY, at 4.30.—Dr. F. F. Blackman: The Protoplasmic Factor in Photosynthesis.—G. E. Briggs: The Beginning of Photosynthesis in the Green Leaf.—Prof. B. Moore, E. Whitley, and T. A. Webster: Sunlight and the Life of the Sea.

LINNEAN SOCIETY, at 5.—Dr. A. B. Rendle, E. G. Baker, and S. L. Moore: A Contribution to the Flora of New Caledonia based upon the Collections of R. H. Compton in 1914.

ROYAL COLLEGE OF PHYSICIANS, at 5.—Dr. A. Castellani: The Higher Fungi in relation to Human Pathology (Milroy Lecture).

ROYAL INSTITUTE OF PUBLIC HEALTH, at 5.—Dr. T. G. Maitland: Hospital Treatment of Pulmonary Tuberculosis.

ROYAL SOCIETY OF MEDICINE, at 5.30.—Dr. W. Edgecomb: Visceral Fibrositis.—Discussion on paper by Dr. Ferreyrolle: Immunity and Mineral Water Treatment.

CHEMICAL SOCIETY, at 8.—E. H. Rennie, W. T. Cooke, and H. H. Finlayson: An Investigation of the Resin from Species of *Xanthorrhoea* Not Previously Examined.—I. S. Bagster: The Reaction between Nitric Acid and Copper.—M. Chikashige: Ancient Oriental Chemistry and