

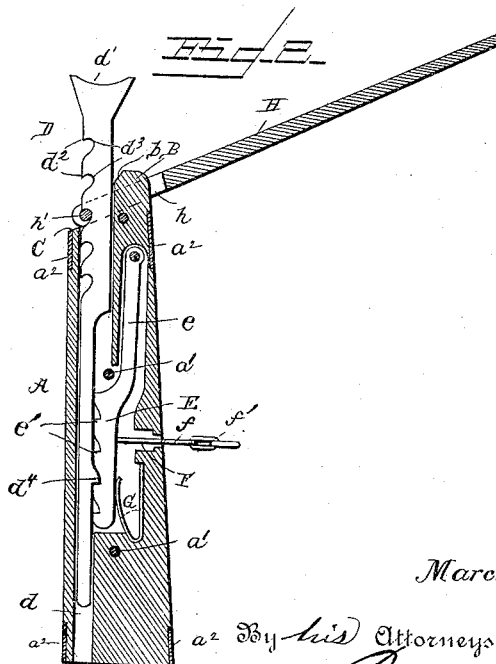
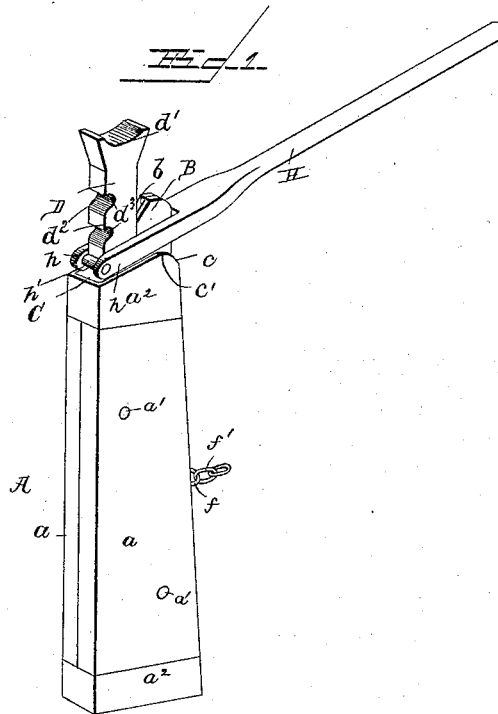
(No Model.)

M. HEDGES.

LIFTING JACK.

No. 383,293.

Patented May 22, 1888.



Witnesses,

Henry G. Dietrich

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By his Attorneys

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UNITED STATES PATENT OFFICE.

MARCUS HEDGES, OF MURRIETTA, CALIFORNIA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 383,293, dated May 22, 1883.

Application filed February 29, 1888. Serial No. 265,732. (No model.)

To all whom it may concern:

Be it known that I, MARCUS HEDGES, a citizen of the United States, residing at Murrietta, in the county of San Diego and State of California, have invented a new and useful Improvement in Lifting-Jacks, of which the following is a specification.

The invention relates to improvements in lifting-jacks; and it consists in the construction and novel combination of parts hereinafter described, and pointed out in the claims hereto appended.

In the drawings, Figure 1 represents a perspective view of the invention. Fig. 2 represents a central longitudinal section of the same.

Referring to the drawings by letter, A designates the frame or casing of the machine, composed of two sections, *a a*, of similar shape, and similarly recessed on their inner or meeting side for the accommodation of the operative mechanism. The said sections are preferably united by bolts *a'*, and have their united upper and lower ends preferably shod with metal clips *a''*. The united upper ends of the section form together, adjacent to one edge, the vertical guide projection and rest B, beveled at its upper inner corner, *b*. The said projection is central, laterally, and considerably thinner than the united thickness of the two sections, which form on each side of the projection B the shoulders C *c*, inclined downwardly from their rounded meeting point or apex *c'* about at right angles to each other, the shoulder C being considerably the longer and running to the edge opposite that on which the projection B is situated.

D is a lifting and supporting bar sliding in the vertical guide-recess *d*, formed on the meeting sides of the sections, and provided on its upper end with the angular head *d'*, which, when the bar is down, rests with its inner edge upon the beveled corner *b* of the projection B. On the outer edge the lifting bar is provided with the downwardly-inclined teeth *d''*, having the rounded notches *d'''* between them, and on its inner edge, below its middle portion, with the downwardly-inclined detent-tooth *d'''*. If necessary to be made small, there may be more than one detent-tooth.

E is a ratchet-bar pivoted at the end of its upwardly-extended arm *e* in the central recess

of the sections, and provided on its inner edge with the upwardly-inclined teeth *e'*, which engage with the detent tooth or teeth of the lifting-bar D.

F is a rod having its inner end secured on the outer edge of said ratchet-bar, passing thence through an opening in the adjacent edge of the casing, and having a loop, *f*, on its outer end, to which is attached the chain *f'*, by means of which the ratchet-bar can be pulled out of engagement with the detent-teeth.

G is a spring, preferably U-shaped, situated in the central recess of the casing, with one arm resting against the adjacent wall of said recess and the other against the outer edge of the ratchet-bar and pressing the latter into engagement with the lifting-bar.

H is a lever-handle, bifurcated at its inner end, with the arms *h* of its bifurcation passing on each side of the guide projection B, and having the transverse bar *h'* connecting the ends of said arms. The said bar engages in the rounded notches *d''* between the teeth *d''*, and when its outer end is depressed it lifts said bar thereby. The lever-handle, when its outer end is raised, rests upon the shoulder C, and when said end is depressed it rests in the shoulder *c*, having turned on the rounded apex *c'* as a fulcrum. The said shoulders and the upper part of the casing below the pivoted point of the ratchet-bar are preferably shod with metal clips, as shown.

The operation of lifting with the jack is evident from the above description, the ratchet-bar teeth slipping over the detent tooth or teeth on the lifting-bar as the latter rises. To lower a weight with the jack, the lifting-bar is partially lifted with the lever to disengage the shoulders of the detent and ratchet-bar teeth. The ratchet-bar is then pulled outward by the chain and rod, as described, and the weight gently lowered by the lever-handle.

The lever, ratchet-bar, and lifting-bar are preferably of steel. The casing may be of wood, but is preferably metal-shod at its ends, as described.

The device is of simple, compact, and strong construction, and is made small enough to be constantly carried without inconvenience, as a tool, in a wagon or carriage, and by it one man can lift the weight of at least three tons,

so that a wagoner could without aid remove and replace the wheel of his loaded wagon.

Having described my invention, I claim—

1. In a lifting-jack, the combination of the
5 internally-recessed casing having the vertical
guide projection at its upper end, the lifting
and support bar sliding in said recessed casing
and provided on its edge with downwardly-
inclined teeth, and the bifurcated lever-handle
10 fitting over the guide projection and upper
end of the lifting-bar and provided with a
transverse bar between the ends of its bifurca-
tion to engage the said teeth of the lifting-bar,
substantially as specified.

15 2. In a lifting-jack, the combination of the
recessed sectioned casing, metal-shod at the
ends, and having at its upper end the shoul-
ders C c, downwardly inclined from their
rounded apex c' at about right angles to each
20 other, and the vertical guide projection B, pro-
vided with the beveled corner b, the lifting-
bar D, having the angular head d' and the
teeth d'', forming between them the rounded
notches d''', and the lever-handle H, having the
25 arms h at its bifurcated inner end, and the
rounded transverse bar h', connecting the ends
of said arms, substantially as specified.

3. In a lifting-jack, the combination of the
recessed casing having a vertical guide pro-
30 jection at its upper end, the lifting and sup-
port bar having the downwardly-inclined teeth
on its outer edge and the downwardly-inclined
detent-tooth on its inner edge, the ratchet bar
pivoted at the end of the upwardly-extending

arm and provided with upwardly-inclined 35
teeth on its inner edge to engage the detent-
tooth on the lifting-bar, and the lever-handle
bifurcated at its inner end to fit over the guide
projection and having a transverse bar to en-
40 gage the teeth of the lifting-bar, substantially
as specified.

4. In a lifting-jack, the combination, with
the recessed casing, the lifting-bar having the
lifting and detent teeth, and the bifurcated
handle provided with a transverse bar to en- 45
gage said lifting-teeth, of the pivoted depend-
ing ratchet-bar and the spring pressing said
ratchet-bar into engagement, substantially as
specified.

5. In a lifting-jack, the combination, with 50
the recessed casing, the lifting-bar having the
lifting and detent teeth, and the bifurcated
handle provided with a transverse bar to en-
gage said lifting-teeth, of the pivoted depend-
ing ratchet-bar, the rod secured to the outer 55
edge of the ratchet-bar and looped at its outer
end outside the casing, the chain attached to
said loop, and the U-shaped spring pressing
the ratchet-bar into engagement, substantially
as specified. 6c

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

MARCUS HEDGES.

Witnesses:

H. H. FOWLER,
W. H. COLERICK.