

*Shop Problems in Mathematics.* By W. E. BRECKENRIDGE, S. F. MERSEREAU, and C. F. MOORE. Boston, Ginn and Company, 1910. vii + 280 pp.

INTENDED for use in trade schools, the book is divided into two distinct portions, the earlier and major part consisting essentially of problems from the pattern shop, forge, foundry, and machine shop; and the remainder in the presentation of a review of certain parts of elementary mathematics which are involved in the earlier problems. Demonstrations are not presented, results only being desired. A chapter on the slide rule is also included, in which an error in statement is implied which may lead the reader to believe that much of slide rule work is exact. The volume gives the impression of a lack of organized sequence in the arrangement of the material in the individual chapters.

C. F. CRAIG.

*The Integrals of Mechanics.* By O. C. LESTER. Boston, Ginn and Company, 1909. vi + 67 pp.

THE author has collected many of the integrals found in theoretical mechanics and presents them with very little physical interpretation. After an introductory chapter reviewing the applications of the integral calculus to lengths of arc, area, etc., the subjects of center of gravity, moment of inertia, and ellipsoids of inertia are treated in order. Stress is laid on the presentation of formulas for many of the special cases and on theorems derivable from special examples. The general formulas as well as the special ones are obtained by what are at best only semi-rigorous methods. Although the volume is intended as an introduction to theoretical mechanics, most of the material seems usable as an introduction to applied mechanics.

C. F. CRAIG.

*Annuaire du Bureau des Longitudes pour l'An 1911.* Paris, Gauthier-Villars.

SEVERAL improvements are noticeable in the issue for the current year. The section on the classification of stellar spectra has been rewritten by M. de Gramont; the elements of the moon and major planets are referred to the epoch 1900 instead of 1850; and M. Schulhof contributes a résumé of the information obtained during the last two years concerning Halley's