

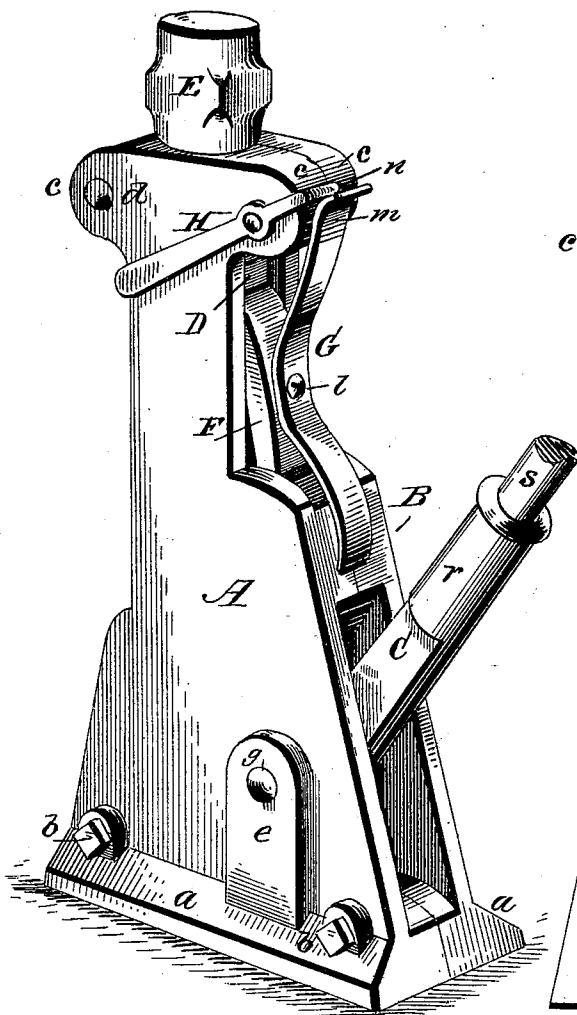
(No Model.)

W. S. HOUGH.
LIFTING JACK.

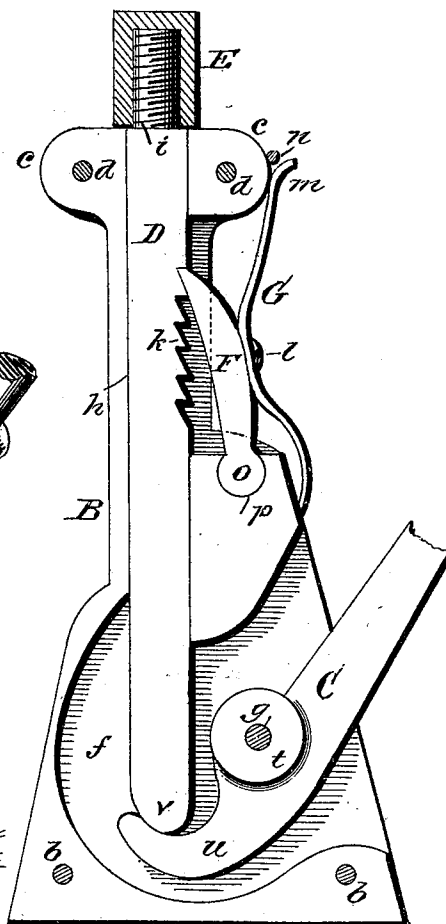
No. 544,304.

Patented Aug. 13, 1895.

~~File 2~~



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Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM S. HOUGH, OF TEMPLE, TEXAS.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 544,304, dated August 13, 1895.

Application filed June 28, 1895. Serial No. 554,294. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HOUGH, a citizen of the United States, residing at Temple, in the county of Bell and State of Texas, have invented certain new and useful Improvements in Lifting-Jacks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a lifting-jack that will possess the requisite strength and lifting power, that will be simple in construction and easy of operation in raising car-axle boxes and other objects for which such a device is especially intended.

The invention consists in a lifting-jack constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view of a lifting-jack constructed in accordance with my invention; Fig. 2, a side elevation, partly in section, with one of the side sections of the frame or standard removed to show the relative positions of the operating parts.

In the accompanying drawings, A B represent two sections, which constitute the frame or standard of the jack and are provided with laterally-projecting supporting-flanges *a* to increase the width of the base of the frame or standard. These two frame-sections A B are detachably connected together by bolts *b* *d* at the bottom and top thereof, respectively, the bolts *d* extending through lateral flanges or lugs *c* at the top of the frame, thus holding the two sections firmly and securely together. The outer sides of the sections A B are cast with offsets *e*, so as to increase the bearing-surface for the pivot *g* of the operating-lever C.

The inner surfaces of the frame-sections A B have mortises *f* and mortises *h*, so that when the sections are secured together a space will be provided for the free movement of the lever C and also the lifting-bar D, respectively.

The lifting-bar D has a screw-threaded extension *i* at its upper end, with which engages a bearing-head E, which is also screw-threaded and capable of vertical adjustment thereon,

as circumstances would require in lengthening the lift of the bar. Should the bearing-head become worn or otherwise worthless for further use, it can be removed and replaced by a new one.

The lifting-bar D is formed with ratchet-teeth *k*, with which engage a pawl F, to which is attached a double-arm spring G at about midway of its ends by means of a screw *l*. The upper and lower ends of the spring G are curved in opposite directions, the lower end thereof bearing against the frame or standard of the jack and the upper end of the spring curving outward and bearing against the flanges or lugs *c*, as shown. This construction of spring gives increased pressure against the pawl F and securely holds it in engagement with the ratchet-teeth of the lifting-bar D. The bending or curving outward of the upper end *m* of the spring G provides a cam, against which acts the curved end *n* of a releasing-lever H, which will press outward the end of the spring and carry with it the pawl F, thus releasing it from the ratchet-teeth of the lifting-bar and allowing said bar to be lowered, as circumstances require. Upon releasing the curved end of the lever H, the spring G will force the pawl F in engagement with the ratchet-teeth of the lifting-bar D and hold said bar in its adjusted position.

The pawl F, as will be noticed, is not pivoted to the frame of the jack, and consequently there are no pivots or other fastenings to break by any strain thereon. The lower end of the pawl is formed with a segmental bearing *o*, which fits in a correspondingly-formed mortise *p* in the frame-sections A B, thereby avoiding the necessity of the use of any pivot or fastenings to secure the pawl in place.

The operating-lever C may be formed integral with the handle or, as shown in the drawings, provided with a socket *r*, to which a wooden handle *s* may be secured.

The lever C is pivoted to and between the frame-sections A B by means of a pivot *g*, which extends through the sides of said sections and through the offsets *e*, which offsets, as previously stated, widen the bearings for the pivot and form a better connection for the operating-lever.

The lever C has laterally-extending should-

ders *t* to increase the thickness of the lever at its pivotal connection, so that it will fill up the space in a lateral direction formed by the mortises *f*, and thereby hold the lever against sidewise movement upon the pivot *g*. The lifting end of the lever *C* terminates in a curved bearing *u* to receive the curved end *v* of the lifting-bar *D*, thereby enabling a more perfect action of the lever upon the lifting-bar and removing the necessity of any fastenings for connecting the two together.

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

1. A lifting jack consisting of a suitable frame or standard, a vertically movable lifting bar with ratchet teeth, a pivoted lever operating against the lower end of the lifting bar, and a device for holding and releasing said bar, consisting of a pawl having its lower end curved to seat itself in a correspondingly curved mortise in the frame or standard, a double-arm spring connected to the pawl and

having its upper end curved, and a pivoted releasing lever having a curved end to act upon the curved end of the spring substantially as and for the purpose specified.

2. A lifting jack consisting of a suitable frame or standard, a vertically movable lifting bar provided at its upper end with an adjustable and removable bearing head and having a curved lower end and provided with ratchet teeth, a pivoted operating lever having a curved extension upon which the curved end of the bar rests, a pawl to engage with the ratchet teeth, a double-arm spring connected thereto, and a pivoted releasing lever to operate the spring, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM S. HOUGH.

Witnesses:

WM. TAYLOR,

GEO. E. WILLCOX.