

able to explain the greater part of solar phenomena.—Valère Glivenko: Surfaces of finite area.—Julius Wolff: A generalisation of a theorem of Schwartz.—Gossot and Liouville: The principles of interior ballistics.—V. N. Ipatief and B. A. Mouromtsef: The reduction of chromic combinations by hydrogen under pressure and at high temperatures.—F. Taradoire: The rapid oxidation of drying oils and antioxygens. With the exception of the nitroso derivatives of diphenylamine, none of the other organic antioxygen substances employed were sufficiently active to prevent the spontaneous inflammation caused by the oxidation of drying oils on cotton wool.—Raymond-Hamet: A supposed sympathicotropism of Uzara.—Methodi Popoff, Minco Dobreff, and George Paspaleff: The development of the eggs of the sea-urchin (*Strongylocentrotus lividus*) under the action of extracts of the pollen of the oak and of calla.

September 20.—Th. Got: A remarkable class of ruled surfaces.—A. Myller: Normal curvature and geodesic torsion.—George D. Birkhoff: The significance of the canonical equations of dynamics.—André Meyer: The catalytic rôle of mercury in the sulphonation of anthraquinone. To explain the catalytic influence of mercury on this sulphonation, Martinet and Roux have formulated an ingenious hypothesis. One deduction from this is that  $\alpha$ -anthraquinone sulphonic acid should be transposed into the  $\beta$ -acid by simple heating with concentrated sulphuric acid. This the author is unable to confirm, the  $\alpha$ -acid remaining unchanged under these conditions.—E. Kohn-Abrest and S. Kawakibi: Nitrates in animal and vegetable tissues. Details of a modification of Lunge's method of determining nitrates suitable for organic material.

## SYDNEY.

Royal Society of New South Wales, September 1.—F. W. Booker: The internal structures of the Pentameridae of N.S. Wales. Brachiopod material was examined by means of serial thin sections, from 1 to 1.5 mm. apart. A new sub-genus, *Barrandina* (Synonym *Pentamerus linguifera*, var. *Wilkinsoni*, Eth. Fils 1892), containing two new species, *B. Wilkinsoni* and *B. Minor*, is described. A structure new to science is noted in the cruralium of these two species. It is also present in *Sieberella galeata*, Dalman, and *Sieberella glabra*, Mitchell, but not in *Pentamerella (Barrandella) Molongensis*, Mitchell.—M. B. Welch: The wood structure of certain eucalypts belonging chiefly to the ash group. The woods of seven species of eucalyptus are described in detail. In common with other members of the genus, the woods are practically diffuse-porous, though growth rings are more prominent in certain of these species than in most. The vessels possess simple end perforation. Transition forms occur between the fibre-tracheids, making up the bulk of the woody tissue, and the typical tracheids. Wood parenchyma is usually not abundant and is chiefly vasicentric.

## Official Publications Received.

## BRITISH AND COLONIAL.

Journal of the Indian Institute of Science. Vol. 9A, Part 2: Vegetable Oils containing Glycerides of Erucic Acid. By J. J. Sudborough, H. E. Watson and P. Ramaswami Ayyar. Pp. 25-70+2 plates. 2s. rupees. Vol. 9A, Part 3: The Production of Ether by Solid Catalysts. By S. K. Kulkarni Jatkari and H. E. Watson. Pp. 71-109+4 plates. 3 rupees. Vol. 9A, Part 4: The Constituents of some Indian Essential Oils. Part 13: Derivatives of Abietic Acids. By Madyar Gopal Rau and John Lionel Simonsen. Pp. 111-116+3 plates. 8 annas. (Bangalore.)

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Transactions of the Royal Society of Edinburgh. Vol. 54, Part 3, No. 17: Some new Ordovician and Silurian Fossils from Girvan. By Dr. F. R. Cowper Reed. Pp. 785-789+1 plate. 1s. Vol. 54, Part 3, No. 18: The Geology of Jan Mayen. By J. M. Wordie. Pp. 741-745+2 plates. 1s. 6d. Vol. 54, Part 3, No. 20: Calamoichthys calabaricus J. A. Smith. Part 1: The Alimentary and Respiratory Systems. By G. Leslie Purser. Pp. 767-784+1 plate. 2s. 6d. Vol. 54, Part 3, No. 21: Contributions to the Study of the Old Red Sandstone Flora of Scotland. iii: On *Hostimella* (Phyllophyton) Thomsoni, and its Inclusion in a new Genus, *Milleria*; iv: On a Specimen of *Protolopodendron* from the Middle Old Red Sandstone of Caithness; v: On the Identification of the large 'Stems' in the Carnyllie Beds of the Lower Old Red Sandstone as Nematophyton. By Dr. W. H. Lang. Pp. 785-799+2 plates. 5s. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, L. d.)

Department of Agriculture, Ceylon. Bulletin No. 76: Supplement No. 1 to the Guide to the Central Experiment Station, Peradeniya, issued as Bulletin No. 70. Pp. 24. (Peradeniya.) 40 cents.

Botanical Survey of South Africa. Memoir No. 7: The Native Timber Trees of the Springbok Flats. By Ernest E. Galpin. Pp. 26+26 plates. (Pretoria: Government Printing and Stationery Office.)

Department of Science and Agriculture, Jamaica. Microbiological Circular No. 5: Panama Disease in Jamaica. By C. G. Hansford. Pp. ii+35. (Kingston, Jamaica: Government Printing Office.)

University of London: University College. Calendar, Session 1926-1927 (Centenary Year). Pp. clxxx+10+475+44. (London: Taylor and Francis.)

The Journal of the Institution of Electrical Engineers. Edited by P. F. Rowell. Vol. 64, No. 358, October. Pp. 989-1092+xxx. (London: E. and F. N. Spon, Ltd.) 10s. 6d.

Engineering Abstracts from the Current Periodical Literature of Engineering and Applied Science, published outside the United Kingdom. Published by the Institution of Civil Engineers with the Co-operation of other Engineering Societies in Great Britain and the Dominions. New Series, No. 29, October. Pp. 221. (London: The Institution of Civil Engineers.)

## FOREIGN.

Transactions of the Astronomical Observatory of Yale University. Vol. 3, Part 4: Catalogue of 1275 Stars; Re-observation by Means of Photography of Astronomische Gesellschaft Stars between Declinations  $+1^\circ$  and  $+2^\circ$ , reduced to 1875.0 without applying Proper Motions. By Frank Schlesinger, with the collaboration of C. J. Hudson, Louise Jenkins and Ida Barney. Pp. 135-151. Vol. 3, Part 5: Complement to the Tables of the Motion of the Moon, containing the Remainder Terms for the Century 1800-1900, and Errata in the Tables. By Ernest W. Brown, with the assistance of H. B. Hedrick. Pp. 155-204. Vol. 3, Part 6: The Evidence for Changes in the Rate of Rotation of the Earth and their Geophysical Consequences, with a Summary and Discussion of the Deviations of the Moon and Sun from their Gravitational Orbits. By Ernest W. Brown. Pp. 205-235+3 plates. (New Haven, Conn.)

Department of Commerce: Bureau of Standards. Scientific Papers of the Bureau of Standards, No. 530: Establishment of Radio Standards of Frequency by the Use of a Harmonic Amplifier. By C. B. Joffille and Grace Hazen. Pp. 177-189. (Washington, D.C.: Government Printing Office.) 10 cents.

Rapport annuel sur l'état de l'Observatoire de Paris pour l'année 1925, présenté au conseil dans sa séance du 6 mars 1926. Pp. 26. (Paris.)

Cornell University Agricultural Experiment Station. Bulletin 449: Biology and Control of the White-Pine Weevil, *Pissodes strobi* Peck. By Samuel A. Graham. Pp. 32. Memoir 97: Calcium Sulfate as a Soil Amendment. By M. H. Cubbon. Pp. 51. (Ithaca, N.Y.)

Jahresbericht der Hamburger Sternwarte in Bergedorf für das Jahr 1925. Nebst einer Übersicht über die meteorologischen Beobachtungen 1919-1925. Pp. 34. (Bergedorf.)

Astronomische Abhandlungen der Hamburger Sternwarte in Bergedorf. Band 2, Nr. 7: Beiträge zur physischen Untersuchung der grossen Planeten. 3: Beobachtungen und Zeichnungen des Planeten Mars während der Periheliosposition 1924 ausgeführt am 60 cm-Refraktor der Hamburger Sternwarte in Bergedorf. Von K. Graff. Pp. 30+12 Tafeln. (Bergedorf.)

Mitsuru Kuhara's On the Beckmann Rearrangement. Edited by Prof. Shigeru Komatsu. Pp. v+83. (Kyoto: Kyoto Imperial University.)

Festschrift der Zentralanstalt für Meteorologie und Geodynamik zur Feier ihres 75-jährigen Bestandes im Jahre 1926. Herausgegeben von der Akademie der Wissenschaften in Wien unter Mitwirkung der Zentralanstalt für Meteorologie und Geodynamik. Pp. v+195. (Wien.)

Report of the National Research Council for the Year July 1, 1923-June 30, 1924. Pp. iv+59-95+129-205. Report of the National Research Council for the Year July 1, 1924-June 30, 1925. Pp. iv+106. (Washington, D.C.: Government Printing Office.)

American Museum of Natural History. Guide Leaflet Series No. 64: Meteorites, Meteors and Shooting Stars. By Frederic A. Lucas. Pp. 24. (New York City.)

Year Book of the Michigan College of Mines, 1925-1926, Houghton, Michigan. Announcement of Courses, 1926-1927. Pp. 11. (Houghton, Mich.)

The American Journal of Hygiene. Monographic Series, No. 6, September: The School of Hygiene and Public Health of the Johns Hopkins University. Pp. iii+55. (Baltimore, Md.) Free.

Sveriges Geologiska Undersökning. Årsbok, 1924. Motsvarande No. 820-833 av Ser. C. (Avhandlingar och Uppsatser.) Pp. ii+96+129+130+34+20+11. (Stockholm.) 850 kr.

Publication No. 587: A Decade of Progress in the Design and Manufacture of Scientific Optical Instruments and Apparatus. Pp. 20. (York and London: Cooke, Troughton and Simms, Ltd.)

Price List for 1926-7. Pp. 28. (London: Dubilier Condenser Co., 1925) Ltd.)

Microscopical Illuminating Apparatus. Pp. 32. (London: Ogilvy and Co.)