M. J. WALSH.

Jacks for Pressing, Stowing, &c.

No. 169,319. Patented Oct. 26, 1875.

Fig. 1.

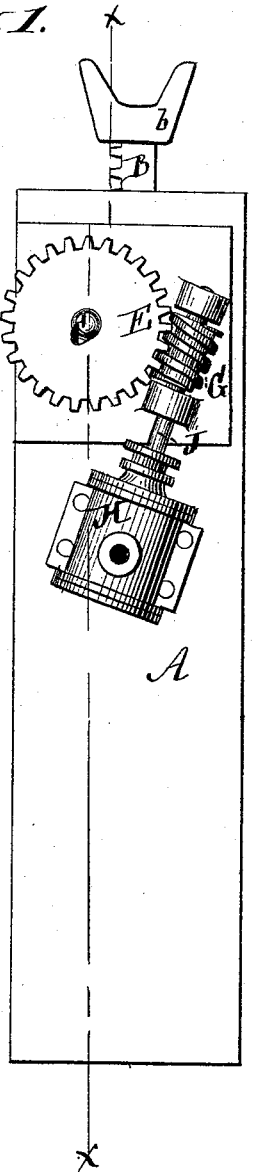
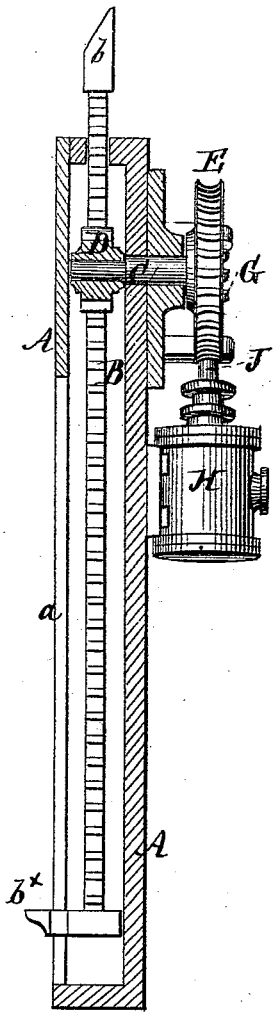


Fig. 2.



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UNITED STATES PATENT OFFICE.

MAURICE J. WALSH, OF NEW YORK N. Y.

IMPROVEMENT IN JACKS FOR PRESSING, STOWING, &c.

Specification forming part of Letters Patent No. **169,319**, dated October 26, 1875; application filed October 6, 1875.

To all whom it may concern:

Be it known that I, MAURICE J. WALSH, of New York, in the county and State of New York, have invented an Improvement in Jacks for Pressing, Stowing, and other purposes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is particularly applicable to jacks for pressing bales of cotton when loading or stowing the same in the holds of vessels, or in warehouses or elsewhere, but is applicable to jacks for other uses.

The invention relates to that class of jacks known as rack-jacks; and it consists in the combination, with such a jack, of an engine mounted directly thereon, and geared with its rack-bar.

The jack may have its rack-bar and pinion arranged in the same manner as is usual in rack-jacks of ordinary construction, or in any other suitable manner. The engine may be driven by steam, water, or air, and may be of any suitable construction. It is mounted directly upon the body of the jack, which thus serves as the supporting frame or standard of the engine. The engine may be connected with the rack-bar or its operating pinion by means of gearing arranged in any suitable manner, so as to impart a longitudinal motion to the rack-bar.

The accompanying drawing illustrates one mode of carrying out my invention.

Figure 1 is a side view of a rack-jack with an engine applied thereto. Fig. 2 is a longitudinal section taken in the line *x x* of Fig. 1.

The jack is provided with a rack-bar, B, sliding in a frame or casing, A, which constitutes the body of the jack. The rack-bar is driven by a pinion, D, attached to a shaft, C, which has its bearings in the body A, the teeth of the pinion meshing into those of the rack-bar. One end of the shaft C extends through to the outside of the body A, and carries a worm-wheel, E. The engine is here shown as a rotary engine, H, of ordinary construction. It is mounted directly on the body A, which thus serves as the supporting frame or standard of the engine. To the engine-shaft J is attached a worm, G, which engages with the worm-wheel E, and thus, when the engine is in motion, rotates the pinion-shaft and drives the rack-bar in one direction or the other, according to the direction in which the engine-shaft is rotated.

The rotary engine is here shown as being the most convenient form for the purpose; but instead thereof a reciprocating engine operating with a crank-motion may be used.

The outer end of the rack-bar B may be provided with a claw, *b*, to facilitate engagement with the object to be pressed or lifted, or engagement with a fixed obstacle when the end of the body A is made to bear against an article to be moved or pressed when the jack is used for stowing and similar purposes. The inner or lower end of the rack-bar may be provided with foot, $b^{\times}$, to be used when the distance between the fixed point and the object to be moved is too great to admit the entire length of the jack. The foot $b^{\times}$ may work in a slot, *a*, in the body A, and thus serve to guide the rack-bar.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a rack-jack, of an engine mounted directly thereon and geared with its rack-bar, substantially as herein described.

2. The combination, with the body A and rack-bar B, of the pinion D, pinion-shaft C, worm-wheel E, and worm G, operated by the engine-shaft, substantially as herein described.

MAURICE J. WALSH.

Witnesses:

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