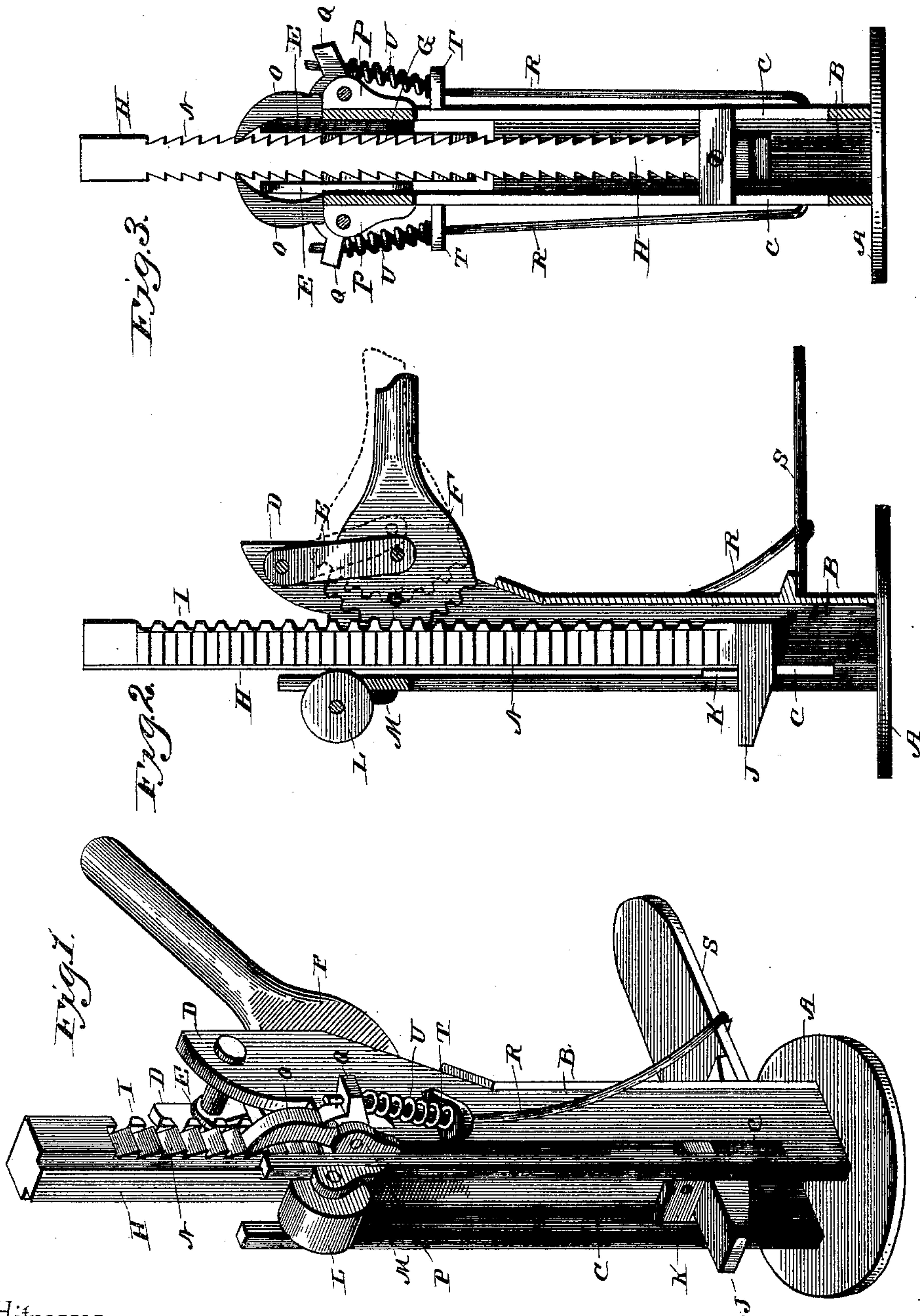


(No Model.)

J. T. WEATHERLY.
LIFTING JACK.

No. 410,702.

Patented Sept. 10, 1889.



Witnesses

E. W. Hurdman

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Inventor

UNITED STATES PATENT OFFICE.

JOSEPH TAYLOR WEATHERLY, OF FLINT, ALABAMA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 410,702, dated September 10, 1889.

Application filed July 30, 1889. Serial No. 319,163. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH TAYLOR WEATHERLY, a citizen of the United States, residing at Flint, in the county of Morgan and State of Alabama, have invented a new and useful Lifting-Jack, of which the following is a specification.

My invention relates to improvements in lifting-jacks; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved lifting-jack. Fig. 2 is a view with the side of the standard removed and the interior parts in elevation. Fig. 3 is a detail transverse vertical section.

In carrying out my invention I employ a base A, and on this base I erect a hollow standard B, having an open front side and provided with a vertical longitudinal slot C in each of its sides near the said open front. The standard is provided at its upper end with the rearward extension D, and within the said extension I pivot the links E, between the lower ends of which the lever F is fulcrumed, the said lever having a segmental gear G on its inner end, as clearly shown.

The lifting-bar H is arranged within the hollow standard, and is provided on its rear side with the rack-teeth I, which are engaged by the segmental gear G in the operation of the device. The lifting-bar is provided at its lower end with a foot J, which projects forward through the open front of the standard, and is adapted to take under weights to be raised, and near the said foot the lifting-bar is provided with a transverse guide-plate K, the ends of which engage the slots C in the standard, and thereby prevent the lifting-bar having any forward or backward swinging motion when it is being raised. The lifting-bar is further held to its place and forced to move vertically by a roller L, which is journaled in brackets M on the front side of the standard at the upper end of the same.

The lifting-bar is provided on its sides with the ratchet-teeth N, which are engaged by pawls O, which are pivoted in brackets P in the sides of the standard at the upper end of the same, as shown. These pawls and ratchet-teeth prevent any accidental lowering of

the lifting-bar when the device is in use. The pawls are provided with the outwardly-projecting lugs Q, and these lugs are engaged by the upper ends of the pitmen R, the lower ends of which are pivoted to a treadle S, mounted on the rear side of the standard near the lower end of the same. These pitmen extend up through the guides T on the sides of the standard, and the pawls are thrown normally into engagement with the ratchet-teeth on the lifting-bar by the springs U, which are coiled around the pitmen between the guides T and the lugs Q of the pawls.

In practice the weight to be raised is placed on the upper end of the lifting-bar or on the foot of the same, and the operating-lever is then engaged in the rack-teeth on the rear side of the lifting-bar and depressed, so as to raise the said lifting-bar. When the lever has been swung down to the lowest limit of its movement, it is disengaged from the rack-teeth by drawing the links E outward, and is then again operated to raise the lifting-bar. As the bar is raised, the ratchet-teeth are slipped past the pawls, and the springs will throw the pawls into engagement with the ratchet-teeth, so as to prevent the lowering of the lifting-bar when the lever is disengaged. When the weight has been raised to the desired point and has been removed from the lifting-bar, the treadle is depressed, thereby drawing the pawls out of engagement with the ratchet-teeth, and allowing the lifting-bar to fall to its lowest position, as will be readily understood.

From the foregoing description it will be seen that I have provided a lifting-jack which is composed of few parts, and is simple and efficient in its operation, and is free of all complicated arrangements and combination of parts.

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

1. The combination of the hollow standard, the lifting-bar mounted therein and provided with ratchet-teeth on its sides and rack-teeth on its back, the links pivoted at their upper ends within the standard, the lever fulcrumed between the lower ends of the links and having a segmental gear at its end adapted

to engage the rack-teeth on the lifting-bar, the pawls mounted on the standard and engaging the ratchet-teeth, and mechanism for disengaging the pawls from the ratchet-teeth,
5 as set forth.

2. The combination of the hollow standard, the lifting-bar mounted in the standard and provided with ratchet-teeth on its sides, mechanism for raising the lifting-bar, the pawls
10 mounted in the standard and engaging the ratchet-teeth, the treadle mounted on the rear of the standard, the pitmen connecting

the treadle with the pawls, and the springs bearing on the pawls and adapted to throw them into engagement with the ratchet-teeth, 15 as set forth.

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

JOSEPH TAYLOR WEATHERLY.

Witnesses:

C. L. PRICE,

J. B. SPARKMAN.