

(No Model.)

A. K. BAGWELL.  
LIFTING JACK.

No. 363,194.

Patented May 17, 1887.

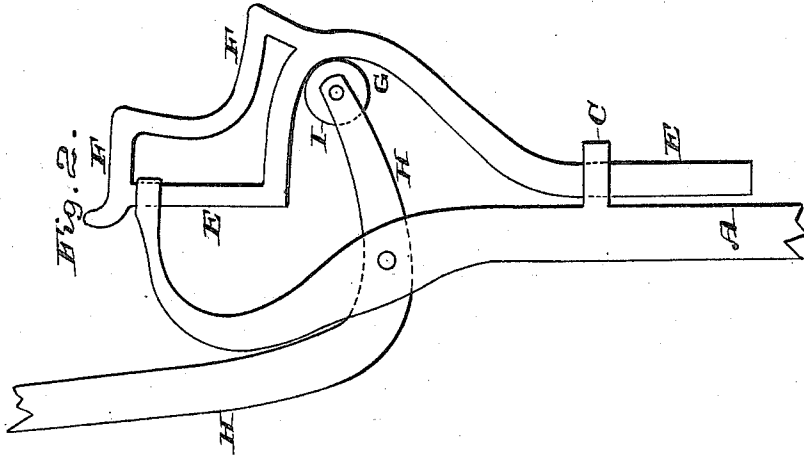


Fig. 2.

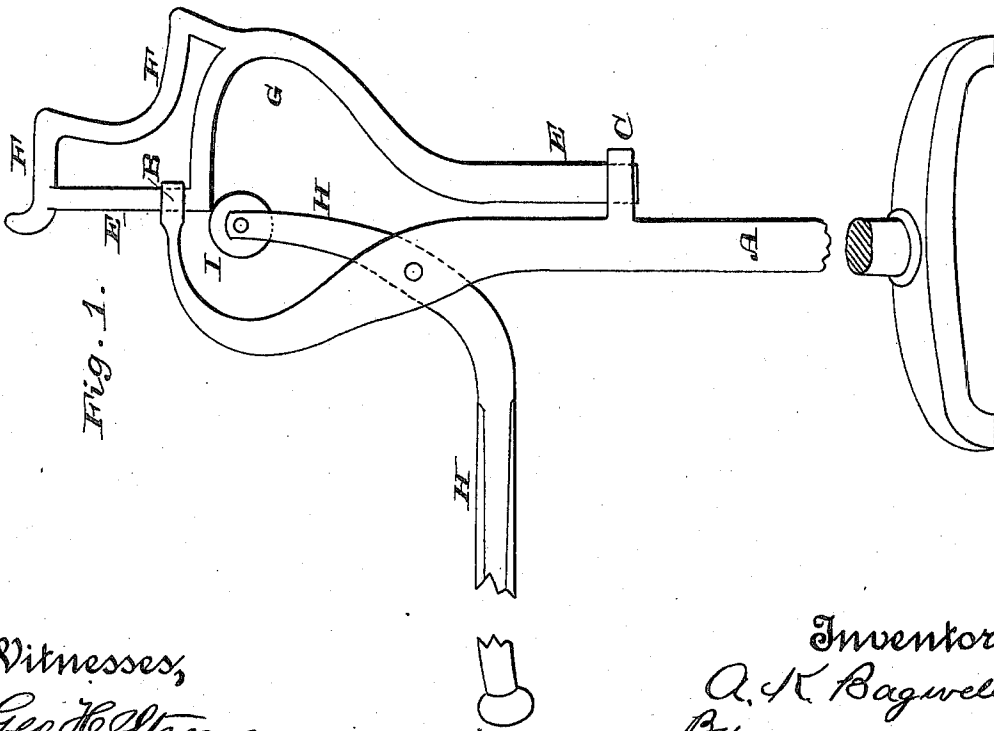


Fig. 1.

Witnesses,  
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# UNITED STATES PATENT OFFICE.

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## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 363,194, dated May 17, 1887.

Application filed February 23, 1887. Serial No. 228,582. (No model.)

*To all whom it may concern:*

Be it known that I, ABNER K. BAGWELL, of Plainsburg, Merced county, State of California, have invented an Improvement in Lifting-Jacks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in carriage and lifting jacks; and it consists of a standard having guides in a vertical line at its upper end, a movable lifting and bearing piece traveling in these guides, having offsets to support the load, and a curved lever fulcrumed in the standard and having an anti-friction roller at the inner end, which travels in a curved opening formed in the movable lifting-piece, so as to raise and lock it when desired.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my lifting-jack, showing the sliding piece at its highest point and locked. Fig. 2 is a view showing the lifting-piece depressed.

A is a standard extending upward from a suitable base, in which the lower end is fixed. I have, in the present case, shown this standard made of iron and bent into a curve at the top, so that the upper end stands horizontally and has a hole through it, or preferably a box or guide, B, fitted to receive the upper portion of the sliding bar. At a point in line below this box on the side of the standard is fitted another box or guide, C, in which the lower end of the sliding bar works. The sliding bar, which serves to lift, consists of the straight vertical portions E E, which move in boxes B and C, before described, and the offsets or steps F F, of which there may be as many as desired for the work to be done.

From the lower part of the upper sliding bar E a curved space or opening is formed, in the present case, by bending the metal bar so as to form an open space, G, as shown. The vertical standard A is slotted between the upper and lower guides or boxes, and the curved lever H is fulcrumed in this slide, the handle being of sufficient length to produce whatever power is required, and the short arm

is fitted to travel within the space or opening G of the lifting-bar. In the end of the lever is journaled a roller or pulley, I, and this roller travels upon the face of the curved depression.

The operation will then be as follows: When the sliding portion is at its lowest point the lever-arm stands up very nearly in line with the upper part of the standard A, and the short arm of the lever projects into the opening or space G of the sliding portion of the jack, so that its inner end is at the farthest point of this space from the standard. When anything is to be lifted, the jack is placed so that either one of the steps stands beneath the axle or other thing to be lifted, and pressure being applied to the long arm of the lever, it is forced down, while the short arm travels within the curved opening G, at the same time forcing the sliding bar upward, and the roller traveling within the opening G relieves the friction, which is thus reduced to the smallest degree.

The construction of the jack is such that when the short arm of the lever stands in a vertical position the roller will have passed to the rear of the upper portion of the slide just sufficiently to carry its journal-pin behind the rear line of the guides, and this serves as a lock to hold the slide securely in place and prevent its dropping. At the same time the roller is in such position that it may easily be caused to travel backward along the opening G by raising the lever. This construction produces a very light, easily-operated, and convenient lifting-jack.

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

1. In a lifting-jack, the vertical standard having the boxes or guides and the sliding lifting portion moving in these guides and having the offsets or steps, as shown, and an opening or space, G, in combination with a bent lever, the short arm of which travels within this opening and acts to raise or depress the sliding bar, substantially as herein described.

2. The vertical standard having the guides

within which the sliding lifting-bar moves and  
the lifting-bar having the opening or depres-  
sion formed in it, as shown, in combination  
with the bent lever fulcrumed in the stand-  
ard and having the roller journaled in the  
5 end which travels within the opening of the  
lifting-bar, so as to raise the latter and serve  
as a lock, substantially as herein described.

In witness whereof I have hereunto set my  
hand.

ABNER K. BAGWELL.

Witnesses:

J. O. BLACKBURN,  
ANDREW LANDER.