

THURSDAY, JANUARY 2, 1913.

RACES OF MANKIND.

Homo Sapiens. Einleitung zu einem Kurse der Anthropologie. Autorisierte Übersetzung aus dem Italienischen. By Dr. Giuffrida-Ruggeri. Pp. viii + 198. (Vienna and Leipzig: A. Hartleben, 1913.) Price 5 marks.

THE author of this work, who holds the chair of anthropology in the University of Naples, has come in recent years to occupy a place among the leading anthropologists of Europe. He has taken a part in every one of the recent international discussions relating to the origin of man and the separation of mankind into modern races. On every occasion he has shown himself to possess a wide and intimate knowledge, a clear and simple style, and an exceedingly well-balanced judgment.

The present work, which has been honoured by a translation into German, is marked by all these virtues, and will serve as an excellent and systematic introduction to all those problems which at present occupy the attention of anthropologists. The chief problem concerns the single or multiple origin of modern races of mankind. The author, after discussing all the evidence produced in favour of a multiple origin—the facts produced by Klaatsch, by Kollmann, by Ameghino, by his colleague Sergi, who fills the chair of anthropology in Rome, comes to the conclusion that all modern races are descendants of a common stock and are single in their origin. Modern races all belong to the one species, *Homo sapiens*, but it is a species made up of a collection of well-marked varieties, each variety being, in his opinion, a potential species. The characters revealed by the fossil remains of extinct races convince him that in the past there have been several species of mankind, *Homo sapiens* being the only surviving species. As regards the number of varieties or subspecies of modern races of mankind, the Neapolitan professor quotes with approval the statement of Prof. von Luschan, of Berlin, "That it is as difficult to give their number as it is to estimate how many angels could dance on the point of a needle"!

The principles which underlie the knowledge we apply to the evolution of man must rest on the laws of heredity. Hence in the first chapter of this book, which has the merit of very moderate dimensions, Prof. Giuffrida-Ruggeri discusses the problems of heredity and seeks to apply Mendel's law to man, depending especially in this chapter on the writings of Bateson, Davenport and Hurst. He is apparently inclined to believe

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that mutation has been an active factor in the differentiation of modern races, but is sceptical of convergence having played any part in human evolution.

It would take us too far afield to summarise the remaining chapters of the book; it is sufficient to state again that the work is the best introduction yet published to the modern problems of man's origin.

A. K.

IRRITABILITY OF PLANTS.

Die Reizbewegungen der Pflanzen. By Dr. Ernst G. Pringsheim. Pp. viii + 326. (Berlin: Julius Springer, 1912.) Price 12 marks.

DR. PRINGSHEIM disarms criticism by stating in his preface that he is writing rather for the layman than for his professional colleagues. We fancy, however, that there will be few plant physiologists who will peruse the book without gathering something from it, here and there an out-of-the-way fact, or a new impression—the result of skilful handling of his material on the part of the author.

It is true that the book does not, perhaps, add much that is new to our stock of knowledge, and that sometimes one is disposed to dissent from the conclusions to which Dr. Pringsheim arrives. But there is a freshness about the whole work, coupled with a sense of first-hand acquaintance with the experimental evidence under review, which lifts it far above the level of a mere compilation.

Indeed, it is open to question, perhaps, whether the book, as a whole, will not appeal rather to the physiologist than to the non-botanical reader, in spite of the intention conveyed by its author. Some of the pages dealing with geotropism are good reading, and really provide an excellent summary of the principal results at present attained. The layman, however, will probably want to know what Piccard's methods (p. 49) of investigation on geotropism were, and it is not easy, without a previous familiarity with the apparatus, to follow the discussion of Haberlandt's investigations on similar lines. The statolith theory of geotropic perception is very briefly discussed, and some of the difficulties in the way of its acceptance are pointed out; the judicial conclusion is reached that we have not yet heard the last word on it.

The treatment of periodic movements is interesting, but perhaps more open to criticism than most of the rest of the book. The distinction between truly irritable movements and growth, which may accompany them, seems scarcely to be kept in sight sufficiently.

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