

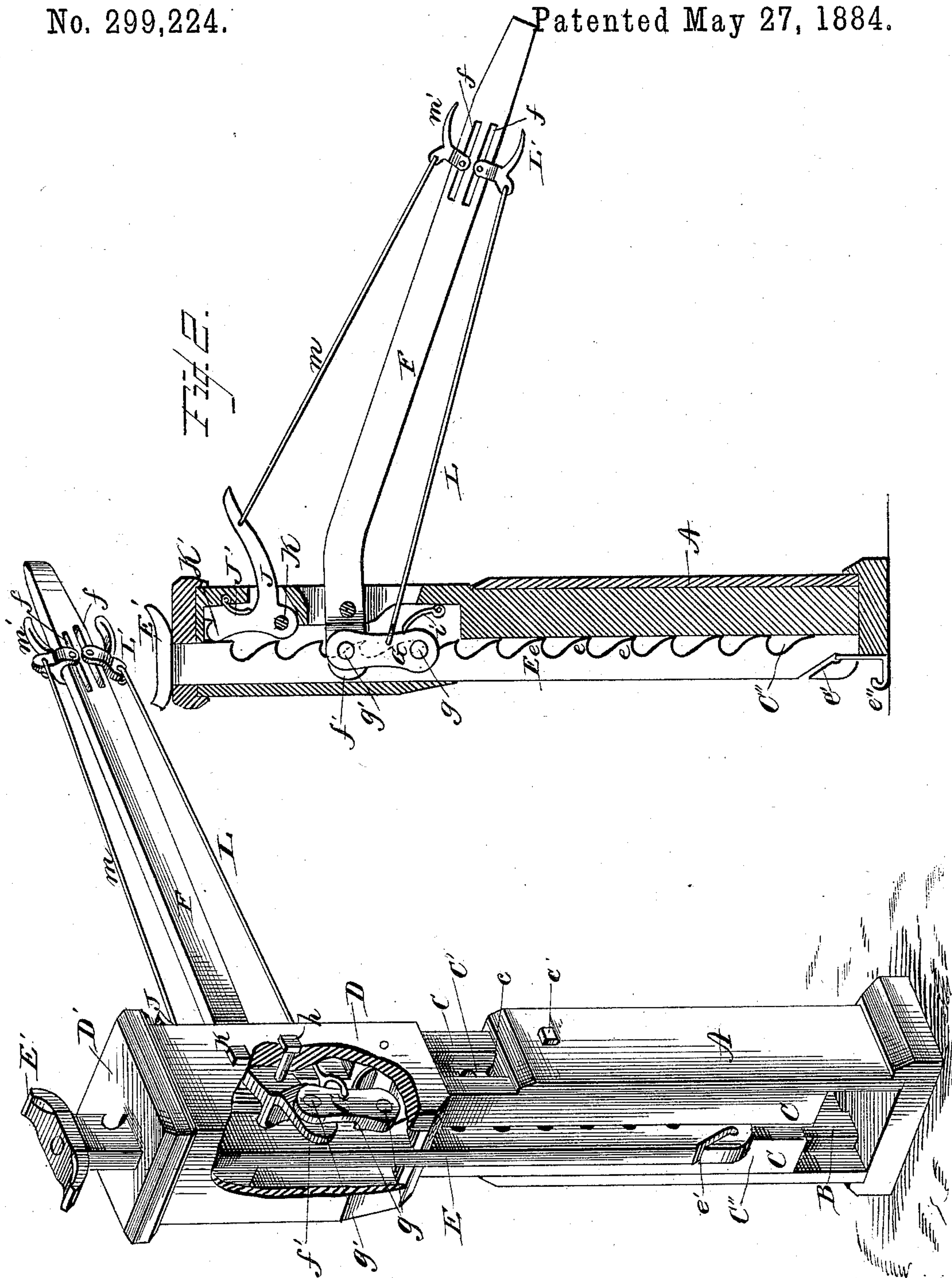
(No Model.)

J. H. HUMBERT.

LIFTING JACK.

No. 299,224.

Patented May 27, 1884.



WITNESSES  
*F. L. Ourand*  
*J. T. Luter, Jr.*

*Fig. 1.*

INVENTOR  
*James H. Humbert*  
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# UNITED STATES PATENT OFFICE.

JAMES H. HUMBERT, OF ONAN, ASSIGNOR OF ONE-HALF TO GEORGE W. BERRY, OF LODEBAR, VIRGINIA.

## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 299,224, dated May 27, 1884.

Application filed October 22, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. HUMBERT, a citizen of the United States, residing at Onan, in the county of Nelson and State of Virginia, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in lifting-jacks in which a sliding frame, in conjunction with a vertically-adjustable bar, is operated by suitable mechanism; and the object of my invention is to provide an improved lifting-jack for raising houses, cars, wagons, and other heavy weights, where it can be conveniently and advantageously used; and it further consists in the novel arrangement and combination of parts, as hereinafter described, and specifically set forth in the claims; and, also, by the provision of means whereby the pawls can be readily disengaged from the ratchets when not in use, and which also allow the upper sliding frame to be telescoped into the pedestal or supporting-frame, thereby causing it to assume a compact form, to make it less difficult to handle and less cumbersome for transportation. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my improved jack, and Fig. 2 a cross-sectional view of the same.

Similar letters of reference refer to similar parts throughout the several views.

In the drawings, A represents the frame forming the main support or pedestal of my improved jack, made, preferably, open on one side and hollow in the center.

On the inside of the frame A, and placed oppositely to each other, are two longitudinal tongues, B B, extending from the top to the bottom of the frame A.

D represents the upper and partly-closed portion of my jack, which is provided with the depending projections C C, forming longitudinal grooves C' C' and C'', the grooves C' C' being adapted to enter or receive the tongues or projections C C, upon which they slide in a vertical direction, thus allowing the upper portion of the jack to be raised or lowered to any convenient height and there kept in a

stationary position by means of a pin, c', passing through the frame A and perforations c, formed in the sliding frame D, as many of which may be made as found necessary. An upright bar, E, passes through a slot in the top of the sliding frame D, and is adapted to have a vertically-sliding motion both upward and downward in the groove C'', the said bar being provided with a series of ratchets, e e e, and at its lower outside portion with a downwardly-inclined slot, e', to receive a hook or loop, e'', constructed of any suitable metal, for the purpose of lifting heavy weights from the ground—such, for instance, as heavy timber, logs, and the like.

In the upper portion of the sliding frame D, and at a suitable point therein, is pivoted a lever, F, provided near its outer end with slots f f, and terminating at its other end with a forked prong, f', on the outer sides of which is pivoted a depending lug, G, connected at its lower ends by a pin or bolt, g, adapted to engage with the notches e on the bar E, and kept normally in contact therewith by a spring, i, secured to the frame D.

To the lug G is secured a forked rod, L, connected to the slot f by a pawl, L', adapted to have a sliding motion in said slot, which thus allows the rod to have a play when the lever is either raised or lowered.

To the upper portion of the sliding frame D is pivoted a pawl, J, having the round upper portion, K', adapted to engage with one of the ratchets e on the bar E, and kept in contact therewith by a spring, J', secured to the frame D, and further connected, by a rod, m, and pawl m', to the slot f, in a similar manner as the rod L, but in an opposite position. On the top of the bar E, I secure a seat, E', made, preferably, in the manner here shown.

The several parts here enumerated I may construct of any suitable material—such, for instance, as steel, cast or wrought iron, and the like.

The operation is as follows: The jack being in the position shown in Fig. 2, and the weight to be raised resting upon the seat E', and the pin g on the lug being in engagement with the ratchet and kept in contact therewith by the spring i, the lever F will be pushed downward, thus raising the bar E, and when raised to a



sufficient height the pawl J will, by means of the spring J', be forced into engagement therewith. To still further raise the weight, the pawl L' will be pressed against the lever-arm F, which will thus release the depending lug G from engagement and allow the lever to be raised a sufficient height until the lug falls into engagement with one of the lower ratchets, when the same operation as before described will be repeated. To lower the bar E, it will only be necessary to press both pawl m' and L' against the lever-arm, when the lug G and pawl J will be released, and thus allow the bar to fall. Should the jack in its normal position not be of sufficient height, it can be raised by withdrawing the pin or bolt c' from the sliding frame D until the necessary height is obtained, when the pin will again be inserted, and thus effectually hold it in a stationary position.

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

1. In a lifting-jack, the combination of the frame A and sliding frame D, the bar E, having ratchets e, the lever F, lug G, and spring i, the connecting-rods L m, and pawl J, all substantially as shown and described.

2. In a jack, the frame or pedestal A and adjustable sliding frame D, having the projection C, forming grooves C' C' C', the notched bar E, and inclined slots e', in combination with the forked lever F, slots f f, the depend-

ing lug G, pawl J, and springs i J', adapted to engage with the ratchet e, the rods m L, and pawl m' L, connected to the slots f f, substantially as shown and described.

3. In combination, the stationary and adjustable frames having a notched bar adapted to be raised and held in position by a lever and pawl connected by rod to the lever-arm and held in position by a pin or bolt, all substantially as shown, and for the purpose described.

4. In a lifting-jack, the pedestal having tongues B B, adjustable frame having downwardly-extending arms forming grooves, in combination with a lever-arm provided with a depending lug connected to an operating-rod, pawls J, and connecting-rod, whereby the bar is held in a rigid position, substantially as described, and for the purposes set forth.

5. In a lifting-jack, the vertically-adjustable notched bar E, provided with the downwardly-inclined portion e', adapted to receive a hook, the lever F, lug G, and pawl J, connected to said lever by operating-rod m L, all substantially as described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAS. H. HUMBERT.

Witnesses:

F. A. FOUTS,  
M. P. CALLAN.