

of these species belong to the division Harpacticoida. —C. P. Alexander: New or little known species of Australian Tipulidæ (Diptera), Pt. i. An account of twenty-three specimens from a number of Australian collections. —H. S. Halcro Wardlaw: The effect of suspended respiration on the composition of alveolar air. Inspirations were held in the lungs until the composition of the alveolar air ceased to alter. Circulatory disturbances were minimised by holding an inspiration for a number of consecutive short periods instead of for one long period. Similar final values were reached whether the initial inspiration consisted of air alone or of air mixed with a percentage of carbon dioxide higher than the normal alveolar percentage. Similar final values were reached also whether the inspiration was held under normal or under negative intrathoracic pressure; this was not the case when circulatory disturbances were allowed to exert their effect. —A. M. Lea: On Australian Anthicidæ (Coleoptera). Notes on synonymy, variation, and distribution are given, and 53 species are described as new. —J. McLuckie: A contribution to the parasitism of *Notothixos incanus* (Oliv.) var. *subaureus*. The structure of the fruit, the mechanism of seed-dispersal, the structure of the haustorium and its relation to the host-tissues, are described. —T. Thomson Flynn: The phylogenetic significance of the marsupial allantoaplacenta. In a typical mammal, the placental cycle is divisible into three stages,—metrioplacental, omphaloplacental, and allantoaplacental. The last stage is absent in all marsupials except Perameles. Examination of the allantoaplacenta of Perameles shows its definite relation to that of Monodelphia. It is considered that the ancestors of marsupials were, therefore, placental.

### Official Publications Received.

The Institution of Civil Engineers. Engineering Abstracts prepared from the Current Periodical Literature of Engineering and Applied Science, published outside the United Kingdom. New Series, No. 14, January. Edited by W. F. Spear. Pp. 186. (London: Gt. George Street.)

Agricultural Research Institute, Pusa. Bulletin No. 136: The Hydrogen Ion Concentrations of some Indian Soils and Plant Juices. By Dr. W. R. G. Atkins. Pp. ii+12. Bulletin No. 137: Note on the Probability of an Inter-relation between the Length of the Stigma and that of the Fibre in some forms of the genus *Gossypium*. By Ram Prasad. Pp. ii+7+2 plates. (Calcutta: Government Publications Office.) 4 annas each.

Schriften der Naturforschenden Gesellschaft in Danzig. Neue Folge. Fünfzehnten Bandes Drittes und Viertes Heft. Teil 2: Jahresbericht für 1921. Pp. ii+55. Teil 3: Wissenschaftliche Abhandlungen. Pp. viii+112. (Danzig.)

44 Bericht des Westpreussischen Botanisch-Zoologischen Vereins. Pp. iv+30. (Danzig.)

Geological Literature added to the Geological Society's Library during the Year ended December 31st, 1914. Compiled by Arthur Greig. Pp. iv+193. (London: Geological Society.) 5s.; 8s. 9d. to F.G.S.

Hampstead Scientific Society. Report of the Council and Proceedings, with a List of the Members, for the Period October 1920 to September 1922; with Reports of General Meetings, 1919-1920. Pp. 63. (London: Stanfield House, Prince Arthur Road.)

### Diary of Societies.

#### SATURDAY, JANUARY 27.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Walford Davies: Speech Rhythm in Vocal Music (2).

#### MONDAY, JANUARY 29.

BRITISH PSYCHOLOGICAL SOCIETY (Æsthetics Section) (at Bedford College for Women), at 4.30.—L. Abercrombie: Communication *versus* Expression.

INSTITUTE OF ACTUARIES, at 5.—W. Palin Elderton: Notes on the Treatment of Extra Risk.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. R. L. Knaggs: Osteitis Fibrosa.

ROYAL SANITARY INSTITUTE, at 5.30.—Dr. I. C. Parkes: Introductory Lecture to Students in the various Courses.

ARISTOTELIAN SOCIETY (at University of London Club), at 8.—Prof. W. A. Brown: The Problem of Classification in Religion.

ROYAL GEOGRAPHICAL SOCIETY (at Eolian Hall), at 8.30.—Capt. J. E. T. Phillips: Kigezi and the Birunga Range, Uganda.

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#### TUESDAY, JANUARY 30.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—R. D. Oldham: The Character and Cause of Earthquakes (1).  
INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—A. Keens: Some Deductions from Indicator Diagrams.  
ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—T. Bell: On the Thames with a Camera.

#### WEDNESDAY, JANUARY 31.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. M. Woodman: Malignant Disease of the Upper Jaw, with special reference to Operative Technique.

INSTITUTION OF MECHANICAL ENGINEERS (Students' Meeting), at 6.—T. R. Wilton: Foundations in Dock and Harbour Works (Verion-Harcourt Lectures) (2).

ROYAL SOCIETY OF ARTS, at 8.—T. H. Fairbrother and Dr. A. Renshaw: The Relation between Chemical and Antiseptic Action in the Coal Tar Dyes.

ROYAL SOCIETY OF MEDICINE (Social Evening), at 9.—Prof. W. Wright: Leonardo da Vinci.

#### THURSDAY, FEBRUARY 1.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. I. M. Heilbron: The Photosynthesis of Plant Products (1).

ROYAL SOCIETY, at 4.30.—Prof. O. W. Richardson: The Magnitude of the Gyromagnetic Ratio.—Sir Richard Paget: The Production of Artificial Vowel Sounds.—F. Simeon: The Carbon Arc Spectrum in the Extreme Ultra-violet.—Prof. J. Joly: Pleochroic Haloes of various Geological Ages.—Prof. H. A. Wilson: The Motion of Electrons in Gases.—Dr. H. Hartridge: The Coincidence Method for the Wave-length Measurement of Absorption Bands.—A. Berry and Lorna M. Swain: The Steady Motion of a Cylinder through Infinite Viscous Fluid.—W. Jevons: The Line Spectrum of Chlorine in the Ultra-violet (Region  $\lambda$  3354-2070 Å).—M. H. Evans and H. J. George: Note on the Adsorption of Gases by Solids and the Thickness of the Adsorbed Layer.

LINNÆAN SOCIETY OF LONDON, at 5.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 5.30.—G. S. Baker: Ten Years' Testing of Model Seaplanes.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—P. J. Robinson: The Maintenance of Voltage on a D.C. Distribution System by means of a fully Automatic Substation.

CHEMICAL SOCIETY, at 8.

ROYAL SOCIETY OF MEDICINE (Obstetrics and Gynecology Section), at 8.  
Dr. W. R. White-Cooper and H. K. Griffith: (1) A Case of Inversion of the Uterus occurring in the Third Week of the Puerperium; (2) A Case of Obstructed Labour due to Contraction Ring.—B. Whitehouse and Dr. H. Featherstone: Note on the Use of Spinal Anæsthesia with Troprocaine in cases of Cæsarian Section.—Dr. S. Cameron: Cæsarian Section.

CAMERA CLUB, at 8.15.—J. E. Saunders: Off the Beaten Track at the Zoo.

#### FRIDAY, FEBRUARY 2.

ROYAL SOCIETY OF MEDICINE (Laryngology Section), at 4.45.—Dr. I. Moore: Operative Procedures in the Treatment of Bilateral Paralysis of the Abductor Muscles of the Larynx, with Special Reference to a New Method by means of which, it is suggested, the Air-way may be Re-opened and the Patient Decannulated.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. C. A. Joll: The Metastatic Tumours of Bone.

ROYAL ASTRONOMICAL SOCIETY (Geophysical Discussion), at 5.—Col. E. M. Jack: The Projection for the International Aeronautical Map. Other speakers, Capt. G. T. McCaw, Col. Sir C. F. Close, Col. J. L. Winterbottom, and probably A. R. Hinks. Chairman, Sir G. P. Lenox-Conyngham.

INSTITUTION OF MECHANICAL ENGINEERS (Informal Meeting), at 7.—A. E. L. Chorlton: The Use of Light Alloys in place of Iron and Steel.

JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—P. J. Waldram: Ventilation and Lighting of Factories.

ROYAL SOCIETY OF MEDICINE (Epidemiology and State Medicine Section), at 8.—Dr. R. J. Reece: Progress and Problems in Epidemiology (Presidential Address).

ROYAL SOCIETY OF MEDICINE (Anæsthetics Section), at 8.30.—Dr. J. S. Goodall: Some Cardiovascular Conditions in relation to Anæsthesia.

ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—C. F. Cross: Fact and Phantasy in Industrial Science.

### PUBLIC LECTURES.

#### SATURDAY, JANUARY 27.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Capt. W. H. Date: Wireless Telephony and Broadcasting.

#### TUESDAY, JANUARY 30.

GRESHAM COLLEGE, at 6.—A. R. Hinks: Astronomy. (Succeeding Lectures on January 31, February 1 and 2).

#### WEDNESDAY, JANUARY 31.

KING'S COLLEGE, at 5.30.—Sir Frank Dyson: The Measurement of Stellar Distances.

#### THURSDAY, FEBRUARY 1.

FINSBURY TECHNICAL COLLEGE (Leonard Street), at 7.30.—Sir Oliver Lodge: The Basis of Wireless Communication (Silvanus Thompson Memorial Lecture).

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—G. T. Forrest: London's Unhealthy Areas (Chadwick Lectures) (1). (Succeeding Lecture on February 8).

#### SATURDAY, FEBRUARY 3.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—F. Balfour-Browne: Insect Pests and their Control.