

courses in this country have not advanced as rapidly as our ordinary curriculum, and that, in spite of the good features mentioned above, this work will not help to improve the unfortunate situation.

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Text-book of Mechanics. By LOUIS A. MARTIN, JR. Vol. III: *Mechanics of Materials*, 1911, xiii + 229 pp. Vol. IV: *Applied Statics*, 1912, xii + 198 pp. 12mo. New York, John Wiley and Sons.

THE first two volumes of this text* deal with theoretical mechanics. The volumes under review, together with a projected volume on applied kinetics, will constitute a course in applied mechanics.

Volume III presents the usual theory of the deflection of beams by simple or compound stresses, statically indeterminate beams, struts and columns (eccentric loading, buckling, etc.), elastic failure, and envelopes. Also the principle that the external work done by the applied forces must equal the total resilience due to bending and shear is extensively used to determine deflections; and the equations of several elastic curves are very neatly found in this way. There is no treatment of curved bars, flat plates, or rotating disks, nor any mention of core sections in eccentrically loaded columns, but the problem of avoiding tension in such columns is treated briefly.

A fairly extensive range of applications is covered in the problems; but one is rather surprised at the omission of any applications to the distribution of steel in large reenforced concrete tanks, inasmuch as so many of these are now in use, at least in the west. Moreover, it might be well to include in a later edition a comparison of the various formulas for long columns as regards typical results, and also to insert a convenient collection of the most important tables and formulas. This would not hurt the book as a text and would make it more attractive for reference purposes.

The author says in the preface that he has attempted "to produce a book which will encourage the student to think and not to memorize, to do and not simply to accept something already done for him; but which still furnishes sufficient material in the way of explanation and example so that he

* Reviewed in this BULLETIN, vol. 16 (1909), pp. 144-7.