

Paul **Gaubert**: Mixed liquid crystals.—Albert Michel **Levy**: The effects of the granitic metamorphism in the carboniferous eruptive tufas in the neighbourhood of Mâcon.—Pereira de **Sousa**: Contribution to the petrographical study of the north of Angola.—Marcel **Delassus**: The influence of the size of seeds on the general development and anatomy of plants.—Raoul **Combes**: The conversion of an anthocyanic pigment extracted from red autumnal leaves to the yellow pigment contained in the green leaves of the same plant. The yellow pigment is obtained by oxidising the red pigment with hydrogen peroxide. The change in the colour of leaves in the autumn is due to a process of reduction.—L. **Blaringhem** and E. **Miège**: Studies on the straw of wheat.—Armand **Viré**: Experiments on the divining rod. A detailed account of the successful use of the divining rod.—R. **Robinson**: The physiological localisations of the encephalus contrasted with extensive destruction of this organ.—I. G. **Garfouinkel** and J. **Gautrelet**: Contribution to the study of the action of colouring matters on the heart and blood pressure.—Emile **Yung**: The vertical distribution of plankton in the lake of Geneva.—A. **Gravel**: The anchovy (*Engraulis encrassicholus*) on the western coast of Africa.—Ch. **Gravier**: The incubation of Mopsea and Rhopalonella from the Antarctic.—Adrien **Lucet**: The influence of agitation of the broth cultures on the development of *Bacillus anthracis* and some other micro-organisms.—Henri **Coupin**: Zinc and *Sterigmatocystis nigra*.—J. **Wolff**: The catalytic action of iron in the development of barley.—A. **Fernbach** and M. **Schoen**: Pyruvic acid a life product of yeast.—Emile **Haug**: The geology of the southern slopes of Sainte-Baune.—J. **Blayac**: Relations between the sands of the Landes and the terraces of the Garonne.—A. **Bigot**: The structure of the Bocain zone.—P. **Idrac**: The inequalities of the distribution of terrestrial magnetism.

BOOKS RECEIVED.

Letzte Gedanken. By H. Poincaré. Translated by Dr. K. Lichtenecker. Pp. vi+261. (Leipzig: Akademische Verlagsgesellschaft m.b.H.) 4.50 marks.
 The Madras Presidency, with Mysore, Coorg, and the Associated States. By E. Thurston. Pp. xii+293. (Cambridge: University Press.) 3s. net.
 Plant Life. By T. H. Russell. Pp. 71. (Birmingham: Cornish Bros., Ltd.) 2s. 6d. net.
 Royal Horticultural Society. Four Essays, written by Students at Wisley, 1913. Pp. 72. (London: Royal Horticultural Society.)
 The Story of Plant Life in the British Isles. By A. R. Horwood. Pp. xiv+254. (London: J. and A. Churchill.) 6s. 6d. net.
 Water: Its Purification and Use in the Industries. By W. W. Christie. Pp. xi+219. (London: Constable and Co., Ltd.) 8s. 6d. net.
 Transmission Line Formulas for Electrical Engineers and Engineering Students. By H. B. Dwight. Pp. vi+137. (London: Constable and Co., Ltd.) 8s. 6d. net.

DIARY OF SOCIETIES.

FRIDAY, JANUARY 2.
 GEOLOGISTS' ASSOCIATION, at 8.—The North Sea Drift and Certain Brick-Earths in Suffolk: P. G. H. Boswell.
 MONDAY, JANUARY 5.
 ARISTOTELIAN SOCIETY, at 8.—Philosophy as Co-ordination of Science: H. S. Shelton.
 SOCIETY OF CHEMICAL INDUSTRY, at 8.—The Viscosity of Oils: J. L. Strevens.—The Oxygen Content of Gases from Roasting Pyrites: L. T. Wright.—The Electrical Conductivity of Milk During its Concentration, with Suggestions for a Practical Method of Determining the End Point in

the Manufacture of Sweetened Condensed Milk: L. C. Jackson, L. McNab, and A. C. H. Rothera.—Monazite from Some New Localities: S. J. Johnstone.
 RÖNTGEN SOCIETY, at 8.15.—Histological Changes Produced by X-rays on Animal Tissues; Destructive and Hyperplastic Action of X-rays; Practical Consequences in Regard to Radio-Therapy and Protection of the Radiologist: Dr. J. Clunet.
 WEDNESDAY, JANUARY 7.
 GEOLOGICAL SOCIETY, at 8.—The Ordovician and Silurian Rocks of the Lough Nafooy Area (County Galway): C. I. Gardner and Prof. S. H. Reynolds.—The Geology of the St. Tudwal's Peninsula (Carnarvonshire): T. C. Nicholas.
 AERONAUTICAL SOCIETY, at 8.30.—Wind Gusts and the Structure of Aerial Disturbances: Dr. W. N. Shaw.
 THURSDAY, JANUARY 8.
 CONCRETE INSTITUTE, at 7.30.—Factory Construction: P. M. Fraser.
 INSTITUTE OF ELECTRICAL ENGINEERS, at 8.—The Development of Electric Power for Industrial Purposes in India: H. R. Speyer.
 FRIDAY, JANUARY 9.
 ROYAL ASTRONOMICAL SOCIETY, at 5.

CONTENTS.

	PAGE
Evolution and Genetics	497
Typical Geography Books. By B. C. W.	498
Organic Chemistry, and One of Its Applications. By C. S.	498
Our Bookshelf	499
Letters to the Editor:—	
The Pressure of Radiation.—Prof. H. L. Callendar, F.R.S.	500
Atomic Models and X-Ray Spectra.—Dr. F. A. Lindemann	500
The Plumage Bill.—L. Joseph; Sir H. H. Johnston, G.C.M.G., K.C.B.	501
A Palæobotanical Institute at the Royal Botanic Gardens, Kew.—Prof. A. G. Nathorst.	502
Electrodeless Spectra of Hydrogen.—Irvine Masson	503
Birds, Game, and Trees. (Illustrated.) By R. I. P.	504
The Mineral Resources of the United States. By H. L.	505
Sir Trevor Lawrence, Bart.	506
A New British Antarctic Expedition	506
Notes	507
Our Astronomical Column:—	
Comet 1913/ ('Telavan)	512
An Aid to Transit Circle Observers	512
Standard Wave-Length Determinations	512
Prize Awards of the Paris Academy of Science for 1913	512
Papers on Vertebrate Palæontology. By R. L.	514
Agriculture at the British Association	514
Psychology at the British Association. By Cyril Burt	516
On the Highest University Education in Germany and France. By Sir James Donaldson	517
University and Educational Intelligence	519
Societies and Academies	520
Books Received	522
Diary of Societies	522

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.