

O'NEAL (R. A. H.). *Derbyshire lead and lead mining, a bibliography.* Matlock (Derbyshire County Library), 2nd edn, 1960. 68 pp.

This booklet will be valuable to anyone interested in the history of British metalliferous mines. The 457 entries range from Pliny and Agricola to the most recent works, and include manuscripts, university theses, newspaper articles, account books, etc., as well as published books and papers in scientific and caving journals. Many of these are preserved in the public libraries at Matlock, Buxton, Chesterfield, or Derby, and the whereabouts of most of the remaining items is also given. This second edition is excellently produced, with a good index. Since it already contains material only marginally relevant to lead-mining as such, its scope in future editions could be profitably extended to include more references to old papers on the mineralogy and geology of Derbyshire, such as are not readily traced through 'Mineralogical Abstracts' and other modern sources.

G. RYBACK

LAWSON (Katheryn E.). *Infrared absorption of inorganic substances.* New York (Reinhold Publishing Corporation) and London (Chapman & Hall), 1961. 200 pp., 54s.

Infra-red absorption spectrophotometry is finding many mineralogical uses, both in structural studies and as an aid to identification. Information, on the other hand, is scattered in the literature, and a need has been felt for some time for reference works, particularly on the interpretation of spectra of crystalline inorganic compounds other than co-ordination compounds. Unfortunately, this book goes only a short way to meet this need.

The main part (pp. 86-187) consists of a list of references to published work, chronologically arranged but otherwise unclassified, and taken mostly from 'Chemical Abstracts' for 1952-58, inclusive, with some additions up to April 1960; the scope of the papers referred to is also given, unless clear from the titles. In spite of an adequate index, the list is difficult to use unless, for example, the references are transferred to a card index. In the well-documented section on spectra-structure correlations (pp. 14-76), diatomic and triatomic molecules are well treated, although in a standard fashion common to many textbooks on physical chemistry. More complex structures are dealt with perfunctorily, and although it reflects to some extent the scantiness of the literature on this subject, this deficiency reduces the value of the section

to the mineralogist. The book will, however, save much time spent in the library for anyone making a start in this field. G. RYBACK

THOMAS (TREVOR M.). *The mineral wealth of Wales and its exploitation*. London (Oliver & Boyd), 1961, 247 pp. Price 30s.

This book, which gives a useful account of the mineral resources of Wales, falls unhappily between being a straightforward non-technical description of the deposits and a geological appraisal. One suspects that it was not written by a geologist; if this does Mr. Thomas an injustice, then he did not check his references thoroughly. His first reference to the classification of the South Wales Coal Measures (p. 15) quotes the obsolete division into Upper Coal Series, Pennant Sandstone Series, and Lower Coal Series without comment, rather than the now accepted classification which he gives on the next page. Any doubt that this may cause in the reader's mind is increased by the fact that on subsequent pages he uses a mixture of old and new classifications. There are many factual errors: the Middle Coal Measures are not 'the principal repository of the important coal seams' (p. 17); on the same page he seems to confuse the old Upper Coal Series with the present Upper Coal Measures when he says that 'within the . . . Upper Coal Measures the seams are generally thin in the eastern half of the coal-field'; in fact, the seams in the lower part of the Upper Coal Measures (particularly in the Rhondda and Brithdir Beds) are far more important in the eastern half of the field.

This reader was irritated by the use of a strange jargon, for example, 'the extractive potential of . . .' (p. 6); '200 operative small mines' (p. 13); 'The end-uses of sandstone . . .' (p. 114); 'output . . . of the extractive raw materials . . .' (p. 165); '. . . locally quartzitized . . .' (p. 148). The author could have assumed that his reader would understand if he used the term 'dip-slope' instead of 'low southwards dips being paralleled by a similarly-directed surface gradient' (p. 74).

In a list of new manganese minerals found in Benallt mine, the author misspells banalsite (as benalsite) and includes the barium mineral cymrite.

Mr. Thomas does not appear to be familiar with some aspects of mining and geological exploration techniques: although Dennison and Varvill's description of successful diamond-drill exploration is listed in the bibliography at the end of the chapter (and misquoted), he believes that 'core-drilling from the surface can be largely excluded