

*Every Boy's Book of Geology: An Introductory Guide to the Study of the Rocks, Minerals, and Fossils of the British Isles.* By Dr. Arthur E. Trueman and W. Percival Westell. Pp. 315. (London: R.T.S., n.d.) Price 6s. net.

THIS is a good introduction to geology, lucidly written and thoroughly up-to-date. The illustrations are simple, and are line-sketches only, but they convey their meaning. The authors rightly presume that those who read their chapters are prepared to be interested in the subject. There is no talking round about, in the hope of disguising what is going to be a lesson rather than a mere encouragement to learn. There is not much room for originality in the selection of the facts put forward; but the merit of this book lies in its accuracy and simplicity of statement. The old discussions that were at one time held to be necessary in every text-book, such as the evidence of earth-movement afforded by coral-reefs, are wisely left to larger treatises. The suggestions we have to make are merely trivial. It seems cumbersome nowadays to write the names of chemical elements and compounds with capital letters. On pp. 32 and 131 feldspars and beryl are respectively described as of "very complex" composition; but, when the reader has learnt the use of chemical symbols, he will not find matters so alarming. On p. 33 "twinning" should be omitted or more exactly defined. Potash is as important in biotite as in muscovite (p. 35). It is not at all necessary for a limestone to be melted before passing into crystalline marble (p. 73). We are glad to note the recommendation of a bicycle to the young explorer in our islands. Fossils do not necessarily lie on the tracks of chars-à-bancs.

G. A. J. C.

*Education for Self-realisation and Social Service.* By Frank Watts. (The New Humanist Series.) Pp. xii+275. (London: University of London Press, Ltd., 1920.) Price 7s. 6d. net.

UNDER the title of "The New Humanist Series," with Mr. Benchara Branford as editor, the University of London Press is projecting a series of volumes in which "the most modern advances of knowledge will be sought in order to fructify the many and varied fields of education. The subjects of the curriculum will be discussed by experts not too far removed by time from their own school years." These will be preceded by general volumes, of which the present book is the first. The treatment is adequate, and may be profitably compared with that of Prof. Nunn in the opening volume of another educational series. Without neglecting the rather intellectualistic psychology on which teachers of an earlier generation were brought up, it seeks the foundations of character and conduct in the innate tendencies to which the child is heir from an evolutionary past. The work of psycho-analysts is laid under contribution, and some of their terms, such as "sublimation," are adopted or adapted. In a diagrammatic "Tree of Human Development," from roots in *l'élan vital*, two main stems, the nutritive *horme* and

the distributive *libido*, arise, and from the latter are derived the flower and fruitage of the sublimated will or *eros*. There are many practical suggestions which will be found of value by teachers.

*Utilisation des Algues Marines.* By Prof. Camille Sauvageau. (Encyclopédie Scientifique: Bibliothèque de Botanique Appliquée.) Pp. vi+394. (Paris: Octave Doin, 1920.) Price 7.50 francs.

MANY possible uses of seaweeds are described in Prof. Sauvageau's excellent treatise—agricultural, industrial, alimentary, therapeutic. Their value as manure is great, but is limited by cost of carriage. Among industrial uses of brown algæ may be mentioned the kelp industries, formerly so profitable as the source of soda, and still yielding potash, iodine, and bromine. Algin, norgin, and tangin are patented products used as dressings for textiles, etc., as also are the mucilages extracted from red algæ. During the war acetone was produced on a large scale by fermentation of brown algæ in American munition factories, and used as a solvent for gun-cotton, etc. By a similar fermentation, alcohol can be manufactured in quantity for motor fuel. The Germans devised a "fuse" of *Laminaria* to explode shells falling into water. Algæ, though commonly eaten in Japan, China, and elsewhere, are really valueless as human food, but for domestic animals they have for ages been used as winter fodder. During the war French horses were successfully fed on a partial diet of algæ; the new food, though quite indigestible at first, gradually became assimilable, probably through the adjuvant action of bacteria or yeasts. Prof. Sauvageau's monograph is a welcome acquisition.

*Letters of Travel.* (1892-1913.) By Rudyard Kipling. Pp. vi+284. (London: Macmillan and Co., Ltd., 1920.) Price 7s. 6d. net.

WITH his faculty for noting the little significant things, as well as the big and striking things, Mr. Rudyard Kipling gives us wonderful pictures of life in America, Canada, and Egypt. Some of the letters are old—they are reprinted from periodical publications—but all are fresh in human interest, because they dwell on big, essential problems. The volume is Kipling at his best, without the "tobacco and blood" in which he often indulges, and with his wealth of illustration and telling incidents of travel. These short chapters give truer impressions of the lands they treat of than all the ponderous volumes of painstaking travellers, collecting facts and arranging statistics.

*Slide Rules and How to Use Them.* By T. Jackson. Pp. 30. (London: Chapman and Hall, Ltd.) Price 1s. 6d. net.

THE principles upon which the construction of slide rules depend are described in this pamphlet, and numerous examples are given of the methods of use of such mechanical aids to calculation.