

rose and then fell, indicating formation of an intermediate compound. A solution of visual purple from active frogs in summer shows no such preliminary increase of absorption during bleaching. It is suggested that 'winter' and 'summer' frogs' visual purple contain different quantities of coloured or colourless substances which combine with decomposition products of visual purple to form a yellow substance. G. A. MILLER: Groups involving three and only three squares. W. M. ROGERS: Heterotopic spinal cord grafts in salamander embryos. Co-ordinated movements of the fore-limbs resulted only when the implanted graft included the normal brachial region of the cord, thus confirming earlier investigators' results. In addition, it was shown that the co-ordinating mechanism can develop in brachial cords isolated from the central nervous system previous to the outgrowth of nerves. Co-ordination reflexes are independent of the number of nerves which grow into a limb during development.

Forthcoming Events

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
(ABERDEEN MEETING)

Wednesday, September 5

At 8.30 p.m.—Sir James Jeans: "The New World-Picture of Modern Physics" (Presidential Address in the Capital Cinema, Union Street).

Thursday, September 6

At 10 a.m.—Prof. T. M. Lowry: "Physical Methods in Chemistry" (Presidential Address to Section B).

Dr. E. S. Russell: "The Study of Behaviour" (Presidential Address to Section D).

Prof. A. G. Ogilvie: "Co-operative Research in Geography and an African Example" (Presidential Address to Section E).

Prof. F. G. Baily: "Sources of Cheap Electric Power" (Presidential Address to Section G).

Prof. A. W. Borthwick: "Some Aspects of Forest Biology" (Presidential Address to Section K).

Mr. H. T. Tizard: "Science at the Universities: Some Problems of the Present and Future" (Presidential Address to Section L).

At 2 p.m.—Conference of Delegates of Corresponding Societies. Sir Henry Lyons: "Scientific Societies and Museums" (Presidential Address).

Friday, September 7

At 10 a.m.—Prof. H. M. MacDonald: "Theories of Light" (Presidential Address to Section A).

Prof. W. T. Gordon: "Plant Life and the Philosophy of Geology" (Presidential Address to Section C).

Prof. H. M. Hallsworth: "The Future of Rail Transport" (Presidential Address to Section F).

Dr. Shepherd Dawson: "Psychology and Social Problems" (Presidential Address to Section J).

At 8.30 p.m.—Sir Frank Smith: "Storage and Transport of Food" (Sir William Hardy Memorial Lecture) (MacRobert Hall, Gordon's College).

INSTITUTE OF METALS, September 3-6. Annual Autumn Meeting to be held at Manchester.

Sept. 3.—Dr. J. L. Haughton: "The Work of Walter Rosenhain" (Annual Autumn Lecture).

Official Publications Received

GREAT BRITAIN AND IRELAND

Ministry of Agriculture and Fisheries. Economic Series No. 40: Abattoir Design; Report of Technical Committee. Pp. 46+xii. (London: H.M. Stationery Office.) 1s. net.

The Strangeways Research Laboratory, Cambridge. Report for 1933. Pp. 24. (Cambridge.)

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1577 (T.3202 and S. and C. 548): Westland-Hill Pterodactyl Mark IV. Part 1: Experiments on One-fifth Scale Model, by A. S. Batson; Part 2: Full Scale Tests, by J. E. Serby Pp. 19+16 plates. 1s. 6d. net. No. 1582 (S. and C. 565): Aileron Angles in High Speed Manœuvres with Single Seater Fighters. By B. V. Williams and J. H. Hartley. Pp. 8+6 plates. 6d. net. (London: H.M. Stationery Office.)

City of Leicester Museum and Art Gallery. Thirtieth Report to the City Council, 1st April 1933 to 31st March 1934. Pp. 30. (Leicester.)

The University of Leeds: Department of Coal Gas and Fuel Industries (with Metallurgy). Report of the Livesey Professor (John W. Cobb) for the Session 1932-33. Pp. 12. (Leeds.)

Mines Department. Twelfth Annual Report of the Safety in Mines Research Board, including a Report of Matters dealt with by the Health Advisory Committee, 1933. Pp. 129+19 plates. (London: H.M. Stationery Office.) 2s. net.

Fifteenth Annual Report of the Ministry of Health, 1933-1934. (Cmd. 4664.) Pp. xii+388. (London: H.M. Stationery Office.) 6s. net.

Proceedings of the Royal Society of Edinburgh, Session 1933-1934. Vol. 54, Part 2, No. 14: Fifty Years Ago, in the Royal Society of Edinburgh. An Address delivered, at the request of the Council, on May 7, 1934, in commemoration of the 150th Year of the Society. By Prof. D'Arcy Wentworth Thompson. Pp. 145-157+2 plates. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.) 1s. 6d.

OTHER COUNTRIES

Canada: Department of Mines: Geological Survey. Summary Report 1933, Part B. (No. 2353.) Pp. 176B+2 plates. 50 cents. Summary Report 1933, Part D. (No. 2351.) Pp. 162D+5 plates. 50 cents. Economic Geology Series, No. 13: Platinum and Allied Metal Deposits of Canada. By J. J. O'Neill and H. C. Gunning. (No. 2346.) Pp. 165. 50 cents. Memoir 172: Geology and Mineral Deposits of Salmo Map-area, British Columbia. By J. F. Walker. (No. 2345.) Pp. 102. 25 cents. (Ottawa: King's Printer.)

Canada: Department of Mines: National Museum of Canada. Bulletin No. 73: Annual Report for 1933. Pp. 30. (Ottawa: King's Printer.) 25 cents.

Report of the Aeronautical Research Institute, Tôkyô Imperial University. No. 107: A Development of the Michell's Theory of Lubrication. By Torao Kobayashi. Pp. 385-414. 25 sen. No. 108: On the Effect of Pipe Bores on the Cut-off of Fuel Spray in Injection Systems with Open Nozzles. By Fujio Nakanishi, Masaharu Ito and Kikuo Kitamura. Pp. 415-435. 25 sen. (Tokyo: Koseikai Publishing House.)

Entomological Investigations on the Spike Disease of Sandal. (23) Anthicidae (Col.). By Dr. Rudolf F. Heberdey. Pp. 14+1 plate. (Delhi: Manager of Publications.) 7 annas; 9d.

Zoologica: Scientific Contributions of the New York Zoological Society. Vol. 15, No. 3: Nematode Parasites of Mammals, from Specimens collected in the New York Zoological Park, 1932. By Gervase W. McClure. Pp. 49-60. (New York City.)

Harvard Meteorological Studies. No. 1: Daytime Radiation at Blue Hill Observatory in 1933, with Application to Turbidity in American Air Masses. By Bernhard Hauritz. Pp. 31. (Cambridge, Mass.: Harvard University.) 50 cents.

Bulletin of the American Museum of Natural History. Vol. 66, Art 3: The Diptera of Kartabo, Bartica District, British Guiana. By C. H. Curran. Pp. 287-532. (New York City.)

The Cawthron Institute, Nelson, New Zealand. Thomas Cawthron Centenary Lecture, October 10th, 1933: The Achievements of the Cawthron Institute. By Dr. T. H. Easterfield. Pp. 19+5 plates. (Nelson.)

Koninklijk Magnetisch en Meteorologisch Observatorium te Batavia. Jaarverslag 1933. Pp. 27. (Batavia.)

Carnegie Institution of Washington. Publication No. 450: Diametral Changes in Tree Trunks. By Ferdinand W. Haasis. Pp. iii+103+4 plates. Publication No. 423: The Building of the Roman Aqueducts. By Esther Boise Van Deman. Pp. xi+440+60 plates. (Washington, D.C.: Carnegie Institution.)

Proceedings of the First Meeting of the Animal Husbandry Wing of the Board of Agriculture and Animal Husbandry held at New Delhi from the 20th to the 23rd February 1933; with Appendices. Pp. iii+297. (Delhi: Manager of Publications.) 5-14 rupees; 9s. 6d.

U.S. Department of the Interior: Office of Education. Pamphlet No. 48: Residence and Migration of College Students. By Frederick J. Kelly and Betty A. Patterson. Pp. 22. (Washington, D.C.: Government Printing Office.) 5 cents.

Memoirs of the Geological Survey of India. Vol. 65, Part 1: The Dhubri Earthquake of the 3rd July 1930. By E. R. Gee. Pp. vi+106+vi+11 plates. (Calcutta: Geological Survey of India; Delhi: Manager of Publications.) 4.6 rupees; 7s. 3d.

Forest Bulletin No. 83: Provisional Yield Table for *Quercus incana* Roxb. (Banj or Ban Oak.) By H. G. Champion and I. D. Mahendru. Pp. iv+13+3 plates. (Delhi: Manager of Publications.) 14 annas; 1s. 6d.

CATALOGUES

Shell Wild Barfield Quenching Oils. Pp. 16. (London: G. W. B. Electric Furnaces, Ltd.)

Zeiss Nachrichten. Heft 7, Juli. Pp. 43. (Jena and London: Carl Zeiss.)