

which M. Bussey made some remarks.—On the electrical effects produced by the contact of inoxidisable metals with acids and neutral and saturated saline solutions, and on capillary affinities, by M. Becquerel. The author describes the results obtained with wires of pure platinum and gold, treated as described in a former communication, but immersed in acid or saline fluids.—Determination of the terrestrial magnetic intensity in absolute value, by MM. A. Cornu and J. Baille, presented by M. E. Becquerel, in which the authors describe a series of experiments made in accordance with the methods of Gauss and Weber.—Experimental researches upon the duration of the electric spark, by MM. Lucas and Cazin, also presented by M. E. Becquerel.—On the law of the points of congelation of saline solutions, by M. Guldberg.—A note by M. G. Rayet on the reversal of the two sodium lines in the spectrum of the light of a solar protuberance was presented by M. Delaunay.—M. Periseux communicated a note on the transit of Venus in 1874, containing a numerical correction of his former paper on this subject.—M. Delaunay presented a note by M. H. Tarry on the so-called showers of dust and blood. The author notices the storm phenomena preceding the showers of sand which fell in the south of Europe on the 10th and 24th March, 1869, and the 14th February, 1870, indicating that in each case a great barometric depression, accompanied by a violent wind storm, travelled from the north to the south of Europe, crossing into Africa, and returning thence laden with sand from the Sahara. He identifies the material deposited in these storms in all cases with the Sahara sand.—M. C. Du-four read a note relating to magnetic perturbations observed by Saussure at the Col du Géant before the great storm of 1788. M. H. Sainte Claire Deville communicated a note by M. C. Schloësing on the precipitation of mud by very dilute alkaline solutions. The author stated that a very small quantity of a saline solution facilitates the deposition by water of earthy matter held in suspension by it, and that a deficiency of saline constituents is often the cause of water remaining muddy when standing in clearing tanks.—A note by M. Scheurer Kestner on the composition of crude soda and the loss of sodium caused by the adoption of Le Blanc's process was presented by M. Balard. The author noticed the chief compounds with which crude soda is contaminated, and stated as the result of his researches upon Le Blanc's method that in the fusion of crude soda there is no reduction of soda-salts into metallic sodium, and that the greater part of the loss experienced is due to the formation of insoluble compounds, and averages about 5 per cent.—M. Bertrand communicated a note by M. Rabuteau, on a new, simple, and rapid mode of quantitative determination of the ammoniacal salts, and on the reason why these salts can exist normally in the organism only in infinitesimal quantities. The author stated that chloride of soda prepared by pouring a solution of two parts of carbonate of soda into one part of chloride of lime contains an excess of carbonate and free soda, and that, by the aid of heat, this solution decomposes ammoniacal salts with evolution of nitrogen. From the amount of nitrogen evolved, the quantity of ammonia may be calculated. He considered that the alkalinity of the blood would enable it in like manner to decompose any ammoniacal salts contained in it.—A note on the tribromhydrines, by M. Berthelot, was presented by M. Bertrand, in which the author maintained the isomerism of those compounds in opposition to the opinion of M. Henry.—M. H. Sainte-Claire Deville communicated a note by M. Fontaine on the preparation of bibrominated ethylene, in which the author described a new method of obtaining that compound.—M. Wurtz presented a note on an aromatic glycol, by M. E. Grimaux.—An extract from a letter from M. Pasteur to Marshal Vaillant, describing the results obtained in breeding French races of silkworms, at Villa-Vicentina, was read.—M. C. Robin presented a note by M. Picot containing the results of some experimental researches upon suppurative inflammation and the passage of leucocytes through the walls of vessels.

June 27.—M. Serret presented a note by M. R. Hoppe on a corollary to a theorem of Mr. Crofton's; and a note by M. F. Lucas on some new properties of the potential function was communicated by M. Delaunay.—M. d'Abbadie presented a note by M. J. Hoüel on the selection of the angular unit, containing a further discussion of the question of the decimal division of the quadrant or the circle, and supporting the former as the unit. M. Yvon Villarceau remarked upon this paper, and maintained that the decimal division of the circle is preferable to that of the quadrant.—M. H. Sainte-Claire

Deville read a paper entitled "Observations with regard to a Note by M. Jamin on the Variations of Temperature produced by the mixture of two Liquids."—A note by M. J. Chautard on the direction of the currents induced by means of electrical discharges was read.—A letter from Mr. C. K. Akin, claiming priority in the method of calorimetry employed by M. Jamin and ascribed to M. Pfaundler, was read; and M. Neyreneuf presented a note on the phenomena of electrical condensation.—A paper by M. Martin de Brettes on the determination of the thickness of iron casing that can be traversed by a projectile of which the weight, the calibre, and the striking velocity are known, was read, indicating the formulas to be employed, and giving a table of experimental results contrasted with those obtained by calculation.—A paper by Mr. J. N. Lockyer on the last eclipse of the sun observed in the United States was read.—The following papers on subjects connected with chemistry was communicated:—Investigations on some new derivations of triethylphosphine, by MM. A. Cahours and H. Gal; letters by M. H. Bouilhet and Klein on the deposition of nickel by galvanism, presented by M. Dumas; on a new method of preparation of the chlorobrominated organic compounds by M. Henry; on silicopropionic acid by MM. Friedel and Ladenburg, upon which MM. Dumas and Thenard made some remarks; and a note on phospho-platinic compounds by M. Schützenberger.—A note by M. Montagna was read noticing the occurrence of organic remains in rocks regarded as of igneous origin; and M. de Vemeuil made some remarks on a memoir by M. Dieulauf on the zone of *Avicula contorta*, and the *Infralias* in the south and south-east of France.—M. de Clos communicated a note on the germination (or twin growth) of the whorls of floral axes in the *Alismaceæ*.—The remaining papers read need no notice, except one, of which unfortunately the title only is given us, in which M. Tremblay suggested a means of terminating the present drought.

## BOOKS RECEIVED

ENGLISH.—The Revival of Philosophy at Cambridge: C. M. Ingleby (Hall and Son).

FOREIGN.—Annales de Chimie et de Physique, No. XX.—Annalen der Physique und Chemie, No. 5. Repertorium, Heft iv.—(Through Williams and Norgate)—Traité d'Histoire naturelle: M. A. T. Noguès.—Jahresbericht über die Leistungen der chemischen Technologie für 1869: J. A. Wagner.—Prodromus Floræ Hispanicæ, Vol. I.—Etudes sur les Diatomacées: Ch. Manourry.

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