

any reader who follows the instructions should certainly run down his quarry. If he cannot at once hit on an appropriate reference, he will find it by working down from one of the twenty-five main headings. The heading that will attract most of our readers is "Research." Under this are only two direct entries, but a cross-reference is given to the following, of which those italicised are also main headings: *Agriculture*, *Atmospheric Pollution*, *Fisheries*, *Forestry Commission*, *Fruit and Vegetables*, *Industrial Fatigue*, *Medical Research*, *Mining (General)*, *Radio Research*, *Royal Aircraft Works*, *Statistical Methods*, *Vivisection*. One would have expected references to yet other subjects. None of these, for example, leads one to the entry "Seismological Data" (which is under *Meteorology*); possibly the accumulation of data is not regarded as research.

*The Engines of the Human Body: being the Substance of Christmas Lectures given at the Royal Institution of Great Britain, Christmas 1916-1917.* By Sir Arthur Keith. Second edition, revised and enlarged. Pp. xvi+343+2 plates. (London: Williams and Norgate, Ltd., 1925.) 12s. 6d. net.

THE second edition of Sir Arthur Keith's book, "Engines of the Human Body," is remarkable mainly for its appendices, of which there are thirteen. They are added for the purpose of expanding and amending the original text of the book, and indicate the directions of advance in anatomical and physiological knowledge, including subjects such as the needs of the muscles of athletes, the control and education of muscles, the effect of altitude, vitamins, and automatic nerve control. The only point which might be queried is the suggestion that beri-beri is due to lack of vitamin C; the accessory substance the absence of which is responsible for this disease is probably vitamin B.

Although the lectures on which this book is based were delivered to a juvenile audience, it may be read with advantage by student, expert, or any individual interested in the working of the human body. As an elementary explanation of the main facts of physiology, for simplicity of language and clarity of description, it has no equal. To the second year medical student it may be particularly recommended, for it gives him in the original lectures a general survey, and in the appendices some illustrations of modern work, than which he could have no better introduction to the subject of physiology.

*Man's Life on Earth.* By Prof. Samuel Christian Schmucker. Pp. xxx+299+4 plates. (New York: The Macmillan Co., 1925.) 10s. net.

DR. SCHMUCKER is skilled in the art of popular exposition. From this point of view his little book leaves little to be desired. It covers the conditions precedent to man's life on earth as revealed by geology and palæontology, as well as the evolution of man and his cultural history. The author shirks no difficulty and boldly tells his readers when any conclusion which he sets down is doubtful and when the evidence is inadequate, inconclusive, or unsatisfactory. He is a fervent admirer of Dr. H. Fairfield Osborn, and in most controversial questions follows that distinguished author. Consequently, his treatment of the

early stages of man's history up to the beginning of the Neolithic period is both fuller and more satisfactory than it is for the later periods, where he is uncritical and not always exact. He accepts, for example, Pumpelly's very high dating for Anau, and his account of the rise of European culture is sketchy at best. The book is written for the American public; but two features will be helpful to English readers. One is a very clear account of the evidence for the Ice Age in America so far as ascertained; the second is an analysis of the peculiar social conditions in the United States which gave rise to the evolution controversy and culminated in the Dayton trial after this book was written.

*Ethnographical Studies in Celebes.* Results of the Author's Expedition to Celebes, 1917-1920. By Dr. Walter Kaudern. 1: Structures and Settlements in Central Celebes. Pp. xiii+404+6 maps. (Göteborg: Elandrs Boktryckeri A.-B., 1925.) n.p.

IN this volume Dr. Kaudern gives the first instalment of the results of an expedition, in the course of which some three and a half years were spent in the island of Celebes. He expects to complete his work in about ten volumes, each of which will be devoted to some aspect of native culture. Here he deals with the structures and settlements of N.W. Central Celebes, the home of the Mountain Toradjas. Some of the Toradja tribes have been visited by those well-known explorers, the brothers Sarasin, and by Dr. Kruijt. The author, however, so far as possible, confined his investigations to tribes which were practically unknown and untouched by civilisation. In regard to his special theme in this volume, his investigation was to some extent complicated by the slavery resulting from tribal warfare, which has affected the type distribution of houses and temples; but by a skilful analysis, which calls for no little praise, he has distinguished three types in the houses, paddy-sheds, and temples, one of which is of recent introduction, possibly of Chinese origin, and of the remaining two, one appears to be the primitive type of which the form was determined originally by its location on swampy ground.

*A School Mechanics.* By C. V. Durell. (Cambridge Mathematical Series.) Part 2. Pp. xv+187-322+xi-xvii. Part 3. Pp. xi+323-447+xix-xxvi. (London: G. Bell and Sons, Ltd., 1925.) 3s. each.

IN these two small volumes, Mr. Durell completes his combined course of statics and dynamics, of which Pt. 1 has already been published. The advantage of taking the two subjects together is less obvious in these later stages, when the selection of the topics to be treated in turn is purely arbitrary, but teachers who think such a procedure is desirable will find no book to compete with this, in which Mr. Durell's unequalled skill in the invention of problems has ample scope.

For moments of inertia the reader is referred to the calculus, which is not otherwise required, as the book-work on rotational dynamics is restricted to the discussion of constant forces only, the compound pendulum being treated by assuming the energy equation. More space might with advantage have been allotted to relative velocity, considering the difficulty it presents to young students.