(No Model.)

E. T. ROBINSON & H. W. GOODWIN.

LIFTING JACK.

No. 306,033. Patented Sept. 30, 1884.

Fig. 1.

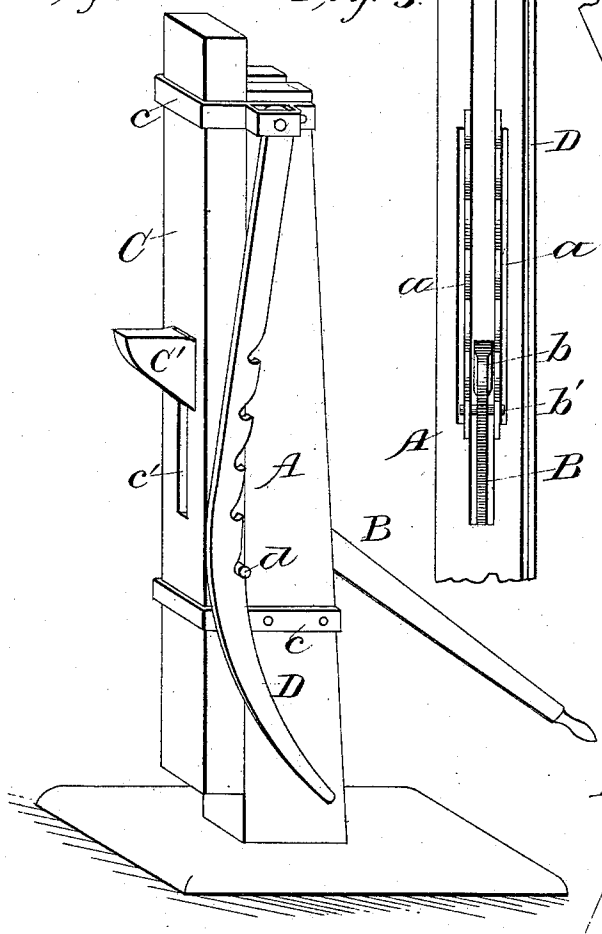


Fig. 3.

Fig. 2.

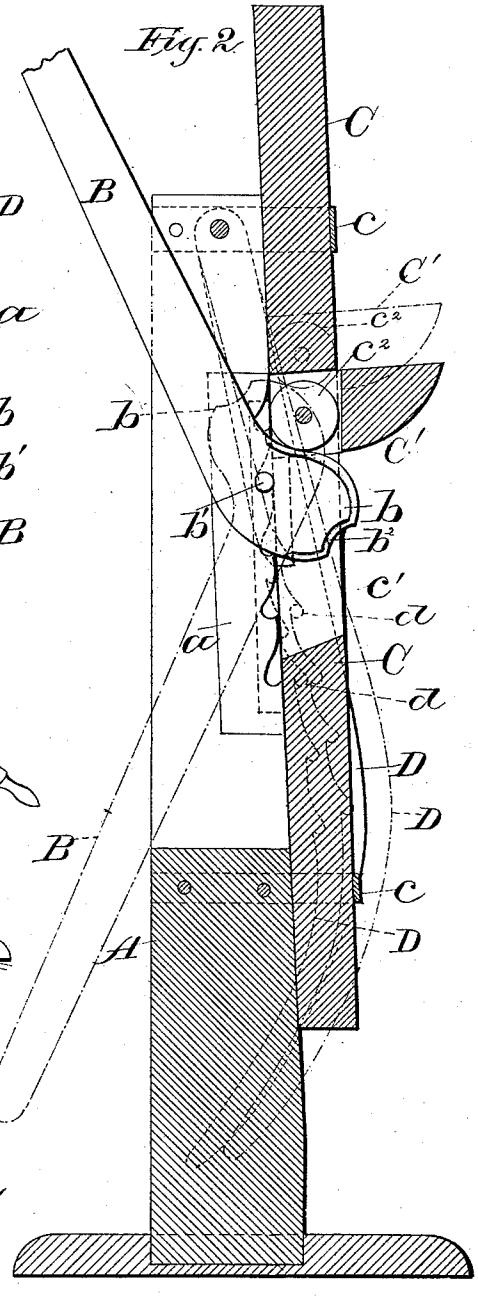
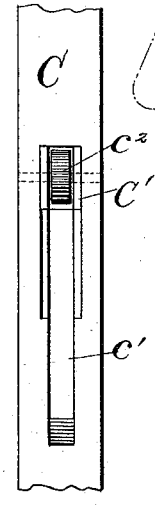


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWARD T. ROBINSON AND HILAND W. GOODWIN, OF BELOIT, WISCONSIN.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 306,033, dated September 30, 1884.

Application filed June 25, 1884. (No model.)

To all whom it may concern:

Be it known that we, EDWARD T. ROBINSON and HILAND W. GOODWIN, of Beloit, in the county of Rock, and in the State of Wisconsin, have invented certain new and useful Improvements in Lifting-Jacks; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to lifting-jacks, and will be fully described hereinafter.

In the drawings, Figure 1 is a perspective view of a wagon-jack embodying our invention. Fig. 2 is a vertical section. Fig. 3 is a front view of a portion of its standard with the slide or shoe piece-removed; and Fig. 4 is a rear view of the shoe-piece removed.

A is the standard, the upper part of which is slotted to accommodate the lifting-lever B and racks *a*. The lever B has an eccentric head, *b*, and a pin, *b'*, that is passed through the base of head *b*, forms trunnions by which the lever is supported in the rack *a a*, and which serve as fulcrums for the lever B. Straps *c c* confine a slide, C, to the face of the standard, but permit it to be raised and lowered by the lever B. The slide C is slotted at *c'* to receive the head of the lifting-lever, and in the upper portion of this slot the rear end of a shoe, C', is inserted, and in this portion of the shoe is pivoted a roller, c^2, to receive the head of the lever.

D is a curved rack-bar that is swung from the upper end of the standard so as to fall down along the side of it. Of course the tendency of the rack-bar is to hang in a vertical line from its pivotal point, and therefore a pin, *d*, is projected from the slide and the rack-bar adjusted so that its rack-edge will rest against it, so that when the slide is raised the teeth of the rack will fall successively under the pin *d* and prevent the slide from dropping when the lever B is raised into the position shown in Fig. 2.

The operation of our device is as follows: The shoe is placed under an axle or hub of a wagon, and the handle of the lever is depressed, the head *b* wedges up under the roller c^2, and lifts the slide until the head passes the dead-center, when the head will form a solid support for the slide. The height to which the shoe can be lifted by one sweep of the lever is determined by adjusting the trunnions of the lever in the notches of the rack. For instance, say the trunnions of the lever rest in the lowest notches of the rack and the slide is down. Now, if the lever be depressed, it will lift the slide until the pin *d* catches in the lower notch of the rack-bar D, and then, as all the weight of the slide is taken by the rack-bar, the handle may be raised and the lever lifted and adjusted to a higher set of notches. This may be done even when the weight of the wagon rests on the shoe. The roller c^2 relieves the head of the lever of friction, and therefore facilitates its action.

While our device is especially designed for lifting wagons, it will be found useful wherever lifting is to be done.

The head *b* of the lever B may have a piece cut out of it, as shown at b^2, forming a socket for the roller c^2 to rest in when it passes the center, if desired.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a lifting-jack, the combination of the slide C, slotted at *c'* to receive the head of the lifting-lever, and shoe C', the rear end of which is inserted in said slot, with the standard A, lever B, racks *a a*, rack-bar D, and pin *d*, substantially as set forth.

2. In a lifting-jack, the combination of the slide C, slotted at *c'* to receive the head of the lifting-lever, and shoe C', the rear end of which is inserted in said slot, and roller c^2, pivoted in this portion of the shoe, with the standard A, and lifting-lever B, having head *b*, supported on pin *b'* in the racks *a a*, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands at Beloit, in the county of Rock and State of Wisconsin, in the presence of two witnesses.

EDWARD T. ROBINSON,
HILAND W. GOODWIN.

Witnesses:
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W. DEW. KELLOGG.