

The mechanical side of the book has been splendidly executed and is almost entirely free from errors. The use of italics and heavy type is not overdone, but is still sufficient to emphasize the really important things of the text. The figures are abundant and well drawn. The problems are numerous and have been selected because they illustrate something, rather than because of their difficulties.

Taken as a whole, the book is thoroughly up to date and well written. Although it is more of a drill book than a treatise, it ought nevertheless to furnish the student with a good foundation for a later course in calculus. It is a book which should be a stimulus to every teacher who is in sympathy with the international movement towards improvement in the curriculum and the methods of instruction in college mathematics.

EDWIN R. SMITH.

*Technical Trigonometry.* By HORACE WILMER MARSH. New York, John Wiley and Sons, 1914. x+232 pp.

THIS book gives a clear and usable knowledge of the trigonometry underlying the industrial and technical studies. The first chapter is devoted to an explanation of logarithms, while the second and third chapters are given to the solution of right and oblique triangles with their applications. It is in the applications that this book differs from the traditional trigonometries. The exercises are chosen from engineering, physics, manufacturing, etc. A few of the types of problems given are: equilibrium on an inclined plane, bevel gears, spiral gear cutter, dovetail joints, two point ball bearing, nuts, flange angles, tangent galvanometer, track turnout, roof truss, length of belts, concrete stand pipes, sewer construction. Each problem is accompanied by a very well executed drawing. These three chapters cover 186 pages or about 9/11 of the book. Many technical terms are used and explained.

The fourth chapter (13 pages) deals with the functions of the sum and difference of two angles and the functions of multiple angles. The proofs of most of the formulas are left as exercises. No other exercises such as proving identities, solving trigonometric equations, solving practical problems, etc., are given. In the last chapter, namely chapter five, the slide rule is explained. At the end of the book are found tables on length, area, volume, weight, decimal equivalents of