

gibsoni.—C. F. **Laserson**: Palæontology of the Lower Shoalhaven River.

August 3.—Prof. David, F.R.S., president, in the chair.—A. **Duckworth**: White Australia.—Dr. J. Burton **Cleland** and T. Harvey **Johnston**: The hæmatozoa of Australian batrachians, No. 1. In this paper the authors give a list of frogs which were searched for the presence of hæmatozoa. In ten species, represented by thirty-four specimens examined, the results were negative, while in three species, represented by seven specimens, blood parasites were detected. A hæmogregarine, *Haemogregarina (Lankesterella) hylae*, infesting *Hyla caerulea* is described as new, and a trypanosome from *Lymnodynastes tasmaniensis* and *L. ornatus*? is regarded as being similar to, though probably not identical with, *Trypanosoma rotatorium*.—E. C. **Andrews**: An excursion to the Yosemite, or studies in the formation of Alpine cirques, steps, and valley treads. In a previous report (corrosion by gravity streams) the writer gave a general account of stream corrosion. In the present paper a more detailed account is given of the origin of the cirque, and the "steps" and "treads" of Alpine Valley. A special application of the principle put forward is made to the case of the Yosemite and associated valleys in California.—T. Harvey **Johnston** and Dr. J. Burton **Cleland**: A note on the occurrence of pentastomes in Australian cattle. In a short note the authors deal with the finding of larval pentastomes (*Linguatula serrata*) in the mesenteric glands of a number of cows in the Illawarra district. The hosts were all affected with endemic hæmaturia, and the discovery of these parasites suggests that they may perhaps play a rôle of much economic importance.—H. G. A. **Harding**: The condition of the atmosphere during the recent proximity of Halley's comet. Analyses were made of the atmosphere collected at an elevated locality in the neighbourhood of Hornsby about a week previous to the supposed date of contact (May 19) until a week following that event. There were no appreciable differences noted in the composition of the air during the whole of this time, neither did spectroscopic examination reveal any peculiarities.

CALCUTTA.

Asiatic Society of Bengal, November 2.—Panchanan **Neogi** and Birendra Bhusan **Adhicary**: Reactions in presence of nickel. (a) Inability of nitrogen and hydrogen to combine in presence of iron and nickel. (b) Reduction of the oxides of nitrogen, sulphur, and phosphorus in presence of nickel. Johnson showed that nitrogen and hydrogen combine directly to form ammonia in presence of heated spongy platinum. This was contradicted by Wright, who showed that the ammonia obtained by Johnson was due to the reduction of traces of nitric oxide contained in nitrogen. Ramsay and Young showed that traces of ammonia are formed by the direct combination of nitrogen and hydrogen in presence of red-hot iron filings. The authors show, however, that the two gases do not combine at all, provided the nitrogen is rendered absolutely free from nitric oxide and iron from carbon. It has also been shown that ammonia is not formed by passing the mixed gases over heated nickel. It is further shown that nitric oxide, sulphur dioxide, and phosphorus pentoxide are reduced to the corresponding hydrides by means of hydrogen in presence of reduced nickel. The mechanism of the reactions has also been studied.

DIARY OF SOCIETIES.

THURSDAY, NOVEMBER 24.

ROYAL SOCIETY, at 4.30.—On the Sequence of Chemical Forms in Stellar Spectra: Sir Norman Lockyer, K.C.B., F.R.S.—The Influence of Viscosity on the Stability of the Flow of Fluids: A. Mallock, F.R.S.—On Atmospheric Oscillations: Prof. Horace Lamb, F.R.S.—A Theory of the Chemical Action of the Electric Discharge in Electrolytic Gas and other Gases: Rev. P. J. Kirkby.—An Electrostatic Voltmeter for Photographic Recording of the Atmospheric Potential: G. W. Walker.—Optical Dispersion, an Analysis of its Actual Dependence upon Physical Conditions: Dr. T. H. Havelock.—The Spectrum of Halley's Comet: C. P. Butler.—A Geometrical Proof of the Theorem of a Double Six of Straight Lines: Dr. H. F. Baker, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Street Lighting by Modern Electric Lamps: H. T. Harrison.

FRIDAY, NOVEMBER 25.

PHYSICAL SOCIETY, at 5.—The Electric Stress at which Ionisation begins in Air: Dr. A. Russell.—The After-glow produced in Gases by Electric Discharge: Prof. the Hon. R. J. Strutt, F.R.S.—Exhibition of a Surface-

brightness Photometer: J. S. Dow.—The Approximate Solution of various Boundary Problems by Surface Integration combined with Frechand Graphs: L. F. Richardson.

MONDAY, NOVEMBER 28.

ROYAL SOCIETY OF ARTS, at 8.—Industrial Pyrometry: C. R. Darling. INSTITUTE OF ACTUARIES, at 5.—Inaugural Address by the President: G. H. Ryan.

TUESDAY, NOVEMBER 29.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Certain Physical Characters of the Negroes of the Congo Free State and Nigeria: Dr. A. Keith.—The Search for the Original Home of the Maori: A. W. Newman. ZOOLOGICAL SOCIETY, at 8.30.—On a Possible Cause of Pneumo-enteritis in the Red Grouse (*Lagopus scoticus*): Dr. H. B. Fantham and H. Hammond Smith.—On the Alimentary Tract of certain Birds, and on the Mesenteric Relations of the Intestinal Loops: F. E. Beddard, F.R.S.—On the Specimens of Spotted Hyænas in the British Museum (Natural History): Prof. A. Cabrera.—The Development of *Solaster endeca* Forbes: Dr. J. F. Gemmill.

ROYAL SOCIETY OF ARTS, at 4.30.—The Progress and Prospects of Mining in Western Australia: A. Montgomery.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Further discussion: Portland Cement, and the Question of its Aeration: H. K. G. Bamber.

WEDNESDAY, NOVEMBER 30.

ROYAL SOCIETY OF ARTS, at 8.—Argentina from a British Point of View: Campbell P. Ogilvie.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.

THURSDAY, DECEMBER 1.

LINNEAN SOCIETY, at 8.—Spermatogenesis in Stenobothrus: Capt. C. F. U. Meek.—Reports on the International Botanical Congress at Brussels, 1910: Dr. Otto Stapf and others.

RÖNTGEN SOCIETY, at 8.15.—Osmotic Growths: Dr. Deane Butcher.

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