

generation of aniline. The crude mixture to be separated contains *cyclohexylamine*, *dicyclohexylamine*, *cyclohexylaniline*, *diphenylamine*, and some secondary products, benzene, *cyclohexane*, and tar. A scheme is given for the separation and isolation of the above amines.—G. F. **Dollfus**: Geological observations made in the neighbourhood of Honfleur (Calvados).—L. **Dunayer** and G. **Reboul**: The diurnal variations of the wind in altitude.—C. **Gessard**: An erythrogenic variety of the pyocyanic bacillus.—M. **Belin**: A new method of general chemicotherapy: oxidotherapy. A description of results obtained by the injection of solutions of potassium permanganate in tetanus, typhoid fever, acute rheumatism, and other diseases.

PETROGRAD.

Academy of Sciences, September 13, 1917.—E. E. **Kostyleva**: The forms of corrosion of topaz crystals from Šajtanka (Oural).—N. N. **Adelung**: Contributions to our knowledge of the Palæartic Blattoidea. II.: Supplementary notes on *Ectobiella duskei*, Adel.—A. P. **Semenov-Tian-Shanskij**: Preliminary synopsis of the Mydoidæ of the Russian fauna (Diptera).—V. K. **Soldatov**: New genus of Zoarcidæ—*Gymnelopsis*, n.gen., and *G. ocellatus*, *G. brashnikovi*, *Lycenchelis armatus*, nn.spp., from the Okhotsk Sea.—N. M. **Krylov** and Ja. D. **Tamarkin**: The method of W. Ritz for the approximate solution of problems of mathematical physics.—P. P. **Lazarev**: The laws of transitory illumination of the retina in peripheral vision.—A. **Bačinskij**: Molecular fields and their extent.—M. **Kasterin**: The inconsistency of Einstein's principle of relativity.—N. V. **Nasonov**: The fauna of the Turbellaria of Finland.—I. N. **Filipčev**: Instructions for collecting free-living nematodes.—V. N. **Ipatiev** and V. **Verchovskij**: The solution of zinc in hydrochloric acid under high pressure.

BOOKS RECEIVED.

A Critical Revision of the Genus *Eucalyptus*. By J. H. Maiden. Vol. iv., part 2. (Sydney: W. A. Gullick.) 2s. 6d.

Australasian Antarctic Expedition, 1911-14. Scientific Reports, Series C. Zoology and Botany. Vol. iv., part 2. Cephalopoda. By S. S. Berry. Vol. v., part 1. Arachnida from Macquarie Island. By W. J. Rainbow. (Adelaide: R. E. E. Rogers.) 1s. and 3s. 6d. respectively.

A Short Course in Elementary Mathematics and their Application to Wireless Telegraphy. By S. J. Willis. Pp. 182. (London: Wireless Press, Ltd.) 3s. 6d. net.

Britain's Heritage of Science. By A. Schuster and A. E. Shipley. Pp. xv+334+illustrations. (London: Constable and Co., Ltd.) 8s. 6d. net.

The Linacre Lecture on the Law of the Heart. By Prof. E. H. Starling. Pp. 27. (London: Longmans and Co.) 1s. 6d. net.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 17.

LINNEAN SOCIETY, at 5.—(1) Restoration of the Head of *Osteolepis*; (2) Femur of Pterodactyl from the Stonesfield Slate: E. S. Goodrich.—Some Early Cape Botanists: J. Britten.—A Hybrid *Stachys*: C. E. Salmon. INSTITUTION OF MINING AND METALLURGY, at 5.30.—The Incidence of Taxation upon Metalliferous Mining in the British Isles: H. Louis.—Molybdenum in Norway: E. R. Woakes. MATHEMATICAL SOCIETY, at 5.—A Method of Studying any Convergent Series: Major P. A. MacMahon.—Additional Note on Dirichlet's Divisor Problem: G. H. Hardy.—Note on a Diophantine Inequality: J. H. Grace.—Supernormal Curves: C. H. Forsyth.—A Note on a Theorem of Mr. Hardy's: K. Amanda Ran.—Plane Quartic Curves with a Tacnode: Prof. H. Hilton and Miss D. S. Tuck. CHEMICAL SOCIETY, at 8.—The Synthesis of Ammonia at High Temperatures: E. B. Maxted.—Interactions of Formaldehyde with Urea: A. E. Dixon.—The Colouring Matters of Camwood, Barwood, and Sanderswood: P. O'Neill and A. G. Perkin.—Studies on the Walden Inversion. VII. The Influence of the Solvent on the Sign of the Product in the Con-

version of β -Phenyl- α -bromopropionic Acid to β -Phenyl- α -aminopropionic Acid (Phenylalanine): G. Senter, H. D. K. Drew, and G. H. Martin.—Pure Piperidine Nitrate: A. K. Macbeth.—The Chemistry of Slightly Soluble Compounds of Thorium, as Investigated by Radio-active Methods: W. T. Spizine.

ROYAL SOCIETY OF ARTS, at 4.30.—The Tata Iron and Steel Works: H. M. Surtees Luckwell.

FRIDAY, JANUARY 18.

ROYAL INSTITUTION, at 5.30.—Studies on Liquid Films: Sir James Dewar. INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Traction on Bad Roads of Land: L. A. Legros.—Utility of Motor Tractors for Tillage Purposes: A. Amos.

SATURDAY, JANUARY 19.

ROYAL INSTITUTION, at 3.—The Chemical Action of Light: Prof. W. J. Pope.

MONDAY, JANUARY 21

ARISTOTELIAN SOCIETY, at 8.—The Category of Action in Indian Philosophy and its Value for Modern Thinking: Dr. F. W. Thomas.

ROYAL GEOGRAPHICAL SOCIETY, at 5.—Discussion: Study of a Dune Belt: W. J. Harding King.

ROYAL SOCIETY OF ARTS, at 4.30.—High-temperature Processes and Products: C. R. Darling.

TUESDAY, JANUARY 22.

ROYAL INSTITUTION, at 3.—Palestine and Mesopotamia: Prof. Flinders Petrie.

INSTITUTION OF CIVIL ENGINEERS, at 5.30.—Further Discussion: Rail, creep: F. Reeves.—Creep of Rails: H. P. Miles.

WEDNESDAY, JANUARY 23.

GEOLOGICAL SOCIETY, at 5.30.

ROYAL SOCIETY OF ARTS, at 4.30.—Water Power in Great Britain (with Special Reference to Scotland); Its Amount and Economic Value: Alexander Newlands.

THURSDAY, JANUARY 24.

ROYAL SOCIETY, at 4.30.—Probable Papers: Graphical Solution for High-angle Fire: Prof. A. N. Whitehead.—Flocculation: Spencer Pickering.

—Revolving Fluid in the Atmosphere: Dr. J. Aitken.—Ultra-violet Transparency of the Lower Atmosphere and its Relative Poverty in Ozone: Hon. R. J. Strutt.—The Pressure in the Solar Spectrum of the Water-vapour Band λ 3064: Prof. A. Fowler.—The Ultra-violet Band of Ammonia and its Occurrence in the Solar Spectrum: Prof. A. Fowler and C. L. Gregory.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—Telephone Exchange Transfers and their Organisation: F. G. C. Baldwin.

FRIDAY, JANUARY 25.

ROYAL INSTITUTION, at 5.30.—The Motion of Electrons in Gases: Prof. J. S. Townsend.

SATURDAY, JANUARY 26.

ROYAL INSTITUTION, at 3.—The Chemical Action of Light: Prof. W. J. Pope.

CONTENTS.

	PAGE
Manuals for the Chemical Laboratory. By C. S.	381
Increase of Agricultural Output	382
Sir Clements Markham. By T. H. H.	383
Our Bookshelf	383
Letters to the Editor:—	
Sources of Potash.—Right Hon. Sir Herbert Maxwell, Bart., F.R.S.	384
The Supposed "Fascination" of Birds by Snakes.—Prof. Edward B. Poulton, F.R.S.	385
The Scientific Basis of Rationing. By M. G.	385
Scientific Work of the Medical Research Committee. By Prof. W. M. Bayliss, F.R.S.	387
Science and Industry in Australia	388
Notes	389
Our Astronomical Column:—	
The Masses of the Stars	393
The Spectrum of α Canum Venaticorum	393
The Society for Practical Astronomy	394
Butter Substitutes. By E. H.	394
Sea-pens of the "Siboga" Expedition	394
Experimental Hydraulics	395
Astronomical Consequences of the Electrical Theory of Matter. By Sir Oliver Lodge, F.R.S.	395
University and Educational Intelligence	398
Societies and Academies	399
Books Received	400
Diary of Societies	400

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