

translation of the name, with or without their foreign language title in brackets. Three such variations are found on one page in the section dealing with Turkey. Even more irritating is the way countries are listed under their subject subheadings in Part 2. For instance, under 'Mining—Journals' the sequence runs . . . United Kingdom, Yugoslavia, Morocco, Nigeria, South Africa, Southern Rhodesia, India, Japan . . . This does not, at first sight, appear to be an alphabetical arrangement. In fact it is the same order of countries used in Part 1, with those with no publications on the subject omitted, and without pause or space between the continental groups. It is most confusing. A simple alphabetical order would be an advantage in this part of the book.

Despite its faults, this book will be useful to those who wish to know where information can be obtained on the various countries of the world. Later editions will presumably be more accurate when those who feel slighted by wrong entry or omission have returned the form provided to the publishers.

J. W. BARNES

McDermitt (J. F.). *Minerals and Men*. Baltimore (Johns Hopkins Press), 1965. 158 pp. Price: 16s.

The early pages of this book are concerned with the place of minerals in modern society. The fixed nature of minerals in place, in amount, and in composition is stressed and is related to the users of minerals, the variation in demand (as for example between peace and war) and the state of technological knowledge. This book does what it sets out to do, which is to give 'an economic perspective to physical facts' in relation to minerals.

Under the heading of 'Commodity Studies', the steel industry, the base metals, the light metals, and industrial minerals and rocks are considered. Occurrence, complexity of needs, technology, and economic aspects are discussed. Some stress is laid on the great cost of mineral production. The copper of Peru, used as an example, points to the discovery in difficult terrain, the housing of skilled workers and families in townships with all ancillary services, the railroad construction to the coast where housing is needed along with the construction of piers and loading facilities for ocean-going transport.

The problem of the changing amounts of reserves is related to the changing patterns of technological practice and developing markets. The influence of politics is often touched on as in the case of manganese which the U.S.A. originally imported solely from the Soviet Union. When this

source stopped, the source became distributed among Brazil, India, Ghana, South Africa, and Mexico.

Under the heading 'How should we think about Minerals' there is a forward look at potential reserves, a consideration of the technological changes, particularly in discovery, with the advent of geochemical and geophysical methods. The changing economic scene is discussed, and finally, the author looks forward to a closer union of the peoples of the world and the elimination of danger from mineral shortages.

The book refers particularly to the American scene: it is well worth reading.

BRIAN SIMPSON

MERO (J. L.). *The mineral resources of the sea*. Amsterdam (Elsevier), 1965, 312 pp., 73 figs., 43 tables. Price: 60s.

This well-illustrated book is a generalized account of the mineral resources associated with beaches, the continental shelves, and sea-water itself, with a rather more specialized account of the resources of the ocean floor (manganese in particular). The approach to the subject is both practical and constructive. The author does not only describe the possible methods of mining the deposits and sampling them, but also estimates the costs of production and compares them with the costs of more conventional mining methods.

The book is well supplied with factual information in the form of tables: there are 65 pages of analyses of manganese nodules alone, perhaps too many for the type of reader the book is directed at. It is rounded off with a chapter on the legal and economic aspects of ocean mining, a chapter suggesting that there may be international disputes over mining rights that will make the disputes over fishing grounds appear petty squabbles.

This book is well worth reading by everyone concerned with mineral resources, both from the purely commercial and from the technical sides of the mineral industry.

J. W. BARNES

PARRISH (W.), editor. *X-Ray analysis papers*. Eindhoven (Centrex Pub. Co.), 1965, xi + 310 pp. Price: 44s.

The book contains 24 papers, which are reprints selected for use in the Philips X-Ray schools. It is an expansion of the first edition of 'Advances in X-Ray Diffractometry and X-Ray Spectrography' (Philips, Eindhoven; 1962), but includes 13 of the same papers (Nos. 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 16, 19, and 23). The extended section on X-Ray spectrography reflects the increasing interest and volume of data that is accumulating in this field. The last section of the book includes a silicon