April 2 and 3.—Elements and ephemeris of Brooks's comet, by M. E. Viennet. Elements have been computed from observations at Cambridge, U.S., March 21; Kremsmunster, March 26; and Paris, March 31.—Observations of Brooks's comet, made at Paris Observatory, by Mdlle. D. Klumpke.—Fundamental common property of the two kinds of spectra, lines and bands; distinct characteristics of each of the classes; periodic variations to three parameters, by M. H. Deslandres. The facts relating to the periodic recurrence of doubles and triplets in spectra were previously given by M. Rydberg, and reduced to some simple laws (*Comptes rendus*, February 24). It was noted that the lines corresponding to doubles and triplets are represented by a function of whole numbers of the form $N = A - \frac{\alpha}{(m+p)^2}$; where N is the number of waves; A, α, two constants; p a constant less than one, and m a whole number. This function has for a limit the more simple one $N = A - \frac{\alpha}{m^2}$, which, when A and α have proper values, represents exactly, as was shown by Balmer, the unique series of the simple lines of hydrogen. The author states that the distribution of bands is in general more complex, the complete series of groups being represented by a function of three variable parameters, m, n, p — $N = f(n^2p^2) \times m^2 + Bn^2 + \phi(p^2)$; where m, n, and p, are whole numbers; B, a constant; f and ϕ some simple functions the study of which is not completed. N is a function of three parameters, but in certain spectra it is reduced to two or even one. This distribution depending on three parameters is a distinct characteristic of a band spectrum.—On the suppression of halos in photographic plates, by MM. Paul and Prosper Henry. *A propos* of a communication by M. Cornu (*Comptes rendus*, March 17), the authors note that in order to get rid of halos which occur around bright stars on an ordinary photographic plate they cover the backs of plates with collodion containing a small quantity of chrysoidine in solution.—Discharge of the two electricities by the action of ultra-violet light, by M. Edouard Branly. The author has obtained new results by using the induction spark as his source of light in place of the electric arc used by previous observers.—On phosphotrimetatungstic acid and its derived salts, note by M. E. Péchard.—On a nitrosoplatinichloride, by M. M. Vèzes. By the action of an excess of hydrochloric acid on a concentrated solution of potassium platinonitrite, a body is obtained of the composition $PtCl_3(NO),2KCl$, analogous to but much less stable than the nitrosoruthenichloride, $RuCl_3(NO),2KCl$, described by M. Joly (*Comptes rendus*, t. cvii. p. 994). It is distinguished from the platinichloride under the microscope by its form and by its action on polarized light.—Glycollic nitrile and the direct synthesis of glycollic acid, by M. Louis Henry. The nitrile is formed by the addition of formic aldehyde to hydrocyanic acid, $HCOH + HCN = CN{-}CH_2OH$. The glycollic nitrile obtained is a very mobile, odourless, colourless liquid; its density at 12° is 1·100, it boils at 759 mm. pressure at 183° with partial decomposition. By hydrolysis with fuming hydrochloric acid, it yields glycollic acid, which may be separated as the calcium salt. This, in the opinion of the author, is the best method for the preparation of glycollic acid.

STOCKHOLM.

Royal Academy of Sciences, March 13.—On the International Zoological Congress in Paris in 1889, by Prof. F. A. Smitt.—A continuation of the Report of the Ornithological Committee, by Prof. F. A. Smitt.—On the results of the recent winter expedition for hydrographic researches in Skager Rack, by Prof. S. O. Pettersson.—Analytical deduction of the equations of the surfaces and lines which are invariants to the generalized substitution of Poincaré, and some geometrical properties of such invariant surfaces and lines, by F. de Brun.—On a special class of singular surfaces, by T. Fredholm.—On the solution of a system of linear resemblances between an infinite number of unknown quantities, by H. von Koch.—On a paper by H. Weber, entitled "Ein Beitrag zu Poincaré's Theorie der Fuchs'schen Functionen," by G. Cassel.—On the conform representation of a plane on a prism with some correlated problems, by the same.—Researches on mustard-oil-acetic acid and on thiohydantoin, by Prof. Klason.—Derivates of 1 : 3 dichlornaphthalin, by Prof. Cleve.—On the cyclic system of Ribaucour, by Prof. Bäcklund.—Contribution to the knowledge of the Ascomycetæ of Sweden, by C. Starbäck.—Determination of the optical rotation of some resinous derivates, by A. W. Svensson.—Studies on the influence of the irritation of the spinal chord and the nervus splanchnicus on the pressure of the blood with inductions of different frequency and intensity, by J. E. Johansson.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Evolution, Antiquity of Man, Bacteria, &c.: W. Durham (Edinburgh, Black).—Le Premier Etablissement des Néerlandais a Maurice: Prince Roland Bonaparte (Paris).—Le Glacier de l'Aletsch et le Lac de Märjelen: Prince Roland Bonaparte (Paris).—Pocket Meteorological Tables, 4th edition: G. J. Symons (Stanford).—The School Manual of Geology, 5th edition: A. J. Jukes Browne (Edinburgh, Black).—The Two Kinds of Truth: T. E. S. T. (Unwin).—The Art of Paper-making: A. Watt (Lockwood).—Catalogue of Books in the Library of the Indian Museum: R. L. Chapman (Calcutta).—Ueber die Liasischen Brachiopoden des Hierlatz bei Hallstatt: G. Geyer (Wien, Hölder).—Die Liburnische Stufe und deren Grenz-Horizonte, 1 Heft, Erste Abthg.: G. Stache (Wien, Hölder).—Advanced Physiography: J. Thornton (Longmans)—Ferrel's Convectional Theory of Tornadoes; Davis and Curry.—The Root-Knot Disease of the Peach, Orange, and other Plants in Florida (Washington).—The Fossil Butterflies of Florissant: S. H. Scudder (Washington).—The Photographic Quarterly, April (Hazell).—Journal of the Institution of Electrical Engineers, No. 85, vol. xix. (Spon).—Journal of the Chemical Society, April (Gurney and Jackson).—Société d'Encouragement, Paris, Annuaire 1890 (Paris).—Proceedings of the Academy of Natural Sciences, Philadelphia, Part 3, 1889 (Philadelphia).—Insect Life, vol. 2, Nos. 7, 8, 9 (Washington)—Journal of the Bombay Natural History Society, vol. 4, Nos. 3 and 4 (Bombay).—Ergebnisse der meteorologischen Beobachtungen, Jahrg. xi. (Hamburg).—Journal of Anatomy and Physiology, April (Williams and Norgate).—Jahrbuch der k.k. geologischen Reichsanstalt, Jahrg. 1889, 39 Band, 3 und 4 Heft (Wien, Hölder).

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