

WASHINGTON, D.C.

National Academy of Sciences (*Proc.*, 20, 565-599, Nov. 15, 1934). T. E. STERNE: The accuracy of least squares solutions (see NATURE, Sept. 15, 1934, p. 421). GARRETT BIRKHOFF: Ideals in algebraic rings. NATHAN KAPLAN: V_3 in R_3 of $[1,2]_a$. P. A. SMITH: The fundamental group of a group manifold. H. S. VANDIVER: On the foundations of a constructive theory of discrete commutative algebra. H. B. CURRY: Functionality in combinatory logic. GEORGE H. SHORTLEY: The calculation of relative multiplet strengths in a transition array. S. S. STEVENS and E. B. NEWMAN: The localisation of pure tones. Tones were generated by a loud speaker, which was mounted on a 12-ft. horizontally rotating arm able to move round an observer on a platform 9 ft. above the roof of a building, thus avoiding reflection by vertical surfaces. The observer was asked to locate, by ear and without moving, the position of the loudspeaker working at different frequencies. Accuracy of localisation below 1,000 cycles and above 7,000 cycles is roughly the same; between 2,000 and 4,000 cycles it is relatively poor and a minimum. This suggests a dual mechanism for localisation: phase-difference at the two ears for low frequencies, and intensity-difference for high frequencies. G. H. PARKER: Acetyl choline and chromatophores. When protected from destruction in the blood by physostigmine, acetyl choline induces slight concentration of melanophore pigment in fish (blanching). Heavy doses limit heart action, and the resulting loss of circulation induces melanophore dispersion (darkening).

Forthcoming Events

[Meetings marked with an asterisk are open to the public.]

Sunday, February 10

BRITISH MUSEUM (NATURAL HISTORY), at 3 and 4.30.—H. W. Parker: "Reptiles of Commerce".*

Monday, February 11

BRITISH MUSEUM (NATURAL HISTORY), at 11.30.—Miss L. E. Cheesman: "The Mountains of Papua".*

VICTORIA INSTITUTE, at 4.30.—Rev. D. E. Hart-Davies: "Biblical History in the Light of Archaeological Discovery since the year 1900" (Gunning Prize Essay).

ROYAL GEOGRAPHICAL SOCIETY, at 5.—Major R. A. Bagnold: "The Movement of the Desert Sand".

UNIVERSITY COLLEGE, LONDON, at 5.—Dr. R. H. Ing: "The Chemical Structure of Drugs in relation to their Physiological Action" (succeeding lectures on February 18, 25, March 4, 11 and 18).*

Tuesday, February 12

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, at 8.30.—Sir Robert Robertson: "The Work of the Government Laboratory".

Thursday, February 14

LONDON MATHEMATICAL SOCIETY, at 5—(in the rooms of the Royal Astronomical Society, Burlington House, W.1).—Dr. Max Born: "Quantum Electrodynamics".

BEDFORD COLLEGE FOR WOMEN, at 5.15.—Comm. R. T. Gould: "Ways of Measuring Time—Modern Clocks".*

CHEMICAL SOCIETY, at 5.30.—(at the Institution of Mechanical Engineers, Storey's Gate, London, S.W.1).—Prof. R. Whytlaw-Gray: "The Process of Coagulation in Smoke" (Liversidge Lecture).

ROYAL EMPIRE SOCIETY (EDUCATION CIRCLE), at 8.—Discussion on "How Africans Educate Themselves", to be opened by the Rev. E. W. Smith.

Friday, February 15

ASSOCIATION OF APPLIED BIOLOGISTS, at 2.30.—Annual General Meeting to be held at the Imperial College of Science and Technology, South Kensington, London, S.W.7.*

GEOLOGICAL SOCIETY OF LONDON, at 3.—Annual General Meeting.

J. F. N. Green: "The Moines" (Anniversary Address).

Official Publications Received

GREAT BRITAIN AND IRELAND

The Scientific Proceedings of the Royal Dublin Society. Vol. 21 (N.S.), No. 15: The Cellulose of Marine Algae. By Dr. Thomas Dillon and Tadhg O'Tuama. Pp. 147-152. 6d. Vol. 21 (N.S.), No. 16: The Thermal Decomposition of Hydrogen Peroxide in Presence of Glass Wool and Copper Sulphate. By Dr. Kenneth C. Bailey. Pp. 153-164. 1s. Vol. 21 (N.S.), No. 17: On the Preparation and Properties of Alginic Acid and on the Extraction of Marine Algae with various Solvents (Preliminary Note). By Vincent Barry and Dr. Thomas Dillon. Pp. 165-166. 6d. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.)

Modern Anthropology versus Biblical Statements on Human Origin. By Sir Ambrose Fleming. Pp. 25. (London: Victoria Institute.) 1s. The Scientific Proceedings of the Royal Dublin Society. Vol. 21 (N.S.), No. 18: A Crate for the Collection of Faeces and Urine adjustable for Metabolism (Solid and Liquid) Experiments with Pigs, Sheep and Cattle of various Sizes. By E. J. Sheehy. Pp. 167-173. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 6d. Weather Studies. No. 1: Unofficial Meteorology. By Sir Napier Shaw. Pp. 26. (Huddersfield: Thunderstorm Census Organisation.) 1s.

The Journal of the Institute of Metals. Vol. 55. (No. 2, 1934.) Edited by G. Shaw Scott. Pp. 304+17 plates. (London: Institute of Metals.)

Proceedings of the Royal Irish Academy. Vol. 42, Section B, No. 8: A List of the Irish Hemiptera (Heteroptera and Cicadina). By J. N. Halbert. Pp. 211-318. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 3s. 6d.

Annual Report of the New Commonwealth, 1933-1934. Pp. 64+5 plates. (London: The New Commonwealth.)

Report of the Television Committee. (Cmd. 4793.) Pp. 27. (London: H.M. Stationery Office.) 6d. net.

The National Institute of Industrial Psychology. Report 6: A Vocational Guidance Research in Fife. By Dr. F. M. Earle and J. Kilgour. Pp. 101. 4s. 6d. A Contribution to the Problems of Vocational Guidance in Great Britain. Pp. 27. (London: National Institute of Industrial Psychology.)

The University of Durham (Durham Division): Department of Science. Record of the Period October 1924 to December 1934. Pp. 21. (Durham.)

OTHER COUNTRIES

Osmania University, Hyderabad. Publications of the Nizamiah Observatory. Astrographic Catalogue 1900-0, Hyderabad Section (Part 3), Dec. +36° to +39°, from Photographs taken and measured at the Nizamiah Observatory, Hyderabad, under the direction of T. P. Bhaskaran. Vol. 9: Measures of Rectangular Co-ordinates and Diameters of 65,782 Star-Images on Plates with Centres in Dec. +39°. Pp. xxv+239. (Begumpet: Nizamiah Observatory; London: Percy Lund, Humphries and Co., Ltd.) 15 rupees; 20s. net. Conseil Permanent International pour l'Exploration de la Mer. Bulletin hydrographique pour l'année 1933. Pp. x+113. (Copenhague: Andr. Fred. Høst et fils.) 7.00 kr.

Geological Series of Field Museum of Natural History. Vol. 6, No. 5: The Auditory Region of an Upper Pliocene Typotherid. By Bryan Patterson. Pp. 83-89. 10 cents. Vol. 6, No. 6: Upper Premolar Structure in the Notoungulata with Notes on Taxonomy. By Bryan Patterson. Pp. 91-111. 20 cents. Vol. 6, No. 7: Cranial Characters of *Homalodotherium*. By Bryan Patterson. Pp. 113-117. 10 cents. Vol. 6, No. 8: *Trachytherus*, a Typotherid from the Deseado Beds of Patagonia. By Bryan Patterson. Pp. 119-139. 15 cents. (Chicago.)

Carnegie Institution of Washington. Report of the Editor of the Division of Publications. (Reprinted from Year Book No. 33, for the Year 1933-34.) Pp. 360-390. (Washington, D.C.)

Travaux de la Station zoologique de Wimereux. Tome 10: Contribution à l'étude des Cnidaire et de leurs Nématocystes, 1: Recherches sur les Nématocystes (Morphologie, physiologie, développement). Par Dr. Robert Weill. Pp. iv+347. 125 francs. Tome 11: Contribution à l'étude des Cnidaire et de leurs Nématocystes, 2: Valeur taxonomique du Cnidome. Par Dr. Robert Weill. Pp. iii+349-701. 125 francs. (Paris: Laboratoire d'évolution des êtres organisés; Les Presses universitaires de France.)

CATALOGUES

Sports and Pastimes: Books on Angling, Big Game, Horses, Hunting, Mountaineering, Shooting and Miscellaneous Pastimes. (Catalogue No. 581.) Pp. 38. (London: Francis Edwards, Ltd.)

Electrical Thermometers and Pyrometers. (List No. B/10.) Pp. 52. (London: Negretti and Zambra.)