

Improved Hydraulic Jack.

Portable hydraulic pumps, for lifting heavy weights, have been used for years, and are very highly appreciated. A jack that a man can carry on his shoulder, will lift ten tons, by simply working a lever as in pumping water.

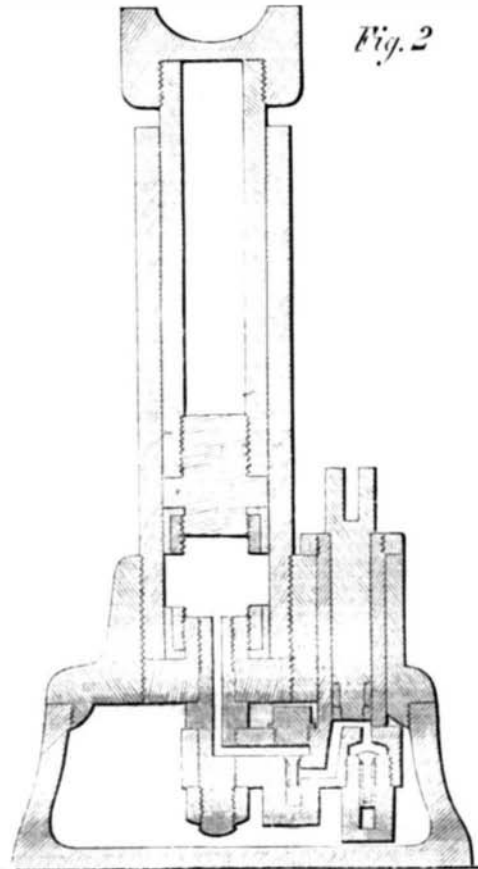
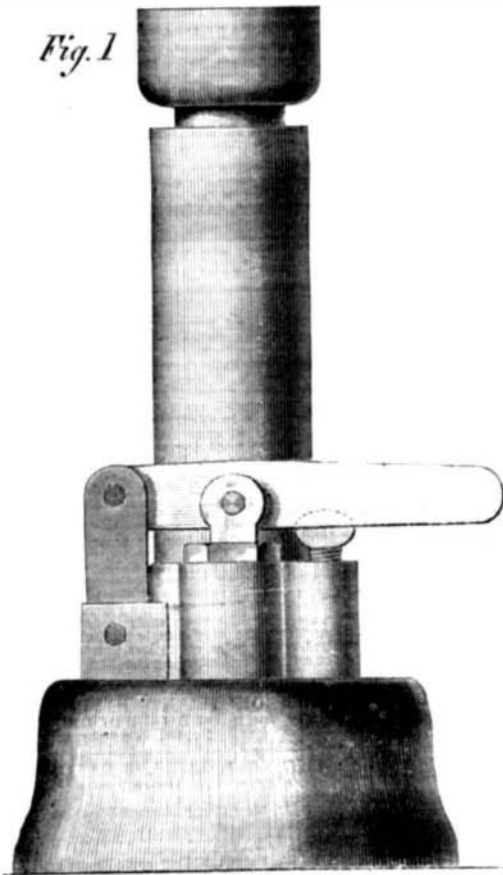
The jack here shown is a new candidate for public favor. It appears to be constructed on essentially the same plans as those now in use; the manufacturer states, however, that it contains some novel features which he has not furnished us. The engravings ex-

dent, it can be repaired at less cost than other hydraulic jacks, and in less time.

It is manufactured by Philip S. Justice, No. 14 North Fifth street, Philadelphia, or No. 42 Cliff street, New York.

Improved Hay and Grain Rack.

This rack is constructed with a view to obtain the least weight consistent with strength, and also to make it easily handled, so that instead of requiring the services of several men, as the old affair does, it



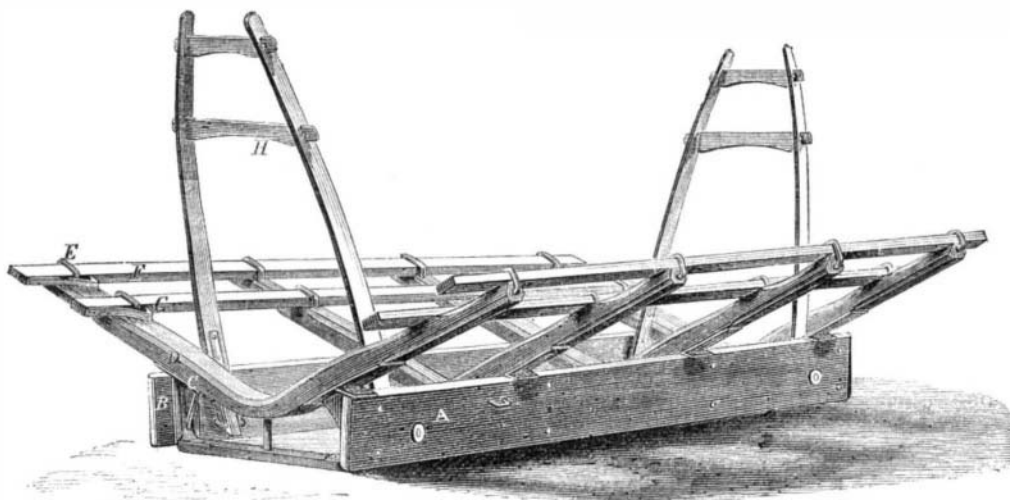
BLACKWOOD'S HYDRAULIC JACK.

plain themselves very clearly as regards the construction.

The advantages possessed by this hydraulic jack, says the manufacturer, are its extreme simplicity—any careful mechanic being competent to take it apart and cleanse it when necessary; it will work horizontally as well as vertically, which must give it a great preference over others not so arranged; the arrangement for gradually lowering the jack, under pressure,

can be readily put on or taken off by one man or a stout boy.

In the engraving, the two pieces, A, may represent the side boards of any common farm wagon. These are fitted with brackets, B, which receive slides, C, fitted to the saddle pieces, D. These saddles are four in number, and have irons, E, which take the slats, F. These slats are run through the irons and there retained by spring catches, G. The ladders, H, can



THOMAS'S HAY AND GRAIN RACK.

with precision, by means of the thumb screw near the lever, is apparent, as under the old plan of pressing upon the valve with a pin and a short lug on the bottom of the handle, when reversed, is very liable to produce accidents by its sudden motion, when under great weight; it is strong, compact, not liable to get out of order, and cheap, and it is so constructed that, should one part of it be broken by any acci-

dent, it can be repaired at less cost than other hydraulic jacks, and in less time. The rack is also remarkable for the small space it can be stowed in, and the ease with which it can be repaired if any portion breaks—instead of carrying the whole away to a shop, the defective part may be removed with little trouble.

We regard this rack as a desirable improvement in such fixtures, and think it should receive a trial.

It was patented through the Scientific American Patent Agency by W. M. Thomas, Aug. 15, 1865. State, town and county rights for sale. Address him at Binghamton, N. Y.

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