

detract from their value? The cubic on page 228 is not given as it is in Cardan's work; but again, is it therefore less valuable to such as will read this book? It is probable that the question cannot be definitely answered as to how much material of this kind should be given, and probably there is a fair basis for argument as to how exactly it should be reproduced.

In view of the fact that no history of mathematics has ever been written that has not been subjected or could not be subjected to severe criticism with respect to its statements, as witness Eneström's perennial criticisms of Cantor, it will hardly be expected that Professor Cajori's latest edition will, under all the circumstances of its publication, be found to be without flaw. It is, however, interesting to see that the work has been found to be so helpful as to warrant this partial revision. Readers may be pardoned if they join with the author in the regret that a radical revision was impossible for reasons that are apparently commercial.

DAVID EUGENE SMITH.

A Text-Book on Practical Mathematics for Advanced Technical Students. By H. LESLIE MANN, B.Sc., A.R.C.Sc. Longmans, Green and Co. (New York), London, 1915. xi + 487 pp. Price \$2.10 net.

As is the case with many texts of this type, the material and its arrangement are determined by some restricted need and the personal preference of the author. This text, we are told, is based on the work of the senior students at the Woolwich Polytechnic, following the line of the author's lectures there to the students in mechanical and electrical engineering during the past nine years. Though based on the work of the seniors, "the book is meant to cover a two or three-years' course" assuming "a knowledge of the fundamental principles of algebra, trigonometry, and mensuration, and the use of logarithms and squared paper."

The arrangement will be likely to impress all teachers of mathematics and most teachers of engineering in America as rather reverse in portions of the book to their accustomed order. In several places we were given the sensation of moving backward into the subject. We cannot see what personal preference led to the scrappy, unsystematic treatment of algebra covering seventeen full pages, eight of which are devoted to approximations and applications of approximate