

propulsion had been under a cloud for some time since, owing to the many discouragements under which the subject laboured. The difficulties, however, were not connected with the principle, but were owing entirely to fault in practice. The depressed state of the times was also much against the new projects. Much forbearance on the part of the public was required—the principle was right—time and experience would perfect it. Mr. Grantham then drew attention to the screw, and to several vessels which had continued to work well for some time, but more particularly to the *Sarah Sands*, which, beyond all doubt, he considered to be the most important case that could be found to test the question of auxiliary steam-power as necessary to the merchant's service. She was now again about to start for America, having crossed the Atlantic about 16 times—and if crowds of passengers and large cargoes were any test of public confidence, she most certainly possessed a good share of it. She had preserved great regularity, but owing to her small power, and being usually very deeply laden, her speed was not great, unless favoured by the wind, which had not often been the case. Her qualities were the best displayed in bad weather. Mr. Grantham made some observations respecting the Government screw-steamers—immense sums of money had been expended on experiments and on head vessels, but he regretted to say they had produced nothing that was likely to lead to improvements in screw propulsion. Mr. Grantham invited discussion; some remarks were made by the chairman and others, but all favourable to his general opinion. Mr. Smith, (of the Gas Company,) paid him a high compliment on his experience in screw propulsion, and proposed a vote of thanks to Mr. Grantham, which was carried by acclamation.—[N. Y. *Far. & Mec.*

Dick's Anti-Friction Press.

It is very well known to the scientific public that Brama's Hydrostatic Press has been, up to this time, the most powerful of all presses, and this mainly because of the comparatively small amount of friction incident to its operation; and it has been without competition, for all purposes requiring great intensity, ever since its invention. The expensiveness of this press, however, has, in a great measure, prevented the use of it by persons of moderate means, and its great weight has excluded it from being used as a portable machine.

Much ingenuity has been employed for many years, but with no valuable results, for the purpose of so reducing the item of friction in presses, that they might be applied to purposes requiring great intensity, and it has been reserved for this day of wonderful development in the labour-saving machinery to accomplish this great desideratum.

Dick's Anti-friction Press, now exhibiting at the Fair, is an invention of extraordinary simplicity, without complexity, and operating without friction. It has not a single rubbing or sliding surface in any of its parts, except the mere guides, and comprises, perhaps, double the power, for the initial force exerted to operate it, which is to be obtained from the Hydrostatic Press, regard being had at the same time to the quantity of motion that has to be gone through in operating each.

This machine is so simple, and so easy of construction, that the price at which it can be supplied will not exceed one-third that of the Hydrostatic, for the purposes for which this last is used. For all minor purposes a cheap, convenient, and light article can be supplied, at a less cost than any other form of press; and this latter is peculiarly adapted to pressing cotton, hay, tobacco, paper, books, embossing, stamping, coining, shearing, punching and cutting iron, cider pressing, packing flour, baling goods, &c.

We understand that the inventor builds hay presses of a portable kind, which can be hauled to any part of the country, on a two-horse waggon, and in this way the labour of loading hay on and off waggons, to be hauled to a press, is entirely saved.

The punches for punching boiler-plates, &c., which the inventor builds, do not weigh more than one-eighth of what the ordinary punches do; they are afforded for one-quarter of the price, and do not require more than one-half the force in performing the operation; and as there is no friction, there is necessarily no oil or grease required for lubrication.

The inventor of this valuable discovery is a Mr. Dick, of Meadville, Pennsylvania; and we think that he has made a decided advance towards perfection in this department of mechanics.

We understand that Mr. I. E. Holmes, who has been particularly engaged in the application of the above press to the various purposes of, pressing hay, cotton, cheese, printing, embossing, &c., is about applying this enormous power connected with a rotatory motion to the purposes of crushing the rocks in which ores are contained; and he feels confident that the gold diggers can be supplied with a machine of the utmost importance to them.

IMPORTANCE OF STUDY IN YOUTH.—If it should ever fall to the lot of youth to peruse these pages, let such a reader remember, that it is with the deepest regret that I recollect in my manhood the opportunities of learning which I neglected in my youth; that through every part of my literary career, I have felt pinched and hemmed in by my own ignorance; and I would at this moment give half the reputation I have had the good fortune to acquire, if by so doing