

markings in the photographic film corresponding to no real object render it essential that the more obscure details shall be fully confirmed by a close correspondence in form and extent on different negatives. Again, the tendency to aggregation of the reduced silver in the negative destroys all value in enlargements carried beyond a certain limit, say thirty or forty times the original size. Certain clear negatives, obtained at Paris on February 13 and March 14, have been enlarged by Dr. Weinek and compared with the best maps of the corresponding region, with the result that many new details, fully described in the paper, have been added to our knowledge of the moon's surface.—A note on the calculation of the orbits of planets, by M. F. Tisserand.—An observation of Wolf's planet (1894, BE), made with the Bordeaux equatorial, by M. G. Rayet.—On the laws of air resistance, by M. E. Vallier. Formulæ are derived which express the specific resistance of air to a moving body (a) where the velocity is greater than 330 metres, (b) where the velocity is between 330 and 100 metres, and (c) where the velocity is less than 100 metres per second.—New details concerning the Nymphæinæ; tertiary Nymphæinæ, by M. G. de Saporta.—The elements of the planet BE, by M. L. Schulhof.—Observations of Swift's new comet E (1894, November 20) from the Paris Observatory, by M. G. Bigourdan.—On the distribution of planets between Mars and Jupiter, by M. E. Roger. A mathematical paper in which the author endeavours to obtain, from the known distribution of the minor planets, some support for a hypothesis formulated in a previous communication (*Comptes-rendus*, t. cxvi.).—On the movement of a solid body, by M. G. Koenigs.—On an application of the principle of areas, by M. L. Lecornu.—On functional equations, by M. Leau.—On Bertrand's theorem, by M. Cartan.—A *réclamation* concerning M. P. Stäckel's note on the problems of dynamics of which the differential equations admit an infinitesimal transformation. M. Otto Staude published a paper on this subject in 1892. M. Stäckel merely extended the theorems therein demonstrated from two and three to n variables.—On the tempest of November 12, 1894, by M. Alfred Angot. A tabular comparison is made between data obtained at the Meteorological Bureau and on the Eiffel Tower respectively. Interesting conclusions are drawn from the tower observations, which are free from the disturbances ordinarily brought in owing to the nearness of the surface of the soil.—On the conversion of propionic acid into lactic acid, by M. Fernand Gaud. By heating a mixture of 10 per cent. of propyl alcohol with Fehling's solution for 200 hours at 240°, the author has obtained both the ordinary and isomeric lactic acids. As metallic copper is produced on heating copper propionate with excess of water at 200°, the equation representing the production of the lactic acid must be written $2(C_3H_7O_2)_2Cu + 2H_2O = 2Cu + 2C_3H_6O_3 + 2C_3H_6O_2$.—On the ethereal salts derived from active amyl alcohol, by MM. Ph. A. Guye and L. Chavanne. The specific rotations are given for a number of these esters, the maximum value is obtained for the fatty salts with amyl propionate. The product of asymmetry reaches its maximum with amyl acetate.—On the so-called organic chlorine of the gastric juice, by M. H. Lesceur. A direct method of determining *organic chlorine* is described, and it is pointed out that the *organic* chlorine of MM. Hayem and Winter is partly derived from ammonium chloride, which is itself partly formed at a high temperature from the sodium chloride present.—On the composition of the red pigment from *Diemyctylus viridescens*, by M. A. B. Griffiths. The analytical results give the formula $C_{20}H_{18}N_2O_7$ for diemyctyline.—On acid leathers, by MM. Ballard and Maljean.—A new entoptical phenomenon, by M. S. Tchiriev.—The principles of chrology or physiological synthesis of colour, by M. W. Nicati.—On the effects of ablation of the venom-glands in the viper (*Vipera Aspis*, Linn.), by MM. C. Phisalix and G. Bertrand.—Contributions to the study of the "cellule conjonctive" in the molluscous Gasteropods, by M. Joannes Chatin.—A new method for the cultivation of fish-ponds, by M. Jousset de Bellesme.—The reptiles of the upper jurassic age in the Boulonnais, by M. H. E. Sauvage.—On the new ivory human statuettes from the quaternary station at Brassempouy, by M. Ed. Piette.—Influence of arsenic acid on the growth of algae, by M. Raoul Bouilhac. It is shown that arsenic acid in certain cases acts like phosphoric acid, which it may replace in some plant cultivations.—On the age of Lake Bourget and the ancient alluvial deposits of Chambéry and the valley of the Isère, by M. A. Delebecque.

BOOKS, PAMPHLETS, and SERIALS RECEIVED

BOOKS.—The Province of South Australia: J. D. Woods (Adelaide, Bristol).—The Mechanism of Weaving: T. W. Fox (Macmillan).—Meteorology, Practical and Applied: Dr. J. W. Moore (Rebman).—Life of Richard Owen: Rev. R. Owen, 2 Vols. (Murray).—Elements of Astronomy: G. W. Parker (Longmans).—A Hand-book to the Order Lepidoptera: Part 1. Butterflies, Vol. 1: W. F. Kirby (Allen).—A Hand-book to the Primates: Dr. H. O. Forbes, 2 Vols. (Allen).—Ostwald's Klassiker der Exakten Wissenschaften: Nos. 54-59 (Leipzig, Engelmann).—Physikalische Krystallographie: P. Groth, Dritte Auflage, 1 and 2 Abthg. (Leipzig, Engelmann).—Grundriss der Psychologie: O. Külpe (Leipzig, Engelmann).—Portraits berühmter Naturforscher (Wien, Richter).—The Iron-bearing Rocks of the Mesabi Range in Minnesota: J. E. Spurr (Minneapolis).—Coal Deposits of Iowa: C. R. Keyes (Des Moines).—U.S. Geological Survey, Twelfth Annual Report, 1890-91. Part 1, Geology; Part 2, Irrigation (Washington).—Ditto, Thirteenth Annual Report, Part 1, Report of Director; Part 2, Geology; Part 3, Irrigation (Washington).—N.Z. Papers and Reports relating to Minerals and Mining (Wellington).—Annuaire de l'Observatoire Municipal de Montsouris, 1893 (Paris, Gauthier-Villars).—Kitchen-Boiler Explosions: R. D. Monro (Griffin).—The Elementary Properties of the Elliptic Functions: Prof. A. C. Dixon (Macmillan).—Birds of the Wave and Woodland: P. Robinson (Isbister).—Elementary Commercial Geography: Dr. H. R. Mill, 2nd edition (Cambridge University Press).—An Introduction to the Theory of Electricity: L. Cumming, 4th edition (Macmillan).—Symbolic Logic: Dr. J. Venn, 2nd edition (Macmillan).—Farm Vermin, edited by J. Watson (Rider).—The Cyclopædia of Names: revised by B. E. Smith (Unwin).

PAMPHLETS.—Geological and Natural History of Minnesota: N. H. Winchell (Minneapolis).—Magnetic Observations made at the U.S. Naval Observatory during the Year 1892: Prof. S. J. Brown (Washington).—Meteorological Observations and Results, U.S. Naval Observatory, 1889 (Washington).—The Warble Fly: E. A. Ormerod (Simpkin).—American Museum of Natural History, Annual Report for 1893 (New York).

SERIALS.—Archiv für Entwicklungsmechanik der Organismen: Prof. W. Roux. Erster Band, Erstes Heft (Leipzig, Engelmann).—Studies from the Yale Psychological Laboratory, Vol. 2 (New Haven).—Biology Notes, Nos. 1 and 2 (Chelmsford).—Bulletin of the American Mathematical Society, 2nd series, Vol. 1, No. 2 (New York, Macmillan).—School Review, November (Hamilton, New York).—Journal of the College of Science, Imperial University of Japan, Vol. viii, Part 1 (Tokyo, Japan).—Contemporary Review, December (Isbister).—Proceedings and Transactions of the Nova Scotian Institute of Science, Halifax, second series, Vol. 7, Part 3 (Halifax).—Proceedings of the American Philosophical Society, June (Philadelphia).—Transactions of the Academy of Science of St. Louis, Vol. vi, Nos. 9 to 17 (St. Louis).—Quarterly Journal of Microscopical Science, November (Churchill).—Fortnightly Review, December (Chapman).—Morphologisches Jahrbuch, 22 Band, 1 Heft (Leipzig, Engelmann).—Zeitschrift für Physikalische Chemie, xv, Band, 3 Heft (Leipzig, Engelmann).—National Review, December (Arnold).—Scribner's Magazine, December (Low).

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