

would be interesting to have the term envelope, here presented in the usual way, so defined as to exclude all curves, such as the node locus, which are not properly tangent to curves of the family.

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G. V. de Lapouge: l'Aryen: Son rôle social. Paris. 1899. 8vo. Pp. xx + 569.

The thesis of this work is that the tall, blond dolichocephalic race of the north of Europe has constituted the progressive and socially dominant element among the so-called Aryan peoples from prehistoric times to the present. In connection with the author's earlier work *les Selections sociales* (Paris, 1896), it is the best presentation of the results of the new school of anthropologists of which Lapouge and Otto Ammon are the leaders. If the results derived from the data now available are confirmed by wider investigation, they will obviously be of great significance for students of psychology, history and sociology, as well as anthropology. Further investigations ought now to be carried forward by individuals or institutions that have the means to prosecute them on an adequate scale.

CARLOS C. CLOSSON.

BOOKS RECEIVED.

Mesures électriques. E. VIGNERON et P. LETHEULE. Paris, Gauthier-Villars. 1900. Pp. 179. 2 fr., 50c.

Produits aromatiques. G. F. JAUBERT. Paris, Gauthier-Villars. 1900. Pp. 169.

La constitution du monde. CLÉMENTCE ROYER. Paris, Schleicher Frères. 1900. Pp. xxii + 796.

Logic. ST. GEORGE STOCK. Oxford, B. H. Blackwell. 1900. Pp. xi + 440.

A First Book in Organic Evolution. D. KERFOOT SHUTE. Chicago Open Court Publishing Co. 1899. Pp. xvi + 285.

The Amateurs' Practical Garden Book. C. E. MUNN and L. H. BAILEY. New York and London, The Macmillan Company. 1900. Pp. vi + 250. \$1.00.

Physiology. BUEL B. COLTON. Boston, D. C. Heath & Co. 1900. Pp. xiii + 386. 90 cts.

Syllabus of Elementary Physiology. ULYSSES O. COX. Mankato, Minn., Free Press Printing Co. 1899. Pp. viii + 167.

SCIENTIFIC JOURNALS AND ARTICLES.

The Journal of Geology, Jan.-Feb., 1900. Vol. 8, No. 1. 'Suggestions Regarding the Classification of the Igneous Rocks,' by William H. Hobbs. The article sets forth the present condition of the nomenclature and classification and offers many valuable suggestions, which if followed will certainly assist in extricating the science of petrology from the burden of names and complication of systems under which its students are now laboring. The importance of chemical composition in determining the classification of rocks and the use of diagrams to show the relations is emphasized.

'Dentition of some Devonian Fishes,' by C. R. Eastman. The dental characters of some species of the genera *Dinichthys*, *Clododus* and *Dipterus*, with comparative notes and illustrations of some types are discussed.

'Ancient Alpine Glaciers of the Sierra Costa Mountains in California,' by Oscar H. Hershey. The author describes in detail the characters of several of the ancient glaciers of this mountain range, and concludes from their study that they were probably of late Wisconsin age, and that they existed under the same climatic conditions as at present, but at an elevation of about 3000 feet higher than now.

'An Attempt to Test the Nebular Hypothesis by the Relation of Masses and Momenta,' by T. C. Chamberlin. In a comparison of the moment of momentum of the nebular system with moment of momentum of the present system, on the basis of purely mechanical laws, susceptible of mathematical computation, making every concession in favor of the Laplacian hypothesis, the nebular moment of momentum is 213 times larger than the present moment of momentum of the system, where the dynamic law would require them to be equal. Besides this very great discrepancy which is hard to explain on the Laplacian hypothesis, there are individual discrepancies among the planets of even greater significance. These range from 141 to 1 for the Jovian nebula to 1208 to 1 for the terrestrial nebula, with very great irregularity in the distribution from Mercury to Neptune. In the relation of the ratios of planetary masses to their momenta, it appears that Jupiter carried away one tenth of one per cent. of the nebular

mass from which he separated, and 95 % of the total momentum of the nebula. These same discrepancies occur also in the other planets with no apparent regularity. The present discrepancies can not be due to transfer of energy through tidal action. The computations show an irregular distribution of mass and momenta throughout the system which could not be derived by known laws under the nebular hypothesis, and so necessitates the construction of a new hypothesis which will give this unsymmetrical distribution. Some of the lines along which this new hypothesis may be sought are suggested.

W. G. T.

American Chemical Journal, March, 1900. 'Anethol and its Isomers,' by W. R. Orndorff and D. A. Morton. 'The supposed Isomeric Potassium Sodium Sulphites,' by G. S. Fraps. It was found impossible to obtain the two sodium potassium salts of sulphurous acids which are theoretically possible, if the acid has the asymmetrical structure. 'Condensation Compounds of Amines and Camphoroxalic Acid,' by J. B. Tingle and A. Tingle. 'A Method for the Determination of the Melting-Point,' by M. Kuhara and M. Chikashige. The authors place the substance between a pair of thin cover-glasses. These are held in a holder of platinum and inserted into a test-tube, which serves as an air-bath. 'The Symmetrical Chloride of Paranitro-orthosulphobenzoic Acid,' by F. S. Hollis. 'Stereoisomers and Racemic Compounds,' by H. C. Cooper.

THE March issue of *Terrestrial Magnetism and Atmospheric Electricity* contains the following articles:

The physical decomposition of the permanent magnetic field of the United States. No. 1. The assumed normal magnetization and the characteristics of the primary residual field, by L. A. Bauer and D. L. Hazard.

Die Aufgaben der erdmagnetischen Forschung der Vereinigten Staaten Nordamerikas, by L. A. Bauer.

Biographical sketch and portrait of the late Alexis de Tillo.

Einige Gesichtspunkte für die Einrichtung Erdmagnetischer Simultan-beobachtungen zur Erforschung der Ursachen der Erdmagnetischen Störungen, by Ad. Schmidt.

A comparison of the isogonic charts for the year 1900, issued by the 'Deutsche Seewarte' the United

States Hydrographic Office, and the United States Coast and Geodetic Survey, by J. A. Fleming.

The United States Coast and Geodetic Survey: Its origin, development, and present status, by E. D. Preston. [Illustrated.]

Notes regarding magnetic instruments:

A source of error in the Kew magnetometer, by H. Morize.

The Coast and Geodetic Survey magnetometer, by L. A. Bauer.

The effect of glass covers in magnetic instruments, by E. G. Fischer.

The number concludes with 16 pp. of abstracts reviews, and notes on terrestrial magnetism and atmospheric electricity.

THE *Journal of the Boston Society of the Medical Sciences* for February 20th, opens with an article by H. G. Beyer, on the 'Relation between Mental Work and Physique,' in which the author arrives at the same conclusions as those reached by Dr. W. T. Porter, that precocious children weigh more and dull children less than the average of their age. C. S. Minot briefly describes 'A hitherto Unrecognized Form of Blood Circulation without Capillaries in the Organs of Vertebrates.' D. A. Sargent discusses 'The Relation of the Cephalic Index to Height, Weight, Strength and Mental Ability,' finding among eleven hundred Harvard students the brachycephalic were superior in scholarship and the dolichocephalic in athletics. W. H. Smith describes and figures 'Branching Tubercle Bacilli in Sputum,' and Harold C. Ernst gives a summary of a fully illustrated paper on 'The Development of the Microscope.'

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES.

SECTION OF ASTRONOMY, PHYSICS AND CHEMISTRY.

A MEETING of the Section was held on Monday evening, March 5th. Professor R. S. Woodward gave an account of the Jubilee of Sir George G. Stokes, which he attended as a delegate from Columbia University. The Jubilee was held on the 1st and 2d of June, 1899, on the fiftieth anniversary of the professorship of Sir George G. Stokes at Cambridge. Stokes'