

REVIEWS

Arctic Manual. Vols. I and II. Prepared under the direction of the Chief of the Air Corps, United States Army. U.S. Government Printing Office, Washington, Nov. 6, 1940. *Arctic Manual*. Technical Manual No. 1-240. War Dept., Washington, April 1, 1942.

The present war is global as well as total. It has consequently spilled over both into the Antarctic and the Arctic regions, as instanced by raids upon the whaling fleet in the southern ocean, the destruction of coal stocks at 80° N. latitude in Spitsbergen, assaults on naval convoys in Arctic waters, and by dozens of other actions in as many polar places. The introduction on the grand scale, for the first time, of a third dimension in battle means that, as incidents of war, submarines may navigate in Arctic waters and aeroplanes may fly across the Arctic Ocean. War in fact is to-day really world-wide. An immediate reaction to this extension of the area of operations has been the writing of geographical guides. The more remote the seat of war, the more essential does a Handbook to the region become. The *Arctic Manuals* here reviewed are among the few whose circulation has not been restricted by war-time regulations. They are anonymous, but nevertheless Vilhjalmur Stefansson must at once carry the responsibility and gain the credit of having written them. The internal evidence is decisive about this.

The books are full of valuable information about every phase and component of Arctic life and living. Where conflicting theories or practices hold the field, both are given. It is all based on the sure foundation of far-ranging and prolonged experience. The books are, indeed, in the reviewer's opinion, singularly well adapted to serve the purpose for which they are written. In the larger edition, there is a good deal of repetition: some of this has, rather curiously, survived even in the summary. But there is a good deal to be said for repetition when most readers will be entirely unfamiliar with the subject, and the subject is so vital to comfort and even to survival.

To the writer, who has only Antarctic experience, and that of a quarter of a century ago, the chief interest naturally lies in a comparison between what is in the *Manuals* and what would be true for the Southern Continent. Much advice is equally applicable to both polar regions, but a somewhat different *Manual* will be required if campaigning should later extend to a region where, for example, one walks up to a seal as carelessly as one likes and hits him on the head with a pick-handle instead of exercising a skilled hunting technique; where the interior of a continent larger than Europe is, to all intents and purposes, devoid of life; in parts of which winds of hurricane force blow for months on end, and where native fuel is non-existent, and the largest clumps of vegetation are only two or three inches high and are measured in square feet instead of square miles in extent.

On p. 224 of the larger *Manual* it is said that, on a diet of pemmican and water, overt scorbutic symptoms will appear somewhere between six weeks and

twelve. This appears by Antarctic standards to be an underestimate. The diet of the British polar expeditions of the early twentieth century must have been entirely free of Vitamin C, and the impression left with the survivors is that it was normally up to four months before symptoms recognizable as scurvy developed. Certainly six weeks of health is an understatement even with manhauling, which is the most severe kind of sledging and causes the most serious physical and nervous strain.

On p. 317 some injustice is done to the Scott Expeditions, certainly to Scott's Last Expedition, on which the writer served without ever, so far as he remembers, taking lime juice as an antiscorbutic. From 1910 to 1913 we, like Stefansson himself, relied upon fresh meat to keep scurvy away, and with good results. But unfortunately meat on the hoof is not available in the interior of the Antarctic Continent, hence the Scott tragedy, Evans's illness, and Shackleton's illness on the First Expedition. To the examples of carbon-monoxide poisoning, on the other hand, we can add our quota from the 1910-13 expedition, whether it be Browning fainting over a charcoal fire in Borchgrevinck's hut, or the whole Northern Party being within an ace of collapse and death in their snowdrift home.

Comment of this kind could be endless and would be a measure of the interest the books incite. The review should end with emphasis upon the wide scope of the *Manuals*, the general accuracy of their contents, their readability and their value for the purpose for which they have been written.

R. E. P.

Manual of Ski-Mountaineering. Compiled under the Auspices of The National Ski Association of America. Edited by DAVID R. BROWER. Berkeley and Los Angeles: University of California Press. 1942. \$1.50. Published in England by the Cambridge University Press; price 9s.

The invitation to review this book for this journal has given me an unusual task. I have already reviewed it elsewhere for the ski-runners and now a second review from the very different view-point of the explorer presents a new and fascinating problem; it is seldom that a reviewer is given the opportunity to look at a subject from two such different angles—and to indulge in after-thoughts.

Ski often form an essential part of the equipment of both the mountaineer and the explorer. Nevertheless, the demands made upon ski-ing practice are very different in the two cases. As its title implies, this book will be found to contain more matter of value to the former than to the man who intends to leave civilization for months or years, and he will have to delve into deeper sources than are here available. Nevertheless, it should provide useful hints and sometimes really valuable information, especially as more attention has been paid by the authors to what we would call ski-touring rather than ski-mountaineering.

As I see it, the problem of the explorer in snowy regions is twofold. He may have to be familiar with glacier and mountain technique similar to that of