generally accepted ideas. It provides a short, clear and remarkably complete summary of the newer developments, and is, an agreeable surprise in a French book, adequately illustrated, though it still suffers from the poverty of index which is another unfortunate national characteristic. If available,

it should have a wide sale in Great Britain, since it is both cheaper than any other comparable text-book, and also provides the student with the essential information in a much shorter space than any of its competitors.

C. H. WADDINGTON.

REGIONAL GEOLOGY OF THE EARTH

Regionale Geologie der Erde

Herausgegeben von K. Andréé, H. A. Brouwer und W. H. Bucher. Band 2: Paläozoische Tafeln und Gebirge. Abschnitt 2: Northwestern Europe Caledonides. By Prof. E. B. Bailey and Prof. Dr. O. Holtedahl. Pp. 84 + 2 plates. 14 gold marks. Abschnitt 3: Mittel- und West-europa. Von Prof. Dr. Hans Becker. Pp. 114. 14 gold marks. (Leipzig: Akademische Verlagsgesellschaft m.b.H., 1938.)

IN this new "Regional Geology of the Earth", of which two parts are noticed here, there is to be presented a summary of the geological history of the earth's surface in which emphasis is placed more on tectonic and magmatic events than on details of stratigraphy. The division into regions for description is based upon tectonic history but, at the cost of some overlapping, complete geological accounts are to be given of each region. The work is intended for the trained geologist, and attention is therefore to be directed as much to unsolved problems as to criticism of materials already assembled.

The complete work is projected to consist of three volumes, the first dealing with the Ancient Coigns, the second with the Paläozoic Plateaulands and Folded Belts, the third with the Later Orogenic Belts. The two parts considered here belong to volume 2, and are concerned respectively with the Caledonian and Variscan mountain-building in Western Europe.

(1) The first part provides a summary of the geological history of the Caledonian fringe of north-west Europe. It deals with the margins, contents and fate of the Lower Paläozoic geosyncline which stretched from Spitsbergen through Norway into the British Isles. Prof. O. Holtedahl is responsible for the sections dealing with the Spitsbergen and Scandinavian portion of the geosyncline, and Dr. Bailey for the British portion.

For British readers, Holtedahl's account of a modern Scandinavian view is of particular importance. He supplies two plates of great value. The first of these is a correlation of the sedimentary series belonging to the Caledonian cycle in the Arctic and Scandinavia, the second a geological

map of the Scandinavian Caledonian zone on a scale of about 1 in 250,000. Amongst a multitude of interesting topics, two may be cited, namely, the importance of Eocambrian (Sparagmite) in the Caledonian zone, and the genetic connexion between high-grade metamorphism and Caledonian igneous activity.

Bailey's treatment of the British Isles is a marvel of compression, as it provides within some 30 pages a summary of British geological history from Lewisian to Pleistocene. This summary is embellished with excellent, if schematic, maps of Scotland, Ireland and North England and Wales. In so short an account it is necessary for the author to take sides in many controversial questions, but this is done fairly, especially in connexion with differences of opinion on Highland problems. Holtedahl's views on the importance of the sparagmite in Norway and on the Caledonian age of the metamorphism there are echoed by Bailey for Scotland, in that he suggests that the Dalradian may be sparagmite, and the Highland metamorphism Ordovician in age. These suggestions will be of great interest to Scottish geologists, who will doubtless reflect upon them.

References to literature are merely skeletal and there is no index—perhaps this latter is not needed for a 75-page account.

(2) Prof. Hans Becker deals with the Variscan and Saxon tectonics of Western Europe. He gives a summary of the pre-Variscan elements, the Variscan folds, Paläozoic magmatic history and the folding of Saxon style, and carries the geological history up to the present day. Whether one admits or not the justification of so compressed a summary as Becker gives, one is nevertheless rewarded by the last half-dozen pages of this part. Here brief mention is made of a series of interesting topics—the Variscan magmatic cycle, the meagreness of the Variscan geosyncline, the consequences of this and the source of the geosynclinal fill, some general criticism of the geosynclinal-orogenic doctrine, peculiarities of the movements of Saxon style, and so forth. One could wish that these topics had been made texts for the whole sermon.

H. H. READ.