

Stainless Iron and Steel

By J. H. G. Monypenny. Vol. 2: Microstructure and Constitution. Third edition, revised. Edited by Prof. F. C. Thompson. Pp. xii+330. (London: Chapman and Hall, Ltd., 1954.) 55s. net.

PUBLICATION of the present volume completes the issue of the third edition of this well-known work, and it is a marked reflexion on economic conditions that Vol. 1, issued in 1951, has approximately two hundred pages more than the present volume, which yet costs 10s. more. Earlier editions were contained in one volume; but the considerable developments which have since occurred in the subject-matter have made two volumes necessary. Whereas the first deals with industrial and technological aspects, the present one is concerned with more fundamental considerations, namely, with the metallography of stainless and heat-resisting steels.

This work will need no recommendation to those already familiar with earlier editions. However, to others it must be emphasized that here is a well-written and careful account, expressed as simply as possible, which no one concerned with the metallurgy of stainless iron and steel can afford to ignore. Nevertheless, it is necessary to point out that the literature references are not as recent as they might be, presumably due to the unfortunate death of the author before the book was in its final form. Thus there are only four references to work published after 1943, the latest being dated 1949. A. R. BAILEY

L'heure H, a-t-elle sonné pour le Monde ?

Effets accumulatifs des explosions nucléaires. Par Charles-Noël Martin. Pp. 255+8 plates. (Paris: Bernard Grasset, 1955.) 540 francs.

THE author, M. C.-N. Martin, is concerned with the global effects of nuclear weapon tests. The main theory dominating the book is that scientists are playing with the unknown and may be exacting a heavy toll from future generations by destroying the delicate balance of Nature. The first half of the book is historical and deals with the development of nuclear technology up to the construction and testing of thermonuclear weapons. The data on the nominal atomic bomb are taken directly from the official United States publication, "The Effects of Atomic Weapons".

The second half of the book discusses the future. M. Martin defines his own position as that of the theoretician who, as distinct from, say, the specialist nuclear physicist, must survey the whole field of physics and consider all the aspects of continued weapon tests which might affect the future of mankind. He admits that it is virtually impossible for a physicist of this generation to do so efficiently, since his knowledge is not adequate; but it is "surcly better to make rough estimates and to learn later that they were over-estimates rather than the reverse". This gives him his justification to proceed; but the main weakness of the following chapters is that no estimate in the real sense of the word is made at all. The reader is left to draw his own conclusions from a list of numbers and vague possibilities, with the vital links always missing. Yet much information has been published both in the United States and elsewhere from which realistic estimates could have been made of some of the effects which M. Martin describes in general terms only. Such estimates would have enabled him to consider the potential

hazards in their true perspective and to separate the real problems from the imaginary. This procedure might well have been followed for the problems raised by the global deposition of fission products, plutonium, nitric acid and carbon-14 and by the screening of solar radiation by explosion dust, to name a few.

His general arguments are not always consistent. For example, he uses incompatible models of atmospheric diffusion to support his contentions on the hazards associated with dust and with nitric acid. There are several errors of fact in the book, and some of his suggestions are far-fetched, as on p. 169 in which he suggests that nuclear weapon tests may be responsible for the appearance of flying saucers.

N. G. STEWART

Heterocyclic Compounds with Indole and Carbazole Systems

By Ward C. Cumpster and F. M. Miller. (The Chemistry of Heterocyclic Compounds—Vol. 8.) Pp. xii+307. (New York: Interscience Publishers, Inc.; London: Interscience Publishers, Ltd., 1954.) 10 dollars.

THIS is the eighth volume to be published in the Weissberger series of monographs on heterocyclic compounds. It presents a clear and fairly concise account of fundamental indole chemistry embracing indole, indoline and carbazole derivatives, with separate chapters on oxygenated indoles such as oxindole, isatin and indigo. Apart from the systematic survey, the most notable feature—and one not characteristic of the series—is the inclusion of alkaloids as a topic. This occupies almost a third of the book, all the major types of indole alkaloid being represented and briefly discussed from the structural point of view. The authors aim at a comprehensive rather than exhaustive treatment, with literature coverage including the year 1952.

The reader who is familiar with earlier volumes of the series may miss the documented lists of individual compounds, which there supplemented the more general descriptions: on occasion, he may even be a little disconcerted when his search for detail leads from a rather slender index to a single line of text and thence to a massed array of references set at the foot of the appropriate page. Yet the book will be valued as much for its content as its clarity; and, in particular, the section on indole alkaloids, although lagging already behind recent developments, may be commended to all who seek an introduction to this complicated subject.

Badgers' Year

By F. Howard Lancum. Pp. vii+71. (London: Crosby Lockwood and Sons, Ltd., 1954.) 6s. 6d. net.

THE year's cycle of behaviour in a family of badgers is the theme of Mr. Howard Lancum's new book. It relates his observations at a sett in a Devonshire wood from April 1952 until March 1953, during which time he spent many nights or parts of nights (forty-six to be precise) watching the inhabitants. He stresses and re-stresses what has long been the contention of field naturalists, that the average, normal badger is harmless to man, very occasional cases of poultry-slaying being the work of eccentric individuals that can rightly be termed 'rogues'. The book is illustrated with excellent photographs taken by the author, including many flashlight pictures of the badgers, both old and young. FRANCES PITT