

has nothing in common with the growth factor of organic nature demonstrated by the author. H. LAGOTALA: Concerning the metalliferous deposits of the French Congo. The author emphasises the frequency of mineralisation in the grits, which show the same characters as the limestones; on the other hand, chalcopyrite is the source of the copper deposits of this region. G. TIERCY: The variation of density in the external layer of a cepheid. The course of the curve of radial velocities and the range of the  $K$  coefficient of absorption in the reversing layer show that the density of the external layer does not remain proportional to the mean density of the whole star during the variation of the latter. G. TIERCY and A. GROSREY: The width of a photographic star spectrum for stars of the  $B_5$  type. The authors make a study, for the spectral type  $B_5$ , analogous with that which they have made for the type  $A_5$ . They establish a function of the magnitude and of the time of exposure representing in each case the width of the stellar spectrum. G. TIERCY and P. ROSSIER: The curve of sensibility of 'Cappelli-blu' plates. In a collection of 'Cappelli-blu' plates a certain number of negatives have given a secondary maximum, very weak but quite clear, for a wave-length of 5400 Å. M. GYSIN: Petrographical researches in the Haut-Katanga (4). The formations of the Roan series. Second series. The author has subdivided the rocks met with in the Roan series into sixteen distinct petrographical types. He describes each type; the most important are the arkosic conglomerate, the felspathic quartzites, the clayey felspathic grits, the sericitic quartzites and grits, the dolomitic quartzites and grits and the limestones and dolomites.

### Forthcoming Events

ROYAL HORTICULTURAL SOCIETY, at 3.30.—(in the New Hall, Greycoat Street, Westminster, S.W.1). Prof. V. H. Blackman: "Plants in Relation to Light and Temperature" (Masters' Memorial Lectures. Succeeding lecture on July 19.)

INSTITUT INTERNATIONAL DE DOCUMENTATION, July 18–21. Twelfth Annual Conference to be held at Brussels.

ROYAL CORNWALL POLYTECHNIC SOCIETY, July 18–21.—Centenary Celebrations at Falmouth and Penzance. President: The Right Hon. Viscount Clifden. Papers by Sir John Cadman, Sir Richard Gregory, Sir W. Napier Shaw, Dr. G. C. Simpson, and Prof. S. J. Truscott.

WORLD PETROLEUM CONGRESS, July 20–25.—(at the Imperial College of Science).

INTERNATIONAL GEOLOGICAL CONGRESS, July 22–29.—Sixteenth session to be held in Washington, D.C. (Preliminary session at New York on July 21.)

### Official Publications Received

#### GREAT BRITAIN AND IRELAND

The Scientific Proceedings of the Royal Dublin Society. Vol. 20 (N.S.), No. 37: Award of the Boyle Medal to Prof. Paul A. Murphy. Pp. 547–549. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 6d.

The Welsh Journal of Agriculture: the Journal of the Welsh Agricultural Education Conference. Vol. 9. Pp. 292. (Cardiff: University of Wales Press Board.) 2s. 6d.

Rapports 1° du Directeur de la Ferme d'Expériences, "Glenham", Trinité; 2° de l'Expert ayant trait aux maladies affectant les pommes de terre et les tomates; et 3° de l'Expert pour la culture et le soin

des arbres à fruit; avec tableaux y annexés pour l'année 1932. Présentés par M. la Juré Justicier Giffard. Pp. 74. (Jersey: J. T. Bigwood, Ltd.)

Leighton Park School: Natural History Memoirs. Memoir 1: Birds of the School Grounds and Neighbourhood. By J. D. Wood and P. R. Barlow. Pp. 29. Memoir 2: Insects (mainly Lepidoptera) of the School Grounds and Reading Neighbourhood. By C. Runge, H. C. Robinson and F. W. Flatterly. Pp. 39. (Reading.)

Transactions of the Royal Society of Edinburgh. Vol. 57, Part 3, No. 25: The Early Stages in the Development of Cavia. By Dr. Norman H. W. MacLaren and Prof. Thomas H. Bryce. Pp. 647–664+5 plates. 4s. 3d. Proceedings of the Royal Society of Edinburgh. Vol. 53, Part 2, No. 12: Matrices and Continued Fractions. By Prof. H. W. Turnbull. Pp. 151–163. 1s. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.)

The North of Scotland College of Agriculture. Guide to Experiments and Demonstration Plots at Craibstone, 1933. Pp. xii+62. (Aberdeen.)

Proceedings of the Geologists' Association. Edited by G. S. Sweeting. Vol. 44, Part 2, June 27th. Pp. 121–226+plates 11–28. (London: Edward Stanford, Ltd.) 5s.

Planetary Co-ordinates for the Years 1800–1940 referred to the Equinox of 1950-0. Prepared by H.M. Nautical Almanac Office. Pp. xviii+156. (London: H.M. Stationery Office.) 12s. 6d. net.

The Scientific Proceedings of the Royal Dublin Society. Vol. 20 (N.S.), No. 39: A New Silver Filter for Ultra-Violet Light. By G. C. Brock. Pp. 563–566. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 6d.

#### OTHER COUNTRIES

Proceedings of the American Academy of Arts and Sciences. Vol. 68, No. 6, May: A Suggestion concerning Platos Atlantis. By W. A. Heidel. Pp. 189–228. (Boston.) 85 cents.

The Science Reports of National Tsing Hua University. Series A: Mathematical and Physical Sciences. Vol. 2, No. 1. Pp. 73. (Peiping: National Tsing Hua University.) 1 Mex. dollar.

Transactions of the Astronomical Observatory of Yale University. Vol. 6, Part 5: Tables for the Development of the Disturbing Function with Schedules for Harmonic Analysis. By Ernest W. Brown and Dirk Brouwer. Pp. iv+73–158. Vol. 6, Part 6: The General Orbit of Hector. By Wallace J. Eckert. Pp. ii+159–172. Vol. 6, Part 7: Theory and Tables of the Motion of (588) Achilles. By Dirk Brouwer. Pp. iii+173–188. Vol. 9: Catalogue of the Positions and Proper Motions of 10358 Stars; Re-observation by Photography of the Astronomische Gesellschaft Zone between Declinations +25° and +30°, reduced to 1875-0 without applying Proper Motions. By Frank Schlesinger and Ida Barney. Together with Photographic Magnitudes determined by means of the Thermoelectric Photometer, by Jan Schilt. Pp. iii+35+208. (New Haven, Conn.: Yale University.)

Straits Settlements. Annual Report of the Director of Gardens for the Year 1932. By R. E. Holttum. Pp. 9. (Singapore: Government Printing Office.)

Department of Public Instruction: Technical Education Branch: New South Wales. Technological Museum: Curator's Annual Report for Year ended 31st December, 1932. Pp. 7. (Sydney, N.S.W.: Government Printer.)

Proceedings of the Sugar Cane Investigation Committee, formerly Frognoper Investigation Committee. Vol. 4, Part 2, December 1932. Pp. 63–144. (Trinidad: Imperial College of Tropical Agriculture.)

Indian Journal of Physics, Vol. 7, Part 6, and Proceedings of the Indian Association for the Cultivation of Science, Vol. 16, Part 6. Conducted by Sir C. V. Raman. Pp. 491–621+xi. (Calcutta.) 3 rupees; 4s.

The Science Reports of the Tôhoku Imperial University, Sendai, Japan. Second Series (Geology). Vol. 12, No. 2B. Pp. 195–252+plates 30–39. (Tôkyô and Sendai: Maruzen Co., Ltd.)

Journal of the Faculty of Science, Imperial University of Tokyo. Section 1: Mathematics, Astronomy, Physics, Chemistry. Vol. 2, Part 8: Monthly and Annual Deviations of Meteorological Elements in Japan. By K. Takeda, K. Terada, T. Hagiwara, K. Atumi, T. Ehro and T. Tudikawa. Pp. 211–304+21 plates. 2.80 yen. Section 2: Geology, Mineralogy, Geography, Seismology. Vol. 3, Part 7: Faunal Study of the Wanwanian (Basal Ordovician) Series with Special Notes on the Ribetridæ and the Ellesmeroceroids. By Teichi Kobayashi. Pp. 249–323+10 plates. 1.70 yen. Section 4: Zoology. Vol. 3, Part 2. Pp. 91–254+plates 4–20. 3.00 yen. (Tokyo: Maruzen Co., Ltd.)

Memoirs of the College of Science, Kyoto Imperial University. Series A. Vol. 16, No. 1, January. Pp. 125+13 plates. 2.80 yen. Vol. 16, No. 2, March. Pp. 127–191. 1.30 yen. Vol. 16, No. 3, May. Pp. 193–218+2 plates. 0.60 yen. (Tokyo: Maruzen Co., Ltd.)

Ministry of Agriculture, Egypt: Technical and Scientific Service. Bulletin No. 110: The Desert Locust *Schistocera gregaria* Forsk in Egypt. By E. Ballard, A. M. Mistikawi Eff and M. S. El Zohery Eff. Pp. xi+149+43 plates. (Cairo: Government Press.)

Japanese Journal of Engineering. Abstracts, Vol. 9. Pp. vii+70. (Tokyo: National Research Council of Japan.)

U.S. Department of the Interior: Geological Survey. Water-Supply Paper 717: Surface Water Supply of the United States, 1931. Part 7: Lower Mississippi River Basin. Pp. v+108. 10 cents. Professional Paper 175-B: Some of Alpheus Hyatt's Unfigured Types from the Jurassic of California. By C. H. Crickmay. (Shorter Contributions to General Geology, 1932–33). Pp. ii+51–64+plates 14–18. 5 cents. (Washington, D.C.: Government Printing Office.)

#### CATALOGUES

Catalogue of B.D.H. Fine Chemical Products. (June.) Pp. 154. (London: The British Drug Houses, Ltd.)

Zeiss Nachrichten. Heft 3, März. Pp. 36. (Jena: Carl Zeiss.)

A Catalogue of Books mainly of Literary Interest, including a Selection from the Libraries of G. Lowes Dickinson, J. M. Robertson and other Sources. (No. 467.) Pp. 28. (Cambridge: Bowes and Bowes.)