(No Model.)

J. B. HALBERT.

LIFTING JACK.

No. 297,255. Patented Apr. 22, 1884.

Fig. 1.

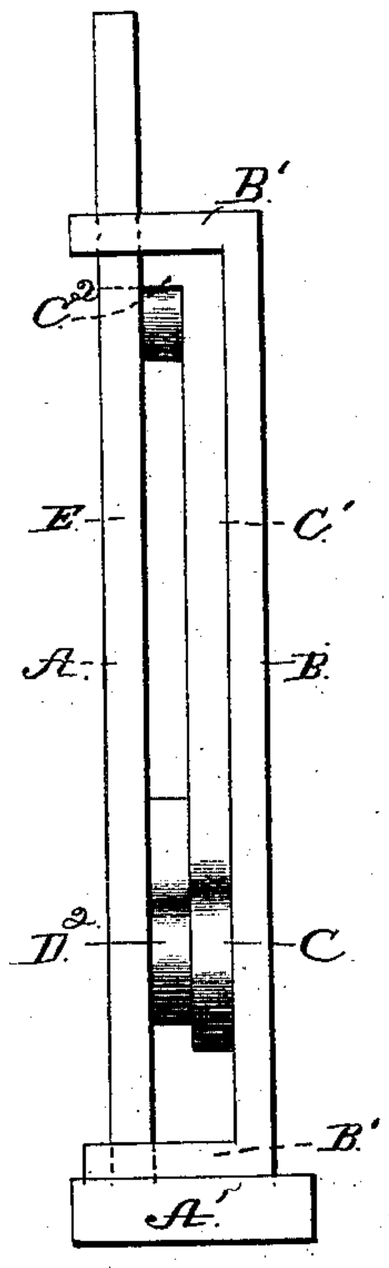


Fig. 2.

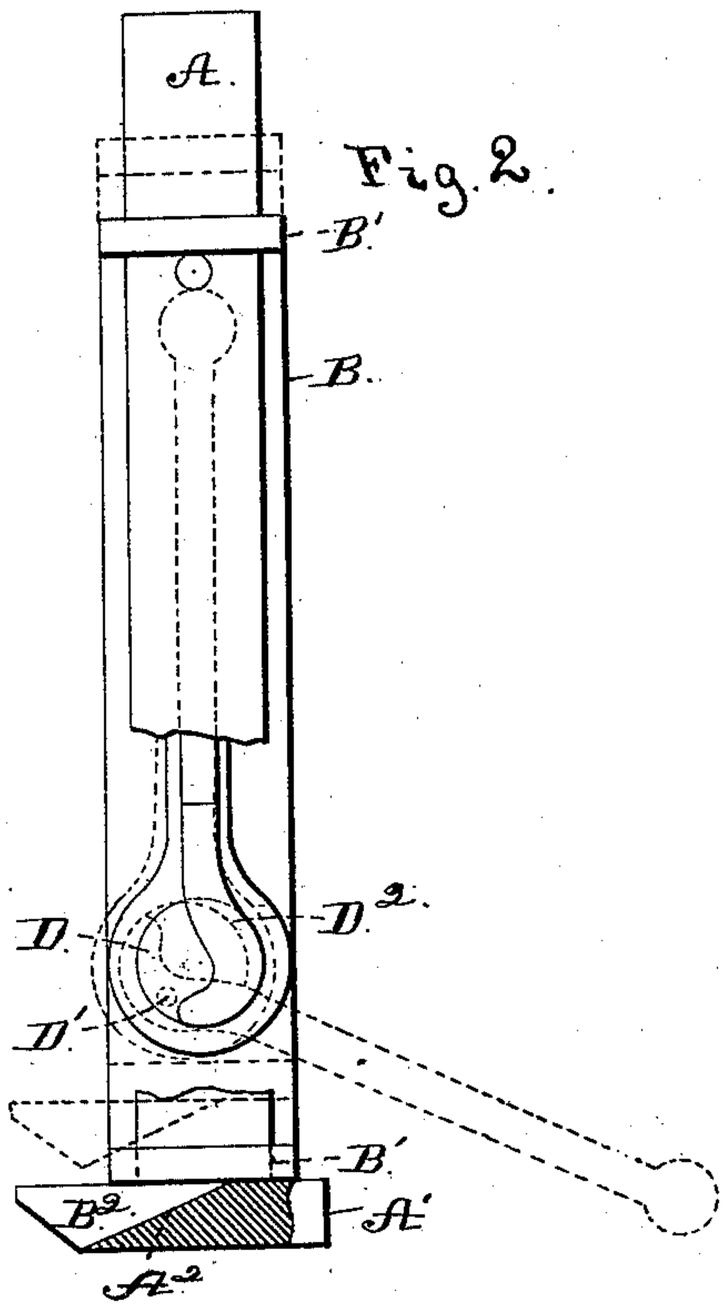


Fig. 3.

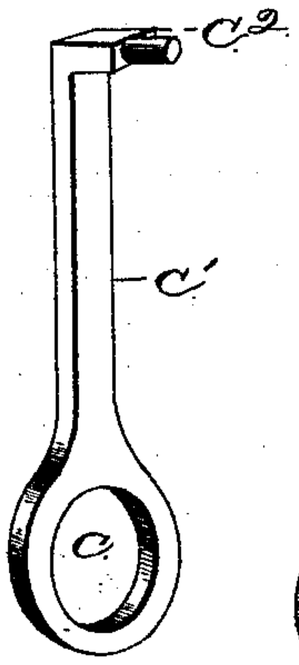
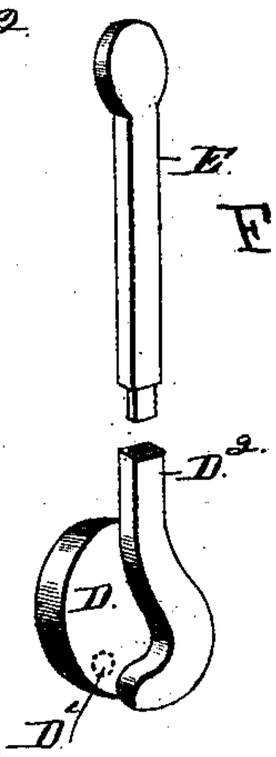


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN B. HALBERT, OF MAITLAND, ASSIGNOR OF ONE-HALF TO EDWARD R. TROFFORD, OF SANFORD, FLORIDA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 297,255, dated April 22, 1884.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HALBERT, a citizen of the United States, residing at Maitland, in the county of Orange and State of Florida, have invented certain new and useful Improvements in Lifting-Jacks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lifting-jacks; and it consists in the novel construction, combination, and arrangement of the several parts hereinafter described and claimed.

In the drawings, Figure 1 is a front view. Fig. 2 is a side view of my improved jack. Figs. 3 and 4 show the pivoted hanger and the eccentric-disk, respectively, in detail.

The standard A is supported on a base, A′, and preferably cast integral therewith when the jack is made of metal. The base A′ is provided in its upper side with a slot or mortise, A^2, fitted to receive the foot of the lifting-frame presently described. This slot is clearly shown in Fig. 2, wherein the standard is broken away for such purpose. It will be noticed the slot at the edge of the base is cut down to the lower side of same. The form of this slot, however, may be varied in many ways. I make it to conform to the foot of the elevating-frame, and when the foot does not extend below the said frame the slot would be unnecessary. It is desired, however, because it enables the foot to be brought low down, for the purpose presently described. It is obvious that this foot might be brought to the plane of the base without slotting the latter. This could be done by carrying the shank of the foot horizontally out over the base, and then bending it down along the edge thereof and carrying the foot forward from it lower end. I prefer, however, the construction shown and before described.

The elevating-frame is composed of the vertical bar B and the bars B′ B′, projected at right angles from the opposite ends of the bar B. These bars B′ are secured on and movable vertically along the standard, preferably by providing said bars with slots fitted to the standard, as shown. However, where so desired, the standards may be provided with a dovetail or other vertical slot in one side and the end of bars B′ fitted thereto; or various other modes might be devised enabling the vertical adjustment of the frame, and yet preventing its lateral displacement, as will be readily understood. The foot B^2 is secured on the lower cross-bar and extends beyond the edge of the base A′, as shown.

The eccentric-ring C has its rod C′ pivoted at its upper end to the standard A, preferably by extending the end of said rod at right angles at C^2 and journaling it in the standard, so as to permit space between the eccentric-ring and the standard for the lever-socket of the eccentric-disk, as shown, and will be presently described. However, where so desired, the eccentric-ring might be made to move close to the standard, in which case it would be necessary to connect the socket to the disk in other ways. For instance, it might be formed on that portion of the periphery of the disk that extended between the ring and the bar B when the above modified form is used. This disk D is pivoted at D′ eccentrically to the elevating-frame, and fits within the ring C. By preference I pivot this disk on the eighth quarter of the disk, as clearly shown. This disk is provided with a lever-socket, D^2, so that the lever may be applied to and removed from it at will, also to enable the use of levers of different lengths. Where so desired, the lever might be cast integral with or rigidly secured to the disk. The eccentric-rod is by preference pivoted at its upper end, so as to bring the lever-socket low down, in order to facilitate or enable the application of greater force thereto. To pivot this rod at its lower end would involve no departure from the principles of my invention. I prefer to use a lever of such length that when the parts are in the position shown in Fig. 1 the end of such lever will rest close under the right-angled upper portion of the rod C′. However, by means of the socket D^2, I am able to readily insert and remove the lever, and can use one of different length at will.

In operation, it will be seen that as the ec-

centric-disk is revolved by means of the lever E the elevating-frame will be raised, as will be appreciated from the drawings and the before-given description. It will also be seen that the frame will stand at any suitable point to which it may be raised without the employment of any pawls or holding-links, as the eccentric cannot be turned by any pressure on the said frame, but will remain at the point to which it is turned.

The base is intended in the particular use for which I designed my machine to fit between the ties of a railway, and the foot B^2 is adapted to be slipped under the rail, so as to elevate the latter. While this is the particular use for which my device is intended, it can be used for any purpose desired of a machine of its class—such as hoisting houses and raising cars and wagons and similar objects—the upper end of the frame being suitably constructed to fit under such objects, as will be understood.

It is apparent that the eccentric-disk might be secured to the standard and the ring to the elevating-frame where so desired; but I prefer the arrangement of parts as shown and before described.

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

1. The combination, in a lifting-jack, of the standard, the elevating-frame, and the eccentric, substantially as and for the purposes set forth.

2. In a lifting-jack, the base provided with a standard and the elevating-frame movable vertically on said standard, combined with the elevating-eccentric, arranged and operating substantially as and for the purposes set forth.

3. In a lifting-jack having a standard and elevating-frame, the eccentric having its ring pivotally secured to one of said parts and its disk pivoted eccentrically to the other, substantially as set forth.

4. In a lifting-jack, the combination, with the standard, of the elevating-frame having its horizontal arms slotted to fit said standard, and the eccentric, substantially as set forth.

5. The combination, substantially as herein described, of the base provided with a tapered or inclined mortise, A^2, and having a standard, as described, the elevating-frame having horizontal arms and provided on its lower side with a foot fitted to said slot A^2, and the eccentric, substantially as and for the purposes specified.

6. The herein-described lifting-jack composed of the base, the standard mounted thereon, the elevating-frame, the eccentric-ring pivoted to the standard, and the disk pivoted to the elevating-frame and provided with a lever-socket and lifting into the eccentric-ring, substantially as set forth.

7. In a lifting-jack, the combination of the base, the standard mounted on the base, the elevating-frame having its horizontal arms secured and movable vertically on the standard, the eccentric-disk pivoted on the elevating-frame, and the ring fitting over said disk and having the upper end of its rod or bar bent at right angles and journaled in the standard, substantially as set forth.

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

JOHN B. HALBERT.

Witnesses:

H. B. EARLY,

E. B. VAN DEMAN.