

of Practical Geology. By W. F. P. McLintock. Pp. iv+92. (London: H.M.S.O.; E. Stanford, Ltd.) 9d.  
From Pole to Pole. By Syen Hedin. Pp. xv+407+xxxix plates and maps. (London: Macmillan and Co., Ltd.) 7s. 6d. net.

The Pagan Tribes of Borneo. By Dr. C. Hose and W. McDougall. Two vols. Vol. i., pp. xv+283+143 plates. Vol. ii., pp. x+374+211 plates+4 maps. (London: Macmillan and Co., Ltd.) Two vols., 42s. net.

A First Class-book of Chemistry. By E. Barrett and Dr. T. P. Nunn. Pp. iv+124. (London: A. and C. Black.) 1s. 6d.

Die Elektrizität. By Prof. F. Adami. Pp. 126+4 plates+180+12 plates. (Leipzig: P. Reclam, Jun.) 1.50 marks.

Kosmologische Gedanken. By W. Baratsch. Zweite Auflage. Pp. 55+63. (Leipzig: F. E. Fischer.) 1.50 marks.

Handbuch der vergleichenden Physiologie. Edited by H. Winterstein. Lief 29. Band I. Zweite Hälfte. Pp. 321-480. (Jena: G. Fischer.) 5 marks.

Analyse des Matières Colorantes Organiques. By Dr. F. Reverdin. Pp. 56. (Geneva and Basle: Georg and Co.)

Vaccine Therapy: its Theory and Practice. By Dr. R. W. Allen. Fourth edition. Pp. x+444. (London: H. K. Lewis.) 9s. net.

Teacher's Manual of Biology. By Prof. M. A. Bigelow. Pp. ix+113. (London: Macmillan and Co., Ltd.) 1s. 8d. net.

A Laboratory Manual of Agriculture for Secondary Schools. By Prof. L. E. Call and E. G. Schafer. Pp. xv+344. (London: Macmillan and Co., Ltd.) 4s. net.

Mineralogy. An Introduction to the Theoretical and Practical Study of Minerals. By Prof. A. H. Phillips. Pp. ix+699. (London: Macmillan and Co., Ltd.) 16s. net.

Deutsches Museum: Lebensbeschreibungen und Urkunden. Georg von Reichenbach. By W. v. Dyck. Pp. iv+140+viii plates. (München: Selbstverlag des Deutschen Museums.)

Ueber einfache Pflanzenbasen und ihre Beziehungen zum Aufbau der Eiweissstoffe und Lecithine. By Dr. G. Trier. Pp. iv+117. (Berlin: Gebrüder Borntraeger.) 5.60 marks.

## DIARY OF SOCIETIES.

### THURSDAY, DECEMBER 12.

MATHEMATICAL SOCIETY, at 8.—Recent Advances in the Theory of Surfaces. Address by the ex-President (Dr. H. F. Baker), postponed from the November Meeting.—A Connection between the Functions of Hermite and Jacobi: H. E. J. Curzon.—The Equations of the Theory of Electrons Transformed Relative to a System in Accelerated Motion: H. R. Hassé.—The Convergence of Series of Orthogonal Functions: E. W. Hobson.—The Determination of the Nature of a Function from a Knowledge of One of its Derivatives: W. H. Young.—Mersenne's Primes: J. McDonnell.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—A Single Phase Motor with Pole Changing Windings: J. S. Nicholson and B. P. Haigh.

ROYAL SOCIETY OF ARTS, at 4.30.—Delhi, the Metropolis of India: Sir Bradford Leslie, K.C.I.E.

CONCRETE INSTITUTE, at 7.30.—The Action of Acids, Oils and Fats upon Concrete: W. Lawrence Gadd.

### FRIDAY, DECEMBER 13.

ROYAL ASTRONOMICAL SOCIETY, at 5.—The Long Period Variable V Cassiopeiae (Ch. 8324) in 1910-12: A. N. Brown.—Observations of the Magnitude of Nova Geminorum 2, made at the Royal Observatory, Edinburgh: H. Jameson.—Note on R Cygni: Heber D. Curtis.—The Distribution in Latitude of the Absorption Markings in  $H\alpha$  Spectroheliograms: T. Royds.—Baxendell's Observations of Variable Stars. Edited by M. A. Bagg and H. H. Turner. No. 1: R. Arietis.—*Probable Papers*: Note on the Cambridge Magnitude Equation: F. A. Bellamy.—Note on a New Similarity between the Variations of S Persei (and other Long Period Variables) and the Variations of Sun-spots: H. H. Turner.—Observations of the Principal and other Series of Lines in the Spectrum of Hydrogen: A. Fowler.

### MONDAY, DECEMBER 16.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—From the Victoria Nyanza to the Kisii Highlands: Dr. Felix Oswald.

ARISTOTELIAN SOCIETY, at 8.—New Logic and Old: Miss E. E. Constance Jones.

ROYAL SOCIETY OF ARTS, at 8.—Methods of Economising Heat: C. R. Darling.

INSTITUTE OF ACTUARIES, at 5.—Some Observations on Currency and Credit and their Influence on Trade and Exchange: W. T. May.

### TUESDAY, DECEMBER 17.

ROYAL STATISTICAL SOCIETY, at 5.—Presidential Address, The Use of the Mathematical Theory of Probabilities in Statistics Relating to Society: Prof. F. Y. Edgeworth.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Further Discussion*: The Generation and Distribution of Producer-gas in South Staffordshire: H. A. Humphrey.

### WEDNESDAY, DECEMBER 18.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Probable Utility of Salinity Observations in the Irish Sea for Long-date Weather-forecasting: Prof. H. Bassett.—Air Currents at a Height of 50 miles: J. E. Clark.—New Form of Standard Barometer: C. Anthony.

GEOLOGICAL SOCIETY, at 8.—The Discovery of a Human Skull and Mandible in a Flint-bearing Gravel at Piltown, Fletching (Sussex): C. Dawson and Dr. A. Smith Woodward.

ROYAL SOCIETY OF ARTS, at 8.—The Pictorial Possibilities of Work: Joseph Pennell.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Insect Intelligence: F. Enoch.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.

### THURSDAY, DECEMBER 19.

LINNEAN SOCIETY, at 8.—Experiments on the Pollination of our Hardy Fruits: C. Hooper.—The Morphology and Histology of Piper Beetle, Linn: H. M. Chibber.—Some New British Plants: G. Claridge Druce.—Wild Rice, Annual and Perennial: Dr. Otto Stapf.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Work of the International Electro-technical Commission: Dr. S. P. Thompson.

INSTITUTION OF MINING AND METALLURGY, at 8.

### FRIDAY, DECEMBER 20.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—*Further Discussion*: Vapour-Compression Refrigerating Machines: J. Wemyss Anderson.—A Contribution to the Theory of Refrigerating Machines: J. H. Grindley.

## CONTENTS.

PAGE

Vegetation Studies in the New World . . . . . 405

Signs and Symbols, Egyptology, and Freemasonry.

By Rev. John Griffith . . . . . 406

Pedagogics. By J. A. G. . . . . 407

Our Bookshelf . . . . . 407

Letters to the Editor:—

The Rise of Temperature Associated with the Melting of Icebergs. (*With Diagrams.*)—Prof. H. T. Barnes, F.R.S. . . . . 408

The Bending of Long Electric Waves Round the Globe.—Dr. W. H. Eccles . . . . . 410

The Specular Reflection of X-rays.—W. L. Bragg . . . . . 410

The Investigation of Flint.—George Abbott . . . . . 411

Remarkable Formation of Ice on a Small Pond. (*With Diagram.*)—A. S. E. Ackermann . . . . . 411

Anthropology at the British Association.—Robert Mond . . . . . 411

Atmospheric Electricity. By Dr. George C. Simpson . . . . . 412

Prof. Friedmann's Treatment of Tuberculosis . . . . . 412

Sir George Howard Darwin, K.C.B., F.R.S. By J. L. . . . . 413

Mr. S. A. Saunder . . . . . 415

Notes . . . . . 416

Our Astronomical Column:—

The Annular Solar Eclipse of April 17 . . . . . 420

A Remarkable Shower of Meteoric Stones . . . . . 420

The Orbit of Comet 1910a . . . . . 420

The *Gazette Astronomique* . . . . . 420

The New Pharmacological Laboratory at University College, London. (*Illustrated.*) . . . . . 420

Mathematics and Physics at the British Association . . . . . 421

University and Educational Intelligence . . . . . 426

Societies and Academies . . . . . 427

Books Received . . . . . 429

Diary of Societies . . . . . 430

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.