

second of these chapters gives some twenty pages to the first part of the history of the ill-fated Greely expedition, whose pitiful conclusion the public press has just now supplied. A large pocket map of the polar regions, the fullest and best that we have seen, shows the point reached by Lt. Greely in August, 1881.

The reader of Prof. Nourse's book will be especially interested in its epitome of Kane's story, in its chapter on Schwatka's remarkable sledge journey and recovery of Franklin's remains, in the sad details of DeLong's fate in the "Jeannette," and in such graphic touches as the following out of the scanty references to the Greeley expedition :

August 5 Greely went ashore at Cape Lieber, with Lieutenant Lockwood, Doctor Pavy, and a party, to examine the ice from the cliffs. Lieutenant Lockwood erected a cairn on the highest peak. No other cairn could be seen on it or from it, nor on other peaks visited by Greely and Doctor Pavy. Occasional lanes of water could be seen through the rifts of the fog-cloud which covered Hall-basin; but the main pack was firm and unchanged.

Up to the point of his writing Professor Nourse, who takes the scientific view of his subject, is by no means dismayed or disheartened by the long record of Arctic enterprise. He says :

The loss of life in these Arctic explorations has been remarkably small. The number of deaths occurring in all the ships of the expeditions sent for the relief of Franklin, and on those engaged in later Arctic explorations up to the date of 1873, had not equalled two per cent of the officers and men employed, nor have the casualties in the recent German, English, Swedish, and American expeditions equalled those ordinarily occurring among the ships on naval duty in other regions of the globe. They bear an inappreciable proportion to the losses in the Merchant, and especially the Whaling Marine, in proof of which it is enough to recall the statement of Lieutenant Maury, that the losses by wreckage around the British Isles during a single year exceeded the aggregate of all those within the history of Arctic explorations.

In conclusion Professor Nourse concedes that hopes of a navigable Northwest Passage are at an end, but claims that in other ways, chiefly scientific, much is to be gained by further prosecution of Arctic research, and rejoices in the assurance that "volunteers for the paths of discovery will, as now, freely offer themselves until the fullest additions to the domain of science have had their ingathering."

Professor Nourse's book bears the credentials of accuracy and authority, is well printed and bound, has numerous engravings and useful maps, including some portraits on steel, has a suitable index and table of contents, and furthermore is provided with a bibliography of chief publications on Arctic research since 1818. In every respect, then, it is a well-made book, a solid contribution to popular reading.

## ARCTIC EXPLORATION.\*

THE arrival at Newfoundland last week of Lieutenant Greely and the remnant of his party, disclosing the details of another disaster in polar regions, gives great timeliness to the appearance of Professor Nourse's volume. The author, who is an officer of the United States Navy, has had before him the long line of published narratives of Arctic exploration, together with official documents belonging to the government, and out of these he has constructed an encyclopædic review of the whole subject of American enterprise in Arctic seas.

American participation in the perils and honors of Arctic exploration is scarcely a third of a century old, having practically begun with the Grinnell Expeditions for the discovery of Sir John Franklin in 1850-55. It was in the second of these expeditions that the famous Dr. Kane came into notice, whose story may be set down as the first thrilling chapter of Arctic romance by an American contributor. Professor Nourse's volume begins at this point, and follows step by step along the subsequent course, devoting a just measure of attention in turn to the successive expeditions of Commander Rodgers, Dr. Hayes, Hall, Schwatka, and De Long. Two supplementary chapters describe the preliminary and general Antarctic cruise of Wilkes in 1839 and 40, and the

\* American Explorations in the Ice Zones. By Prof. J. E. Nourse. Illus. D. Lothrop & Co. \$3.50.