

salina var. *kattagatensis*, Fries. The discovery of the former species is especially interesting. The genus *Schœnus* includes between 60 and 70 species, of which two are natives of the northern temperate zone; all the remainder of Australia and New Zealand. Both of the northern species are now known in Britain.—Mr. J. G. Baker completes his monograph of *Selaginella*, including no less than 312 species.—In addition to smaller original papers the reprints include Mr. Carruthers' report on additions to the botanical department of the British Museum during 1884, and Mr. George Murray's valuable notes on the inoculation of fishes with *Saprolegnia ferax*, extracted from the annual report of the Inspector of Fisheries.

Rivista Scientifico-Industriale, August–September.—Transport and distribution of electricity by means of induced transformers: Gaulard and Gibbs' secondary generators (three illustrations), by Emilio Piazzoli.—Remarks on the objections raised against some of the author's theories in physics and electricity, by Prof. Carlo Marangoni.—On the emissive power of the electric sparks, by Prof. Emilio Villari.—On the true nitrous ethers of the alcohols, by Prof. G. Bertonio.—On the crustaceans of the province of Rome, by A. Statuti.

Bulletins de la Société d'Anthropologie de Paris, fasc. 2, 1885.—Report of Commission of Financial Administration of Society, by M. Dally.—Presentation, by M. Mortillet, of the numbers of the journal *L'Homme* for 1885, in which the question of a Tertiary man is discussed. M. Mortillet took occasion to explain at length his reasons for believing that there existed in the Tertiary age animals of sufficient intelligence to fabricate tools for themselves, and to make use of fire. M. de Nadaillac is unable to accept the opinion of M. Mortillet, and considers it impossible to affirm with any certainty either that the flints in question belong to the period to which they are assigned, or that they have not been deposited in the strata where they are found by the agency of running water, or of some of the great telluric disturbances of which unmistakable traces are present in the beds at Thenay (Loir-et-Cher), which M. Mortillet characterises as Miocene.—M. D'Acly drew attention to the presence of numerous flints similar to those of Thenay which he and others had found among the Maçonnois deposits, and whose cracked and fractured surfaces differed in no way from the normal and natural character presented by the argillaceous flints ordinarily referred to the Tertiary ages.—On the historic significance of the Egyptian word "heter," horse, by M. Piétrement, who refutes the various arguments advanced in proof of the existence of the horse in Egypt before the invasion of the Hyksos, and endeavours to show that its introduction among the Egyptians was due to the so-called "Shepherd" invaders, who were of mixed Mongolian and Semitic origin.—Continuation of Dr. Fauvillé's treatise on "The Will," considered from an anthropological point of view.—On Beauty, by M. Delaunay.—Report of French missionaries' account of the Fuegians in 1884, communicated by Dr. Hyades.—On the Redskins in the Jardin d'Acclimatation, Paris, by Dr. Manouvrier, with craniometric and other measurements.—On the characteristics of a native of New Caledonia in the service of M. Moucelon, who explained some of the peculiarities of language and modes of counting prevalent among the people, and described their leading physical and mental characteristics. He remarked that the half-castes, born of white fathers and native mothers, are generally strong and prolific, while they show a tendency to revert to the character of the white type. Cannibalism, however, is not yet wholly eradicated amongst them.—On an anomaly of the humerus, by M. Chudzinski. This consists in a bony excrescence immediately below the deltoid, to which a bundle of muscular fibre is attached. The case, which is believed to be unique of its kind, appears to be one of atavism.—On an anomalous muscle in the hand, by M. Baudoin. Here the presence of a well-developed muscular fascia in the right hand of a man aged fifty, which simulated a part of the muscular development of the foot, may be similarly characterised as an evidence of atavism.—On a case of congenital hypertrophy of the parietals, by M. Topinard.—On supernumerary breasts, by Dr. Blanchard.—The etiology of elephantiasis, by M. Foley.—On the influences of heredity in deaf-mutes, by M. Drouault.—A case of a muscular anomaly of the fore-arm, by M. Chudzinski.—On sterility among the descendants of a white and a mulatto, by the Marquis de Saporta.—On certain crania from Lagoa-Santa, collected by Dr. Lund, and now at Copenhagen, with comparative analysis of a similar number of Californian crania, by M. Ten Kate.

Revue d'Anthropologie, tome 8ème, 3ème fascic., Paris.—On the weight of the cerebral lobes, according to Broca's register, by Dr. Philippe Rey. The data on which Dr. Rey's tables are based were obtained from 347 subjects, of which 231 were men and 116 women. On examining the means the figures yielded for the several lobes, without reference to sex or stature, it is found that while the total weight of the right hemisphere predominates over that of the left, the left frontal is heavier than the right, this difference amounting to 1.6 gr. on the total of 231 cases. This excess of weight of the left frontal had been noted by Broca, who believed it to be due to the influence of the third convolution. The right occipital is, on the other hand, 0.5 heavier than the left. The difference of weight for the entire anterior region between men and women amounts to 69.65 gr., which constitutes a large proportion of the general cerebral excess of weight in the male sex. The weight of both hemispheres is at its maximum between the ages of 25 and 35 years, although this period is generally reached earlier in women than in men, owing apparently to the more rapid evolution in the former of some one of the lobes. Loss of weight is most marked between 55 and 75 years, when it may amount to 62 grammes.—Anthropometric instructions for travellers, by Dr. Paul Topinard. The writer, after considering the true significance of the loosely-applied term "race," and pointing out the importance of accepting one uniform and fixed system of anthropometric measurement, proceeds to describe the nature and mode of application of the various instruments indispensable for the attainment of trustworthy and available results. These admirable instructions are rendered specially serviceable through the addition of numerous comparative tables, including a useful schematic representation of the means of the measurements obtained for the European male adult when taken in proportion with the mean stature, which is estimated at 100. This code of instructions ought to be in the hands of all travellers able and willing to contribute towards the general mass of our anthropological knowledge, and its translation into our own and other tongues would be a gain to science. Numerous diagrams illustrate the way in which the instruments should be used, and the positions of the body best adapted for the purpose of each special observation.—On atavism in man, by Dr. R. Blanchard. The author considers that as the greater number of the teratological conditions observable in man may be explained by the persistence of some embryonic condition which is normally of a transitory character, we must look to atavism for an explanation of such anomalies. Beginning with the cranium, Dr. Blanchard shows that microcephalus and analogous cranial deformities must be characterised as ancestral reversions, the mean cranial capacity of civilised races having demonstratively augmented within the last few centuries, while we find on passing down to the lower animals that the cranial capacity of the gorilla, or chimpanzee, which is more than five times less than the mean given for Parisians of the present day, is only slightly in excess of that observed in microcephalic subjects. After passing in review the various anomalies to be met with in the human anatomical system, and pointing out their analogues in the normal anatomy of the lower animals, he proceeds to the muscular system, in which the writer shows that supernumerary muscles occur three or four times in every hundred cases. This branch of the subject is, however, only briefly touched on in consideration of the exhaustive work of M. Testut bearing on the question, and to this the student is referred. Finally, after considering the comparative history of the development of the human foetus, and of the embryo of some of the lower animals, the author concludes by drawing attention to the importance of studying the normal anatomy of the lower animals, more especially of reptiles, marsupials, and lemuriens, if we desire to elucidate the origin and development of the various anomalies presented by the human organism.—On Broca's method of estimating the capacity of the cranium, by M. P. Topinard. The writer gives a categorical description of the instruments to be used and the steps to be followed in the process, together with tables showing the various results that had been yielded by Broca, Ranke, and others when lead, glass beads, or millet seed had been used as the agent for gauging the capacity.

SOCIETIES AND ACADEMIES

SYDNEY

Linnean Society of New South Wales, June 24.—The following papers were read:—Rough notes on the natural

history of the Claremont Islands, by Gervase F. Mathew, R.N. Mr. Mathew gives an interesting account of the fauna and flora met with on these islands, in which he enumerates 23 species of birds and 20 species of *Lepidoptera*, of which 2 *Lycaena* are probably new. He also gives some notes on the habits of each species enumerated.—An afternoon among the butterflies of Thursday Island, by Gervase F. Mathew, R.N. Mr. Mathew gives an account of a few hours' ramble on Thursday Island, resulting in the capture of 48 species of diurnal butterflies. He gives a detailed description of the larva of *Ornithoptera pronomus*. He also makes brief mention of the flora and physical geography of the island.—New fishes from the Upper Murrumbidgee district, by William Macleay, F.L.S. Two new fishes are here described, and two others, probably new, are noticed. The new ones are a species of *Murrayia*, from the Murrumbidgee, near Yass, and a very blunt-headed species of *Oligorus* from the same locality. The two fishes alluded to as probably new are a species of *Gadopsis* from the Little River and a *Galaxias* from Yass River.—On a new *Diplocrepis*, by J. Douglas Ogilby. Mr. Ogilby describes, under the name of *Diplocrepis costatus*, a species differing considerably from *D. puniceus* of Richardson, and he points out that the fish is more nearly allied to the New Zealand genera, *Diplocrepis* and *Trachelostomus*, than to the Australian genera, *Crepidogaster*.—Jottings from the Biological Laboratory of Sydney University, by William A. Haswell, M.A., B.Sc., Lecturer on Zoology and Comparative Anatomy.—On a destructive parasite infesting the oyster. Specimens of diseased oysters from the Hunter River beds were found to have their shells perforated and destroyed by a small boring annelid—*Leucodore ciliata*—which, by burrowing through the substance of the shell, causes the disintegration of the valves and the death of the oyster.—On some recent histological methods and their application to the teaching of practical histology.—On the minute structure of *Polynoid*.

PARIS

Academy of Sciences, October 12.—M. Bouley, President, in the chair.—The President announced the death on October 6, at Jasseron (Ain), of the eminent histologist, M. Ch. Robin, Member of the Section for Anatomy and Zoology.—Memoir on the botanical work of the late M. Charles Edmond Boissier, who died at Valleyres, Canton of Vaud, on September 25, by M. P. Duchartre. Born at Geneva, in 1810, of a French Huguenot family, M. Boissier first devoted his attention to the Swiss Alpine flora. But he will be remembered chiefly for his explorations in the Iberian peninsula (Grenada, Sierra Nevada, &c.) in 1837, and in the Levant (Greece, Anatolia, Syria, Egypt, &c.) in 1842-46. The results of his labours in these botanical regions are embodied in his "Elenchus plantarum novarum minusque cognitarum quas in itinere hispanico legit" (Geneva, 1838); "Voyage botanique dans le midi de l'Espagne pendant l'année 1837" (Paris, 1839-45); and "Flora orientalis, sive enumeratio plantarum in Oriente a Græcia et Egypto ad Indiæ fines hucusque observatarum," five large volumes, 1867-1884.—On the neutralisation of the aromatic acids, by M. Berthelot. The results are here given of experiments made on mellic acid, $C_{24}H_6O_{24} = 342$; meconic acid, $C_{14}H_4O_{14} \cdot 3H_2O_2 = 254$, and acrylacetic acid, $C_4H_6O_2(C_6H_6O_4) = 114$.—On sundry phenols, by M. Berthelot. The author here passes from the study of normal phenol to that of its homologues, the cresylols and ordinary thymol, as well as the naptols or phenols derived from naptaline.—Note on the first volume of the *Annales de l'Observatoire de Bordeaux*, issued by M. Rayet, and presented to the Academy by M. Loewy. Besides a full account of the foundation of the Bordeaux Observatory in 1871 and of the instruments employed in it, this volume contains all the magnetic and meteorological observations taken in 1880-81 and some of the results of the work begun in 1885 for the purpose of determining the co-ordinates of 23,000 stars in the Southern Hemisphere between -15° and -30° , already observed by Argelander at the Bonn Observatory in 1850.—Effects of mildew on the vine as shown by a comparison of the plants successfully treated with a mixture of lime and sulphate of copper by M. Nath. Johnston in the Médoc district, with plants in the same district attacked by the disease and left untreated, by MM. Millardet and Gayon.—Observations on the nature of inverted sugar and of elective fermentation, by M. E. Maumené. Further experiments confirm the conclusion already arrived at that M. Leplay's theory of elective alcoholic fermentation is based on erroneous assumptions.—Note on the constant presence of

Amœba coli in dysenteric secretions, by M. A. Normand.—Observations on Palisa's new planet 251, made at the observatory of Paris (equatorial of the west tower), by M. G. Bigourdan.—Observations of Brook's comet and of Palisa's new planet 251, made at the Observatory of Algiers with the 0.50 m. telescope, by M. Rambaud.—Researches on vanadium: properties of vanadic acid, by M. A. Ditte.—Kinematic analysis of the locomotion of the horse by means of M. Marey's chronophotographic apparatus, five illustrations, by M. Pagès. In this paper the author explains and illustrates the trajectory and velocity of the foot and pastern in the three principal actions of the horse—the step, trot, and gallop.—Note on the internal phenomena of muscular contraction in the primitive striated fascies, by M. F. Laulanié.—On the physiological action of the salts of lithium, potassium, and rubidium, by M. Ch. Richet. The mean toxic dose with the chlorides of these alkaline metals has been determined for the tench, frog, pigeon, rabbit, and some other organisms.—On the development of *Fissurella*, by M. L. Boulan. From a study of the biological evolution of this organism the author concludes that it is a true gasteropod, and cannot, therefore, be grouped with the order of worms; further, that the apparent symmetry of the adult *Fissurella* is, in reality, a disguised progressive asymmetry.—Influence of salt water on the development of the larvæ of the frog, by M. E. Yung. The tadpole perishes in three to twenty minutes in the water of the Mediterranean containing 4 per cent. of salts, and in a few hours in a solution of marine salts in the proportion of 1 per cent. But it may be adapted to this element by a gradual preparation through a progressive series of solutions from 2 to 8 per 1000.—On the apparent rotatory movement of balloons recorded by aeronauts, by M. G. Tissandier.—Memoir on the fermentation of bread-stuffs in connection with M. Aimé Girard's communication on this subject, by M. G. Chicardard.

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