Magnetic Materials in the Electrical Industry

By P. R. Bardell. Second edition (revised). Pp. 320. (London: Macdonald and Co. (Publishers) Ltd., 1960.) 32*s*. 6*d*. net.

THE scope of this book is precisely indicated by its title: it is about magnetic materials, not about magnetism, and it describes their uses rather than, though not to the exclusion of, their general properties. There is a further restriction: the author's interests are mainly in communications and his book is biased accordingly. He is an engineer and his book is primarily for engineers, although it might also interest a physicist who wants to find out the technical relevance of some of the properties he measures. This prying physicist would occasionally raise his eyebrows; for example, at some diagrams of magnetic domain boundaries of types recognized since about 1950 as impossible; but one or two such slips do not affect the general practical usefulness of the book. The only serious lapse is that the author thinks that manganese-zinc and other double ferrites are used for the sake of increased permeability rather than for increased flux-density.

The text uses trade names freely, and for many readers this will be helpful. The book is generously illustrated, both with diagrams which are good and with photographs which do not really add much to the text. The contents pages and index are good. One gem of over-zealous editing is included: a 10^{11} in the manuscript was presumably rendered by the typist as 10" and now appears as 10 in. Fortunately this is not typical; the proof-reading is good and the book is well produced. It packs a great deal of information into a reasonable space and within its intended limited scope it is to be recommended.

A. C. Lynch

The Physiology of Crustacea

Edited by Talbot H. Waterman. Vol. 2: Sense Organs, Integration, and Behaviour. Pp. xiv+681. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1961.) 23 dollars.

THIS volume completes the survey of physiological processes in Crustacea which was so well begun by the volume published last year. There are thirteen chapters written by separate authors dealing with a wide range of topics, but all related in some way to the means by which a crustacean receives information abouts its environment and the ways in which it responds to this information. The general standard of these chapters is excellent; the two middle chapters by Wiersma on the neuromuscular system and the central nervous system are particularly valuable. They provide a link between the chapters dealing with sensory perception and the chapters on locomotion and complex behaviour. The link is by no means complete yet, but the crustacean nervous system is most economically organized and contains relatively few neurons so that it offers the possibility of a type of analysis which would be much more difficult to achieve in vertebrates. The fourteenth chapter is an attempted synthesis of the two volumes, and might almost be described as a philosophers' guide to comparative physiology.

As in the first volume one is impressed by the amount already known about the physiology of the Malacostraca, and the Decapoda in particular, but one also gains a strong impression that the lower Crustacea are greatly in need of more detailed study. This is one of the great strengths of the book; the gaps in our knowledge are clearly shown.

In a work of this size it is inevitable that a few minor errors should creep in; *Limnadia*, for example, is not a notostracan as might be inferred from Table 1 in the first chapter, and the young stages of *Bosmina coregoni* would not generally be regarded as metanauplii. These errors do not detract from the great achievement of the editor in bringing together these excellent summaries. The information presented and the detailed bibliographies make this book essential to every student of the Crustacea, and provide the general zoologist with a detailed, up-to-date account of the nervous system and behaviour of this large group.

J. Green

Sound Production and Sound Reception by Insects

A Bibliography. By Mable Frings and Hubert Frings. Pp. vi+108. (University Park, Pennsylvania: Pennsylvania State University Press, 1960.) 4 dollars.

THIS is a bibliography which will prove useful to the increasing number of students of sound production and hearing in insects. It includes 1,752 titles, and is tolerably complete up to the end of 1957. No annotations are provided but a simple set of symbols indicates the ground covered by each paper or book quoted. The bibliography proper is followed by two indexes which refer to the numbered entries in the bibliography; one is classified under the orders and families of insects, the other under the types of organ used for sound reception. The authors proceed on the assumption that any mechano-receptor may on occasion be brought into service for the detection of waves, vibrations or rapid barometric changes in the surrounding medium, and may serve as an occasional organ of hearing. The bibliography therefore covers a wide field. Modern methods of recording and analysing sounds have attracted more workers into this field in recent years; the present compilation should be widely used.

V. B. Wigglesworth

Doctors and Disease in Tudor Times

By W. S. C. Copeman. Pp. xiv+186+13 plates. (London: Dawson's of Pall Mall, 1960.) 42*s*.

THIS book can be read with pleasure, profit and interest. It is also a book to have by you so that it can be read or referred to again and again.

It begins well with an introduction that is unusual because it is good; it is in itself a concise essay on the importance of, and justification for, presentation of medical history.

The first chapter is especially acceptable because it gives an excellent review of the history not only of medicine but also of Europe as well. The evaluation of the profession is thus presented in its relation to the whole pattern of life and society.

As a whole this book contains in a concise yet clear and readable form valuable information about the historical evaluation of medicine that makes one somewhat disturbed, even ashamed, that it is not generally completely known, so fundamental is it.

In some chapters a certain amount of repetition indicates the origin of the book in separate lectures. While this is noticeable when the book is read as a whole it would not be noticeable when it is used for reference, and in this way the repetition is in fact likely to be helpful.

The author is to be congratulated on such a scholarly, interesting and eminently readable book.

Russell Brock