

and Dr. D. MacAlister, Assessor to the Regius Professor of Physic, have been appointed to represent the University at the International Congress of Hygiene and Demography to be held in September next in Budapest.

Mr. F. Darwin has been appointed an Elector to the Professorship of Botany, Prof. Ray Lankester an Elector to the Professorship of Zoology, Dr. G. J. Hinde an Elector to the Professorship of Geology, and the Rt. Hon. T. H. Huxley an Elector to the Professorship of Physiology, for the next eight years.

Mr. E. H. Douty, of King's College, has been appointed University Lecturer in Midwifery, in the room of Dr. Walter Griffith.

THE Senatus of Aberdeen University has conferred the honorary degree of LL.D. on Mr. Henry O. Forbes, recently appointed director of Liverpool museums.

THE Senatus of the University of Edinburgh has offered the honorary degree of LL.D. to Dr. W. H. Gaskell, F.R.S., Lecturer on Physiology, University of Cambridge; James A. Russell, Lord Provost of Edinburgh; and Dr. George Wilson, Medical Officer of Health, Mid-Warwick.

PROF. W. C. ARNISON and Dr. James Murphy have been selected by the Faculty of Medicine to represent the University of Durham at the forthcoming Medical Congress at Rome.

SCIENTIFIC SERIALS.

1. Anthropologie, tome iv. No. 5, September-October, 1893. —Dr. E. T. Hamy contributes a paper on the Merovingian and Carolinian crania of the Boulogne district. In the first volume of the *Revue d'Anthropologie*, Broca published a paper on the nasal index, in which he stated that of all European groups whose crania he had measured, the French group of Chelles, Champlieu, &c. was alone *mesorhine*, having a mean nasal index of 48.87, and he concluded that this anatomical peculiarity was derived from a cross with some more or less Mongoloid people previous to their appearance in the West. Dr. Hamy now gives a detailed description of thirty-five crania, twenty male and fifteen female, taken from four Merovingian burial-places in the Boulogne district, and in the second part of the paper he gives a comparative study of the crania, of a later date, exhumed by M. l'Abbé Debout from the mound of Tardighen; some of them from the surface, and others from graves beneath flagstones, the Merovingian age of the former being clearly indicated by the articles buried with the bodies, and the latter probably belonging to the end of the Carolinian period. A critical examination of these crania leads to the conclusion that the original type of the inhabitants was altered by foreign occupation, and that the elements thus violently introduced were eliminated little by little, and the primitive population, thrown into the shade for a while, gradually regained their supremacy. Undoubtedly there remain on the coast of the Channel, especially on the Pas-de-Calais, many tall and strong men, with fair hair, ruddy complexion, narrow head, and long face, who represent, to some extent at least, with fidelity the Saxons or Franks from whom they are descended, but the brunettes who surround them are more numerous than they, and are gradually absorbing them. To take one example only: in the canton of Marquise, the school population, consisting of 1750 boys and girls, yields 913 subjects with dark hair (of whom 163 have black hair), against 779 blondes (54 of whom have red hair); consequently 52.2 per cent. are dark, and only 47.8 per cent. fair, and as these are for the most part children whose hair has not yet attained its final colour, some of those now classed as blondes will become brunettes as adults.—M. E. Deschamps describes some instances of albinism observed by him at Mahé, on the coast of Malabar, and M. Salomon Reinach contributes the first part of a vigorous attack on "Le Mirage Oriental," in which he argues that credit has been given to the East for a far greater influence upon European civilisation than has really been exercised by it. Mycenaean civilisation is entirely of European origin; it is only orientalised on the surface by contact with the civilisations of Syria and of Egypt. Greece, the Archipelago, and the coast of Asia Minor are the places where, in a remote antiquity, European, Asiatic, and Egyptian in-

fluences mingled.—Dr. P. Topinard continues his memoirs on the distribution of the colour of the eyes and of the hair in France, the subject of the present essay being the chart of red hair. He arrives at the following conclusions: (1) That, as in the British Isles, where red hair is comparatively common, and in Italy, Turkey, and Armenia, where it is seldom met with, so in France it is more commonly found in the middle of the country than elsewhere; (2) that in those French departments in which the blonde type predominates, red hair is twice or three times as frequent as in those inhabited by people with dark hair; (3) that, probably, red haired people are allied exclusively to the blonde type, of which they are a simple normal variety, without any anthropological signification. M. Topinard has consequently reunited the *cheveux blondes* and the *cheveux roux* under the name of *cheveux clairs*.

Antropologia Generale.—Lezioni su l'uomo secondo la teoria dell'evoluzione dettate nelle R. Università di Torino e di Genova dal Prof. Enrico Morselli. (Turin, 1894).—In the thirty-fourth part of this valuable work, Prof. Morselli treats of certain cases of atavism, and instances several cases of hypertrichosis, amongst others the Russian Adrian Jeftichjew, who was known as the "human dog," and the celebrated Julia Pastrana, the configuration of whose skull was so much like that of the Neanderthal. Reference is also made to steatopygia and the "Hottentot apron." The prehensile power sometimes met with in the human foot is discussed, and shown to be perfectly homologous with that of the hind hand of the ape.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, February 1.—"Insect Sight and the Defining Power of Composite Eyes." By A. Mallock.

The optical arrangement of the simple eyes of vertebrates is well understood, but as regards the action of the composite eyes of insects and crustacea less certainty has hitherto prevailed.

In the former class of eye a single lens, or its equivalent, forms an image on a concave retina, built up, as a sort of tessellated pavement, of the sensitive terminations of the fibres of the optic nerve, and, if the lens is perfect and the pupil large enough, the definition is limited by the distance apart of the nerve-terminations, for, in order that two objects may appear as two to the eye, they must subtend at least such an angle that their images as formed by the lens shall not fall on the same nerve-termination.

In the human eye the distance between the sensitive points on the retina is such that it subtends about a minute of arc at the optic centre of the lens, and in good eyes the optical part of the apparatus is sufficiently perfect to allow of this degree of definition being attained over a small part of the field of view.

For reasons, however, which will be given presently, such definition as this is not to be looked for in composite eyes.

The general plan on which all composite eyes are constructed is that of a convex retina having a separate small lens in front of each sensitive part, together with an arrangement of screens which allows only that light coming from the immediate neighbourhood of the axis of the lens to reach the nerve.

The theory of "mosaic vision" put forward by Johannes Müller has been opposed by some physiologists who appear to have considered that each lens of a composite eye formed a complete image which was taken cognisance of by the nerves as in the vertebrate eye, and that the whole of these images were in some way added together and arranged by the brain. I here bring forward some optical reasons which show that Müller's view is the true one.

On the supposition, therefore, of "one lens, one impression," the definition obtained by a composite eye will be measured by the total solid angle of view ÷ whole number of lenses in the eye.

The simplest form of composite eye would be a spherical shell, AB, Fig. 1, perforated with radial holes, c_1, c_2, c_3 , the diameter of these holes being small compared with the thickness of the shell.

If sensitive paper were placed in contact with the inner surface of the shell, it would be impressed with a picture of surrounding objects, for the light which reaches the bottom of any hole is limited to that making an angle less than $\frac{1}{2}$ DEF with the