

elephant. These large bones, however, were those of the *Diprotodon*, the largest known marsupial, living or extinct, which equalled the largest rhinoceros in bulk. It is clear that in recent geological time, the late Tertiary and the Pleistocene of geologists, the mammalian fauna of Australia was characterised by the prevalence of marsupials belonging to various families; some of these were of large size and bizarre structure and are now extinct, others were very similar to still living genera and species. R. J. TILLYARD: The may-flies of the Kosciusko region. (1) Introduction and family Siphonuridae. The Australian fauna of Siphonuridae is shown to be very closely related to that of New Zealand. It consists of three groups of forms, the first characterised by fast, free-swimming nymphs with the gills held laterally, the second by slow, free-swimming nymphs with the gills held dorsally, and the third by sedentary nymphs clinging to rocks in rapids, with deeply cleft gills held vertically. P. BROUGH: The life-history of *Grevillea robusta*, Cunn. The organogeny, development of microsporangium and megasporangium respectively, the gametophyte generations, nectar secretion, endosperm formation and embryology are described in detail. Cross-pollination, self-pollination, fertilisation, seed structure, morphology of the wing, the causes underlying sterility and annual variations in amount of seed crop, and the affinities of the Proteaceae are discussed.

VIENNA

Academy of Sciences, March 2. MAGDALENE HABERFELD: Coloration and decoloration of compressed rock-salt crystals. The absorption spectrum of compressed sodium chloride crystals after radium irradiation, and the changes effected therein in the light and in the dark, have been studied. As was found by Smakula for the uncompressed salt, the separation of an electron from the compressed salt requires approximately one quantum. ROBERT TRATTNER: The Wilson chamber as a counting apparatus for α - and H-rays. The percentage law effective in the Wilson chamber is not only different for α - and H-rays, but also appears to be dependent on the mode of production of the H-rays. GEORG KOLLER and GERHARD PFEIFFER: Umbilicic and ramalic acids. For umbilicic acid obtained from *Gyrophora deusta*, the empirical formula $C_{25}H_{22}O_{10}$ given by Hesse is confirmed. The close relationship of this acid to gyrophoric acid, which occurs in the same lichen and contains one CH_2 group less, is pointed out and modifications in the structural formula previously suggested for umbilicic acid are proposed. RUDOLF WAGNER: The whorl-umbel, a new type of the *Botrytis* system. HANS LIEB and MILOS MLADENOVIC: Elemic acid from elemi resin.

March 9. ERNST BEUTEL and ARTUR KUTZELNIGG: Sulphide mirrors. A boiling sodium-lead thiosulphate solution deposits on glass previously etched with dilute stannous chloride solution, an adhesive layer of lead sulphide. When thin (less than about 560 μ), the layer transmits reddish-brown or yellowish-brown light. The Lambert-Beer law holds for deposits less than 160 μ in thickness. Similar coatings of the sulphides of silver, copper and bismuth are obtainable. A. SCHEDLER and M. TOPERCZER: A short account of the distribution of the terrestrial magnetic force in Austria at the epoch 1930.0. CARLA ZAWISCH-OSSENTZ: Sebaceous glands in the outer ear-passages of rodents and Insectivora.

March 16. FRITZ RIEDER: Experiments on the Wilson method for the emission of neutrons from beryllium and the disintegration of atoms by neutrons. A large Wilson-chamber arrangement for stereoscopic photography has been used for obtaining pictures of H-rays liberated from beryllium by neutrons. The existence of slow neutrons producing H-rays, with a range of some centimetres at most, is established. HANS POPPER and JOSEF BÖCK: Investigations on the carbohydrates of the aqueous humor of the eye. HANS BENNDORF: The conception of electrostatic capacity. The usual definition of electrostatic capacity, based on Maxwell's capacity coefficient as a measure of the capacity, is regarded as too narrow. In many cases, some of practical importance, it fails to fulfil the true function of the conception of capacity, namely, of furnishing a measure of the ratio between the quantity of electricity supplied to a conductor and the change in potential effected thereby. It is, therefore, proposed to define the capacity C of a conductor by this quotient, $\delta e/\delta v$, and the mean capacity \bar{C} between two potentials V and V^1 by the mean value of C : $\bar{C} = \frac{1}{V^1 - V} \int_V^{V^1} C dV$. For the case of two spheres, the difference between capacity at constant potential and capacity at constant charge is calculated numerically. ARTUR WINKLER-HERMADEN: Accumulation, denudation, and land-formation at the eastern edge of the Alps.

Official Publications Received

GREAT BRITAIN AND IRELAND

Fourteenth Annual Report of the Ministry of Health, 1932-1933. (Cmd. 4372.) Pp. xii+329. (London: H.M. Stationery Office.) 5s. net.

University College of Wales, Aberystwyth: Welsh Plant Breeding Station. An Account of the Organisation and Work of the Station from its Foundation in April 1919 to July 1933. Pp. iv+164. (Aberystwyth.) 3s.

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1502 (T.3297): Aircraft Turning Performance, Part 1. By S. B. Gates. Pp. 8+8 plates. 6d. net. No. 1508 (Strut. 109): Critical Reversal Speed for an Elastic Wing. By A. G. Pugsley and G. R. Brooke. Pp. 10+5 plates. 9d. net. No. 1517 (L.47): Lubrication in Oxidising Conditions. By R. O. King and C. Jakeman. Pp. 14+11 plates. 1s. net. No. 1524 (I.C.E. 802): Abstract, The Oxidation of Fuel Vapours in Air. By Dr. E. Mardles. Pp. 2. 2d. net. (London: H.M. Stationery Office.)

OTHER COUNTRIES

Scientific Papers of the Institute of Physical and Chemical Research. Nos. 431-434: Markotin und Vitamin C (Fortsetzung), von Suttekiti Maruyama; Chemische Untersuchungen in der Saponinreihe, 4 Mitteilung: Über die Saponine von *Fatsia Japonica* Dene et Plane, von Munio Kotake, Katsuta Taguchi und Teiji Okamoto; Studien über den Feinbau der Seide (1-4 Mitteilungen), von Kametaro Ohara; The Most Probable Values of e , e/m and h , II, by Kamakichi Shiba. Pp. 93-137+plates 11-14. (Tokyo: Iwanami Shoten.) 80 sen.

Southern Rhodesia: Geological Survey. Short Report No. 23: Notes on Gold Mining in the Victoria District. By B. Lightfoot. Pp. 23+6 plates. (Salisbury.)

Government of India: Department of Industries and Labour (Public Works Branch). Irrigation in India, Review for 1930-31. Pp. iii+53. (Delhi: Manager of Publications.) 1.2 rupees; 2s.

U.S. Department of Commerce: Bureau of Standards. Bureau of Standards Journal of Research. Vol. 10, No. 6, June, Research Papers Nos. 561-572. Pp. 705-869. (Washington, D.C.: Government Printing Office.) 25 cents.

Memoirs of the Indian Meteorological Department. Vol. 25, Part 10: Solar Radiation Measurements at Poona in 1931. By Shanti Sroup Kohli. Pp. 327-342. (Calcutta: Government of India Central Publication Branch.) 12 annas; 1s. 3d.

Proceeding of the United States National Museum. Vol. 82, Art. 22: Pottery of the Hopewell Type from Louisiana. By Frank M. Setzler. (No. 2963.) Pp. 21+7 plates. (Washington, D.C.: Government Printing Office.)

Collection des travaux chimiques de Tchécoslovaquie. Rédigée et publiée par E. Votoček et J. Heyrovský. Année 5, No. 6, Juin. Pp. 233-278. (Prague: Regia Societas Scientiarum Bohemica.)

Forty-ninth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution 1931-1932. Pp. vi+8. (Washington, D.C.: Government Printing Office.)

Occasional Notes of the Hong Kong Horticultural Society. Edited by G. A. C. Herklots. No. 2, March. Pp. 47+6 plates. (Hong Kong.) 1.50 dollars.