D. KELLEHER.

Lifting-Jacks.

No. 148,302. Patented March 10, 1874.

Fig. 1.

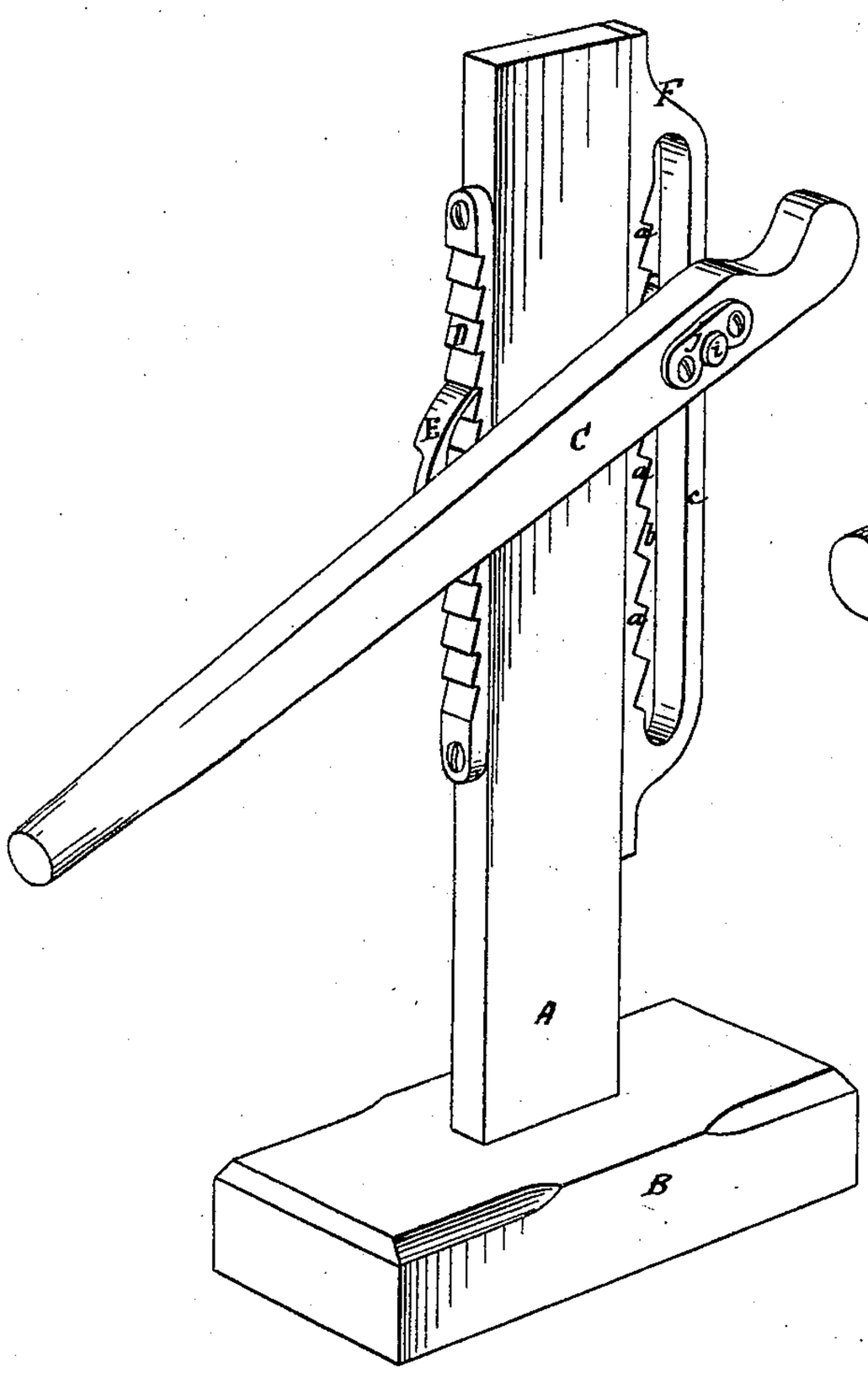


Fig. 2.

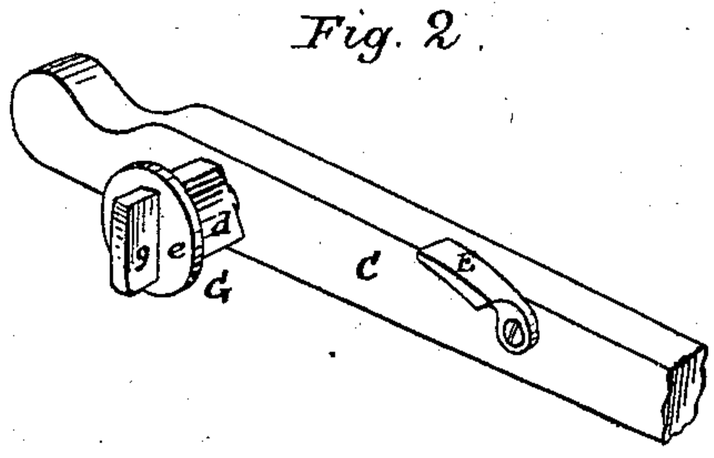
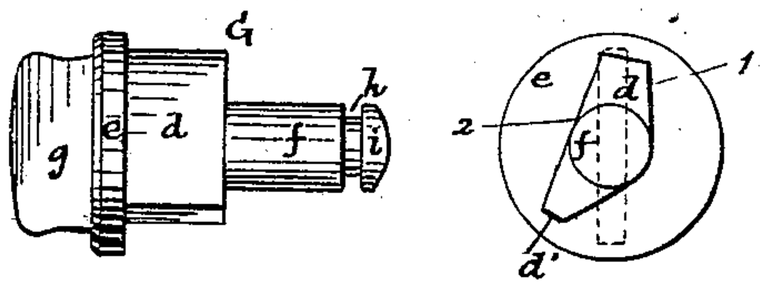


Fig. 3.



Witnesses

Ewell Askrick

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Inventor.

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UNITED STATES PATENT OFFICE.

DANIEL KELLEHER, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO ELIHU BUNKER, OF SAME PLACE.

IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. **148,302**, dated March 10, 1874; application filed February 23, 1874.

To all whom it may concern:

Be it known that I, DANIEL KELLEHER, of New Bedford, Massachusetts, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification:

The lifting-jack in which my invention is comprised has, in common with other lifting-jacks, a lever, adjustable to a greater or less height, as desired, on its supporting-standard, and a rack and pawl for retaining the lever in place when it is to be maintained in position under a load which has been lifted by it. My invention relates to the construction of the fulcrum-pin of the lever, and its combination with the lever, as well as with the notched bar on the front of the standard, on which bar it may be adjusted to different heights, as desired.

The nature of my invention, and the manner in which the same is or may be carried into effect, can best be explained and understood by reference to the accompanying drawing, in which—

Figure 1 is a perspective of my improved lifting-jack. Fig. 2 is a like view of the lever detached. Fig. 3 represents, in side and end elevation, the fulcrum-pin detached.

A is the standard, supported on a suitable base, B. C is the lever; D, the rack on the rear face of the standard; and E, the pawl on the lever, to operate in connection with the rack D in the usual way. Upon the front face or edge of the standard is fixed the notched bar F, upon one of the notches, *a*, of which the fulcrum-pin of the lever is to rest. This bar is preferably formed as shown in the drawing, being made of cast metal, with longitudinal slot *b*, extending laterally through it, the slot being between the series of notches *a* and the portion *c* of the bar in front, between which and the notched part of the bar the fulcrum-pin is retained, while free to move up and down in the slot. The fulcrum-pin G is formed as shown clearly in Fig. 3. It is intended to turn freely in the lever, and that portion, *d*, of it which lies in the slot *b*, and is designed to catch on one of the notches *a*, is shaped in cross-section as shown in end elevation in Fig. 3. The greatest width or thickness of this part *d* of the pin is less slightly than the width of the slot, so that it may move easily up and down in the slot when required. The position in which the pin is represented in end elevation in Fig. 3 is that which it would occupy in the upright bar F, with the lower edge *d'* of the part *d* resting on one of the steps or notches *a*. In that case, the face 1 of the part *d* would be quite in contact with the front piece *c* of the bar F. In order to release the pin all that is needed is to turn it so that the face 2 of the part *d* will be vertical, when the lower edge *d'* will clear the notched face of the bar. The length of part *d* of the fulcrum is about equal to the thickness of the notched bar from side to side. It terminates at one end in a collar or disk, *e*, and at the other end in a cylindrical stem or journal, *f*. The collar serves to prevent the pin, when attached to the lever, from being withdrawn from the slot in the notched bar. On the exterior face of the collar or disk is formed a thumb-piece, *g*, which is provided as a convenient means to enable one to turn the pin when required, as above stated. The stem or journal *e* extends into the lever, where it may be secured in any suitable way. I much prefer the arrangement shown in the drawing for this purpose. The journal has an annular groove, *h*, formed in it near its outer end, which leaves a flanged head, *i*, on said outer end. The journal thus formed is thrust through a hole of proper size bored for it in the lever, until its outer end projects beyond the lever. A small cast scutcheon or plate, *j*, with a semicircular recess or concave in the edge adjoining the pin, is then placed on the side of the lever and fitted down onto the pin, so that its concaved edge will enter the groove *h*, as indicated in Fig. 1. The plate which thus serves to hold the pin to the lever, and to afford a bearing for the pin, is then secured in position by screws.

My invention is mainly comprised in the combination and arrangement of the fulcrum-pin and slotted notched bar, whereby, by a slight turn of the pin in one direction or the other, it may be made either to engage one of the notches, or to move clear of all the notches, as desired.

I have shown what I consider the best form of pin for this purpose; but it is manifest that

the shape and proportions of the pin may be varied, to some extent, without departure from my invention. So also the shape of the scutcheon or bearing-plate *j* can be varied.

In the jack, the rack, pawl, and fulcrum-pin are made of malleable cast-iron. The slotted notched bar is cast-iron.

By casting all the metal parts with screw-holes, &c., all necessity for fitting and expensive working is obviated, and I produce a very cheap as well as a most durable and effective jack.

Having described my invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the slotted notched bar, the lifting-lever, and the fulcrum-pin, journaled in said lever, and operating in connection with said slotted notched bar, substantially as and for the purposes described.

2. The fulcrum-pin, constructed substantially as herein described, and illustrated in Fig. 3 of the accompanying drawings.

3. In combination with the fulcrum-pin and lifting-lever, the scutcheon or bearing-plate, fixed to the lifting-lever, and engaging a peripheral groove in the fulcrum-pin, substantially as shown and described.

In testimony whereof I have hereunto signed my name this 14th day of February, A. D. 1874.

DANIEL KELLEHER.

Witnesses:
ELIHU BUNKER,
WILLIAM H. TABER.