

the protoplasm. Strong electrolytes may possibly also enter by combining with one or more constituents of the protoplasm. A. A. ABRAMOWITZ: (1) Degeneration of xanthophores in *Fundulus majalis*. Over blue or white backgrounds, the xanthophores are in a concentrated state and there is a decrease up to 50 per cent in the number of carotenoid cells; over yellow or black backgrounds, where the pigment is dispersed throughout the cells, there is a small increase in the number of cells. (2) Regeneration of chromatophore nerves. A cut across the fin rays in the tail of the killifish, *Fundulus heteroclitus*, produces a persistent dark band beyond the cut due to denervation of the pigment cells. Rate of regeneration of these autonomic pigment motor fibres can be studied fairly accurately by keeping the fish on a dark background for a fortnight and then exposing them for five minutes daily to a white background and estimating the progressive decrease of the dark band.

### Forthcoming Events

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

#### Sunday, June 9

BRITISH MUSEUM (NATURAL HISTORY), at 3 and 4.30.—Miss M. R. J. Edwards: "Whales and other Sea Animals".

#### Wednesday, June 12

RESEARCH DEFENCE SOCIETY, at 3.—(at the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1). Annual General Meeting.

Sir Frederick Hobday: "The Relief of Animal Suffering" (Ninth Stephen Paget Memorial Lecture).

BRITISH SCIENCE GUILD, at 4.30.—(at the Royal Society of Arts, John Street, Adelphi, London, W.C.2). Annual General Meeting.

J. Davidson Pratt: "Gas Defence".

#### Thursday, June 13

ROYAL ASIATIC SOCIETY, at 4.30.—Miss D. A. E. Garrod: "In Search of Stone Age Man in the Near East".

ST. MARY'S HOSPITAL, London, at 5.—J. Henderson Smith: "Virus Disease in Plants: a Comparison with Virus Disease in Animals".\*

#### Friday, June 14

ROYAL ASTRONOMICAL SOCIETY, at 3.—Dr. H. N. Russell: "The Analysis of Spectra and its Application in Astronomy" (George Darwin Lecture).

The British Science Guild. Engineers' Study Group on Economics: First Interim Report on Schemes and Proposals for Economic and Social Reforms. Pp. 44. (London: British Science Guild.) 1s.

Iodine for Livestock. By Frank Ewart Corrie. Pp. 32+7 plates. (London: Nitrate Corporation of Chile, Ltd.) Free.

Patents, Designs and Trade Marks. Fifty-second Report of the Comptroller-General of Patents, Designs and Trade Marks, with Appendices, for the Year 1934. Pp. 24. (London: H.M. Stationery Office.) 4d. net.

The Museums Association. Report of the Council for Year 1st April 1934 to 31st March 1935. Pp. 12. (London: Museums Association.)

British Chemical Abstracts. Issued by the Bureau of Chemical Abstracts. Index 1934. Pp. 692. (London: British Chemical Abstracts.)

#### OTHER COUNTRIES

Canada: Department of Mines: Mines Branch. Petroleum Fuels in Canada: Deliveries for Consumption, Calendar Year 1933. Prepared by John M. Casey. (No. 759.) Pp. 12. (Ottawa: King's Printer.) 10 cents.

The Imperial Council of Agricultural Research. Scientific Monograph No. 9: Mechanical Cultivation in India: a History of the Large Scale Experiments carried out by Burmah-Shell Oil Storage and Distributing Company of India, Limited. By C. P. G. Wade. Pp. viii+124+12 plates. (Delhi: Manager of Publications.) 3.14 rupees; 6s. 6d.

Publications of the Manila Observatory. Vol. 2, No. 5: The Upper Air of Manila. By the Rev. Charles E. Deppermann. Pp. 29. (Manila: Bureau of Printing.)

Koninklijke Vereeniging "Koloniaal Instituut", Amsterdam. Vier en twintigste Jaarverslag 1934. Pp. 109. (Amsterdam: Koloniaal Instituut.)

Koninklijk Magnetisch en Meteorologisch Observatorium te Batavia. Jaarverslag 1934. Pp. 27. (Batavia: Koninklijk Magnetisch en Meteorologisch Observatorium.)

Kungl. Svenska Vetenskapsakademiens Handlingar. Serien 3, Band 14, No. 3: Examen Rosarium Suecæ Granskning av den Svenska Florans Rosa-Former. 1: Norrland och Dalarna. Av L. P. Reinhold Matsson. Pp. 380. Serien 3, Band 14, No. 4: The Lougher Trade Cycles. By Axel F. Enström. Pp. 24. Serien 3, Band 14, No. 5: The Distribution of Stars in the Scutum Region of the Milky Way. By Carl Schalen. Pp. 47. (Stockholm: Almqvist and Wiksells Boktryckeri A.-B.)

Government of India: Department of Industries and Labour (Public Works Branch). Triennial Review of Irrigation in India, 1930-33. Pp. 62. (Delhi: Manager of Publications.) 1.4 rupees; 2s.

Proceedings of the Academy of Natural Sciences of Philadelphia, Vol. 87. Orthoptera of the Upper Rio Grande Valley and the adjacent Mountains in Northern New Mexico. By Morgan Hebard. Pp. 45-82. (Philadelphia: Academy of Natural Sciences.)

Publications de l'Observatoire de Genève. Rapport sur les concours de réglage de chronomètres de l'année 1934. Pp. 25. (Genève: Observatoire de Genève.)

Astrophysica Norvegica. Vol. 1, No. 4: On the Trajectories of Electric Particles in the Field of a Magnetic Dipole with Applications to the Theory of Cosmic Radiation. By Carl Størmer. Pp. 115-168+17 plates. Vol. 1, No. 5: A Simplified Treatment of some Fluid Oscillations. By C. L. Godske. Pp. 169-197. (Oslo: Jacob Dybwad.)

Geological Survey of the Anglo-Egyptian Sudan. Bulletin No. 2: Water Supplies in the Anglo-Egyptian Sudan. By G. W. Grabham. Pp. 42+5 plates. (Khartoum: Sudan Bookshop; London: Sudan Government Office.) 8 P.T.; 1s. 8d.

Forestry Pamphlet No. 3: Timber, its Structure, Properties, Seasoning and Preservation. Pp. 18+5 plates. (Trinidad: Government Printing Office.) 12 cents.

The British South Africa Company. Publication No. 3: Mazoe Citrus Experimental Station; Annual Report for 1933. Pp. xviii+92. (Mazoe: Mazoe Citrus Experimental Station.)

Jahresbericht der Hamburger Sternwarte in Bergedorf für das Jahr 1934. Pp. 21+4 plates. Mitteilungen der Hamburger Sternwarte in Bergedorf. Band 7, Nr. 38. Pp. 87-121. Band 7, Nr. 39. Pp. 123-138. Sammlung von Hilfstafeln der Hamburger Sternwarte in Bergedorf. J: Tang 0° 0'—Tang 1° 0'. Pp. 164. K: Cos 0° 0'—Cos 1° 0'. Pp. K64. (Bergedorf: Hamburger Sternwarte.)

Observatoire de Paris, Section d'Astrophysique, à Meudon. Cartes synoptiques de lamosphère solaire et Catalogue des filaments de la couche supérieure. Vol. 1, Fasc. 3, Année 1933. Par L. D'Azambuja. Pp. 34. (Meudon: Observatoire de Paris.)

#### CATALOGUES

Catalogue of Scientific Books and Publications of Learned Societies, including a Valuable Collection of Pamphlets formed by the late Sir Arthur Schuster. (No. 450.) Pp. 94. (Cambridge: W. Heffer and Sons, Ltd.)

Catalogue of Important Works on Agriculture, Botany and Zoology. (No. 22.) Pp. 16. (London: John H. Knowles.)

Watson's Microscope Record. No. 35, May 1935. Pp. 24. (London: W. Watson and Sons, Ltd.)

Practical Hints on Patents. By M. E. J. Gheury de Bray. Fourth edition, entirely revised and considerably enlarged. Pp. 48. (London: The Imperial Patent Service.)

Catalogue of Books on all Technical Subjects and Applied Science Pp. 120. (London: W. and G. Foyle, Ltd.)

### Official Publications Received

#### GREAT BRITAIN AND IRELAND

Education (Scotland). Report for the Year 1934 by the Director on the Royal Scottish Museum, Edinburgh. Pp. 14. (Edinburgh: Royal Scottish Museum.)

Royal Observatory, Edinburgh. Forty-fifth Annual Report of the Astronomer Royal for Scotland, 1934. Pp. 8. (Edinburgh and London: H.M. Stationery Office.) 2d. net.

Institute for Research in Agricultural Engineering: University of Oxford. Farm and Machine. Vol. 2: Comprising the Report of the Institute for the Year ended September 1934, and Miscellaneous Papers on Agricultural Engineering. Pp. 98+8 plates. (Oxford: Institute for Research in Agricultural Engineering.) 2s. 6d.

Armstrong College, Newcastle-upon-Tyne. Standing Committee for Research: Report, Session 1933-1934. Pp. 45. (Newcastle-upon-Tyne: Armstrong College.)

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1629 (T. 3486): Accelerators of Aeroplanes in Vertical Air Currents, Part 2. By H. R. Fisher. Pp. 16+8 plates. (London: H.M. Stationery Office.) 1s. net.

Board of Education. Educational Pamphlets, No. 103: Education for the Printing and Allied Trades. Pp. 111. (London: H.M. Stationery Office.) 2s. net.

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