

Elaphoidella bidens.—Georges Morin and Jean Boucomont: Modifications of chronaxy in experimental ricketts of the rat.—Louis Lapique: Remarks on the preceding communication.—G. Ramon, R. Legroux, and M. Schoen: The dissociation of the diphtheric anatoxin-antitoxin complex and the recuperation of the anatoxin.—A. Demolon and G. Barbier: Fermentations in a heterogeneous and discontinuous medium. The medium was brick clay or a quartz sand moistened with a suitable nutritive liquid; the organisms, yeast, *B. coli*, and a mobile urobacillus. The phenomena of diffusion and migration take place in quartz sand when there is 6-8 per cent of water present, but this is not the case with a siliceous clay medium.—H. Jacotot: Researches on vaccination against bovine plague: the preparation of the antigen by dehydration of the virulent splenic pulp.

Official Publications Received.

BRITISH.

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1849 (Ae. 481—Ae. Techl. 519): On rendering Airflow visible by means of Hot Wires. By H. C. H. Townend. Pp. 5+4 plates. (London: H.M. Stationery Office.) 9d. net.

Indian Central Cotton Committee: Technological Laboratory. Technological Bulletin, Series B, No. 12: A Study of Comparative Results for Lea, Single Thread and Ballistic Tests on Yarns from Standard Indian Cottons. By Dr. A. James Turner and V. Venkataraman. Pp. ii+27. 8 annas. Technological Bulletin, Series B, No. 13: The Determination and Variation of Twist in Ring-Spun Cotton Yarns. By D. F. Kapadia and Dr. A. James Turner. Pp. iv+25. 8 annas. (Bombay.)

Report of the Rugby School Natural History Society for the Year 1930. (Sixty-fourth Issue.) Pp. 43+2 plates. (Rugby.)

Empire Fibres for Marine Cordage: African Sisal, New Zealand Hemp and Indian Sunn. Report of Investigations conducted by the Imperial Institute. Pp. 34. (London: John Murray.) 1s.

Silvicultural Research Manual for Use in India. Vol. 1: General. (The Experimental Manual.) By H. G. Champion. Pp. xii+181+25 plates. (Calcutta: Government of India Central Publication Branch.) 8.2 rupees; 13s. 9d.

Department of Scientific and Industrial Research. Building Research Abstracts. Vol. 4 (New Series), No. 2, February. Abstracts Nos. 215-396. Pp. 39-69. (London: H.M. Stationery Office.) 9d. net.

Transactions of the Mining and Geological Institute of India. Vol. 25, Part 3, December 1930. Pp. 185-305+plates 4-19. (Calcutta.) 4 rupees. The Research Scheme of the Institute of Brewing, 1931. Pp. 19. (London.)

University of Leeds: Clothworkers' Department. Report of the Work done under the Research Scheme established in 1928 with the aid of a Special Grant from the Worshipful Company of Clothworkers, Session 1929-30. Pp. 18+2 plates. (Leeds.)

Wool Industries Research Association. Report of the Council, 1930-31. Pp. 34. (Leeds.)

Ministry of Health. Ninth Report of the Advisory Committee on the Welfare of the Blind to the Minister of Health, 1930. Pp. 24. (London: H.M. Stationery Office.) 6d. net.

Proceedings of the Royal Society of Edinburgh, Session 1930-1931. Vol. 51, Part 1, No. 1: On the Pregnancy Rate in the Lactating Mouse and the Effect of Suckling on the Duration of Pregnancy. By L. Mirskaia and F. A. E. Crew. Pp. 7. 6d. Vol. 51, Part 1, No. 2: Observations on the Relative Rate of Growth of the Nails of the Right and Left Hands respectively, on Seasonal Variations in the Rate, and on the Influence of Nerve-section upon It. By Sir E. Sharpey-Schafer. Pp. 8-13. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.)

FOREIGN.

State of Connecticut: State Geological and Natural History Survey. Bulletin No. 47: The Glacial Geology of Connecticut. By Prof. Richard Foster Flint. Pp. 294+64 plates. (Hartford, Conn.) 2 dollars.

The Tôhoku Mathematical Journal. Vol. 33, Nos. 3-4, January. Pp. 181-365. (Sendai: Tôhoku Imperial University.)

R. Osservatorio Astronomico di Catania. Annuario 1931. Pp. iii+37. (Catania.)

U.S. Department of Agriculture. Farmers' Bulletin No. 1651: The Corn Earworm as an Enemy of Field Corn in the Eastern States. By W. J. Phillips and George W. Barber. Pp. ii+18. (Washington, D.C.: Government Printing Office.) 5 cents.

Occasional Papers of the California Academy of Sciences. 17: Log of the Schooner *Academy* on a Voyage of Scientific Research to the Galapagos Islands, 1905-1906. By Joseph R. Slevin. Pp. 162+17 plates. (San Francisco.) 3 dollars.

Intăilung Congres Național al Naturaliștilor din România (Premier Congres Național des Naturalistes de Roumanie) ținut la Cluj delă 18 până la 21 Aprilie 1928 (tenu à Cluj du 18 au 21 avril 1928). Dare de seamă a lucrărilor publicată de (Compte rendu des séances publié par) Al. Borza și (et) E. Pop. Pp. viii+518+17 planșe. (Cluj: Editura (Édité par) Societatea de Științe.) 30 lei.

Report of the Aeronautical Research Institute, Tôkyô Imperial University. No. 66: The International Wing Model measured in the Wind Tunnels of Japan. By the Wind Tunnel Committee specially appointed by the Aeronautical Council of Japan. Pp. 307-440. (Tôkyô: Koseikai Publishing House.) 1.03 yen.

Państwowa Rada Ochrony Przyrody. Nr. 28: Sprawozdanie z działalności Państwowej Rady Ochrony Przyrody w roku 1930. Napisał Prof. Dr. Władysław Szafer. Pp. 19. Wydawnictwo Okręgowego Komitetu Ochrony Przyrody na Wielkopolską i Pomorze. Zeszyt 2. Pp. 60. Ochrona Przyrody: Organ Państwowej Rady Ochrony Przyrody. Treść rocznika 10-go. Pp. iv+309+16 tab. (Kraków: Państwowa Rada Ochrony Przyrody.)

U.S. Department of Commerce: Coast and Geodetic Survey. Series No. 498: Results of Observations made at the United States Coast and Geodetic Survey Magnetic Observatory at Vieques, P. R., in 1923 and 1924. By W. N. McFarland. Pp. ii+94+5 plates. (Washington, D.C.: Government Printing Office.) 40 cents.

U.S. Department of Agriculture. Farmers' Bulletin No. 1655: The Control of Moths in Upholstered Furniture. By E. A. Back and R. T. Cotton. Pp. ii+33. 10 cents. Technical Bulletin No. 231: A Revision of the American Species of Empoasca known to occur North of Mexico. By Dwight M. DeLong. Pp. 60. 15 cents. (Washington, D.C.: Government Printing Office.)

University of Illinois Engineering Experiment Station. Bulletin No. 215: The Column Analogy; Analysis of Elastic Arches and Frames by the General Formula for Flexure. By Prof. Hardy Cross. Pp. 75. 40 cents. Bulletin No. 219: Treatment of Water for Ice Manufacture; a Report of an Investigation conducted by the Engineering Experiment Station, University of Illinois, in cooperation with the Utilities Research Commission. By Prof. Dana Burks, Jr. Pp. 112. 60 cents. Bulletin No. 220: Tests of a Mikado-Type Locomotive equipped with Nicholson Thermic Syphons; a Report of an Investigation conducted by the Engineering Experiment Station, University of Illinois, in cooperation with the Illinois Central Railroad Company and the Locomotive Firebox Company. By Prof. Edward C. Schmidt, Prof. Everett G. Young and Herman J. Schraeder. Pp. 99. 55 cents. (Urbana, Ill.)

CATALOGUES.

Classified List of Second-hand Scientific Instruments. No. 99, April. Pp. 58. (London: C. Baker.)

Catalogue of Scientific Journals and Transactions of Learned Societies. (Catalogue No. 1.) Pp. 12. (London: Oppenheim and Co. (Rare Books) Ltd.)

Diary of Societies.

FRIDAY, APRIL 10.

ROYAL ASTRONOMICAL SOCIETY, at 5.—L. H. Thomas: A Criticism of Current Theories of Stellar Structure, and a Suggestion.—H. Roth: The Density Distribution in Capella.—Dr. H. Jeffreys: On the Cause of Oscillatory Movement in Seismograms.—S. F. Grace: Tidal Oscillations in Rotating Rectangular Basins of Uniform Depth.—G. Shajn: On the Behaviour of Certain Simple Multiplets in Stellar Spectra.

MALACOLOGICAL SOCIETY OF LONDON (at Linnean Society), at 6.—Exhibits, including *Opisthoporus* and *Lymnaea stagnalis* (L.).

SOCIETY OF CHEMICAL INDUSTRY (Manchester Section) (Annual General Meeting) (at Engineers' Club, Manchester), at 7.—Dr. A. E. Dunstan: The Present Position of the Thermal Decomposition of the Lower Hydrocarbons.

INSTITUTION OF MECHANICAL ENGINEERS (Informal Meeting), at 7.—H. Roe and others: Discussion on Aerial Ropeways.

OIL AND COLOUR CHEMISTS' ASSOCIATION (Manchester Section) (at Milton Hall, Manchester), at 7.—Annual Meeting.

SOCIETY OF CHEMICAL INDUSTRY (South Wales Section) (Annual General Meeting) (at Mayfair Café, Cardiff), at 7.15.—Prof. W. J. Jones: Chairman's Address.

JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—F. Russell: Difficulties in Power Transmission by Belt and how to overcome them.

SATURDAY, APRIL 11.

GILBERT WHITE FELLOWSHIP (Annual General Meeting) (at 6 Queen Square, W.C.1), at 2.30.—Sir Richard Gregory, Bart.: Comets and Shooting Stars (Lecture).

MONDAY, APRIL 13.

VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Rev. Dr. D. M. McIntyre: The Jewish Apocalyptic and its Bearing on the New Testament.

ROYAL GEOGRAPHICAL SOCIETY, at 5.—P. Lake: Island Arcs and Mountain Building.

INSTITUTE OF TRANSPORT (at Institution of Electrical Engineers), at 5.30.—Debate: The Final Report of the Royal Commission on Transport.

INSTITUTION OF ELECTRICAL ENGINEERS (Mersey and North Wales (Liverpool) Centre) (at Liverpool University), at 7.—Annual General Meeting.

INSTITUTION OF ELECTRICAL ENGINEERS (North-Eastern Centre) (at Armstrong College, Newcastle-upon-Tyne), at 7.—Annual General Meeting.

CERAMIC SOCIETY (Pottery Section) (at North Staffordshire Technical College, Stoke-on-Trent), at 7.30.—W. Podmore: Pottery Engineering—its Failures and Possible Improvements.—A. S. W. Odelberg: The Durability of Bone China Hotel Ware.

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—G. Grey: Modern Flats.

ROYAL SOCIETY OF ARTS, at 8.—Dr. N. A. U. Piercy: The Present Position in Aeronautics (Howard Lectures) (1).

SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Chemical Society), at 8.—J. W. Walters: Studies in the Free Air Cooling of Hot Gases in Mains.—F. L. Bassett: Some Factors affecting the Corrosion of Buried Steel.