

important. The copy before us is bound as a single volume, but we understand that the work is now bound in two volumes and will be supplied in this form only, which is certainly the better way in view of the intent that Parts II. and III. are to serve as a local guide-book. For such a purpose the single volume is decidedly too bulky.

As a point of minor criticism, we may note that the dual authorship is curiously exemplified by the numerous instances in which the senior author is referred to by name or in the third person, a construction which unnecessarily accentuates the duality.

G. W. LAMPLUGH.

### The Falkland Islands.

*The Falkland Islands.* By V. F. Boyson. With Notes on the Natural History, by Rupert Vallentin. Pp. 414+24 plates. (Oxford: Clarendon Press; London: Oxford University Press, 1924.) 15s. net.

EARLY in the sixteenth century a group of islands to the east of Patagonia began to appear on charts. It is not clear who first sighted them, but Miss Boyson is inclined to give the honour to Amerigo Vespucci and to identify with the Falkland Islands the land which the Florentine astronomer claimed to have discovered in 1502. In any case, the history of the Falklands did not begin until the voyage of Cavendish and Davis in 1592. From then until the battle of the Falklands, Miss Boyson traces the varied history of the islands and the adventures of rival whalers and settlers which led to the curious claim of the Argentine to the sovereignty of the group, a claim that was maintained long after they had become a British colony inhabited entirely by British settlers.

From a scientific point of view, the second half of the book is of most interest in its full treatment of the cattle and sheep-farming and of the sealing and whaling in Falkland waters. To these chapters are added others on the climate and natural history. The cattle introduced by the early settlers eventually ran wild, but were gradually exterminated as sheep became the chief interest of the settlers. This occupation also led to the extermination of the Falkland Islands fox, which was said, with good reason, to attack and kill sheep. Whaling has now left the islands for the dependencies, and fur-sealing for many years has been prohibited on Falkland coasts in an attempt to preserve the few remaining fur seals, but in the past both occupations largely influenced the history of the islands.

The chapters on natural history are by Mr. R. Vallentin and are based on his own work and collections with some, but not complete, references to other

workers in this field. The chapters on climate, stone rivers, and flora are, however, apparently by Miss Boyson. The remarkable stone rivers were originally attributed to volcanic action but now are generally explained by a downward creeping movement of water-logged soil, a process of solifluction during the ice age when the climate was not cold enough to allow glaciers to form but permitted a thick snow covering in winter. Miss Boyson scarcely touches on the problem of the former connexion of the Falklands with the arc of folding connecting South America with Graham Land. A problem of interest which she discusses is the so-called forest bed of coniferous tree-trunks discovered at West Point Island some years ago. Opinion now inclines to the belief that it is built of driftwood. If it is not, it certainly points to a change of climate in quaternary times. The volume is beautifully illustrated and provided with a good map. The historical part in particular is well documented. Altogether it is a work of great value and fills a distinct gap among authoritative works on the British Empire.

### Our Bookshelf.

*Handbuch der Pflanzenanatomie.* Herausgegeben von Prof. K. Linsbauer. Allgemeiner Teil: Cytologie. Band 1: Die Plastiden. Von Dr. Paul N. Schürhoff. Pp. iv+224. (Berlin: Gebrüder Borntraeger, 1924.) 14s. 9d.

THE volume under notice is one of a series on plant anatomy and cytology. Plastids are probably the most characteristic bodies in plant, as contrasted with animal, cells. As a compilation of nearly all that is known concerning the structure and physiology of plastids, this work will fill a useful place. The extent of the literature bearing on the subject may be judged from the literature list of more than 700 titles. The great range of plastid form and structure is considered for the different groups of plants, including leucoplasts and elaioplasts as well as the various forms of chromatophores. Under the heading "Constituents of Plastids" the chemical composition of chlorophyll and other pigments, such as fucoxanthin and the carotinoids, is briefly considered. The physiology of chloroplast movement and of greening are discussed, as well as such subjects as "complementary chromatic adaptation." Carbon assimilation, which has its seat in the chloroplasts, is considered at length as a process, and also in relation to the internal physiology and the external environment (light, temperature, and carbon dioxide content) of the plant.

In the final section on the "pathology of plastids" the phenomena of chlorosis, mottling, chimæras and similar topics are included. In this connexion not only the histological structure but also the hereditary behaviour is discussed. The relation of plastids to mitochondria is also considered in another part, but there is no allusion to the important work of Lindstrom and others on the inheritance of plastid differences in varieties of maize.

R. R. G.