

by the Club.—Papers were read on the action of light on metallic iodides, by Mr. Douglas Berridge; on the colours of birds, by Mr. F. Finn; and on Caliche, by Mr. P. Elford.

May 13.—At an open meeting Mr. E. F. in Thurn (Exeter) delivered a lecture on "Primitive Games of the Red Men of Guiana." Prof. Tylor afterwards addressed the Club.—The inaugural "Robert Boyle Lecture" will be given at a *conversazione* on May 27. All old members of the Club are cordially invited.

PARIS.

Academy of Sciences, May 16.—M. d'Abbadie in the chair.—Contribution to the history of silico-carbon compounds, by M. P. Schutzenberger. The compound, SiC, has been produced by long heating of silicium diluted with silica in carbon crucibles. The friable mass is broken up, heated with potash solution, which dissolves out the silicium, and some silica, and then boiled with moderately concentrated hydrofluoric acid, by which all the silica is taken up and silicium nitride is converted into silicium fluoride and ammonium fluoride. The clear green pulverulent residue of SiC is not attacked by potash or by boiling HF; it is infusible, and at a white heat forms SiCO.—On the determination of the density of liquefied gases and their saturated vapours; elements of the critical point of carbonic acid, by M. E. H. Amagat. The critical constants for carbonic acid are given as—temp. = 31°35 C., pressure = 72.9 atmos., density = 0.464.—Observation of the partial eclipse of the moon on May 11-12, 1892, by MM. Codde, Guérin, Nègre, Zielke, Valette, and Léotard.—On the theory of *fonctions fuchsiennes*, by M. L. Schlesinger.—On the relations existing between the infinitesimal elements of two reciprocal polar surfaces, by M. Alphonse Demoulin.—On transformations in mechanics, by M. Paul Painlevé.—The physiological scale of distinct vision, applications to photometry and *photo-esthésiométrie*; by M. W. Nicati.—On a method of separation of xylenes, by M. J. M. Crafts.—Calculation of boiling-points of compounds with simple terminal substitution, by M. G. Hinrichs.—Method for the proximate analysis of chlorophyll extracts; nature of chlorophyllane, by M. A. Étard.—Influence of the nature of the soil on vegetation, by M. J. Raulin.—Presence of fumarine in one of the Papaveraceæ, by M. J. A. Battandier.—On some muscular anomalies in man, by M. Fernand Delisle.—On the apparently teratological origin of two species of *Tricladæ*, by M. P. Hallez.—On the theory of gills and the parablást, by M. F. Houssay.—The origins of the wing nerve among the Coleoptera, by M. Alfred Binet.—The nervous system of *Nerita polita*, by M. L. Boutan.—On the origin and formation of the chitinous coat of the larvæ of *Libellules*, by M. Joannes Chatin.—On the microscopic structure of ooliths from the *bathonien* and *bajocien* of Lorraine, by M. Bleicher.—The odoriferous properties of alcohols of the fatty series, by M. Jacques Passy. The odoriferous power, as measured by the inverse of the millionths of a gram present in one litre of air when the odour can be just distinguished, increases regularly with the molecular weight.—On the lack of movement of the deep oceanic waters, by M. J. Thoulet.

BERLIN.

Physiological Society, April 27.—Prof. du Bois-Reymond, President, in the chair.—Dr. Boruttaw gave an account of experiments made to determine the cause of the difference in latent period observed during the direct and indirect stimulation of muscles, being, as is well-known, greater (with maximal and supra-maximal stimuli) in the latter mode of stimulation. According to some observers the difference is due to the resistance offered by the end-plates, whereas some regard it as due rather to a summation of stimuli during direct stimulation. The speaker had satisfied himself by a careful repetition of the experiments under many varying conditions that the difference is due solely to the resistance of the end-plates. In connection with the above, Prof. Gad pointed out the possible important bearing of the results obtained on the processes which go on in other organs. Thus recent anatomical research has shown that in the central nervous system there is no complete continuity between the axis-cylinders and ganglia, hence the existence of some intermediate structure must be assumed, and a portion at least of the slowing which impules experience in the central nervous system may be due to the resistance offered by this structure.—Prof. Wolff exhibited a patient in whom the larynx had been completely extirpated some seven months previously,

and who was now able, by means of an artificial larynx, to speak quite loud and clearly. Prof. Gad gave an historical account of the construction of artificial larynxes, of the requirements which these instruments must satisfy, and of recent improvements in the cannulæ employed by patients.

Physical Society, May 6.—Prof. Kundt, President, in the chair.—Dr. Gross spoke on the principle of entropy, and criticised several formulæ of Clausius and Zeuner.

[In the reports of the Berlin Scientific Societies, NATURE, vol. xlv. p. 599, for Schumbert read Schubert, and for Lammer and Brodhan read Lummer and Brodhun.]

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Genesis I. and Modern Science; Dr. C. B. Warring (New York, Hunt and Eaton).—Analyse des Vins; Dr. L. Magnier de la Source (Paris, Gauthier-Villars).—Tiroirs et Distributeurs de Vapeur; A. Madamet (Gauthier-Villars).—Studies in South American Native Languages; Dr. D. G. Brinton (Philadelphia).—Die Eibe in Westpreussen; H. Conwentz (Danzig, Berling).—Wood-Notes Wild-Notations of Bird Music; S. P. Cheney (Boston, Lee and Shepard).—Lehrbuch der Botanik, Erster Band; Dr. A. B. Frank (Leipzig, Engelmann).—The Theory of Substitutions and its Applications to Algebra; Dr. F. Netto, translated by Dr. F. N. Cole (Ann Arbor, Michigan, Register Publishing Company).—Results of the Meteorological Observations made at the Government Observatory, Madras, during the Years 1851-90, edited by C. M. Smith (Madras).—Watts's Dictionary of Chemistry, vol. iii, revised, &c., by H. F. Morley and M. M. P. Muir (Longmans).—Practical Enlarging; J. A. Hodges (Iliffe).—The First Principles of Photography; C. I. Leaper (Iliffe).—Smithsonian Report, U.S. National Museum, 1889 (Washington).—Key to J. B. Lock's Elementary Dynamics; G. H. Lock (Macmillan).—The Anatomy, &c., of the Blow-Fly, Part 3; B. T. Lowne (Porter).

PAMPHLETS.—On the Organization of Science; A. Free Lance (Williams and Norgate).—The Nitrate Fields of Chile; C. M. Aikman.—Sadducee versus Pharisee; G. M. McCrie (Bickers).

SERIALS.—Quarterly Journal of the Geological Society, vol. xlviii. Part 2, No. 190 (Longmans).—Engineering Magazine, May (New York).—Himmel und Erde, May (Berlin, Paetel).—Transactions of the Royal Irish Academy, vol. xxix. Part 19 (Williams and Norgate).—Verhandlungen des Naturhistorischen Vereines der Preussischen Rheinlande, &c.—Achtundvierzigster Jahrgang Fünfte Folge, 8 Jahrg. Zweite Hälfte (Bonn, Cohen).—Bulletins de la Société d'Anthropologie de Paris, tome 2 (1891), 3e. Fasc. (Paris, Masson).—Journal of the Chemical Society, May (Gurney and Jackson).—Institute of Jamaica, Bulletin (No. 1), A Provisional List of the Fishes of Jamaica; T. D. A. Cockerell (Kingston).—Rapport Annuel sur l'Etat de l'Observatoire de Paris, 1891, le Centre-Amiral Mouchez (Paris, Gauthier-Villars).—Indian Museum Notes, vol. ii. No. 5 (Calcutta).—Journal of the Institution of Electrical Engineers, No. 98, vol. xxi. (Spon).—Mémoires de la Société de Physique et d'Histoire Naturelle de Genève, Vol. Supplémentaire, Centenaire de la Fondation de la Société (Genève).

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