presence in the air of centres (ions odorants) capable of facilitating the condensation of atmospheric moisture, a suitable hygrometric state, and cooling of the air current produced by inspiration .- J. E. Abelous and J. Aloy: The necessity for a hydrogen acceptor and an oxygen acceptor for the manifestation of the process of oxido-reduction in organic liquids of animal and vegetable origin.—M. Marage: Contribution to the study of war commotions. Definding commotion as the lesions produced in a point of the nervous system either central or peripheral, it is shown that this arises from large pressures acting for very short periods of time on the whole of the body surface, and transmitted by the liquids of the organism to the cortical substance of the brain contained in an indeformable chamber, the skull.

BOOKS RECEIVED.

Transmission Gears, Mechanical, Electric, and Hydraulic, for Land and Marine Purposes. By E. Butler. Pp. xii+164. (London: C. Griffin and Co., Ltd.) 8s. 6d. net.

The Exploitation of Plants. By various writers. edited by Prof. F. W. Oliver. Pp. vii+170. (London

and Toronto: J. M. Dent and Sons, Ltd.) 2s. 6d. net. The Kiln Drying of Lumber. By H. D. Tiemann. Pp. ix+316. (Philadelphia and London: J. B. Lippin-Cott Co.) 18s. net. Field Sanitation. By C. G. Moor and E. E. Cooper

and others. Pp. viii+220. (London : Baillière, Tindall, and Co.) 2s. 6d. net.

Western Live-Stock Management. Edited by Prof. E. L. Potter. Pp. xiv+462. (New York: The Mac-millan Co.; London: Macmillan and Co., Ltd.) 10s. net.

A Manual of Physics : Theoretical and Practical, for Medical Students. By Prof. H. C. H. Candy. Second edition. Pp. viii+451. (London: Cassell and Co.,

Ltd.) 7s. 6d. net. Lyon's Medical Jurisprudence for India, with Illustrative Cases. By Lt.-Col. L. A. Waddell. Sixth edition. Pp. xiii+783. (Calcutta and Simla: Thacker, Spink, and Co.; London: W. Thacker and Co.) 28s. net.

Directions for a Practical Course in Chemical Physio-logy. By Dr. W. Cramer. Third edition. Pp. viii+ 119. (London: Longmans and Co.) 3s. net. The Baby. By Dr. S. Seekings. Pp. 63. (Lon-don: S.P.C.K.) 9d.

The Improvement of the Gregorian Calendar. By A. Philip. Pp. 30. (London: G. Routledge and Sons, Ltd.) 1s. 6d. net.

A Dictionary of Aircraft. By W. E. Dommett. Pp. (London: Electrical Press, Ltd.) 2s. net. 52.

Experiments in Psychical Research at Leland Stanford Junior University. By J. E. Coover. xxiv+641. (California: Stanford University.) Pp. 3.50 dollars.

Infinitesimal Calculus. By Prof. F. S. Carey. Section II. Pp. x+352+iv. (London: Longmans and Co.) 10s. 6d. net.

DIARY OF SOCIETIES.

THURSDAY, FEBRUARY 28. ROVAL SOCIETY, at 4.30.—Scattering of Light by Dust-free Air, with Artificial Reproduction of the Rlue Sky. Preliminary Note: The Hon. R. J. Strutt.—The Lommel-Weber Ω Function and its Application to the Problem of Electric Waves on a Thin Anchor Ring: Dr. J. R. Airey.—Investigations on Textile Fibres: W. Harrison.—Critical Loading of Struts and Structure: W. L. Cowley and H. Levy.

FRIDAY, MARCH 1. ROYAL INSTITUTION, at 5-30.—The Modern Dye-stuff Industry: Prof. A. G. Green,

SATURDAY, MARCH 2. ROVAL INSTITUTION, at 3.—Problems in Atomic Structure: Sir J. J. Thomson.

NO. 2522, VOL. 100

MONDAY, MARCH 4. ARISTOTELIAN SOCIETY, at 8.—Symposium: Does the Knowing Mind Contribute to the Structure of the Object Known? Prof. G. Dawes Hicks and Dr. H. Wildon Carr. ROYAL SOCIETY OF ARTS, at 4.30.—The Effect of the War on the Economic Condition of the United Kingdom: E. Crammond,

TUESDAY, MARCH 5. ROVAL INSTITUTION, at 3.—The National Physical Laboratory : Sir R. T. Glazebrook

Glazebrook. ZOOLOGICAL SOCIETY, at 5-30.—The External Characters of the Lemurs and Tarsius: R. I. Pocock.—A. Classification of the Pyralidæ, Subfamily Hypsotropinæ: Sir George F. Hampson. INSTITUTION OF CIVIL ENGINEERS, at 5-30.—Modern Developments in Gasworks Construction and Practice: A. Meade. ROYAL SOCIETY OF ARTS, at 4-30.—Portugal as a Colonial Power G. Voung

Young.

WEDNESDAY, MARCH 6. GEOLOGICAL SOCIETY, at 5.30.—The Igneous Rocks of the Lake District: J. F. N. Green. ENTOMOLOGICAL SOCIETY, at 8. ROYAL SOCIETY OF ARTS, at 4.30.—The Foundation of Industrial Peace: A. H. Paterson.

- A. H. Paterson.
 THURSDAY, MARCH 7.
 INSTITUTION OF ELECTRICAL EXOINEERS, at 6.-The Control of Large Amounts of Power: E. B. Wedmore.
 INSTITUTION OF MINING AND METALLURGY, at 5.30.—The Application of Charcoal to the Precipitation of Gold from its Solution in Cyande: H. R. Edmands.—Blast-furnace Smelting of Stibnite, with considerations on the Metallurgy of Antimony: W. R. Schoeller.—A "Responsive" Shaft Signal Device: B. Angwin.
 LINNEAN SOCIETY, at 5.-(1) The Mimetic and Mendelian Relationships of the "White Admirals" of North America (with Lantern Sides). (2) A New Mimetic Form of Pseudacraea poggei (Dewitz) from ex-German East Africa, with other African Minics of Danaida chrystiphus (Linn.) Prof. E. B. Poulton. Mimetic Species of the African Nymphaline Genus Pseud-acrae and Lyczenid Genus Minacraea, together with their Acraine and Danaidine Models and Some of their Commincs: Lord Rothschild. *FRIDAY*. MARCH S.

FRIDAY, MARCH S. ROYAL INSTITUTION, at 5:30.—Vibrations: Mechanical, Musical, and Elec-trical: Prof. E. H. Barton.

SATURDAY, MARCH 9. ROYAL INSTITUTION, at 3.-Problems in Atomic Structure: Sir J. J. Thomson.

CONTENTS. PAGE.

501 502 Plant-anatomy in Relation to Evolution. By Prof. 502 Our Bookshelf 503 Letters to the Editor:-British Scientific Instrument Makers' Research.-Conrad Beck Alcohol Fuel and Engines. - Prof. Thomas R. Lyle, 504 F.R.S. The Prefect of the Nile. (Illustrated.) By Dr. Brysson Cunningham. A New British Oil Industry 504 505 506 The Organisation of Research in Agriculture 507 508 Notes Our Astronomical Column :---Novæ in the Andromeda Nebula 512 512 512 512 Military Aeronautics . 512 The Association of Technical Institutions 513 The Exploitation of the Sea-fisheries. By J. J. 514 Seismic Disturbances Connected with the Guatemala Earthquake The Pittsburgh Meeting of the American Association 513 University and Educational Intelligence 515 Societies and Academies 517 Books Received 520

Editorial and Publishing Offices: MACMILLAN AND CO., LTD., ST. MARTIN'S STREET, LONDON, W.C.2.

Advertisements and business letters to be addressed to the Publishers.

Editorial Communications to the Editor. Telegraphic Address : PHUSIS, LONDON. Telephone Number : GERRARD 8830.

14