D. W. BROWN.

LIFTING-JACK.

No. 190,413. Patented May 8, 1877.

Fig. 1.

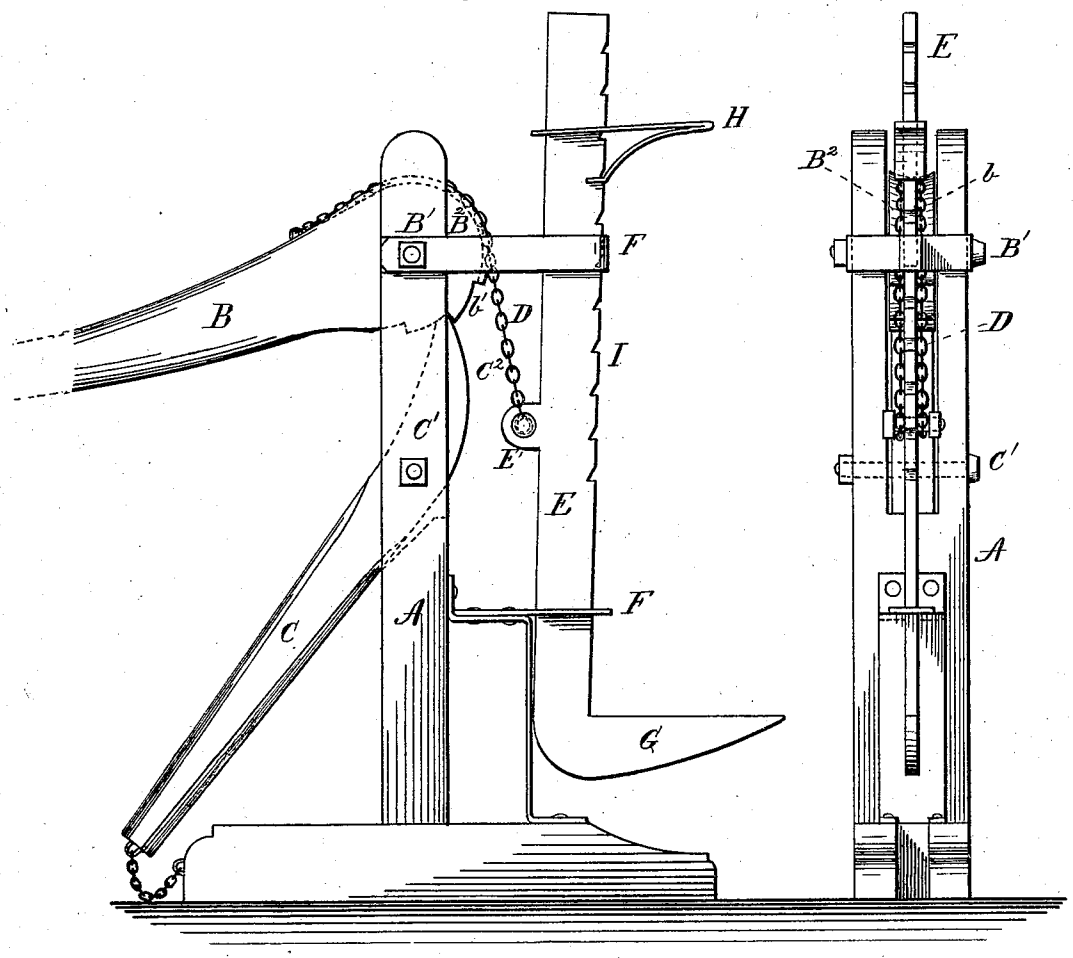
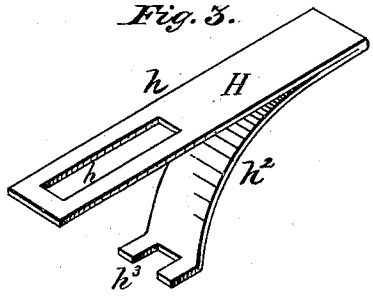


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

DAVID W. BROWN, OF NEW COMERSTOWN, OHIO.

IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. **190,413**, dated May 8, 1877; application filed March 30, 1877.

To all whom it may concern:

Be it known that I, DAVID W. BROWN, of New Comerstown, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Lifting-Jacks; 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 drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lifting-jacks, the nature of which will be fully explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view, Fig. 2 an end view, of apparatus constructed according to my invention. Fig. 3 represents a perspective view of parts separately.

In each of the views similar letters of reference denote corresponding parts wherever they occur.

A is a substantial frame, composed of the sill or base-piece A^1 and the standard A^2, to which are secured the operating parts of my device.

B is the operating-lever, formed with an enlarged cam-shaped head, B^2, which has formed over its upper surface or edge a guide groove or channel, *b*, for the reception, and retention in its place on the lever, of the lifting-chain D. It is pivoted to the upper end of the standard A^2 by the bolt or pin B^1, on which it turns; and on its under surface or edge it is provided with a series of ratchet-teeth, *b'*, by which the lever and lifting-bar may be held in any desired position.

C is a pawl, pivoted on a pin or bolt, C^1, to the standard A, below the cam-head B^2, where it is perfectly protected, and is out of the way. It is arranged so that it will engage the teeth *b'* and retain the lever B in any desired position. It is provided with the extension or arm C^2, which is made of sufficient weight to slightly more than balance, and thereby at all times hold the pawl in contact with the under side of the head B^2.

The arm C^2 extends to and is connected with the base A^1 by a link or links, *c*, which limit the extent of its movement, so that it cannot be by accident or otherwise thrown up or raised so that it will interfere with the movement of the lever B, while it permits sufficient play or vertical movement to disengage the pawl C from the teeth *b'*.

The arm C^2 enables the operator to control and operate the pawl with his foot, thus giving him both hands to operate the lever B.

The chain or rope D has one of its ends secured to the upper side of the lever B, while its other end is passed over the head B^2 in the groove *b*, which prevents it from slipping sidewise when the jack may be set, from accident or otherwise, in an inclined position, and is secured to the lug E', formed on the rear side of the lifting-bar E.

The lug E' is arranged centrally on the rear side of the bar E, and so that it will be between the guides F, which arrangement enables the said bar to be lifted or moved in the guides with less friction than when the attachment or lug is placed at the upper or lower ends of said bar.

The lifting-bar E is capable of movement vertically in guides or brackets F, and at its lower end is provided with a hook or projection, G, adapted to be driven into or placed under a load to be raised.

H, Fig. 3, is a removable rest, adapted to be applied to the bar E, when it is desired to use the jack for carriage purposes or otherwise.

The rest H is composed of a plate, *h*, which is slotted at h^1, so as to pass over the end of the bar E, which, at its under side, is provided with a bracket-piece, h^2, formed by bending over the end of the plate *h*.

The bracket-piece h^2 is slotted at h^3, so as to embrace the front edges of the bar E, as shown by Figs. 1 and 2.

The front edge of the slot h^3 rests in one or other of a series of notches, I, formed in the front face of the bar E, the object of the series of notches I being to allow of the adjustment of the rest H to any desired height on the bar E.

The operation of the device will be so readily understood it will not be needful to explain the same further.

Having thus described my invention, what

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

A lifting-jack, consisting of a frame, A, having guides F, lever B, having head B^2, groove *b*, and teeth *b'*, pawl C, having the extension or arm c^2, lifting-bar F, having lug E', and chain or rope D, all arranged and operating substantially as herein set forth.

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

DAVID W. BROWN.

Witnesses:
M. B. SULTZER,
I. G. CRATER.