

THE organisation created by Lord Morley in 1909 for the benefit of Indian students included an Advisory Committee, and was mainly composed of influential Indian residents; fresh regulations have now been promulgated, we learn from *The Times*, giving the committee a definite constitution and specifying its functions. At least half of the committee are always to be Indian gentlemen resident in this country. The appointments are to be made by the Secretary of State for a term of three years. The functions of the committee are to keep itself informed as to the views of parents in India; to advise the Secretary of State; and to bring to his notice matters respecting the needs of the students. The committee has arranged to meet regularly on the first Monday in each month, and has appointed Sir M. M. Bhownagree vice-chairman.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, July 28.—M. F. Guyon in the chair.—Maurice **Hamy**: Study of the nitrogen radiations. The explanation of the width of the lines of the spectrum of rarefied gases, based on the Doppler-Fizeau principle, has been recently verified experimentally by Buisson and Fabry working with Geissler tubes containing the rare gases of the atmosphere. Similar work on nitrogen, a gas furnishing a band spectrum, is now described by the author, and he concludes that the band spectrum of nitrogen obeys the same laws as line spectra, as regards the difference of path required to make interference bands disappear.—E. **Jungfleisch** and L. **Brunel**: The sulphur set at liberty in the action between sulphurous acid and water. A study of the condition in which the sulphur is deposited in this reaction. Five photographs accompany the paper.—Lucas **Championnière**: Operation for club foot by ablation of all the bones of the tarsus. Osseous regeneration in young subjects. The operation consists in the removal of all the tarsal bones with the exception of the posterior portion of the calcaneum. A description of the results in forty-two cases is given. In young children there is distinct regeneration of a portion of the bone removed.—Coyat **Barthoux** and H. **Douvillé**: The Jurassic in the desert to the east of the Isthmus of Suez.—P. **Duhem**: The formula for the velocity of sound. A correction of a formula recently published by M. Ariès.—J. **Guillaume**: Observations of the sun made at the Observatory of Lyons during the second quarter of 1913. Observations were possible on seventy-seven days, and the results are grouped in three tables showing the number of spots, their distribution in latitude, and the distribution of the faculæ in latitude.—Rodolphe **Soreau**: An approximate formula for the arc of an ellipse.—E. **Stiemke**: Numbered moduli.—Kr. **Birke-land**: The conservation and the origin of terrestrial magnetism.—Georges **Claude**: The maintenance without difficulty of a temperature of -211° C. by the use of liquid nitrogen. A rapid stream of hydrogen, 20 to 25 litres per minute, previously cooled by flowing through a copper spiral immersed in liquid nitrogen, is passed through about 0.75 litre of liquid nitrogen contained in a capacious Dewar vessel. The temperature rapidly falls, and after about twenty minutes remains steady at -211° C., the melting point of nitrogen. At this point about two-thirds of the original liquid remains in the tube.—R. **Ladenburg** and F. **Reiche**: The absorption of coloured flames. It was shown more than thirty years ago by M. Gouy that the absorption of a coloured flame for the narrow lines of the spectrum which it emits is far from being complete, and that it was possible to calculate from

his measurements the brightness of the lines as a function of the product of the thickness of the layer by the density of the metallic vapour. In the present paper these experimental results are compared with relations furnished by the electronic theory of dispersion. The two are shown to be in good agreement. If, on the other hand, the intensity of the lines is governed, not by the theory of dispersion, but by Rayleigh's theory according to the Doppler effect, then there is no agreement between the theory and Gouy's experiments.—E. **Briner**: The dissociation of the molecules into atoms considered as one of the factors of reaction velocity.—Victor **Henri** and René **Wurmser**: The negative photocatalysis of hydrogen peroxide. The stimulating or poisoning effect produced by certain substances on ferment actions has been hitherto ascribed to the action of the stimulant or poison on the ferment; the authors hold that this view must be modified in so far as this action may take place not on the ferment but on the body under transformation. In support of this view they adduce experiments on the photocatalysis of solutions of hydrogen peroxide in presence of traces of various substances, including sulphuric acid, caustic soda, iodine, potassium cyanide, &c. The addition of traces of these substances caused an increase of stability of the hydrogen peroxide towards ultraviolet rays.—F. **Bourion** and A. **Deshayes**: The quantitative separation of chromium and aluminium. The analysis of chromite. The method proposed is based on the use of a mixture of chlorine and sulphur chloride.—C. J. **Pitard**: Statistics and affinities of the flora of Chaouia.—O. **Mengel**: The evolution of mildew according to the conditions of the medium.—Ch. **Julin** and A. **Robert**: *Ascidia fumigata*. Contribution to the study of the classification of the Phallusiidae.—M. **Ruot**: *Bacillus lactis fermentens*, a spore forming butyleneglycol ferment of milk sugar. This organism produces an active fermentation of milk, 2 : 3-butylene-glycol accumulating in the culture, other products being carbon dioxide, hydrogen, acetylmethylcarbinol, acetic and formic acids.—Maurice **Renaud**: The irradiation of bacteria and the irradiated vaccines. For all the organisms studied irradiation with a quartz mercury-vapour lamp rendered the media sterile, leaving intact the histochemical properties. Irradiation prolonged beyond the period necessary for sterilisation does not diminish the activity of the soluble products of bacterial origin, such as toxins. The therapeutic application of irradiated cultures is discussed.—F. X. **Lesbre** and R. **Pécherot**: A calf born without the upper jawbone; a new Cyclocephalian type.—Eric **Gérard** and Hermann **Chauvin**: The waters of Spa. Radioactivity, electrical resistance, and cryoscopy.—J. **Ventre**: The influence of the yeasts on the variations of dry extract and of glycerol in wines.—L. **Lindet**: The soluble albuminoid matters of milk.—Ch. **Dhéré**: The diversity of hæmocyanines according to their zoological origin.

NEW SOUTH WALES.

Linnean Society, June 25.—Mr. W. S. Dun, president, in the chair.—C. **Hedley**: Studies on Australian Mollusca. Part xi. During 1912 the writer spent a furlough in Europe and America. Opportunities occurred for prosecuting conchological studies. Many types were examined, and much information was gathered from the Cumingian collection at the British Museum, the Lamarckian collection at Geneva, the collection of A. Angus at Newcastle, and that of Gould at Washington. Ten weeks were spent in constant study at the British Museum, during which almost the whole series of Australian marine gastropods and bivalves was examined. From these sources critical

notes on 160 species, mostly from East Australia, are presented, to which are added illustrations of thirty hitherto unfigured species. Numerous corrections of nomenclature are offered, both in restoring prior names, and in re-erecting species wrongly sunk in synonymy.—E. W. Ferguson: Revision of the Amycterides. Part ii., Talaureinus continued. In continuation of last year's paper, the species comprised in Sections B and C and groups vii.–xx., inclusive, are now dealt with. The types of all the species described by Macleay have been examined, as well as specimens compared with most of Pascoe's types.—T. G. Sloane: Descriptions of two new species of Cicindela from Western Australia. One of the two new species proposed is allied to *C. saetigera*, Horn, and is represented by specimens from Lake Austin, near Cue. The types of the other, which is allied to *C. tetragramma*, Chaud., were collected 100 miles north of Kalgoorlie.

BOOKS RECEIVED.

Meteorology in Mysore for 1911. Nineteenth Annual Report. By N. V. Iyengar. Pp. xiv+56+charts. (Bangalore: Government Press.)

Forty-second Annual Report of the Local Government Board, 1912–13. Supplement in Continuation of the Report of the Medical Officer of the Board for 1912–13, containing a Second Report on Infant and Child Mortality, by the Medical Officer of the Board. Pp. vi+411. (London: H.M.S.O.; Wyman and Sons, Ltd.) 2s.

The Face and How to Read It. By A. I. Oppenheim. Pp. 188+plates. (London: F. L. Ballin.) 2s. 6d. net.

The Child and How to Train It. By A. I. Oppenheim. Pp. iii+171. (London: F. L. Ballin.) 2s. 6d. net.

Die Gründung und erste Entwicklung des deutschen Monistenbundes. By Dr. W. Breitenbach. Pp. 109. (Brackwede i.W.: Dr. W. Breitenbach.) 1 mark.

Practical Management of Pure Yeast: the Application and Examination of Brewery, Distillery, and Wine Yeasts. By A. Jørgensen. Translated by R. Grey. Second edition. Pp. 128. (London: *Brewing Trade Review*.) 5s. net.

Transactions of the Royal Society of Edinburgh. Vol. xlix., part 2 (No. 6). Caradocian Cystidea from Girvan. By Dr. F. A. Bather. Pp. 359–529+vi plates. (Edinburgh: R. Grant and Son.) 15s. 6d.

Twenty-eighth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1906–7. Pp. 308+103 plates. (Washington: Government Printing Office.)

Transactions and Proceedings of the Botanical Society of Edinburgh. Vol. xxvi., part 1. Pp. vii+100. (Edinburgh.)

Journal of the Royal Anthropological Institute of Great Britain and Ireland. Vol. xliii., 1913, January to June. (London: 50 Great Russell Street, W.C.) 15s. net.

Report on the Scientific Results of the *Michael Sars* North Atlantic Deep Sea Expedition, 1910, carried out under the Auspices of the Norwegian Government and the Superintendence of Sir John Murray and Dr. J. Hjort. Vol. iii., part 1. Zoology. (Bergen: Bergen Museum; J. Grieg.) 3l. 10s.

Experimental Science. I., Physics. By S. E. Brown. Pp. viii+272. (Cambridge University Press.) 3s. 6d.

A Galla-English, English-Galla Dictionary. Col-
NO. 2284, VOL. 91]

lected and compiled by E. C. Foot. Pp. vii+118. (Cambridge University Press.) 6s. net.

Proceedings of the Fifth International Congress of Mathematicians (Cambridge, 22–28 August, 1912). Edited by Profs. E. W. Hobson and A. E. H. Love. Vol. i. Pp. 500. Vol. ii. Pp. 657. (Cambridge University Press.) 2 vols., 30s. net.

The State Provision of Sanatoriums. By Dr. S. V. Pearson. Pp. viii+80+iv plans. (Cambridge University Press.) 3s. net.

Rafia Work. By H. C. Walker. Pp. 99. (London and Melbourne: Whitcombe and Tombs, Ltd.) 3s. net.

Who are the Maoris? By A. K. Newman. Pp. 303+plates. (London and Melbourne: Whitcombe and Tombs.) 7s. 6d. net.

CONTENTS.

	PAGE
Manihot Rubber. By H. W.	577
Comparative Anatomy. By G. E. S.	577
Resuscitation	578
Mathematical Text-books. By G. B. M.	579
Our Bookshelf	580
Letters to the Editor:—	
Energy in Planetary Motions.—Prof. A. Gray, F.R.S.	581
"Phosphorescence" of Pennatulida.—Prof. W. A. Herdman, F.R.S.	582
A Red-water Phenomenon due to Euglena.—Prof. Arthur Dendy, F.R.S.	582
The Terrestrial Distribution of the Radio-elements.— Arthur Holmes	582
Area of Earth's Surface Visible at any Altitude.— W. Moss	583
Submerged Valleys and Barrier Reefs.—Cyril Cross- land	583
Photographs of the Aurora. (<i>Illustrated</i>)	584
The International Medical Congress	585
The Rivers of the Scottish Lowlands. (<i>Illustrated</i>)	585
The Improvement of Indian Wheat. By E. F. A. Prof. John Milne, F.R.S. By J. W. J.	587
Notes. (<i>Illustrated</i>)	588
Our Astronomical Column:—	
August Meteors	592
Displacement of Spectrum Lines of Metals due to Impurities	592
Circulation in the Solar Atmosphere	592
The Brighton Meeting of the British Medical Association	593
Hydrographic and Plankton Observations in the North Sea	593
A New Method of Cooling Gas-Engines	594
Recent Papers on Vertebrate Palæontology. By R. L.	595
An Algebra for Physicists. By G. B. M.	595
United States Meteorological Publications. By J. S. D	596
Reflection as a Concealing and Revealing Factor in Aquatic and Subaquatic Life. (<i>Illustrated</i>). By Dr. Francis Ward	596
Technical Education for Indian Students	599
University and Educational Intelligence	600
Societies and Academies	601
Books Received	602

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