

taken, have been submitted to the consideration of a special commission.—M. J. Parrot's paper on the development of the brain in infants, considers the subject chiefly in reference to the modifications of colour which the medullary substance undergoes.—The present number of these *Bulletins* gives M. P. Broca's remarks on his "goniomètre flexible," of the various parts of which drawings are appended.—M. Harmand makes the interesting communication that some Cambodian inscriptions, hitherto undeciphered, have been found by Prof. Kern, of Leyden, to be Sanskrit, written in Kawi and Kalinga characters.—M. Vinson suggested that fixed rules should be drawn up for the transcription of foreign words, and should form part of the official anthropological instructions provided for travellers and explorers in savage countries. His suggestion has been accepted.—In addition to the article already referred to on the flexible goniometer, these *Bulletins* contain several papers from the pen of the late M. Paul Broca, which will be read with the more interest as being among the last of his communications to the Society; these are his post-mortem reports of the appearances presented in the thorax of a young Zulu girl, with his remarks on a retrogressive anomaly in the aorta of this girl; a description of the appearances of the cranium of the assassin Prévost, more especially with reference to the assumed importance of the protuberance between the occipital and parietal, to which Gratiolet applies the term *calotte*, and which he regards as a simian character. M. Broca considered that in the interests of physical science it would be desirable that greater facilities should be afforded to scientific men for obtaining the heads of those who die in public prisons, asylums, &c. Finally we have the report of M. Broca's remarks on the case of an illiterate boy of eleven, possessed of extraordinary powers of calculation, and evincing surprising facility in extracting cube-roots. The consideration of this case gave additional interest to the discussion that had been raised at an earlier meeting, in regard to Galton's observations on the vision of serial numbers.—M. Moudière has drawn up a monograph on the women of Cochin-china, in which he has embodied the results of six years' laborious anthropological researches. The three races of Annamites, Cambodians, and Chinese, of which the Cochin-china population is composed, were severally studied.—M. Bertillon gives the results of his comparative analysis of the statistical tables of suicides for France and Sweden. The results show singular accord between the two countries, and the author considers himself justified in maintaining that they establish the two following laws:—1. That widowers commit suicide more frequently than married men. 2. That the existence and presence in the house of children diminishes the inclination to suicide both in men and women.—M. René de Semallé gives a comparative table of the mean length of the generations of mankind, based on the genealogy of the reigning and other princely families in Europe. From these it would seem that the period of thirty years, which in common parlance is accepted as that of a generation, very closely corresponds with the means obtained from these genealogical data.—M. Fourdrignier gives the result of his exploration of the double tumuli found at Thuizy, near Rheims, among a large number of other graves in which only one individual had been interred. Where these graves have escaped earlier spoliation, the human remains and the broken fragments of ornaments found in them would appear to show that the individuals buried together were of different sex. M. Fourdrignier has made an interesting discovery of the several parts of two conical casques. The fragments of these singular head-coverings were extracted from two of the double graves, and, according to their discoverer, they belong to a Gallic race of the pre-Roman period, and must in form have closely resembled the modern German "Pickelhaube."

SOCIETIES AND ACADEMIES

PARIS

Academy of Sciences, October 4.—M. Wurtz in the chair. M. Perrier presented a *Compte rendu* of the determinations of longitudes, latitudes, and azimuths in Africa under his direction, at Géryville, Laghouat, Biskra, and Carthage in 1877 and 1878, with a description of instruments and methods. In the exchange of signals it was possible to calculate the mean retardation of transmission of a signal along an aerial conductor, from chronograph to chronograph, for distances comprised between 414 km. and 1,236 km. The mean velocity of propagation was found about 40,000 km. At this rate an electric signal would go round the earth in a second.—Military and geographical explo-

ration of the region comprised between the Upper Senegal and the Niger, by M. Ferrier. A Government expedition under Commandant Desbordes was to start on the 5th, Commandant Derrien having charge of the topographical department. They go to St. Louis, and make their way to Bafoulabé, at the confluence of the Bafing and the Bakhoy. Here they construct their first fort, and organise escorts and convoy, with a view to a general triangulation of the region between Bafoulabé on the Senegal, and Dina and Bamakou on the Niger. The railway contemplated would run from Medina, by Bafoulabé and Fangalla, to the Niger.—Order of appearance of the first vessels in the spike of *Lepturus subulatus*, by M. Trécul.—M. de Lesseps presented the "Biannual bulletin of the Inter-oceanic Canal" for September.—On utilisation of the crystals of lead-chambers, by MM. Girard and Pabst. The crystals offer an abundant and economical source of nitrous acid, and the authors have been able to prepare on a large scale, the dinitric bodies, amidoazobenzol and nitroalizerine, by making the nitroso-sulphuric acid act on the corresponding amidised derivatives, or aniline and alizerine. But the crystals can only be employed in presence of a quantity of sulphuric or nitric acid (preferably the former) sufficient to prevent their decomposition by water.—Observations of Faye's comet made at the Observatory of Florence-Arcetri, by M. Tempel.—On some thermometric questions, by M. Crafts. It is very probable that the least change of volume of a thermometer is accompanied by a change of the coefficient of dilatation.—On the decomposition of salts by liquids, by M. Ditte. The laws of dissociation by heat which apply to decomposition of salts by pure water and by saline or acid solutions, apply also to decomposition by alcohols, and probably in general to decompositions of salts by the wet way, whatever the solvent.—On the physiological action of *Conium maculatum*, by M. Bochefontaine. Conine diminishes or abolishes the physiological properties of the nervous centres before acting like curare on the "nervo-muscular junctive substance" (Vulpian). In the dog and frog it at length abolishes the nervous excitomotricity if given in sufficient quantity, and it is fatal for batrachians as well as for mammalia. Hemlock then may act like curare, but it has additional physiological effects.—Floral dimorphism and staminal petalody observed in *Convolvulus arvensis*, L.; artificial production of this latter monstrosity, by M. Heckel. Petalody is the effect of direct fertilisation long continued. The autogamic process in plants as in animals (but in a longer period with the former) has the result of altering the organs of reproduction and leading to absolute infertility.

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