

written by the manager of the Krian estate, is virtually a text-book of sugar-planting under the conditions obtaining in Java. In addition to its utility as a practical guide, it should prove of interest from the point of view of comparative agriculture, since, in Java, local circumstances call for an intensive form of cultivation which does not obtain in all sugar-growing countries. The fundamental principles of sugar cultivation, however, are the same in all producing regions, and they are clearly set out by the author. There are two sections of the book. The first part, which is introductory, deals with cultural conditions in Java, and affords a discussion on soils, manuring, and the botany of the sugar-cane; while part two furnishes a practical account of the cultural methods adopted on the Krian estate, including operations down to the harvesting and transport of the cane, and deals also with certain aspects of estate administration. The book is excellently illustrated with photographs and coloured plates.

*The Theory of Experimental Electricity.* By W. C. Dampier Whetham. (Cambridge Physical Series.) Third edition. Pp. xi+349. (Cambridge: At the University Press, 1923.) 12s. 6d. net.

To students with a limited knowledge of mathematics who desire a sound theoretical basis on which to build we can heartily recommend this book. The author writes in a most interesting and convincing way, and gives an excellent preliminary introduction to the latest electrical theories, as well as a clear account of the apparatus and methods used in an electrical laboratory. He points out that according to the electron theory, matter is an electric manifestation, and so the mass of a body must be explicable as electric inertia. The electric inertia of a magnetic field can be represented as due to the motion of electric tubes of force in the luminiferous ether. In this way electric inertia is in its turn "explained" as "mechanical inertia" of the hypothetical substance invented to enable our minds to form a rational picture of other physical phenomena. The author points out that, in a certain sense, simplification is thus attained. All natural phenomena are referred to the properties of the ether. Nevertheless, the mystery is but changed. We may have explained matter in terms of ether, but how are we to explain ether? The book closes with this question unanswered.

*Statistical Method.* By Prof. Truman L. Kelley. (Text-book Series.) Pp. xi+390. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1923.) 18s. net.

THIS volume by an educationist should be of great service to those who use statistical methods in any field, since it provides a summary of nearly all, if not all, the methods which have been proposed for measuring relationship. This seems likely to be its chief use, but it includes also a discussion of frequency distributions and of Pearson's set of curves, with chapters on index-numbers and other special applications. The study begins with data already collected, but the introductory chapters outline the principles of tabulation and graphical representation. Although problems are suggested in several chapters, the book can scarcely be regarded as a text-book for beginners,

being very condensed in many parts, with few worked examples, but rather is a critical survey. In the treatment of correlation much use is made of a symbol for  $\sqrt{1-r^2}$  as "coefficient of alienation." Appendices supply a list of symbols used, a bibliography—which is not up-to-date as regards editions of books—and an extended table of deviates of the normal curve. The index is small but useful.

*Eastern England: some Aspects of its Geography, with Special Reference to Economic Significance.* By John Bygott. Pp. xv+358. (London: G. Routledge and Sons, Ltd., 1923.) 6s. net.

In this book the author has attempted with a large measure of success to make a geographical study of agricultural England, devoting his attention to East Anglia and Lincolnshire. The study is comprehensive and thoroughly geographical. In no aspect of the subject does Mr. Bygott lose touch with the effects of location, relief, soil, and climate, and he considers the region in the past as well as the present. The volume rises far above the rank of the ordinary text-book as a serious contribution to the regional geography of the British Isles. There is a little overlapping in places; occasionally condensation would not be amiss; and it might facilitate the use of the book if some of the statistical matter was arranged in tabular form; but these are all minor points, and do not materially detract from a useful volume. The numerous sketches are not the strongest part of the book.

R. N. R. B.

*The First Days of Man: as Narrated quite simply for Young Readers.* By F. A. Kummer. (The Earth's Story, 1.) Pp. 293. (London: Hodder and Stoughton, Ltd., 1923.) 7s. 6d. net.

ALTHOUGH this little book does not call for extended notice, it is worth mention as a type of educational work which is more common in the United States than in Great Britain. After a preliminary chapter dealing with cosmic evolution, it gives the main outline of the development of civilisation up to the end of the Stone Age in a logical order and an attractive form suitable for quite young children. In the whole it keeps fairly closely to accepted fact and theory, while avoiding the more formal methods usually adopted in the elementary introductions to the results of archæological study which have hitherto been offered to the British public.

*An Introduction to Mining Science: a Theoretical and Practical Textbook for Mining Students.* By J. B. Coppock and G. A. Lodge. (Longmans' Technical Handicraft Series.) Second edition. Pp. xi+252. (London: Longmans, Green and Co., 1923.) 4s.

THIS book provides a sound and interesting course in elementary science, from the point of view of the needs of miners. It is clearly written, and is well printed and illustrated. The experiments are carefully described, although it is questionable whether a large class should prepare small specimens of nitroglycerine, and then pour them down the sinks, as directed (p. 186). In the experiment on p. 120, a bit of "compo" tubing is less likely to do damage than glass. The technical matters are well explained, and the book will be useful.