

M. J. WALSH.

Cotton-Jacks.

No. 157,044.

Patented Nov. 17, 1874.

Fig. 1.

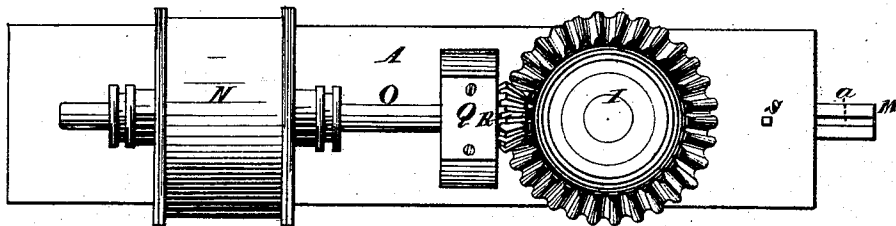


Fig. 2.

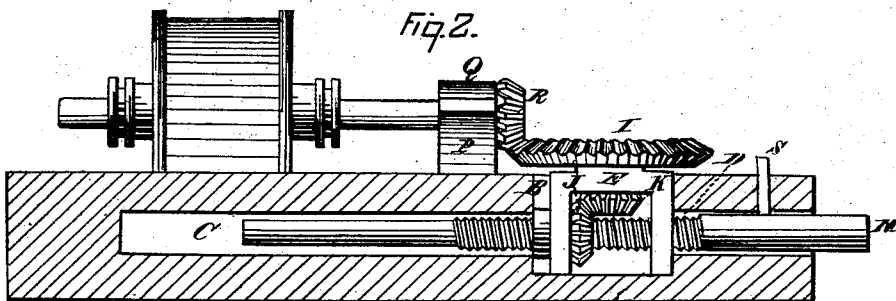
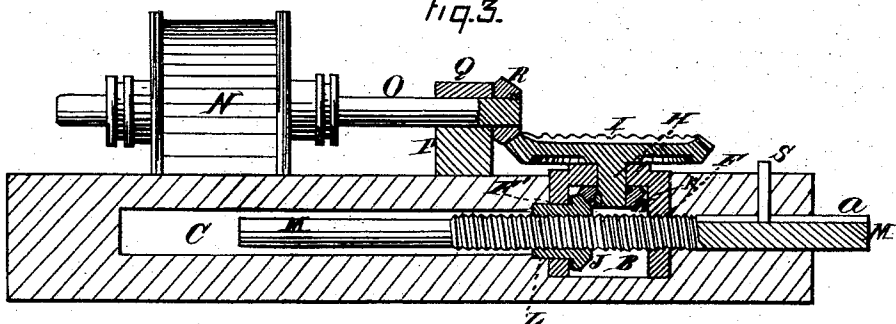


Fig. 3.



WITNESSES:

Jack Hutchinson
J. O. Hester

INVENTOR.

Maurice J. Walsh
per Henry M. Parker
att'y.

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN COTTON-JACKS.

Specification forming part of Letters Patent No. **157,044**, dated November 17, 1874; application filed October 19, 1874.

To all whom it may concern:

Be it known that I, MAURICE J. WALSH, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Cotton-Jacks, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a top view of my improved cotton-jack. Fig. 2 is a side view of the same, showing also the interior construction thereof; and Fig. 3 is a longitudinal vertical section.

Corresponding parts in the several figures are denoted by like letters.

The object of my invention is to provide for public use a jack for pressing cotton into a compact form in the holds of vessels, in warehouses, or elsewhere, in which the head of the jack itself is employed as the medium to bear upon the cotton to be pressed; and to this end my invention consists, primarily, in the employment of a shaft made to reciprocate in suitable openings in the body of the jack, by means of intermediate gearing connected with the shaft of a rotary engine, the outer end of the shaft bearing against a fixed obstacle, so that a longitudinal motion will be given to the body of the jack, its end or head bearing upon the cotton to be pressed. My invention further consists in certain details of construction hereinafter more fully set forth.

In the annexed drawing, A is the body or pressing-block of the jack, provided with the opening B and side passages C D for the reception of a shaft hereinafter more fully described. E is a bridge having its seat in the opening B in the body of the jack and provided with orifices F F' lying opposite the passages C D. The upper face of the bridge E is also provided with a projecting boss or hub having an orifice through which passes the axis H of the crown-wheel I, preferably cast therewith, the portion of the lower face of the crown-wheel near its center having its bearing upon the elevated boss on the upper surface of the bridge

E. K is a beveled pinion keyed to the shaft H of the crown-wheel I, revolving with it and meshing with a similarly-formed pinion, J, on one end of a sleeve or collar, L, having its bearing in the orifice F' of the bridge E. The interior periphery of the collar or sleeve L is screw-threaded, and forms one of the bearings of the shaft M, which also passes through the orifice F of the bridge E and into the side passages C D of the body of the jack. The middle portion of the shaft M is screw-threaded to engage with the correspondingly-formed interior periphery of the sleeve L. N is a rotary engine in the upper face of the block, through the heads of which passes the shaft O of the engine, having its bearings in said heads and in the block P, provided with a grooved cap, Q, fitting over the shaft. The end of the shaft N is provided with a beveled pinion, R, which engages with the crown-wheel I. The shaft M is provided with a longitudinal groove, *a*, which extends from its screw-threaded part to its outer end. A slot is made through the body of the jack from its outer face to the passage D, for the reception of a pin, S, which engages with the groove *a* in the shaft N, when the pin is inserted in the slot.

The operation of my improved jack is as follows: The end of the shaft N is made to bear against the samson-post of a vessel, or a brace connected therewith, when the jack is employed in the hold of a vessel, or some fixed obstacle, and, power being applied by the rotary engine to its shaft, a rotary motion will thereby be imparted to the crown-wheel, and, through the intermediate pinion, to the sleeve, which, in turn, imparts a reciprocating motion to the screw-threaded shaft, thus bringing the opposite end or head of the body A against the bale to be pressed. A reverse motion of the engine relieves the pressure.

The object of the groove in the shaft, in which the pin is inserted, is to prevent a rotary motion of the shaft with the sleeve and insure at all times the reciprocation of the shaft.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a jack for pressing cotton, &c., a shaft, one end of which bears upon a fixed obstacle and imparts a longitudinal motion to a press-

ing-block, in which it reciprocates by means of intermediate gearing operated by means of the shaft of a rotary engine, substantially as described, and for the purpose set forth.

2. The pressing-block A, having the opening B and side passages C D, in combination with the screw-shaft M, screw-threaded collar L, provided with a pinion on its end, crown-wheel I, pinions R, and driving-shaft O, substantially as described, and for the purpose set forth.

3. The screw-shaft M, provided with a lon-

gitudinal groove, *a*, at its outer end, and operated as set forth, in combination with the pressing-block A, provided with a slot and pin, S, substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MAURICE J. WALSH.

Witnesses:

H. S. CUMMINGS,
N. CALLAN.