

which is used. Measurements are given in the metric system, again, and quite rightly, to conform with international usage. However as the glossary is intended for practical field use by English-speaking mariners, it would have been kind and useful to have included equivalents in feet and miles.

The authors are to be congratulated on an admirable piece of work, and the publication of the longer glossary for scientific use will be eagerly awaited.

MOIRA DUNBAR

LAWINEN: ABENTEUER UND ERFAHRUNG, ERLEBNIS UND LEHRE. 2TE AUFLAGE. WALTHER FLAIG. Wiesbaden, F. A. Brockhaus, 1955. 251 pages, text-figures, 82 plates. 23.5 cm. Price D.M. 16.50.

No more comprehensive study of avalanches has been published than this the second and rewritten edition of a book which made a great reputation on its first appearance.

The second chapter—incidentally the chapters are not numbered, a tiresome innovation—should have been the opening chapter for it is a little confusing to open with a brief review of the terrible avalanches of 1951 and then to jump back into the Middle Ages, but this displaced chapter is scholarly and interesting. The theoretical analysis of avalanches is very thorough, but of greater interest, if not of greater value, is the detailed description of historic avalanches.

In my long experience of the avalanche in winter I can remember no avalanche catastrophies more terrible than those described and illustrated in the chapters devoted to the avalanches of 1951 and 1954.

Of particular interest is Anton Stegmüller's personal narrative of an avalanche. He regained consciousness after being over three hours under the snow. "I had given up all hope of rescue and was indifferent to my fate. I remember thinking that it would be best to fall asleep again and not to wake." My own experience of being buried in snow is that as the oxygen gets exhausted one passes into a dreamy, comatose mood in which one is only half-conscious. It is rather like going under an anaesthetic.

There is one point about avalanches which nobody has satisfactorily explained, and which is not, so far as I can see, referred to in this book*. Many years ago I observed that on an afternoon in the late spring, the moment of maximum danger was when the sun *left* the slope. I remember a race against avalanches in the course of a ski descent from the Eiger on a May afternoon in 1924. I watched the shadow creeping round from the Eiger and the avalanches sliding down when the shadow touched the snow. And I knew that if we did not reach the bottom before the shadow loosened the snow on the Mönch buttresses there would be no escape. We won that race with about forty minutes to spare.

There are eighty-two full pages of illustrations, by far the finest collection of avalanche photographs which has yet appeared. The most striking is a photograph of the Airolo Church tower emerging from above the tremendous avalanche of the fatal year, 1951.

ARNOLD LUNN

PRAKTISCHE SCHNEE- UND LAWINENKUNDE. LEO HANDL. Obergurgl, Austria, Alpinen Forschungsstelle der Universität Innsbruck, 1955. 56 pages, 16 text-figures. 21 cm. Price Sch. 28.00.

PUBLISHED under the authority of the official Austrian Alpine Research Station at Obergurgl in the Ötztal, this little book deals briefly but adequately with the minimum needs of the mountain-goer in respect of the snow cover and avalanches. The author is a mountaineer and skier of long-standing experience.

* This phenomenon is now being investigated by the Eidg. Institut für Schnee- und Lawinenforschung, Davos. *Ed.*