

there given (1452° and 1755°) have since been almost universally accepted. Also, in view of the thorough work of Prof. Callendar on the specific heat of water, it is somewhat surprising to find that the values given are "the mean of various determinations, including Calendar and Blonsfield, 1912"; one frequently observes that the names of observers are misspelt as in this quotation.

It is hoped that before the next edition is issued the various sections will be submitted to expert scrutiny, for the value of the book would be greatly enhanced if the user could feel sure that the most trustworthy data are quoted.

E. GRIFFITHS.

Our Bookshelf.

Illustrations of the Flowering Plants and Ferns of the Falkland Islands. By Mrs. E. F. Vallentin. With descriptions by Mrs. E. M. Cotton. Pp. xii+64 plates+text+ii. (London: L. Reeve and Co., Ltd., 1921.) 84s. net.

SINCE the publication of Sir J. D. Hooker's "Flora Antarctica" much progress has been made in the study of the Falkland flora and from a taxonomic standpoint it may now be said to be well known. Nevertheless, a well-illustrated compact flora has been a desideratum and it is thus additionally unfortunate that owing to a serious breakdown in health the completion of Mrs. Vallentin's work has been indefinitely postponed. The volume now under notice contains 64 plates illustrating in colour, and with excellent dissections, many of the most characteristic Falkland plants. Each plate is accompanied by a short description of the family, genus and species. It seems a pity that with the space available fuller descriptions and more detailed ecological notes have not been provided. The repetition of the description of the family appears to be unnecessary; thus the same diagnosis of the Compositæ is repeated eleven times.

The work as a whole illustrates many of the essential features of the Falkland Islands flora. The predominance of dwarf herbaceous and subshrubby perennials, especially characteristic of steppe and heath formations, is emphasised both by the plants chosen for illustration and by the small number of therophytes and the absence of phanerophytes, except for a few nanophanerophytes.

We have no doubt that this work will prove most useful to inhabitants of the Falkland Islands who take an interest in the natural history of their country by enabling them to identify easily many of the common plants around them, and that it will also be used in a more general manner by workers in systematic and geographical botany in other countries.

W. B. TURRILL.

The Microscope: Its Design, Construction and Applications. A Symposium and General Discussion by many Authorities. Edited by F. S. Spiers. Pp. v+260+plates. (London: Charles Griffin and Co., Ltd., 1920.) Price 21s. net.

THE addresses and papers given in 1920 at the conjoined meeting of the Faraday, Royal Microscopical,

Optical and Photomicrographic Societies and Technical Optics Committee of the British Science Guild are gathered together conveniently in the volume under notice. All the papers are by specialists in their respective branches and the whole constitutes a valuable contribution to microscopical science. The President, Sir Robert Hadfield, in his introductory address traced the history of the development of the microscope, and papers on the earliest steps in the invention of the microscope and on the history and design of photomicrographic apparatus are contributed by Dr. Singer and Mr. Martin Duncan respectively. The future of the microscope is dealt with in suggestive papers by Mr. Barnard and Mr. Schneider, while Profs. Cheshire, Conrady and Porter discuss the mechanical design and optics of the instrument. Many experts in their particular subjects give practical details on the application of the microscope in fermentation industries, in petrology, metallurgy, engineering and metrology. Methods of illumination, the testing of objectives, and optical glass and its manufacture are other subjects dealt with. In addition to the papers themselves, a summary of the discussions following their reading is included and the volume is illustrated with many plates and figures. The work, which has been ably edited by Mr. Spiers of the Faraday Society, is indispensable to any one desiring to follow the trend of the modern developments of the microscope and of microscopical science.

R. T. H.

Introduction to the Study of Minerals and Guide to the Mineral Collections in Kelvingrove Museum. By Prof. P. MacNair. Second edition. Pp. viii+94+1 plate. (Glasgow: Hay Nisbet and Co., Ltd., 1921.) 1s.

PROF. MACNAIR is to be congratulated on having introduced many improvements in the second edition of his useful guide-book. The figures illustrating the crystal-forms are much more accurate than those published in the first edition, though there are still a few which should have been replaced. The part dealing with crystallography has been much increased and the systems have been subdivided into groups, the introduction of which in place of the classes of the accepted systems of crystallography is rather confusing.

The guide includes a clear account of the optical and other properties of minerals, a description of some of the commoner species, a glossary of terms, and a list of species in the collection. The book is based very much on the lines of Fletcher's "An Introduction to the Study of Minerals," of which the fifteenth edition is still used as the guide to the Mineral Department of the British Museum (Natural History). It will be noted that Prof. MacNair in Glasgow has produced his book at sixpence less than the price of the British Museum Guide.

The Secrets of the Self. (Asrâr-I Khudî.) A Philosophical Poem. By Sheikh Muhammad Iqbal. Translated from the Original Persian with Introduction and Notes by Dr. R. A. Nicholson. Pp. xxxi+147. (London: Macmillan and Co., Ltd., 1920.) Price 7s. 6d. net.

THIS poem has an interest beyond that of its artistic form or æsthetic content, for it reveals the effect on the oriental mind of contact with the culture and philo-