

too obscure for them to form a basis for the creation of a new species of man. Both Huxley and Turner have shown that the low vault of the Neanderthal calvaria can be closely paralleled by specimens of existing races.

If the characters of the Neanderthal calvaria are so distinctive as to justify the recognition of a new species, a new genus ought to be made for the Trinil skull-cap. In nearly every respect it is distinctly lower in type than the Neanderthal, and yet many of the anatomists who have expressed their opinion on the subject maintain that the Trinil specimen is distinctly human.

Important and interesting as are the facts which may be ascertained from a study of a series of skulls regarding the size and form of the brain, it is evident that there are distinct limits to the knowledge to be obtained from this source. Much additional information as to racial characters would undoubtedly be gained had we collections of brains at all corresponding in number and variety with the skulls in our museums. We know that as a rule the brains of the less civilised races are smaller, and the convolutions and fissures simpler, than those of the more cultured nations, beyond this but little more than that definitely determined.

As the results of investigations in human and comparative anatomy, physiology, and pathology, we know that definite areas of the cerebral cortex are connected with the action of definite groups of muscles, and that the nervous impulses starting from the organs of smell, sight, hearing, and common sensibility reach defined cortical fields. All these, however, do not cover more than a third of the convoluted surface of the brain, and the remaining two-thirds are still to a large extent a *terra incognita* so far as their precise function is concerned. Is there a definite localisation of special mental qualities or moral tendencies, and if so where are they situated? These are problems of extreme difficulty, but their interest and importance are difficult to exaggerate. In the solution of this problem anthropologists are bound to take an active and important part. When they have collected information as to the relative development of the various parts of the higher brain in all classes of mankind with the same thoroughness with which they have investigated the racial peculiarities of the skull, the question will be within a measurable distance of solution.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

DR. DAVID HEPBURN has been appointed professor of anatomy at the University College of South Wales and Monmouthshire, and Dr. T. J. Jehu professor of geology in the University of St. Andrews.

THE distribution of medals and prizes to the students of the Royal College of Science will take place in the lecture theatre of the Victoria and Albert Museum, South Kensington, at 2.30 p.m. on October 8, when an address will be delivered by Prof. Farmer, F.R.S.

EIGHTEEN lectures, open to the public without payment or ticket, will be given at University College, London, during October by professors in the faculties of arts and laws and of science. On October 7 a lecture on "Architectural Evolution," introductory to the work of the School of Architecture, will be given by Prof. F. M. Simpson. Sir William Ramsay will lecture on the gases of the atmosphere, and their connection with radium and its emanations, on October 6.

THE "Education Directory," just published by the Education Committee of the Oxfordshire County Council, shows that the committee has ordered a special survey of the educational conditions of the area over which it has control. Until this inquiry has been held the committee has decided that the higher education of the county shall be carried forward on the lines previously laid down by the Technical Instruction Committee, only modified in so far as last year's Act gives wider powers to the Education Committee.

THE research, statistical and biometric laboratory of University College, London, under Prof. Karl Pearson, offers good opportunities for post-graduate students and research workers in many fields of inquiry. The aim of the

department is to give exact training in both observation and computation. Lectures are provided in both elementary and advanced statistics, and the general theory of statistics is so developed as to be of service not only to "biometricians," but to those who propose in the future to deal with social, economic or vital statistics. The training thus gained is far more profitable than any mere examination curriculum for those professions which require powers of careful observation, of original thought, or of accurate computation.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 21.—M. Albert Gaudry in the chair.—Parthenogenesis by carbonic acid obtained with eggs after the emission of the polar globules, by M. Yves **Delage**. It has been shown in previous work by the author that the eggs of the sea urchin are absolutely refractory to the action of carbonic acid. The effect of heat alone, or of sifaking alone, gave also negative results, but moderate shaking at 30° C. in presence of carbonic acid was successful in producing the desired result, segmentation taking place in about 60 per cent. of the eggs.—On the production of sugar in the blood during the passage of the latter through the lungs, by MM. R. **Lépine** and **Boulud**. From the experiments described the authors conclude that, during the passage of the blood through the lungs, there is not only a glycolytic, but also a glyco-genic process, hitherto unnoticed.—On monodrome functions and differential equations, by M. Edm. **Maillet**.—On the properties and constitution of the manganese steels, by M. Léon **Guillet**. The metallographic and mechanical tests are in perfect agreement with each other, and show that there is great similarity between nickel and manganese steels.—The diagnosis of biliary calculi by preliminary radiography, by MM. **Mauclair** and **Infroit**.—The germination of orchids, by M. Noël **Bernard**.

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