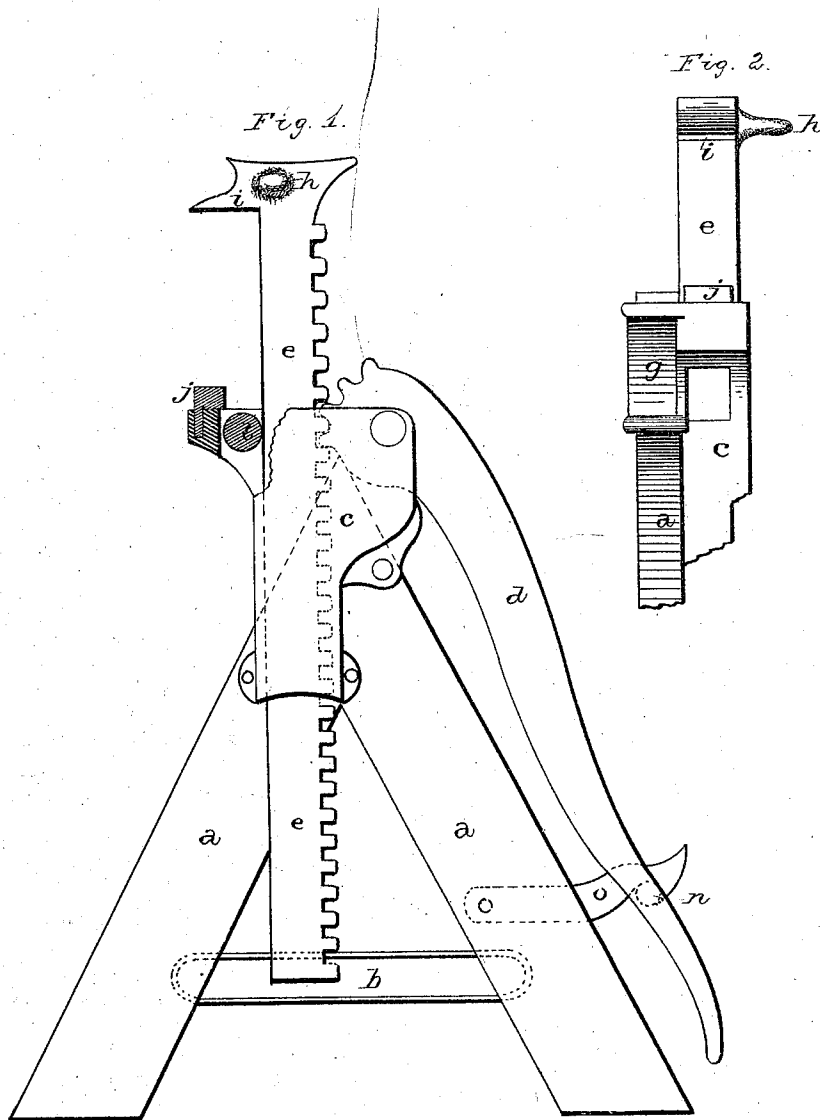


N. WARREN.
Lifting-Jacks.

No. 150,498.

Patented May 5, 1874.



WITNESSES.
J. A. Lehmann
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NELSON WARREN, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. **150,498**, dated May 5, 1874; application filed March 7, 1874.

To all whom it may concern:

Be it known that I, NELSON WARREN, of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Lifting-Jack; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in lifting-jacks; and it consists in the peculiar arrangement and combination of devices, which will be more fully described hereafter, whereby a cheap, portable, and powerful jack is produced, and one which is not liable to be broken or get out of repair.

Figure 1 represents a side elevation of my invention. Fig. 2 is an edge view of the top part of the casting and frame.

a represents a triangular frame, made of two pieces of board secured together at their upper ends, and braced by a metallic cross-bar, *b*. This frame, having no base-plate, is peculiarly adapted to all kinds of surfaces, and can be used with ease where others cannot be made to stand erect. The casting *c*, which forms a frame in which the operating-lever *d* is pivoted, and through which the lifting-bar *e* works up and down, has a socket, *g*, formed on one side, so as to fit over the top of the frame *a* like a cap, and thus support the casting in position. The lifting-bar, of ordinary construction, has a projection, *h*, formed upon one side at the top, which serves as a handle by which the bar is lifted upward until its head, made slightly concave on top, strikes against the under side of the object to be raised, when the lever *d* is pressed downward. Upon the

edge of the head is formed a projecting flange, *i*, which, as the bar falls, strikes against the rubber spring *j* secured in the top of the casting by a socket, and thus prevents any of the parts from being broken. Journaled in the frame or casting, just back of the bar, is a friction-roller, *l*, against which the bar presses in its movements up and down, so as to make it move as easily as possible.

The operating-lever has but a few cogs formed upon the end which engages with the cogs of the bar, so that when raised upward at an angle of about sixty degrees their cogs will no longer engage, when the bar can be freely raised upward, or will fall from its own weight. After the lever has been depressed, raising the bar and its load upward, a pivoted latch or catch, *o*, is turned over a small stud or projection, *n*, formed on the side of the lever, when the lever will be held in the position shown in Fig. 1.

Having thus described my invention, I claim—

1. The combination of the spring *j* and lifting-bar having the flange *i*, substantially as set forth.

2. The lifting-bar provided with the lug *h*, substantially as shown.

3. The combination of the frame *a* and casting *c*, the casting being provided with a socket, *g*, to fit over the top of the frame, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of March, 1874.

NELSON WARREN.

Witnesses:

F. A. LEHMANN,
OLIVER P. WELCH.