of nitrogen, by M. H. Deslandres. Four distinct groups, characterised by their limits of vibration frequency, have been made out in the spectrum of nitrogen. Cuthbertson has recently shown that the forty bands of the first group can be arranged in thirteen series. Some further regularities in these series are discussed in the present paper.—The cause of the annual period of the aurora borealis, by M. Charles Nordmann. It is known that in mean latitudes the frequency of the aurora possesses a double annual periodicity such that the maxima are at the equinoxes and the minima at the solstices. The author deduces a theoretical explanation of this, which is independent of all hypotheses as to the nature or production of the aurora.—On the composition of the lodes of Kersanton, by M. Ch. Barrois. The veins of Kersanton are distinguished from ordinary veins by their composite structure; they have been slowly consolidated under the influence of pneumatolithic phenomena for a very long time. The facts observed are in accord with the theory of M. Michel Levy.—An examination of the meteoric iron of Guatemala, by M. Stanislas Meunier. Analysis showed that the Guatemala iron belongs to the Schwetzite type and is similar to the masses of Descubridora (Mexico, 1780), Werchne-Udinsk (Siberia, 1854) and Schwetz (Prussia, 1857).—The best methods of realising stereoscopic radioscopy, by M. Th. Guilloz.

DIARY OF SOCIETIES.

THURSDAY, APRIL 10.

MATHEMATICAL SOCIETY, at 5.30.—A Note on Divergent Series: Dr. Hobson, F.R.S.—Stress and Strain in Two-dimensional Elastic Systems: Prof. Love, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Problems of Electric Railways: J. Swinburne and W. R. Cooper.

ROYAL INSTITUTION, at 3.—The Oxygen Group of Elements: Prof. Dewar, F.R.S.

FRIDAY, APRIL 11.

PHYSICAL SOCIETY, at 5.—An Apparatus or Vapour-pressure Measurements: Mr. Grant.—(1) The use of Cathode Rays for Alternating-Current Measurements; (2) An Experiment on the Current Growth in an Inductive Circuit: Mr. Morris.—An Electric Heater: Dr. R. A. Lehfeldt.—Note on the Compound Pendulum: S. A. F. White.

ROYAL ASTRONOMICAL SOCIETY, at 5.—(1) Cape Double Star Results, 1901: (2) Notes on Nebulæ: Royal Observatory, Cape of Good Hope.—Explanation of Use of Tables of $\frac{1}{2}(\theta + \cos\theta)$: W. S. Aldis.—On Stationary Meteor Radiants; Third Paper: H. H. Turner.—Results of Double Star Measures at Windsor, New South Wales, in 1901: J. Tebbutt.—Saturn seen through the Cassini Division: C. T. Whitmell.—On the Probable Motion of some of the Small Stars in the Dumb-bell Nebula: E. E. Barnard.—On the Supposed Variability of κ Persei and 36 Persei and a Comparison of the Photographic and Visual Magnitudes of those Stars: W. H. Robinson.—*Probable paper*: On the Relative Number of Star Images photographed in Different Parts of the Plate, and on the Performance of Various Object-Glasses in this respect: H. H. Turner.

MALACOLOGICAL SOCIETY, at 8.

ROYAL INSTITUTION, at 9.—Problems of the Atmosphere: Prof. Dewar, F.R.S.

MONDAY, APRIL 14.

SOCIETY OF ARTS, at 8.—Glass for Optical Instruments: Dr. R. T. Glazebrook, F.R.S.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—A Journey from Omdurman to Mombasa *viâ* Lake Rudolf: Major H. H. Austin, C.M.G.

TUESDAY, APRIL 15.

ZOOLOGICAL SOCIETY, at 8.30.—Contributions to the Osteology of Birds; Part V. Falconiformes: W. P. Pycraft.—On the Windpipe and the Heart of the Condor: F. E. Beddard, F.R.S.—Field-notes upon some of the larger Mammals of Patagonia: Hesketh Pritchard.

ROYAL INSTITUTION, at 3.—Recent Methods and Results in Biological Inquiry: Dr. Allan Macfadyen.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Discussion*: The Greenwich Footway-Tunnel: W. C. Copperthwaite.—Subaqueous Tunnelling through the Thames Gravel, Baker Street and Waterloo Railway: A. H. Haigh.—*Paper to be read*: On Locomotive Fire-box Stays: F. W. Webb.

ROYAL STATISTICAL SOCIETY, at 5.—Factory Legislation considered with reference to the Wages, &c., of the Operatives protected thereby: Geo. H. Wood.

WEDNESDAY, APRIL 16.

SOCIETY OF ARTS, at 8.—Photography as applied to Architectural Measurement and Surveying: J. Bridges Lee.

GEOLOGICAL SOCIETY, at 8. (1) The Carlisle Earthquakes of July 9 and 11, 1901; (2) The Inverness Earthquake of September 18, 1901, and its Accessory Shocks: Dr. Charles Davison.—The Wood's Point Dyke, Victoria (Australia): F. P. Mennell.

ROYAL MICROSCOPICAL SOCIETY, at 7.30.—Exhibition of Pond Life.

ENTOMOLOGICAL SOCIETY, at 8.—On the Economic Importance of the Parasites of Coccidæ: Alice L. Embleton.—Eastern and Australian Geometridæ in the British Museum Collection: Colonel Charles Swinhoe.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Clouds: Capt. D. Wilson-Barker.

THURSDAY, APRIL 17.

ROYAL INSTITUTION, at 3.—The Oxygen Group of Elements: Prof. Dewar, F.R.S.

SOCIETY OF ARTS, at 4.30.—Recent Developments in Punjab Irrigation: Sidney Preston.

LINNEAN SOCIETY, at 8.—The Anatomy of Todea with Notes on the Affinity and Geological History of the Osmundaceæ: A. C. Seward, F.R.S., and Miss Sybil O. Ford.—On the New Zealand Phyllobranchiate Crustacea, Macrura: G. M. Thomson.

CHEMICAL SOCIETY, at 8.—Oxonium Salts of Fluoram and its Derivatives: J. T. Hewitt and J. H. Tervet.—The Influence of certain Acidic Oxides on the Specific Rotations of Lactic Acid and Potassium Lactate: G. G. Henderson and D. Prentice.—(1) The Amounts of Nitrogen as Ammonia and as Nitric Acid, and Chlorine in the Rain-water collected at Rothamsted; (2) The Amounts of Nitrogen as Nitrates and Chlorine in the Drainage through uncropped and unmanured land: N. H. J. Miller.

FRIDAY, APRIL 18.

ROYAL INSTITUTION, at 9.—The Autocar: Sir J. H. A. Macdonald.

EPIDEMIOLOGICAL SOCIETY, at 8.30.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Erewash Valley Widening and Toton Sidings: H. C. M. Austen.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—The Standardization of Pipe Flanges and Flange Fittings: R. E. Atkinson.

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