INTRODUCTION TO PHYSICAL GEOGRAPHY. CHESTER R. LONGWELL *and* RICHARD FOSTER FLINT. New York, John Wiley and Sons, Inc.; London, Chapman and Hall, Limited. 1955. 432 pages, 306 illustrations. Price $5.00 or £2–0–0.

THIS substantial general book on Physical Geology is broadly based. Studies of extrinsic and intrinsic conditions and processes occupy the greater part, but there are useful chapters on methods of work, geological time, geology in industry, and identification of common rocks and minerals. The text is well systematized and written in a direct and instructive manner, and many of the text figures are refreshing in their outlook and clarity. The emphasis is naturally on examples to be seen in North America. The authors have produced a good book for students which is both informative and stimulating, and almost innocent of subjective or traditional dogma.

The chapter on Glaciers and Glaciation occupies twenty pages. It conforms with the general description given above and is therefore modern, realistic and lively in attitude, without going deeply into the subject, thus: "The process of flow deforms the individual ice crystals that compose the glacier, and the ice mass changes from a sedimentary rock into a metamorphic rock" (p. 185).

Experts will probably be critical of some of the generalizations, and references are drastically limited; but the book is not written for experts, and it would be most useful, therefore, to glaciologists who are seeking general information on other subjects. The quality of the letterpress, text figures, paper and general format is excellent, and most of the half-tone illustrations are well produced.

K. S. SANDFORD

DARKNESS UNDER THE EARTH. NORBERT CASTERET. London, J. M. Dent and Sons Ltd. 1954. XIV+168 pages, 16 pages of photographs. 15 shillings.

THIS book was intended for the general public, and must not be judged as an academic production. Nevertheless the first and shorter section of the book is of some interest to glaciologists, for the author describes there the adventures of himself and his family in a series of caves containing accumulations of ice, in the Marboré *massif* of the Pyrenees. These ice masses resemble mineral formations such as stalactites, flowstone, etc. In one of a group of caves known collectively as Les Grottes des Isards, the floor is covered by a smooth carpet of transparent ice, with "frozen cascades" over the pitches. This appears to be fed by a thin film of melt water flowing into the cave from the snow patch near the cave entrance, supplemented from water percolating through the rocks above the cave. As the cave slopes into the mountain, and its lower reaches are choked, cold air accumulates in it and is little affected by summer heating so that air temperatures at or near freezing point occur throughout the year. The author describes all these features very superficially and attempts no explanations, except in the case of a collection of ice crystals said to be 8–10 inches in diameter, which are attributed to sublimation. These crystals are described as being "perfectly transparent, roughly octagonal and reminiscent of certain spider-webs". Another ice formation is referred to as a "bush of ice more than a foot high".

The second part of the book consists of a classified collection of cave accidents and disasters, including certain British incidents which are not always very accurately described, e.g. the description of the Wookey Hole fatality, which contains at least twenty errors in two pages of text.

The translation (which is anonymous) is not up to the high standard achieved with previous books by Norbert Casteret, and occasionally one encounters incomprehensible phrases such as "The great square corridor of the diaclase . . ." (p.29).

G. T. WARWICK