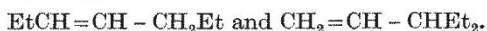


on the reproductive correlations.—P. Lasareff: The action of alcohol on the adaptation of the eye in the course of peripheral vision.—A. V. Léontowitch: The microstructure of the nervous system (of its neurones) as a basis for the theories of conductivity and stimulation in the nervous system.—Ludovic and Pierre Blaizot: *Treponema podovis*, the pathogenic agent in the foot disease (*piétin*) of sheep. A new spirochæte has been isolated which is regarded as the true cause of the disease. Treatment of infected animals with atoxyl and with novoarsenobenzol proved that the best results were obtained with the latter substance, although in grave cases a relapse occurred after 10–15 days. It is probable that a prolonged arsenical treatment will be necessary for a complete cure.

Nov. 19.—Jean Perrin: The determination of the rôle of light in thermal chemical reactions.—Charles Moureu, Charles Dufraisse, and Marius Badoche: Autoxidation and antioxygen action. The catalytic action of arsenic and its compounds. A summary of the results obtained with twenty-two substances containing arsenic. In general, organic compounds of arsenic containing oxygen are much less active as catalysts than inorganic arsenic compounds.—A. Blondel: Remarks on the theory of oscillographs and recording apparatus.—André Rousel: The primitive of the second species.—J. Priwaloff: A general property of analytical functions.—Josef Miculáš Mohr: The determination of the apex by means of *G*-type stars.—N. Stoyko: The approximate calculation of the influence of the short period terms in the determination of time by the meridian telescope.—René Planiol: A very slightly damped pendulum. Some results obtained with a torsion pendulum (quartz fibre suspension) placed in a high vacuum.—Marcel Chopin: Control of a new method of measurement of the temperature of gases.—N. Bogoliouboff and N. Kryloff: The mathematical theory of oscillographs.—Pierre Daure: The secondary radiations observed in the molecular diffusion of light (Raman effect). A study of the effect produced with the halogen derivatives of phosphorus, arsenic, antimony, bismuth, carbon, silicon, and tin. The Raman spectra of all these elements consist of four chief lines, the characteristic frequencies of which decrease regularly with the atomic weight, but no simple law has been found to express this.—Ponte and Y. Rocard: The possible rôle of diffusion by electrons in the propagation of short waves.—Jacques Risler and Foveau de Courmelles: The action of light rays on potassium chloride. The action of potassium chloride on a photographic plate is increased if the salt has been previously exposed to light. The effect is most marked when the activation has been caused by exposure to ultra-violet light.—Charles Prévost: The action of β -ethylallyl bromide on ethylmagnesium bromide. Two isomeric hydrocarbons are produced in this reaction,



—Stanislas Landa: The slow combustion of triacontane. Normal triacontane, $\text{C}_{30}\text{H}_{62}$, slowly oxidised with air, gave fatty acids, including butyric and valeric, and a mixture of aldehydes. Neither ketones nor alcohols could be detected among the oxidation products.—Raymond Delaby and Pierre Dubois: The formation of allyl alcohol. The pyrolysis of the formins of glycerol.—Raymond Furon: The fossil delta of the Sahelian Niger.—E. Guyénot and A. Naville: The chromatic reduction in *Drosophila melanogaster* and the theory of crossing over.—D. Bach: The conditions of action of asparaginase from *Aspergillus niger*.—Albert Leulier, Léon Velluz, and Henri Griffon: The

distribution of potassium in the animal organism. There are distinct differences in the amounts of potassium present in the different forms of muscular tissue.—A. Boquet: The adsorption of cobra poison and of the diphtheria toxin by carbon. Finely divided carbon (morit) renders cobra poison innocuous; diphtheria toxin is also rapidly adsorbed by carbon and its toxic power removed.

Official Publications Received.

BRITISH.

The Scientific Proceedings of the Royal Dublin Society. Vol. 19, N.S., Nos. 9-13. 9: A Synthesis of 5:7:2':4'-Tetrahydroxyflavone and of 7:2':4':6'-Tetrahydroxyflavone, by Dr. Nicholas Michael Cullinane, Dr. Joseph Algar and Dr. Hugh Ryan; 10: The Estimation of Diphenylamine and Diphenylnitrosamine in the Presence of their Derivatives, by Dr. H. Ryan, Dr. J. Keane and J. Dunne; 11: The Action of Aromatic Amines on Nitric Esters, by Dr. Hugh Ryan and Michael T. Casey; 12: The Commercial Utilisation of Java Citronella Oil, by Dr. Brendan O'Donoghue, James Drum and Dr. Hugh Ryan; 13: The Action of Alcoholic Hydrochloric Acid on Methylidiphenyltetrahydropyrone, by Dr. Hugh Ryan and Dr. J. J. Lennon. Pp. 77-124. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 4s.

Proceedings of the Royal Society of Edinburgh. Vol. 48, Part 3, No. 15: The Invariant Theory of the Quaternary Quadratic Complex. 2: The Complete System. By Prof. H. W. Turnbull and Dr. J. Williamson. Pp. 180-190. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.) 1s.

Transactions and Proceedings of the New Zealand Institute. Vol. 59, Part 2, June. Pp. iv+213-428+plates 34-67. (Wellington, N.Z.) 10s.

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1154 (Ac. 319): Wind Tunnel Experiments on a Model Autogyro at small Angles of Incidence. By C. N. H. Lock and H. C. H. Townend. Pp. 61+29 plates. (London: H.M. Stationery Office.) 2s. 6d. net. The Royal Technical College, Glasgow. Annual Report on the One Hundred and Thirty-second Session adopted at the Annual Meeting of Governors held on the 16th October 1928. Pp. 71. (Glasgow.)

Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 1927-28. Vol. 72. Pp. 219+ii. (Manchester.) 12s.

FOREIGN.

Japanese Journal of Botany: Transactions and Abstracts. Vol. 4, No. 2. Pp. iv+113-217+31-54+plates 16-22. (Tokyo: National Research Council of Japan.)

Records of Oceanographic Work in Japan. Compiled by the Committee on Pacific Oceanography of the National Research Council of Japan. Vol. 1, No. 2, October. Pp. ii+57-94+plates 16-23. (Tokyo: National Research Council of Japan.)

Verhandlungen der ozeanographischen Konferenz veranstaltet von der Gesellschaft für Erdkunde zu Berlin anlässlich ihrer Hundertjahrfeier 24-26 Mai 1928. Mit Unterstützung der Notgemeinschaft und im auftrage des Vorstandes. Herausgegeben von A. Defant. (Ergänzungsh. ft 3 zur Zeitschrift der Gesellschaft für Erdkunde zu Berlin.) Pp. xiv+157. (Berlin: Gesellschaft für Erdkunde.)

Smithsonian Institution: United States National Museum. Contributions from the United States National Herbarium. Vol. 26, Part 3: Costa Rican Mosses collected by Paul C. Standley in 1924-26. By Edwin B. Bartram. Pp. vi+51-114+vi-x. (Washington, D.C.: Government Printing Office.) 20 cents.

Proceedings of the United States National Museum. Vol. 74, Art. 2: Three new Species of Two-winged Flies of the Family Bombyliidae from India. By J. M. Aldrich. (No. 2747.) Pp. 3. Vol. 74, Art. 17: New Fresh-water and Marine Bivalve Shells from Brazil and Uruguay. By William B. Marshall. (No. 2762.) Pp. 7+4 plates. (Washington, D.C.: Government Printing Office.)

University of Illinois Engineering Experiment Station. Bulletin No. 183: Tests of the Fatigue Strength of Steam Turbine Blade Shapes. A Report of an Investigation conducted by the Engineering Experiment Station in co-operation with the Allis-Chalmers Manufacturing Co. By Prof. Herbert F. Moore, Stuart W. Lyon and Norville J. Alleman. Pp. 38+2 plates. 25 cents. Bulletin No. 184: The Measurement of Air Quantities and Energy Losses in Mine Entries, Part 3. By Alfred C. Callen and Cloyd M. Smith. Pp. 61. 35 cents. (Urbana, Ill.)

Diary of Societies.

FRIDAY, DECEMBER 21.

EMPIRE SOCIETY (at Hotel Victoria), at 3.—P. Edmonds: Burma and the Burmese.

JUNIOR INSTITUTION OF ENGINEERS (Informal Meeting), at 7.—C. H. Hudson: Oils for Cutting and Quenching Purposes.

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION (at Royal Society of Arts), at 7.30.—J. E. Tapper: Hire and Hire Purchase in Electrical Development Schemes.

THURSDAY, DECEMBER 27.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—A. Wood: Sound Waves and their Uses (I): Waves.

SATURDAY, DECEMBER 29.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—A. Wood: Sound Waves and their Uses (II): Signalling in Air and Water.