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The Editor does not hold himself responsible for opinions expressed by his correspondents.

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NEW BOOKS.

The Student's Mechanics. BY W. R. BROWNE, M.I.M.E. (LONDON: CHAS. GRIFFIN & CO.)

The object of this well written little book is to exhibit the *Foundations* on which the Science of Mechanics rests in such a manner as to enable the student to comprehend more fully the principles of mechanics as applied to practical construction. The author in his preface makes the following pertinent remarks:—

"The successful prosecution of Mechanics, especially as applied to practical construction, chiefly depends on the obtaining a clear and thorough mastery of a few leading principles (*e.g.*, the Composition of Forces, the Principle of Moments, the Doctrine of Energy) which are alone necessary for the solution of almost all the problems of ordinary practice. It is, of course, easy to learn such propositions sufficiently for the purposes of an examination . it is by no means easy to know and understand them so thoroughly as to be able to use them freely and confidently in attacking questions of practical importance."

That the author has largely succeeded in his aim to facilitate such a study will be granted by all who may read his work, and it may be of interest to give a brief notice of his method of treating the subject.

Part I is devoted to *First Principles*, and commences by pointing out the *deductive* character of mechanics. Motion, force, and their measurement, matter (the meaning of which is usually left to the imagination of the student), and its measurement, are explained clearly and simply. The statement of the laws of motion and their resulting equations is novel and interesting, while the exposition is clear and easily understood by readers of very ordinary mathematical attainments. This is followed by the *Composition of Forces*, and Part I concludes with a concise explanation of the laws of energy, a study of which will render easy of solution many questions involving energy and work, and of great practical importance.

Parts II, III and IV deal respectively, with statics, kinematics, and dynamics. In the last, after describing the effect of impulsive forces, the motion of a particle in a curved line, etc., the author discusses very fully the subject of elasticity and deduces certain definitions and laws, concluding the chapter by a further development of the principles of energy and work.

We feel sure that the Student's Mechanics will realise the expectations of its author and prove a most useful text-book.

Practical Carpentry; BY FRED. T. HODGSON. (THE INDUSTRIAL PUBLICATION CO., NEW YORK.)

This useful little handbook makes no pretentions to originality but gives, in small compass, the gist of larger and more expensive publications, which will probably be beyond the pocket of most of those for whom this is intended.

It aims at comprehensiveness and beginning with practical geometry goes on to describe arch centreing; window tracery, various descriptions of roofs, mitreing of mouldings, dovetailing, mortising and tenoning, door hinging, etc., and concludes with quite a bewildering variety of subjects, more or less connected with practical carpentry, such as estimating cost of work, strength and resistance of timber of various kinds, mensuration of superficies, elements of drawing, weights and measures and a form of building contract.

One would like to have seen the important subject of stair making receive greater attention in a work on practical carpentry but as Mr. Hodgson promises us shortly a separate work to be devoted entirely to this subject we will look with interest for it.

We should have liked also if one or two of the subjects touched upon had been pursued a little further, even though it had been at the cost of leaving out other less germane subjects, but taking it as a whole we think Mr. Hodgson is to be congratulated on having compiled a small book which we feel sure will be helpful to every intelligent workman and for which every carpenter's tool chest should have a niche.

The Storage of Electricity, BY HENRY GREER. (NEW YORK. N. Y. AGENT COLLEGE OF ELECTRICAL ENGINEERING.)

The storage of electricity forms part of one of the most interesting branches of electrical engineering, and for some time past has been gradually assuming increased importance. Mr. Greer, in his pamphlet on the subject, leads up to the various storage systems by a preliminary discussion of electrical action