

British Trees

A Guide for Everyman. By Miles Hadfield. Pp. xxv+468 (150 full-page drawings). (London: J. M. Dent and Sons, Ltd., 1957.) 30s. net.

MR. M. HADFIELD has produced a thoroughly reliable and readable book on the trees to be found in the British countryside, in plantations and in gardens. "British Trees" is perhaps a misnomer for a book that describes the 'monkey puzzle', Douglas fir, Japanese larch, Atlantic cedar, deodar, Bhutan pine, Corsican pine, Monterey pine, tulip tree, catalpa and dozens of others which are not indigenous to Britain but are perhaps so common as almost to be considered native. The arrangement followed is that of Rehder in his "Manual of Cultivated Trees and Shrubs". Each species treated is illustrated by clear line drawings to scale which show the leaf, long and short shoots, buds, flowers and fruit. These should render identification easy. The text gives a description of the species and also much interesting and entertaining information about the tree, its variations and its forms. The diseases and pests to which the species are prone are also mentioned.

The book is well got up and printing errors and mis-statements are few, though the compositor went astray with the epithet 'bignonioides', since the variants 'bignoniodes' and 'bignonioidies' are to be found in the index. *Gleditsia* is recorded as having a smooth bark. That may be true, provided one disregards the fearsome branched thorns one finds upon it.

The author holds strong views about botanical nomenclature. "Botanical nomenclature, unlike botanical classification, is empirical, unscientific, and occasionally grossly misleading." I, myself, hold strong views about his strong views and will be content to call this statement grossly misleading. This clash of opinions will not prevent me from recommending this work as a really excellent reference book, which should find its place on the shelves of every tree lover.

N. L. BOR

New Pathways in Cellular Pathology

By Prof. Gordon Roy Cameron. Pp. vii+90. (London: Edward Arnold (Publishers), Ltd., 1956.) 16s. net.

IN 1954 and 1955 Prof. G. R. Cameron gave two lectures in Leeds and Dublin on the cell, which aroused so much interest that he was persuaded to expand them into a monograph, and this attractive little book is the result. He summarizes modern views on the different parts of the cell, with chapters on cell-surface, cytoplasm, nucleus, mitochondria, microsomes and other cell components. There are forty-two figures showing sections of tissues, enlarged with optical microscopes and with electron microscopes, and diagrams of cell structure and of biochemical changes. The whole book can be read in an hour or two, and it gives an interesting picture of the way modern pathologists have not only been able to use new techniques to extend our knowledge of structure but have also started to find out something about the biochemical functions of the different structures.

Some of the best parts of the book are based on work done in Prof. Cameron's own laboratory and cover a wide range of topics. In recent years he and his colleagues have, for example, shown that some of the effects of thioacetamide on the respiration of

liver cells are due to the accumulation of calcium in the liver. They have obtained evidence that much of the damage done by carbon tetrachloride is due to physical changes in the mitochondria, which lose coenzymes and eventually become converted into vacuoles. They have managed to produce copper deficiency in rats, and found it to be associated with a failure to synthesize phospholipid and eventually with loss of cytochrome oxidase in the mitochondria. Such studies are throwing fundamental light on pathological processes. This book opens the window to a view of the pathology of the future.

J. H. GADDUM

Le Ciel et la Terre

André Danjon, Pierre Pruvost, Jules Blache (Directeurs). (Tome III de l'Encyclopédie Française.) Pp. 452+32 planches. (Paris: Librairie Larousse, 1956.) Cartonnage souple, 7,450 francs; similoid, 8,850 francs; parchemin véritable, 11,950 francs.

IN this unusual volume, thirty-six leading French astronomers, geologists and geophysicists have co-operated in the production of a remarkably complete and readable guide to modern developments in their respective fields. About one-third of the book (140 large quarto pages of text and most of the plates) is devoted to astronomy and is divided into four sections: "The Earth and Solar System", "The Sun and Stars", "Galaxies" and "Evolutionary Problems". The remainder is divided into three sections: "The Terrestrial Globe", "The Earth's Crust", and "The Formation of the Earth's Relief". Each section is divided into one or more chapters, which in turn contain articles contributed by various authors. The book is bound in a loose-leaf filing system, so that it may be kept as up to date as possible by adding further articles from time to time as they are published.

The authors have succeeded in compressing a large amount of information into a few words in such a way that the results and the main lines of argument stand out very clearly; the reader is then referred to other works for the detailed theoretical and experimental developments. The emphasis is on the results of recent research throughout, the more 'classical' fields being only briefly summarized. The illustrations are excellent, and the editors have succeeded in welding the various contributions into a coherent and unified text. Only the bibliography (at the end of the book) appears to be somewhat too restricted.

BERNARD PAGEL

Reports on the Progress of Applied Chemistry
Vol. 40, 1955. Edited by H. S. Rooke. Pp. 1000. (London: Society of Chemical Industry, 1956.) 60s.

THIS very useful annual review of progress in chemical industry continues to maintain its position as a guide to a very large field of work. The articles are written by specialists and cover the literature very adequately. The one on the corrosion of metals, for example, dealing with the work of one year, has 150 references. In some cases, as in the section on animal and vegetable oils, there are summarizing tables. There is an interesting description of radioactive tracer elements, and the section on synthetic fibres records progress in this field. Very complete indexes make it easy to find information on any topic dealt with in the book.

J. R. PARTINGTON