

SOME RECENT ELEMENTARY WORKS ON
MECHANICS. I.

The Laws of Motion, an elementary treatise on dynamics.

By W. H. LAVERTY, late fellow of Queen's College, Oxford. London, Rivingtons. 1889. 8vo, pp. 212.

IN a recent number of the *Bulletin* (No. 2, pp. 48-50) Professor T. W. Wright complains of the confusion existing in the nomenclature of elementary mechanics. It would be easy to answer his questions from a purely theoretical point of view; indeed, in theoretical mechanics no difficulty is encountered in this respect. But it must be admitted that in elementary works, particularly in those of a more "applied" character, the confusion is great, both as to the use of terms and the way of presenting the fundamental laws.

By reviewing somewhat at length a few of the better recent works on elementary mechanics it may perhaps be possible to "fix the ideas" and arrive at some conclusions, at least as to what is the best modern usage in treating the subject.

Mr. Laverty's little work is rather different from the ordinary English text-book. There is no reference in the preface to the "examinations of the Science and Art Department for the elementary stage," nor any gentle hint to the reader that "most of the examples are taken from actual recent examination papers."

"The object of this treatise," says the author (p. v.), "is to put the subject of dynamics on a thoroughly sound basis, avoiding unsatisfactory illustrations and definitions which do nothing towards defining, and to endeavour to give the student such an accurate idea of the subject that he may be able *e.g.* to give explanations and illustrations of the laws without just merely copying these from the book."

The author's objections to definitions that do not define, to inadequate illustrations of the fundamental laws, and to the loose and confused ways of stating these laws found so often in elementary works are certainly well taken. The book is evidently the result of careful independent thinking and treats a well-worn subject in a fresh and original way. Newton's laws are given in good English and in modern scientific language; the discussion of their meaning and interdependence is noteworthy in many respects.

The outward appearance of the book is pleasing; the little volume is neatly printed and furnished with an alphabetical index in addition to an ample table of contents. The matter is well arranged and distributed into sections of convenient size; every subject is illustrated by a few "worked" examples