

(No Model.)

E. E. ALBIN.
LIFTING JACK.

No. 486,922.

Patented Nov. 29, 1892.

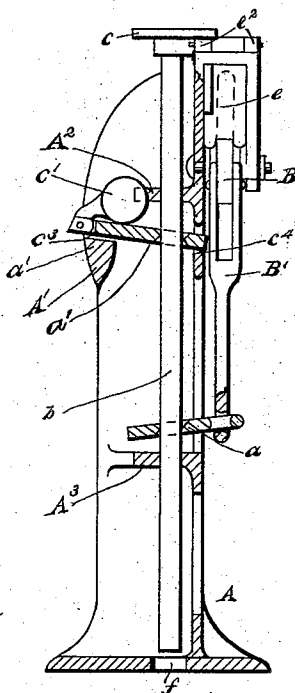


Fig. 1.

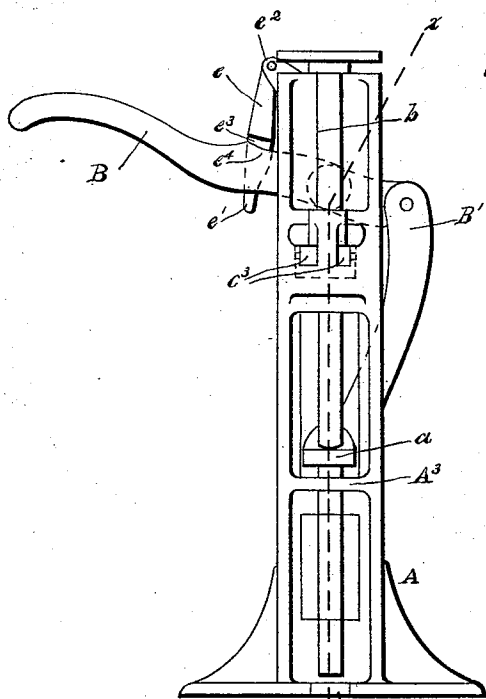


Fig. 2.

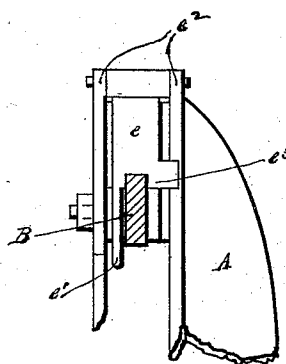


Fig. 3.

Witnesses

H. C. Oster

Frank Watt

Inventor

E. E. Albin

By his Attorneys

Shepherd & Associates

UNITED STATES PATENT OFFICE.

ELMER E. ALBIN, OF SPRINGFIELD, OHIO.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 486,922, dated November 29, 1892.

Application filed December 1, 1891. Serial No. 413,750. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. ALBIN, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification.

My invention relates to lifting-jacks; and it especially relates to that class known as "lever-jacks," in which a pivoted handle is adapted to operate through suitable mechanism upon a vertically-moving stem or lifting-support.

The object of my invention is to simplify the construction of jacks of this character and to provide a jack which is cheap and simple in construction and effective in operation.

My invention consists in the various constructions of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a sectional view taken substantially in line $x-x$ of Fig. 2. Fig. 2 is a side elevation, and Fig. 3 is a detail of the stop for the operating-handle.

Like parts are represented by similar letters of reference in the several views.

In the said drawings, A represents the frame of the jack, which may vary in form and size, according to the capacity of the device; but said frame is preferably cast open, as shown. The base 1 is provided with an upwardly-projecting body 2, having extending flanges 3 and 4. This open construction of the frame A admits of easy molding and casting.

B is the operating-handle suitably pivoted to the frame, and B' a connecting-link, one end of which is bifurcated and pivoted to said handle B. The remaining end of the link B' is provided with a hook adapted to engage one end of a perforated piece a , which is located upon a bar b , slidably mounted in journals $A^2 A^3$ of the frame A. The perforation in said piece a is provided with tapered edges and is somewhat larger than the diameter of the bar b and carries the same upward in its bearings in the frame A. The upper end of the bar b is provided with a suitable cap c , on which the burden to be lifted rests. When the operating-handle B is completely depressed, it is adapted to move past its cen-

ter and detain the burden in an elevated position in a well-known manner.

When it is desired to raise the burden higher than can be accomplished by one depression of the handle B, I provide a perforated piece a' , located on the bar b similar to the piece a , said perforated piece a' being adapted to act on the bar b as a detent. The perforated piece a' rests at one end at its fulcrum A' , formed with the frame A. The remaining end of said piece a' is loosely fitted into an oblong slot c^4 in the frame A. A weighted arm c' is pivoted to ears c^3 , formed integral with and near the fulcrum of said piece a' . When the weighted arm c' is turned inward toward the bar b in the position in Fig. 1, it aids the action of gravity on the piece a' and causes it to more readily bind on and detain the bar b when a burden is placed upon the cap c of said bar.

It will be seen that by the constructions described the bar b may be elevated to any desired degree, the perforated piece a' holding the bar in its elevated position after each stroke of the handle.

A stop e , having a handle e' , hangs pendent from lugs e^2 , formed integral with and at the top of the frame A. Said stop e is provided with a stop-face e^3 , adapted to engage a similar stop-face e^4 on the handle B, and thus form a stop for said handle, for the purpose hereinafter specified.

When it is desired to lower a burden raised by successive operations of the handle B, the weighted arm c' of the piece a' is turned outwardly at right angles to the position shown in Fig. 1. The stop e is turned upward and backward by means of its handle e' . The handle B is slightly depressed to take the strain from the perforated piece a' , which is raised by its weighted arm c' , the upper wall of the slot c^4 preventing said piece a' from being raised beyond a horizontal position. When the perforated piece a' is in a horizontal position, the bar b may slide freely through said piece a' . The strain being thus transferred to the handle B, said handle may be elevated past the limit, as defined by the stop e , which has been turned upward and backward, as before described. As the handle B passes the limit, as defined by the stop e , when in the normal position the perforated

piece *a* is carried downward with the bar *b* until said piece *a* rests in a horizontal position upon the bearing *A*³ of the bar *b*. The bar *b* then passes freely therethrough and assumes its normal position. A hole *f* is formed in the base of the frame *A* directly in the path of the bar *b*, to enable a lifting-bar of greater length than the frame *A* to be employed when desired.

It is obvious that two or more perforated pieces may act simultaneously on the bar *b* in the respective capacities of the pieces *a* and *a'* without changing the spirit of my invention.

Having now described my invention, I claim—

1. In a lifting-jack, the combination, with an operating-handle adapted to operate a vertical-rising stem, of a pivoted stop adapted to normally engage and limit the movement of said handle and a hand projection on said stop for moving the said stop out of engagement with the said handle, substantially as specified.

2. In a lifting-jack, the combination, with an operating-handle and a vertical rising stem, of a perforated piece on said stem adapted

to be operated by said handle, a perforated piece adapted to act as a detent for said bar, a pivoted stop normally engaging and limiting the movement of said handle, and a hand projection on said stop for moving the said stop out of engagement with the said handle, substantially as specified.

3. In a lifting-jack, the combination, with a frame, a bar slidably mounted therein, and a suitable operating-handle adapted to operate the said bar, of a perforated piece arranged in said frame and adapted in its normal position to act as a detent for said bar and a weighted arm pivoted to said perforated piece and adapted when turned to an unusual position to raise said detent and hold it out of engagement with said bar, substantially as specified.

In testimony whereof I have hereunto set my hand this 27th day of November, A. D. 1891.

ELMER E. ALBIN.

Witnesses:

FRANK WATT,
PAUL A. STALEY.