

Intermediate Mechanics; Statics and Hydrostatics. By D. Humphrey. London, Longmans, Green and Company, 1931. xi+424 pp. \$4.50.

This volume is a companion to the author's *Dynamics* and with it constitutes a course in Intermediate Mechanics. The part devoted to statics (342 pages) treats the usual topics, forces at a point and on a rigid body, friction, machines, center of gravity. In addition there are chapters on graphical constructions, bending moments and suspension bridges, and virtual work.

In hydrostatics the work is confined mainly to problems in total pressure, center of pressure, and flotation. One wonders why the author limits the discussion to a perfect fluid inasmuch as the conditions for equilibrium (including the absence of tangential stress) are precisely the same for a viscous fluid. In fact the fundamental property of a fluid is that it does not maintain its shape under the action of tangential stresses however small. This seems preferable to the author's characterization of fluids as media which "offer little or no resistance to change of shape."

The text is clearly written and the problems are excellent and numerous (166 worked and 913 others with answers). The use of calculus is confined almost entirely to the section on hydrostatics. The most serious defect is the entire omission, except in the case of parallel forces, of three-dimensional force systems.

C. A. SHOOK

Analysis des Unendlichen im Psychischen und Physischen. By H. Latzin. Wien, Wilhelm Braumüller, 1931. 32 pp.

The theory of aggregates and its applications in science are treated briefly under the headings: (1) Ordnungen und Mengen, (2) Gestalten, (3) Die "Welt" als Gesamtheit aller Ordnungsstufen, (4) Die "Welt" als Beziehungstotalität einer Ordnung.

R. D. CARMICHAEL

The Logic of Science. By Harold R. Smart. New York, Appleton, 1931. vii+237 pp.

At the beginning of his final chapter the author says: "We have been engaged in defining the content, method, and primary aims of those among the natural sciences which have exerted the greatest influence on philosophical speculation." This indicates more accurately than the title the real character of the book. In his final paragraph the author says of his work, with a confidence which the reviewer does not share, that "the province of science has been clearly defined and its findings have been logically evaluated. . . . We now know in what sense the world of natural science is independent of our apprehension of it as well as in what sense that world is a part or aspect of a larger world of experience. . . ." The importance of the book to philosophers and logicians need not be assessed here; it has little of interest or value to mathematicians, though two out of its eight chapters are devoted to their subject; the natural sciences are treated with somewhat better success, though it can hardly be maintained that the exposition is illuminating even here.

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