described .-- M. and Mme. F. Moreau : The phenomena of sexuality in lichens of the genus Solorina.—J. Glover: An electrical apparatus for auscultation, clinical exploration, and experimental physiology .-- P. Lecène and A. Frouin : Experimental researches on the mechanism of encystment of foreign bodies and on latent microbism.-M. Marage: The classification of deaf soldiers according to their power of hearing. A criticism of the current methods for determining deafness in the French Army. These are shown to be faulty in three respects.

## BOOKS RECEIVED.

Quartic Surfaces with Singular Points. By Prof. C. M. Jessop. Pp. xxxv+197. (Cambridge : At the University Press.) 12s. net.

British Birds. Written and illustrated by A. Thor-burn. Vol. iii. Pp. vi+87+plates. (London : Long-mans, Green and Co.) 1l. 11s. 6d. net. Hart's Note-Book for Navigators and Others.

(Colchester: Benham and Co., Ltd.)

Memoirs of the Geological Survey. Special Reports on the Mineral Resources of Great Britain. Vol. v., Potash, Felspar, Phosphate of Lime, Alum Shales, Plumbago or Graphite, Molybdenite, Chromite, Talc and Steatite (Soapstone, Soap-rock, and Potstone), Diatomite. By Dr. A. Strahan and others. Pp. iv+ 41. (London: H.M.S.O.; E. Stanford, Ltd.) 1s.

Men of the Old Stone Age : their Environment, Life, and Art. By Prof. H. F. Osborn. Pp. xxvi+545. (London : G. Bell and Sons, Ltd.) 215. net.

Central American and West Indian Archæology. By T. A. Joyce. Pp. xvi+270. (London : Philip Lee Warner.) 12s. 6d. net.

The Breath of Life. By J. Burroughs. Pp. x+295. (Boston and New York : Houghton Mifflin Co.; Lon-don : Constable and Co., Ltd.) 5s. net.

The Psychology of Relaxation. By Dr. G. T. W. Patrick. Pp. viii+280. (Boston and New York: Houghton Mifflin Co.; London: Constable and Co., Ltd.) 5s. net.

The Athenaeum Subject Index to Periodicals, 1915. Fine Arts and Archæology. Second edition. Pp. 33. (London : The Athenaeum.) 18. 6d. net.

of Statistics, India. Vol. i. Department India. Agricultural Statistics of India, 1913-14. Pp. x + 415(Calcutta: Superintendent Government Printing.) 2.8 rupees.

Costruzioni di Strade e Gallerie. By Prof. Ing. S. otigliano. Pp. xxiii+808. (Milano: U. Hoepli.) Rotigliano. Pp. xxiii+808. 18 lire.

The Life of Inland Waters. By Prof. J. G. Needham and J. T. Lloyd. Pp. 438. (Ithaca, N.Y.: Comstock Publishing Company.)

A Manual of Practical Physics. By H. E. Hadley, Pp. viii+265. (London: Macmillan and Co., Ltd.) 3s.

Synchronous Signalling in Navigation. By Prof. J. Joly. Pp. 64. (London : T. Fisher Unwin, Ltd.) 3s. 6d. net.

Wild Flowers of the North American Mountains. By J. W. Henshaw. Pp. xv+383. (London and New York: McBride, Nast and Co., Ltd.) 105. 6d. net.

Forty-seventh Annual Report of the American Museum of Natural History for the Year 1915. Pp. 194. (New York.)

The Cicindelinæ of North America as arranged by Dr. W. Horn in Genera Insectorum. Edited by E. D. Harris and C. W. Leng. Pp. vi+23. (New York: American Museum of Natural History.)

NO. 2432, VOL. 97

## DIARY OF SOCIETIES.

- THURSDAY, JUNE 8. ROVAL SOCIETY, at 4.30.—Further Determinations of Direct Osmotic Pres-sures: The Earl of Berkeley and E. G. J. Hartley.—The Magnetic Shielding of Large Spaces, and its xperimental Measurement: Prof. E. Wilson and Prot. J. W. Nicholson.—Motion of Solids and Fluids when the Flow is not Irrotational: G. I. Taylor. ROVAL INSTITUTION, at 3.—Chamber Music and its Revival in England: Sir Alexander Mackenzie.

NAME INSTITUTION OF A 3. Chamber study and its Keyvarin Enginet . Sir Alexander Mackenzie. MATHEMATICAL OCIETY at 5.30.—The Classification of the Integrals of a Linear Parial Differential Equation of the First Order : Prof. M. J. M. Hill.—(1) Non-absolutely Convergent, not necessaril Continuous, Inte-grals; (2) The Convergence of Fourier Series and of their derived Series : Prof. W. H. Young.—The General Linear Differential Equation : Dr. S. Brodetsky.—A. Note on the Seri s  $\Sigma a_n \sin n\theta$  and  $\Sigma a_n \cos n\theta$ , where  $(a_n)$ is a Sequence of Positive Numbers tending steadily to Zero : A. E. Jolliffe. INSTITUTION OF MINING ENGINEERS, at ro.45 a.m.—The History of the Safety-Lamp : Prof F. W. Hardwick.—Th- Health of Old Col iers : Dr. J. S. Haldane.—The Estimation of Moisrure in Coal : T. F. Winmill.— (1) The Absorption of Oxygen by Coal. VIII. and IX.; (2) The Oxidation of Pyrites : T. F. Winmill. OPTICAL SOCIETY, at 8.—Modern Technical Applications of Radium and other Lumnous Substances : F. Harrison Glew.

FRIDAY, JUNE 9. FRIDAY, JUNE 9. ROVAL INSTITUTION, at 5.30. — Eyesight and the War: Dr. E. Clarke. ROVAL ASTRONOMICAL SOCIETY, at 5.—An Inequality in the Period of the Eclipsing Variable RZ Cassiopeiz R. S. Dugan.—A Probable Relation between the Changes in Solar Radiation and the Melting of the Polar Snow Caps of Mars: E. M. Antoniadi.—Micrometrical Measures of Double Stars: Rev. T. E. R. Phillips. MALACOLOGICAL SOCIETY, at 3.—Note on *Erato guttula*, Sow.: J. R. le B Tomlin.—An Undescribed Ammonoid from the Lower Greensand (Aptian) of Kent: G. C. Crick.—*Helix scytodes*: Prof. G. K. Gude.

SATURDAY, JUNE 10. ROYAL INSTITUTION, at 3.—Folk-lore in the Old Testament: Sir J. G. Frazer.

CONTENTS. PAGI
The Moving Picture and its Mechanism. By Prof.
C. V. Boys, F.R.S
Modern Analysis
Docility and Other Diseases
Our Bookshelf
Letters to the Editor:-
Molecular Attractions in SolutionsThe Earl of
Berkeley, F.R.S
Meteorological Conditions of a BlizzardL. C. W.
Bonacina
Sir Ernest Shackleton's Antarctic Expedition.
(With Map.)
Return Currents and Electrolytic Corrosion 30
Science and Government
Notes
Our Astronomical Column :
A Large Group of Sun-spots
The Total Solar Eclipse of February 3, 1916 31
The Spectrum of Nova Geminorum No. 2 31
Latitude Observations by Photography 31
The Royal Observatory, Greenwich
The Place of Science in Modern Metallurgical In-
dustries. By H. C. H. C.
Recent Entomology. By G. H. C.
University and Educational Intelligence 31
Societies and Academies
Books Received
Diary of Societies

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

Advertisements and business letters to be addressed to the Publishers.

Editorial Communications to the Editor. Telegraphic Address: Phusis, London. Telephone Number : GERRARD 8830.