

TECHNOLOGY

An Introduction to the Study of Spinning

By Prof. W. E. Morton. Pp. viii+267. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1937.) 12s. 6d. net.

THE application of the exact sciences to problems of the textile industries has received special attention during this century. The research associations established in connexion with the industry and the Textile Institute, the professional institution of the industry, have contributed much to new methods of thought on textile problems. These organizations, together with the technical institutions responsible for the training of textile students, have created a demand that, as Prof. Morton puts it, the teaching of spinning should be developed on a broader basis.

In his excellent treatise under notice, Prof. Morton has adopted an entirely new method of approach. The book is divided into two parts. In the first part he gives a general survey of the various natural and synthetic fibres, while in the second part he deals with general spinning principles, and points out the modifications in method which the different types of material entail. The book is described by the author as primarily intended as a text-book for use during the first year or two of spinning courses. There is little doubt that in this direction it will have supplied a real need. It is, however, likely to have a much wider appeal, and it will be read by many engaged in the different branches of the textile industry. Its originality of conception and the skill with which it deals with a difficult and extensive subject make it a useful contribution to textile literature.

The Structure of Steel Simply Explained

By Eric N. Simons and Dr. Edwin Gregory. Pp. xi+115+7 plates. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1938.) 3s. 6d. net.

THE subject of the structures of steels is one of very considerable importance from many points of view, and the present volume will be welcomed by many readers. It gives a very clear and intelligible account of the subject and is well illustrated. The treatment is both physico-chemical and practical, the properties of interest to engineers being fully explained as well as the effects of heat-treatment, and many difficult points are elucidated. The book may be warmly recommended. The treatment is 'simple' only in the respect that the authors have taken pains to remove difficulties, and the standard is high. The plates of microstructure are very good, and the properties of special steels receive adequate treatment.

TRAVEL

Saga of the Discovery

By L. C. Bernacchi. Pp. xv+240+48 plates. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1938.) 10s. 6d. net.

THIS book is of particular interest since it is written by one of the few whose experiences date from the time when there were no vitamins or

radio and when British polar explorers were expected to man-haul their sledges in the way so vividly described. One can well understand the wonder of an expedition to a region which, except for the merest fringe, was new and contained so much of the entirely unknown.

Commander Bernacchi has written of his companions with a sympathetic and notably unbiased pen—a gratifying characteristic—and in spite of his frank recognition of idiosyncrasy one is pleased to observe that he can still write that *Discovery* was a "happy ship". The prejudice against dog-haulage is dealt with, and it is easy to see that it made inevitable the tragedy which involved *Terra Nova's* polar party. It is a dreadful example of the destructiveness of the preconceived idea.

There are a few minor inaccuracies; for example, one may be permitted to doubt whether Killer whales attack adult Blues, since precisely similar stories are told with reference to the Greenland whale.

This is a very readable book and the author is to be congratulated not only for a history of a ship now withdrawn beyond the possibility of further work in the ice, but also for the record of his own experiences in the 'heroic age' of Antarctic exploration.

Siberian Man and Mammoth

By E. W. Pfizenmeyer. Translated from the German by Muriel D. Simpson. Pp. xii+256+24 plates. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1939.) 12s. 6d. net.

DR. PFIZENMEYER here gives an account of two expeditions, of which he was a member, one in 1901-2 and one in 1903, that were sent to Siberia by the Russian Academy of Sciences to excavate the carcasses of mammoths, of which the discovery in a frozen state had been reported. Of these expeditions the first recovered the Bereskovka specimen, the most complete hitherto known, and the second the Sanga-Yurakh mammoth, which determined previously uncertain details in the characters of the trunk and tail. The author reviews the history of discoveries of the mammoth since the first recorded report in 1698 down to his own expeditions.

It is somewhat remarkable that these discoveries aroused little scientific interest, and it was not until 1806 that anything like a complete specimen reached St. Petersburg. The character of the tusks was still uncertain, as the native tribesmen usually made a practice, when a carcass was discovered, of hacking out and cutting up the tusks for the sake of the ivory.

The narrative is not confined to the purely scientific objective of the expeditions; and the author gives a vivid picture of travel on horseback and by sledge in pre-Soviet Siberia. He had a sharp eye for the idiosyncrasies of the exiles and tribesmen with whom he came into contact, and gives an interesting account of shamanistic ceremonies and practices. His acute estimate of the potentialities of a country of great natural wealth seems on the way to be realized.