of these. The book is an unusually good one. Throughout there are excellent figures to illustrate points in the text. The figure exhibiting the reason for the ambiguity in sign of the derivative of $\sin^{-1}x$ is one that will be found especially helpful to the student. Indeterminate forms are assigned to a note at the end of the book. This seems to be far more in keeping with the relative importance of the subject than the treatment usually given in American text-books.

The chapter on infinite series is certainly an excellent one. It is more extensive than the corresponding one in many elementary books. The discussion of term-by-term differentiation and integration of infinite series is especially to be praised. The chapter on Taylor's theorem maintains the same standard. This chapter is put much later than usual.

There is a short chapter on differential equations, and an appendix in which hyperbolic functions, intrinsic equations, indeterminate forms, and applications to mechanics are discussed. After a set of questions and exercises and a table of integrals, some of the more common curves with their equations are given.

This latest and most extensive of Professor Murray's books is at the same time much the best one.

WILLIAM BENJAMIN FITE.

Elementary Algebra. By J. H. TANNER. New York, American Book Company. x + 364 pp.

THE present work is an attempt to solve a problem whose difficulties only those have realized who have seriously and conscientiously attempted to outline a course of instruction in elementary algebra which shall be teachable in the first place, but which on the other hand shall not constantly offend one's sense of rigor. There is a middle course here between Scylla and Charybdis; between the rigor of a work like Stolz and Gmeiner's Theoretische Arithmetik and the conventional algebras, whose authors draw their ideas from an age mathematically as remote as the age of stone and bronze.

Where does the best course lie between these grave perils? We do not know. *A priori* reasoning is of little avail here; it is a question which must be worked out by actual experience.

The present volume is a noteworthy and precious contribution in this direction. With ample knowledge of the founda-