

rh, and the cytoplasmic sexualisation of the spores of horsetails.—St. Ionesco: The presence of tanoids in flowers.—Raymond-Hamet: The physiological action of aminomethyl-3,4-dioxyphenol carbinol.—Louis Rapkine: The chemical processes in the course of cell division.—Lespes, Regnier, and Rungs: Contribution to the study of the phases of the locust, *Schistocerca gregaria*.—Mlle. Simone Mouchet: The comparative morphology of the deferent canals of *Papaverus*.—Etienne Rabaud: The standing of *Argiope bruennichi* on its cobweb.—L. Lutz: The soluble ferments secreted by the Hymenomycetes fungi. The quinones and the antoxygen function.—M. Javillier and Mlle. L. Emerique: Biochemical researches on rubrene. Rubrene exerts no toxic action on rats, and does not replace vitamin A.—Constantino Gorini: Acidoproteolytic bacteria in pasteurised milk.—Maurice Pietre and Pierre Villedieu: The attenuation of the anthrax bacterium as a function of the nutrition.—E. Brumpt: The transmission of Marseilles exanthematic fever by the dog tick, *Rhipicephalus sanguineus*.—J. Verge: The second intradermal-inoculation in the glandered horse.

Official Publications Received.

BRITISH.

Imperial Bureau of Plant Genetics: Herbage Plants. Bulletin No. 2: Miscellaneous Information relating to Herbage Plants. Pp. 24. (Aberystwyth: Agricultural Buildings.)

Union of South Africa: Department of Agriculture. Sixteenth Report of the Director of Veterinary Services and Animal Industry, Onderstepoort, Pretoria. Pp. vi+592. (Pretoria: Government Printing and Stationery Office.) 10s.

Ministry of Agriculture and Fisheries, Department of Agriculture for Scotland, and Ministry of Agriculture for Northern Ireland. Reports on the Work of Agricultural Research Institutes and on certain other Agricultural Investigations in the United Kingdom, 1928-1929. Pp. 247. (London: Ministry of Agriculture and Fisheries.)

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1324 (E. 36): Experiments on the Ignition of Gases by Sudden Compression. By R. W. Fenning and F. T. Cotton. (I.C.E. 731 and A.) Pp. 43+18 plates. (London: H.M. Stationery Office.) 2s. 6d. net.

Notes from the Botanical School of Trinity College, Dublin. Vol. 4, No. 3, November. Pp. 81-144. (Dublin.)

The Association of Special Libraries and Information Bureaux. Report of Proceedings of the Seventh Conference held at New College, Oxford, September 19th-22nd, 1930. Pp. 116. (London.) 5s.

Report on the Agricultural Department, Grenada, for the Year 1929. Pp. ii+15. (Grenada, B.W.I.: Government Printing Office.) 6d.

Heriot-Watt College, Edinburgh. Calendar for Session 1930-1931. Pp. 302. (Edinburgh.)

Indian Journal of Physics, Vol. 5, Part 4, and Proceedings of the Indian Association for the Cultivation of Science, Vol. 14, Part 4. Conducted by Sir C. V. Raman. Pp. 385-471. (Calcutta.) 1.4 rupees; 1s. 8d.

Imperial Department of Agriculture for the West Indies. Report on the Agricultural Department, St. Vincent, for the Year 1929. Pp. iv+28. (Trinidad.) 6d.

Proceedings of the Royal Irish Academy. Vol. 39, Section B, No. 26: The Carboniferous Rocks of Hook Head, County Wexford. By Dr. Louis B. Smyth. Pp. 523-566+plates 15-20. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 2s. 6d.

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1200 (Ae. 361): On the Problem of Hydro-dynamic Stability. 1: Uniform Shearing Motion in a Viscous Fluid. By R. V. Southwell and Letitia Chitty. (T. 2754.) Pp. 54. 2s. 6d. net. No. 1247 (Ae. 401): Tail Flutter of a particular Aeroplane. By Dr. W. J. Duncan and A. R. Collar. (T. 2959.) Pp. 24. 1s. 3d. net. No. 1310: The Aeroplane as a Source of Sound. By Morris D. Hart. (N. 26.) Pp. 88+5 plates. 1s. 9d. net. No. 1322 (M. 68): Further Experiments on the Behaviour of Single Crystals of Zinc subjected to Alternating Torsional Stresses. By Dr. H. J. Gough and H. L. Cox. (T. 2826.) Pp. 20+16 plates. 1s. 6d. net. No. 1323 (M. 69): The Behaviour of a Single Crystal of Antimony subjected to Alternating Torsional Stresses. By Dr. H. J. Gough and H. L. Cox. (T. 2861.) Pp. 18+19 plates. 1s. 6d. net. No. 1333 (Ae. 465): A Simplified Analysis of the Stability of Aeroplanes. By W. L. Cowley and Sylvia W. Skan. (T. 2928.) Pp. 13. 9d. net. (London: H.M. Stationery Office.)

FOREIGN.

U.S. Department of Commerce: Coast and Geodetic Survey. Special Publication No. 169: First-Order Leveling in Alaska. By Howard S. Rappley. Pp. 31. (Washington, D.C.: Government Printing Office.) 10 cents.

Field Museum of Natural History. Botany Leaflet No. 16: Fifty Common Plant Galls of the Chicago Area. By Carl F. Gronemann. Pp. 30. (Chicago.) 25 cents.

Bulletin of the Geological Institution of the University of Upsala. Founded by Hj. Sjögren. Vol. 21. Pp. iii+480+9 plates. (Upsala: Almqvist and Wiksells Boktryckeri A.-B.)

Forty-fifth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1927-1928, with accompanying Papers: The Salishan Tribes of the Western Plateau, by James A. Teit, edited by Franz Boas; Tattooing and Face and Body Painting of the Thompson Indians, British Columbia, by James A. Teit, edited by Franz Boas; The Ethnobotany of the Thompson Indians of British Columbia, by Elsie Viault Steedman; The Osage Tribe—Rite of the Wa-xo'-be, by Francis La Flesche. Pp. vii+857+29 plates. (Washington, D.C.: Government Printing Office.) 2.35 dollars.

Sudan Notes and Records. Vol. 13, 1930, Part I. Pp. 148. (Khartoum.) 30 P.T.; 6s.

Japanese Journal of Botany. Transactions and Abstracts, Vol. 5, No. 2. Pp. iv+133-252+31-53. (Tokyo: National Research Council of Japan.)

Havsforskningsinstitutets Skrift. No. 58: Regelmässige Beobachtungen von Temperatur und Salzgehalt des Meeres im Jahre 1927. Herausgegeben von Gunnar Grunquist. Pp. 48. 20 Fmk. No. 61: Über den Einfluss der Temperatur auf die p_{H} -Bestimmung des Meerwassers. Von Kurt Buch. Pp. 23. 20 Fmk. No. 62: Vedenkorkeusarvoja 1926 (Vattenståndsuppgifter 1926). Av S. E. Stenij. Referat: Wasserstandsangaben 1926. Pp. 50. 20 Fmk. No. 63: Havsforskningsinstitutets värksamhet år 1928. Redogörelse avgiven av Rolf Witting. Pp. 17. 10 Fmk. No. 64: Översikt av isarna vintern 1928-29. Av Gunnar Grunquist. Referat: Översikt der Eisverhältnisse im Winter 1928-29 an den Küsten Finnlands. Pp. 48. 20 Fmk. No. 65: Regelmässige Beobachtungen von Temperatur und Salzgehalt des Meeres, Januar 1928-Juni 1929. Herausgegeben von Gunnar Grunquist. Pp. 60. 25 Fmk. No. 66: Croisière thalassologique et observations en bateaux routiers en 1928. Rédigé par S. E. Stenij. Pp. 36. 20 Fmk. No. 67: Vedenkorkeusarvoja 1927 (Vattenståndsuppgifter 1927). Av Henrik Renquist. Referat: Wasserstandsangaben 1927. Pp. 51. 20 Fmk. No. 68: Bathymetric Chart of the Bothnian Bay and the North Kvarn—Echo Soundings in the Years 1927-1929. By Henrik Renquist. Pp. 28. 15 Fmk. No. 69: Zur Reduktion von Echo-lotungen. Von Gustav Elfving. Pp. 11. 10 Fmk. No. 70: Croisière thalassologique et observations en bateaux routiers en 1929. Rédigé par Gunnar Grunquist. Pp. 36. 20 Fmk. No. 71: Översikt av isarna vintern 1929-30. Av Gunnar Grunquist. Referat: Översikt der Eisverhältnisse im Winter 1929-30 an den Küsten Finnlands. Pp. 33. 20 Fmk. No. 72: Havsforskningsinstitutets värksamhet år 1929. Redogörelse avgiven av Rolf Witting. Pp. 15. 10 Fmk. (Helsinki.)

CATALOGUES.

A Rough List of Selected Works on Natural History, including Periodicals and Publications of the Learned Societies. Third Fortion. (New Series, No. 23.) Pp. 109-152. (London: Wheldon and Wesley, Ltd.)

A Selection of Valuable Books. (Catalogue No. 81.) Pp. 100. (London: William H. Robinson, Ltd.)

A Catalogue of Books on British and Foreign Birds. Pp. 16. (London: Francis Edwards, Ltd.)

Choice Books: XVI-XVII Century, First Editions, Modern Presses. (No. 454.) Pp. 42. A Catalogue of Works on Political Economy. (No. 455.) Pp. 64. (Cambridge: Bowes and Bowes.)

Diary of Societies.

FRIDAY, DECEMBER 12.

ASSOCIATION OF ECONOMIC BIOLOGISTS (in Botany Department Lecture Room, Imperial College of Science and Technology), at 2.30.—The Purification of Waste Waters from Beet-Sugar Factories.—D. W. Cutler: Microbiological Aspects.—E. H. Richards: Biochemical Aspects.

DIESEL ENGINE USERS' ASSOCIATION (at Caxton Hall), at 3.30.—Major W. Gregson: Waste Heat Recovery from Internal Combustion Engines, with particular reference to Marine Oil Engines.

ILLUMINATING ENGINEERING SOCIETY (in Lecture Theatre of Holophane, Ltd., Elverson Street), at 4.30.—Dr. S. English: Glasses for Use with Invisible (Ultra-violet and Infra-red) Rays.

ROYAL SOCIETY OF ARTS (Annual Meeting), at 4.30.—A. Wigglesworth: India's Commercial Fibres.

ROYAL ASTRONOMICAL SOCIETY, at 5.—E. A. Kreiken: (a) On the Relation of Colour and Spectral Type in the Different Galactic Latitudes; (b) On the Axial Rotation of the Stars; (c) Some further Remarks on the Rotation of the Stars.—Prof. H. N. Russell and R. S. Dugan: Apical Motion in Y Cygni and other Stars.

ROYAL SOCIETY OF MEDICINE (Ophthalmology Section) (at Central London Ophthalmic Hospital), at 5.

ROYAL SOCIETY OF MEDICINE (Clinical Section), at 5.30.

MALACOLOGICAL SOCIETY (at Linnean Society), at 6.—Dr. B. Prashad: Further Notes on Indian *Ampullariidae*.—L. G. Hertlein: Changes of Nomenclature of some Recent and Fossil *Pectinidae*.—Dr. F. F. Laidlaw: On a suggested New Sub-Family, *Dyakiniina*, and a New Species.—Sir Joseph C. Verco and B. C. Cotton: The Spermatophyte of *Septoteuthis australis* Quoy & Gaimard.—R. Winckworth: Notes on Nomenclature. No. VII. *Helicella*.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—V. E. Pullin: X-Rays in Engineering Practice.

NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS (at Mining Institute, Newcastle-upon-Tyne), at 6.—W. J. Rees: Refractories for Boiler Furnaces.

INSTITUTION OF ELECTRICAL ENGINEERS (London Students' Section), at 6.15.—W. D. Oliphant: Laboratory Method as met with in Wireless Technique.

SOCIETY OF DYERS AND COLOURISTS (Manchester Section) (at 36 George Street, Manchester), at 7.—J. M. Preston: Theories of Lustre.—W. F. A. Ermen: Notes on the Iodine Mercuration Test.

OIL AND COLOUR CHEMISTS' ASSOCIATION (Manchester Section) (at Royal Institution, Liverpool), at 7.—A. W. C. Harrison: The Incorporation of Dry Pigments into the Medium.

INSTITUTION OF STRUCTURAL ENGINEERS (at Chamber of Commerce, Birmingham), at 7.—A. C. Ansell and others: Discussion on Some Problems in the Design of Roof Truss Members.