

is never lost sight of, although no pains are spared to bring out desired artistic effects. The purely theoretical development is followed by a description of various devices to aid in drawing, including parallel rulers, Nicholson's centrolinead, Schilling's three-bar ruler, and a number of linkages. The final chapter contains an elaborate application of the method to the representation of curves and surfaces, including arches, trusses, etc.; a few pages are given to explaining the meaning and uses of photogrammetry.

The book is provided with a full index, and a list of all the authors cited.

VIRGIL SNYDER.

The Method of Least Squares with Applications (third edition)

By DANA P. BARTLETT. A. D. MacLachlan, 502 Boylston St., Boston, 1915. 143 + xi pp. Price \$2.25.

FOR clear, concise statement in readable form and for systematic treatment of the whole range of ordinary applications of the method, we have not found the equal of this text by Professor Bartlett, of the Massachusetts Institute of Technology. These qualities have led the reviewer to adopt it for use covering this phase of the course with his students in "the mathematics of statistics."

The author has avoided making provision for special lines of work in which the method is applied, and so the instructor is free in the development when such special applications are needed. A well chosen example with complete solution follows every important development of the theory, but the 155 well graded examples are arranged like the punctuation marks in a certain school-boy's composition, which had none in the body of it but an ample supply of all sorts that might be needed at the close with the instruction "Put them in where you may wish."

The appendix gives the elements of the theory of probability, a bibliography, and three tables useful in applying the method. Throughout the text, references are made to more extended treatments in standard texts.

CHARLES C. GROVE.

Text-Book of Mechanics. Vol. VI. *Thermodynamics*. By LOUIS A. MARTIN, JR. New York, Wiley, 1916.

THIS book, which is the sixth volume of a series of texts on mechanics, is a remarkably compact and comprehensive