

and only moderately accurate notes concerning tinned ware. The 'stainless' ferrous alloys, aluminium, and copper and its alloys are, however, treated adequately. Even here, the lack of specific references (which the general bibliography, although excellent for further reading on corrosion, does not ameliorate) makes the following up of the condensed information impossible.

Another irritating feature of the book is the inadequate translation, especially of much of the established corrosion terminology. No one would defend corrosion jargon except as convenient usage; but terms found in the book such as 'gap corrosion', 'economical pickling additions', 'refinement of potentials', 'oxidizing covering layer', 'pittings', are no improvement. The great number of misspellings, misprints and mis-hyphenations may also distract the reader.

Despite these numerous faults, corrosion specialists and chemical engineers should consult the book for hints on new problems, for admittedly such consultation might sometimes save many months of work.

T. P. HOAR

British Bird Books

An Index to British Ornithology, A.D. 1481 to A.D. 1948. By Raymond Irwin. Pp. xix+398. (London: Grafton and Co., 1951.) 63s. net.

THIS book is a model of painstaking industry. The author, Mr. Raymond Irwin, says it is "intended as a practical tool for the working ornithologist", to whom it will certainly be most helpful.

The volume is divided into five parts: subject lists, the subjects ranging from bibliography, through ecology, territory and photography, to falconry, etc; regional lists; a systematic list; index of authors; and an index of subjects, species and places. There are also two appendixes, the first consisting of the addresses of national societies, unions, periodicals, etc., while in the second is to be found a supplementary list for 1949-50, with index.

The short introduction affords interesting reading with its review of present-day ornithology. As Mr. Irwin very truly says, "The interest in field ornithology which in recent years has spread to so many thousands of amateurs has coincided with a change of emphasis in the science of ornithology itself. Interest has shifted, or rather developed, from the study of the dead bird to the study of the living organism". This aspect of modern ornithology is illustrated in the index by the many pages devoted to listing books bearing on it. But from whatever angle an ornithologist views birds, this book will aid him in his work.

FRANCES PITT

Totem Poles

(Canada: Department of Resources and Development, Development Services Branch.) National Museum of Canada, Bulletin No. 119. Anthropological Series No. 30. By Marius Barbeau. Pp. xii+434. (Ottawa: King's Printer, 1950.) 2.50 dollars.

THIS is a very useful and interesting book by one of the chief authorities on the subject. It consists of an introduction, followed by sections dealing with individual types of pole, classified according to the principal objects represented on them. The introduction is the most valuable part for the general reader. It sets forth, clearly and

concisely, the facts about the growth of the art of wood carving, which is much more recent than is generally believed; in fact, both the scale of the carvings and many of the motifs are due to contact with the white man, his tools and his ideas, while the style remains strictly indigenous.

The remaining sections, forming the bulk of the book, comprise descriptions of individual poles and of the legends and folklore which have grown around particular crests. This part is a mine of interesting information, but the arrangement leaves something to be desired. There is no index, and it is sometimes difficult to find where an illustration is referred to in the text; in fact, I failed to find any reference whatever to some of them. This is described as Vol. 1; it is not clear what subjects future volumes will deal with, but it is to be hoped that they will include a comprehensive index.

The preface claims that the volume includes some notice of all known totem poles, house posts and frontals, but it is inevitable that some should have escaped the author's notice, particularly among those now outside Canada. Two examples in the Museum of Archaeology and Ethnology, University of Cambridge, have been omitted: one is a fine Haida pole 48 ft. high, with a good many features in common with No. 42 in the book, and the other is a Kwakiutl Grizzly Bear house post; both were collected by W. A. Newcombe in 1926. Some confusion has arisen over the two poles in the British Museum (Nos. 8 and 9 in the list), both of which are described in the book as Eagle-Halibut poles, whereas only one actually falls into this category. This is due to the fact that one of the illustrations does not represent a specimen in the Museum.

G. H. S. BUSHNELL

Good Land from Poor Soil

By Edward Ringwood Hewitt. Pp. 137. (Trenton, N.J.: Trenton Printing Co., Inc., 1951.) 1.50 dollars.

THIS book is written primarily for farmers in the eastern part of the United States. The author in the course of a long life has managed to divide his energies between industrial chemistry, engineering and agriculture. His particular interest has been the reclaiming of worn-out or derelict grassland farms, building up their fertility and improving their output. His thesis is that 'land robbery' as a policy has now reached its natural end in the United States, since there is practically no new land to take up. The new task is to get the run-down land back into profitable cultivation, and this depends on a knowledge of the principles of soil fertility and the necessary capital to put them into effect.

Mr. E. R. Hewitt, while giving full credit to the advisory services and official bulletins and publications, takes the view that the fundamentals of soil fertility need restating in a compact form. Sections deal with soil acidity, organic matter and the major and minor nutrients. The background is provided by the author's own analyses of soils from his fields and the treatments with limestone and fertilizers that he has based on the results. British farmers would not find the book easy to read because they seldom think in terms of pounds of 'available' nutrients per acre, relying more on considered recommendations based on the soil examinations made by their specialist advisers. Apart from soil analysis, Mr. Hewitt's general conclusions in regard to the improvement of the yield and quality of hay and pasture are in general along lines familiar in Great Britain.