R. A. Houstoun. Pp. ix+199. (London: Longmans and Co.) 6s. net.

Yorkshire Type Ammonities. Edited by S. S. Buckman. Part viii. (London: W. Wesley and Son.)
The People's Books:—Hypnotism and Self-Educa-

The People's Books:—Hypnotism and Self-Education. By Dr. A. M. Hutchinson. Pp. 92. The Structure of the Earth. By Dr. T. G. Bonney. Pp. 94. Weather Science. By R. G. K. Lempfert. Pp. 94 Navigation. By W. Hall. Pp. 96. The Baby. By A University Woman. Pp. 94. Marriage and Motherhood. By H. S. Davidson. Pp. 94. (London and Edinburgh: T. C. and E. C. Jack.) 6d. net each each.

Congress of the Universities of the Empire, 1912. Report of Proceedings. Edited by Dr. A. Hill. Pp. xlii + 464. (London: Hodder and Stoughton.) 10s.

Primeval Man. By A. H. Quiggin.

Primeval Man. By A. H. Quiggin. 1 p. 140.
(London: Macdonald and Evans.) 1s. 6d. net.
Sentinel Hours. By Prof. E. E. Speight. Pp.
viii+261+plates. (London: A. and C. Black.) 2s.
The South Pole. By R. Amundsen. Translated by
A G. Chater. Vol i., pp. xxxv+392+map. Vol. ii.,
pp. x+449+maps. (London: J. Murray.) Two vols.,

2 guineas net.

A History of Geographical Discovery in the Seventeenth and Eighteenth Centuries. By E. Heawood. pp. xii+475. (Cambridge University Press.) 12s. 6d. net.

Karakoram and Western Himalaya, 1909. An Account of the Expedition of H.R.H. Prince Luigi Amedeo of Savoy, Duke of the Abruzzi. By F. de Filippi. Pp. xvii+469+plates, and volume of Plates and Maps. (London: Constable and Co., Ltd.) Two vols., 63s. net.

The Beginner's Guide to the Microscope. By C. E. Heath. pp. 119. (London: P. Marshall and Co.) is. net.

Herbals: their Origin and Evolution. By A. Arber (Mrs. E. A. Newell Arber). Pp. xviii+253. (Cam-

bridge University Press.) 10s. 6d. net.
An Elementary Treatise on Coordinate Geometry of Three Dimensions. By Dr. R. J. T. Bell. Pp. xviii+

(London: Macmillan and Co., Ltd.) ros. net. Third edition. Pp. xx+469. (London: Macmillan and Co., Ltd.) 6s.

DIARY OF SOCIETIES.

THURSDAY, NOVEMBER 28.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Earthed v. Uncarthed Neutrals on Alternating Current Systems: J. S. Peck.
CONCRETE INSTITUTE. at 7.30.—Bills of Quantities for Reinforced Concrete Work: John M. Theobald.

SATURDAY, NOVEMBER 30.

ESSEX FIELD CLUB (at the Essex Museum, Stratford), at 6.—Some Letters from the Rev. Wm. Derham. Rector of Upminster, Essex, to Dacre Barrett. of Belbus, Essex (1704-1710) Communicated, with Remarks, by T. Barrett-Lennard.—The Mycetozoa: Miss Gulielma Lister.

MONDAY, DECEMBER 2.

RÖNTGEN SOCIETY, at 8.15.
ROYAL SOCIETY OF ARTS, at 8.—Methods of Economising Heat: C. R.

Darling.

Society of Arts, at 8.—Methods of Economising Heat: C. R. Darling.

Society of Chemical Industry, at 8.—New Apparatus for the Examination of Mine Air: L. A. Levy.—Slate Bed Treatment of Sewage: W. J. Dibdin.

ARISTOTELIAN SOCIETY, at 8.—Purpose and Evolution: A. Lynch.
ROYAL GROGRAPHICAL SOCIETY, at 8.30.—Geographical Results of the
Abor Expedition: A. Bentinck and Capt. Beauchamp Duff.
SOCIETY of ENGINEERS, at 8.—The Deflection of Reinforced Concrete
Beams: P. J. Waldram.

TUESDAY, DECEMBER 3.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Further Discussion: Mechanical Handling of Coal for British Locomotives: C. J. B. Cooke.—
Paper: The Vibration of Riffe Barrls: F. Carnegie.

ILLUMINATING ENGINEERING SOCIETY. at 8.—Modern Methods of Indirect Lighting: Their Advantages and Merits: F. W. Willcox and H. C. Wheat.

WEDNESDAY, DECEMBER 4.

ROYAL SOCIETY OF ARTS, at 8.—The Manufacture of Sugar from Wood, and its Economic Importance: A. Zimmermann.

NO. 2248, VOL. 90

GEOLOGICAL SOCIETY at 8.—The Lower Palæozoic Rocks of the Cautley District Dr. J. E. Marr.—(1) The Trilobite Fauna of the Comley Breccia Bed (Shropshire); (2) Two Species of Paradoxides from Neves Castle (Shropshire); E. S. Cobbold.

SOCIETY OF PUBLIC ANALYSTS, at 8.—The Value of the Guaiacum Test for Bloodstains: H. S. Shrewsbury.—The Detection of Adulteration in Linseed Oil: G. D. Elsdon and H. Hawley.—The Determination of Nitrates and Nitrites in Sewage Effluents: A. Higginson.—The Estimation of Citric Acid and its Separation from Tartaric and Succinic Acids: L. Gowing-Scopes.

ENTOMOLOGICAL SOCIETY, at 8.

L. Gowing-Scopes.

Entomological Society, at 8.

THURSDAY, December 5.

Royal Society, at 4.30.—Probable Papers: Physiological Observations made on Pike's Peak, Colorado, with Special Reference to Adaptation to Low Barometric Pressures: C. G. Douglas, Dr. J. S. Haldane, Y. Henderson and E. C. Schneider.—Notes on the Life History of Trypanosoma gambiense, with a Brief Reference to the Cycles of Trypanosoma name and Trypanosoma pecorum in Glossina palpalis: Muriel Robertson.

—A Gregarine Steinina rotundata, nov. sp., present in the Mid-gut of Bird Fleas of the Genus Ceratophyllus: Dr. J. H. Ashworth and Dr. T. Rettie.—(1) The Size of the Aorta in Warm-blooded Animals and its Relationship to the Body Weight and to the Surface Area expressed in a Formula; (2) The Size of the Trachea in Warm-blooded Animals and its Relationship to the Weight, the Surface Area, the Blood Volume and the Size of the Aorta: Prof. G. Dreyer, W. Ray, and E. W. A. Walker.—Studies of the Processes operative in Solutions. The Conversion of Ammonic Cyanate into Urea, especially as Influenced by Alcohols: E. E. Walker.—(7) The Hydrolysis of Cane Sugar by Dilute Acids; (2) The Hydrolysis of Cane Sugar by Sulphuric Acid, with a Note on Improvements in Polarimetic Apparatus; (3) The Hydrolysis of Methylic Acetate by Acids: F. P. Worley.—The Nature of Hydrolytic Process: Dr. H. E. Armstrong and F. P. Worley.—The Direct Production of Characteristic Röntgen Radigations by, Kathode Particles: Dr. R. T. Beatry.—The Penetrating Power of the γ Rays from Radium C: A. S. Russell.—The Photo-electric Behaviour of Iron in the Active and Passive State: Dr. H. S. Allen.—A Determination of the Radiation Constant: H. B. Keene. Linnban Society, at 8.—Notes on Two Orchids New to East Sussex, and on several Rarer Species of Orchidaceæ: E. J. Bedford.—The Hebridean Diagona described as "Syntethys," and other Exhibits from the Cruise of the S.Y. Runa in 1912: Prof. W. A. Herdman.—Nature Camera Work, an Attempt to Combine Photography with Drawing in Body-colour: Mis

CONTENTS. PA	IGE
Scientific Worthies,-XXXIX. Prof. Jules Henri	
Poincaré, For. Mem. R.S.	353
	356
Foodstuffs	357
Foodstuffs	33.
R. I. P	358
Our Bookshelf	359
Letters to the Editor:-	
X-Rays and Crystals.—Prof. W. H. Bragg, F.R.S.	360
Worked Flints obtained from "the 25-foot Raised	
Beach" near Holywood, co. Down. (Illustrated.)	
Henry Home	361
Note on the Upper Partials of a Tuning-fork (Illus-	
trated.)-F. H. Parker	361
The March of Science.—E. S	361
Forest Cultivation in Tropical Regions. (Illustrated.)	362
Dr. Ramsay H. Traquair, F.R.S. By A. S. W	363
W. F. Kirby. By E. B. P.	364
Notes	364
Astronomical Occurrences for December	368
The Solar Motion Relatively to the Interstellar	300
Absorbing Medium	368
Observations of Comets	369
Observations of Comets	369
Education at the British Association	370
Minute Life on Our Sea-beaches. (Illustratea.) By	37
Prof. W. A. Herdman, F.R.S.	371
The University of Bristol in Relation to Agriculture	373
University and Educational Intelligence	
Societies and Academies	375
Books Received	
Diary of Societies	378

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.