

The Grasses of Mauritius and Rodriguez

By C. E. Hubbard and Dr. R. E. Vaughan. Pp. 128. (Mauritius: Director of Agriculture; London: The Crown Agents for the Colonies, 1940). 4s. 6d.; 3 rupees.

MAURITIUS and Rodriguez, alas, so far as their native vegetation is concerned, afford sad examples of the results of human activity in developing a country for its economic possibilities. Sugar cane cultivation and plantations of other exotics have changed the face of the islands with the result that, in place of the original forests of indigenous trees, scrubs and thickets now occupy much of the ground not devoted to plantations. In this change the native grasses have naturally suffered, and many exotic ones have been introduced, and, as is so often the case, have tended to oust the native species, so that, except by studying carefully the habitat of a particular species and its distribution in the island, it is by no means easy to say whether a particular genus or species is a native or not. Seven endemic species are known, but they may not now all exist. Interesting particulars of the indigenous grasses are given in the introduction, and full descriptions, with useful figures of some of them, form the bulk of this useful volume. Excellent keys to the tribes and genera precede the descriptions, and notes are given on the economic uses of the native grasses. There is also an account of the structure and classification of grasses with good text-figures, which should enable anyone to become familiar with the structure of the grass flower and the points used in describing and classifying the genera and species.

The preparation of this account is a valuable piece of co-operative work by the field botanist, with an extensive knowledge of the ecological conditions in Mauritius and Rodriguez, and the herbarium botanist, who has made a critical examination of the specimens, and from his extensive knowledge of the world's grasses has been able to determine which may be indigenous and which introduced.

Since it is becoming necessary to convert waste areas, now dominated by scrub, into grazing lands and pastures, an exact knowledge of the grasses which occur in the islands and of their economic value is most desirable.

The authors are to be congratulated in having produced so useful a piece of work, and also the Government of Mauritius for their wisdom in making its preparation possible, both by their encouragement and by a grant towards its publication.

A. W. H.

Elektrische Höchstspannungen

Von Dr. A. Bouwers. (Technische Physik in Einzeldarstellungen, herausgegeben von W. Meissner und G. Holst, Band 1.) Pp. ix+344. (Berlin: Julius Springer, 1939.) 31.20 gold marks.

THIS book is highly recommended to anyone interested in the technique of high-voltage or high-frequency apparatus and testing, or who is seeking a comprehensive outline of current practice in this rapidly developing branch of electrical technology. It is very well illustrated with 239 explanatory dia-

grams and photographic reproductions of actual apparatus of recent construction. There is a valuable bibliography, containing 324 references, and an excellent index.

The opening sections are devoted to the theory of high-voltage transformers, cascade connexions, high-frequency transformers, coupled circuits and surge generators, with illustrations from American and Continental practice. The Van de Graaff generator, the cyclotron and apparatus for "Der Blitz" are described. Parts 2 and 3 deal with the theory of electric fields, associated with this class of apparatus, and insulating media respectively, and are supported by good illustrations of modern terminal constructions, bushings and condensers. Valve generators of the Marx and other types are described in Part 4, and the remaining two sections of the book outline, in brief, methods and apparatus for measurements, rectifier tubes, auxiliary apparatus, feeder-circuits and their lay-out for radiography. The latter portion of the book rather tails off, so that it cannot be recommended as a treatise for radiographic technology. The printing and general production of the book leaves nothing to be desired, but its price is excessive.

Concise General Astronomy

By the Rev. O. R. Walkey and Dr. H. Subramania Aiyar. Pp. vii+442+8 plates. (Trivandrum: Sridhra Printing House, 1940.) n.p.

AFOREWORD in this book has been written by Sachivottama Sir C. P. Ramaswami Aiyar, Dewan of Travancore and Vice-Chancellor of the University of Travancore. It is claimed in this foreword that the work deals adequately though briefly with the new concepts as to space, time and relativity—a claim which is justified in spite of the fact that mathematical formulæ are practically omitted. Much important up-to-date information has been included in the text, and an excellent index greatly enhances the value of the book. The appendixes and tables—twenty-five altogether—supply a large amount of useful material in a very concise form on various astronomical matters; some of these deal with Hindu astronomy and show how extensive was the Hindu knowledge of the subject. The work will fulfil its author's aim, "to rouse an intelligent interest in the sublime but generally ignored subject of Astronomy".

Hilfsbuch für das Sammeln und Präparieren der niederen Kryptogamen

Von Prof. Dr. Gustav Lindau. Zweite, neubearbeitete Auflage, von Prof. Dr. O. C. Schmidt. Pp. vii+93. (Berlin: Gebrüder Borntraeger, 1938.) 3.60 gold marks.

IN this useful little handbook, now in its second edition, an account is given of the methods to be employed in the collection and preparation, for herbaria and for subsequent examination, of the lower Cryptogams, sections being devoted to the special requirements of terrestrial, freshwater and marine algæ, myxomycetes, fungi, lichens, mosses and liverworts.