

Modern civilization furnishes no better example than this of the possible victory over pestilence and disease, when the warfare is carried on in the light of modern scientific knowledge. The building of the Panama Canal and the sanitary record of the Japanese in their war with Russia are the two great object lessons of recent years, demonstrating that men can neither work nor fight to the best advantage unless protected from infectious and preventable diseases. The civilized nation which will hereafter put an army in the field or undertake a great engineering problem without first preparing the way by proper and adequate sanitary engineering and equipment will be regarded by the other nations as quite as foolish as a government which would build a vast fleet of modern warships and then arm them with the muzzle loading ordnance of one hundred years ago. An epidemic of typhoid fever in a military camp should be considered a greater disgrace to an army than a defeat in battle, since defeat may come in spite of the greatest exertions and the highest wisdom, while typhoid and yellow fever would be the result of ignorance or disregard of well-known laws of prevention. All nations will profit by the sanitary lesson of the Panama Canal.—*Journal of the American Medical Association.*

SCIENTIFIC BOOKS

General Chemistry for Colleges. By ALEXANDER SMITH. 8vo, pp. 529. New York, The Century Co. 1908.

This book is practically a somewhat abbreviated and simplified edition of the author's "Introduction to General Inorganic Chemistry" which appeared two years ago. The "Introduction" attracted much attention among teachers of chemistry, and received high praise as an excellent and comprehensive presentation of the subject, but it appears that many teachers, while admiring the book as a treatise, considered it too extensive and difficult for beginners, even at the age of college students.

It is evidently on account of these objections to the larger text-book that the shorter work under consideration has been prepared.

This is shorter to the extent of more than two hundred pages, and it has been considerably simplified, chiefly by omissions of less fundamental theoretical matter. It is to be observed that the theoretical topics that have been retained have been presented with the same fullness as before, and that the aspect of the new book in its arrangement and illustrations is very similar to that of the old one, although some conspicuous changes have been made in the presentation of some of the theoretical topics, and other minor changes and improvements have been introduced.

It appears to be somewhat doubtful that the present book will appeal to the majority of those who considered the former book too difficult, because the chief changes are those of omission, and they could be made easily while using the larger book.

There is evidently a tendency at the present time to use less childish chemical text-books for older students than was formerly the custom, and this movement is undoubtedly an excellent one, as far as the education of our more capable students is concerned. Therefore, the new book, by a teacher who has shown such ability in text-book production, is to be welcomed, although it may not be considered entirely "easy," and it is to be hoped that we shall soon have a revision of his "Introduction," which, whatever may be thought of it for beginners, is a very useful book for more advanced students.

As a single criticism it may be said that several of the brief statements in regard to metallurgy need revision, even in the later edition. This metallurgical weakness is a very common fault in elementary text-books of chemistry.

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Thermodynamics of Technical Gas Reactions. Seven Lectures. By DR. F. HABER, Professor at the Technische Hochschule, Karlsruhe. Translated by ARTHUR B. LAMB, Ph.D., Director of the Havemeyer Chemical Laboratory, New York University. Pp. 356. London, Longmans, Green and Co. 1908.

Since Gibbs and Helmholtz showed that the