

largely descriptively and with the help of numerical illustrations and simple experiments. The printing and diagrams are clear. But one may be allowed to ask why here, as in many other books, the so-called laws of friction deduced for dry surfaces and low intensities of pressure are given without a hint that in most cases they are more disobeyed than obeyed? Also, is such a very roundabout way of finding the work of a fluid pressure (Fig. 121) really helpful to a student?

(3) Mr. Taggart's book is similar to the foregoing, but it is more specialised, the illustrations being taken from textile machinery. It is more original, therefore, and is likely to be of service to textile workers, both in explanation of the machines they use and in familiarising them with some of the technics of the industry.

OUR BOOKSHELF.

On the Relation of Imports to Exports: A Study of the Basis of a New National and Imperial Policy. By J. Taylor Peddie. Second edition (enlarged). Pp. xxiv + 148. (London: Longmans, Green and Co., 1916.) Price 5s. net.

MR. TAYLOR PEDDIE'S book is written in favour of what he calls National Economics. "National Economics," he says, "to be based on freedom of trade, must come under the heading of low tariff duties, for high tariff duties are protective." Now, if low tariffs do not protect, what is their object? In his third essay Mr. Taylor Peddie attempts to answer this question. "British manufacturers . . . will have to submit . . . to a heavy income tax and other heavy direct taxation. . . . Is it, then, an equality of rights that American manufacturers . . . should in future be allowed to enter into free competition with our own productions?" Mr. Taylor Peddie has, in fact, rediscovered, repainted, and reclothed that ancient figure of fun, the mid-nineteenth-century French Free Trade school's Scientific Tariff, and, with the true artist's "temperament," he has fallen deeply in love with it!

True, his tariffs lack something in scientific precision, for he has found a special magic in the figure $17\frac{1}{2}$ per cent., and no duty must exceed that amount. But their achievements more than compensate for all purely academic desiderata. His "low tariffs," apparently, are to counterbalance the adverse balance of trade, although (p. 42) he assures us that Free Trade has not produced that adverse balance. His "low tariffs" are to have no effect on prices, but to restrict imports (without protecting), increase the national productive capacity, the revenues of the State, and the distribution of wages, and although not affecting prices (p. 39) we can sell cheaper (p. 40). Mr. Taylor Peddie is, indeed, to be congratulated on his perversely paradoxical panacea.

On p. 98 we are told that "we shall never be able to destroy German industrialism by allowing National Economic questions to be discussed in the abstract or as platitudes." If "National Economics" are really to be framed with the object of

destroying industrialism, we are perhaps justified in hoping that they will quickly become what Mr. Taylor Peddie believes the history of political economy for the main part to be—"a record of absurd and justly exploded opinions." A. L.

A Manual on Explosives. By Albert R. J. Ramsey and H. Claude Weston. Pp. xi + 116. (London: George Routledge and Sons, Ltd., 1916.) Price 1s. net.

THIS little manual is intended to furnish to the munition worker, as well as to the general reader, concise information on the nature of explosives and on their manufacture, and further to emphasise the very important part which explosives play in the sphere of modern engineering. It is certainly an excellent little primer. Particularly good is the description of the manufacture of nitro-cellulose, nitro-glycerin, and the modern high explosives, the text being illustrated by excellent diagrammatic representations of the various plants employed. The authors have shown considerable discretion in the allotment of space to the different explosives, but more might well have been devoted to propellants. Smokeless powers, other than cordite, scarcely receive mention. The description of the manufacture of cordite is very brief, and it is a pity the authors give only the composition of Mark I. cordite, which, through the serious erosion it produced in the guns, was superseded some years ago by M.D. cordite, containing less nitro-glycerin.

A short chapter is devoted to fuses and detonators, another to the application of explosives, some interesting examples of engineering applications being given. A valuable chapter is one on "Industrial Poisoning among Explosive Workers and its Prevention," in which the authors deal with the symptoms by which poisoning may be recognised, the general lines of first-aid treatment, and enumerate some of the simple precautions which should be adopted to minimise risk of poisoning. Such chemistry as is necessary to follow the various processes and relating to the composition of explosives is very clearly set out, and altogether the book admirably fulfils the intentions of the authors.

Yorkshire's Contribution to Science—with a Bibliography of Natural History Publications. By T. Sheppard. Pp. 233. (London: A. Brown and Sons, Ltd., 1916.) Price 5s. net.

THE object of this volume is to provide students of the natural history of Yorkshire with a guide to all sources of information likely to be of service to them. Many workers in biological and geological science will be grateful to Mr. Sheppard for the particulars he has brought together about Yorkshire periodical publications dealing with natural history, Yorkshire scientific magazines now extinct, and Yorkshire topographical and general magazines. The particulars concerning other British scientific journals and societies and the list of works of reference add to the completeness of the volume.