

No. 612,371.

Patented Oct. 11, 1898.

D. WARNER.
LIFTING JACK.

(Application filed Jan. 11, 1898.)

(No Model.)

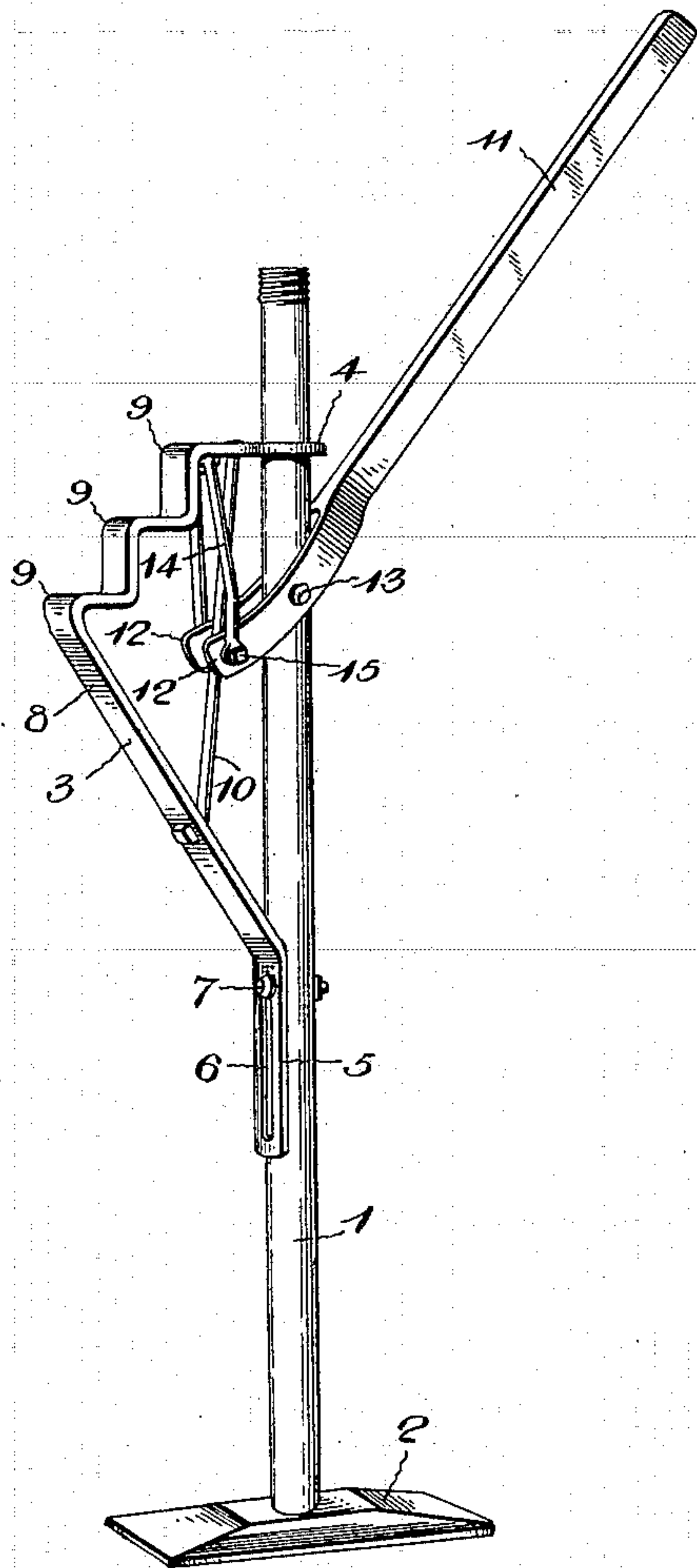


Fig. 1.

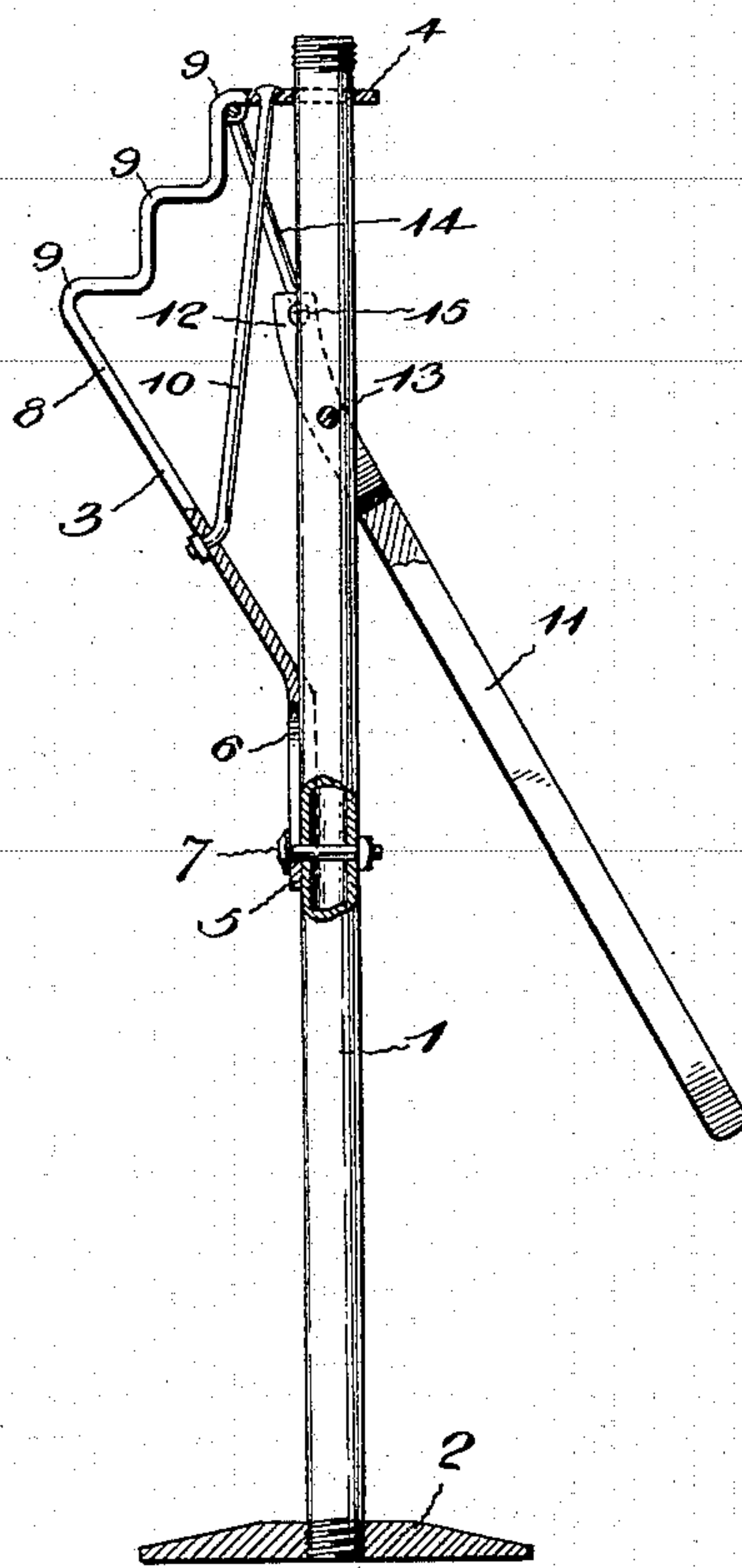


Fig. 2.

Witnesses

J. H. Culverwell, By *his* Attorneys,
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Daniel Warner, Inventor.

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UNITED STATES PATENT OFFICE.

DANIEL WARNER, OF BRONSON, MICHIGAN, ASSIGNOR OF ONE-HALF TO
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LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 612,371, dated October 11, 1898.

Application filed January 11, 1898. Serial No. 666,299. (No model.)

To all whom it may concern:

Be it known that I, DANIEL WARNER, a citizen of the United States, residing at Bronson, in the county of Branch and State of Michigan, have invented a new and useful Lifting-Jack, of which the following is a specification.

The invention relates to improvements in lifting-jacks.

The object of the present invention is to improve the construction of lifting-jacks and to provide a simple, inexpensive, and efficient device in which the parts will automatically lock the lifting-bar in an elevated position without employing a pawl and ratchet or similar device.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a lifting-jack constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view, the lifting-bar being shown in its raised position.

Like numerals of reference designate corresponding parts in both figures of the drawings.

1 designates a vertical standard, preferably constructed of tubular metal and mounted upon a suitable base 2, which is provided with a threaded socket to receive the lower threaded end of the standard. The tubular standard receives a vertically-movable substantially V-shaped lifting bar or frame 3, constructed of a single strip of metal and having its upper and lower ends slidingly connected with the standard.

The upper end 4 of the lifting bar or frame is arranged horizontally and provided with an opening, which is circular to conform to the configuration of the standard. The lower end 5 of the lifting-bar is curved in cross-section to fit the standard and is provided with a longitudinal slot 6, receiving a transverse bolt 7 or other suitable headed fastening device. The slot and the bolt permit the lower portion of the lifting-bar to slide vertically on the standard and operate to limit such sliding movement.

The lifting bar or frame, which has a gen-

eral V shape, has its lower side 8 inclined and extending upward and outward from the standard, and the upper side, which has a general inclination in the opposite direction, is provided with a series of angular bends, forming steps or shoulders for supporting an axle. The sides of the frame are braced by a rod 10, arranged within the same and connecting the upper and lower sides.

The lifting-bar is raised and lowered by means of an operating-lever 11, bifurcated or forked at its inner portion to provide arms 12, which straddle the standard. The arms 12 are pivoted to the standard by a transverse bolt 13 or other suitable fastening device at a point between their ends, and the projecting portions of the arms are connected with the top of the lifting-bar by a substantially U-shaped link 14, which, with the extended portions of the arms, forms a toggle connection and is adapted to lock the lifting-bar in an elevated position, as illustrated in Fig. 2 of the accompanying drawings. The upper end of the link 14 is hinged to the inner face of the lifting-bar at the upper angle formed by the horizontal end 4 and the adjacent vertical portion of the bar, and the lower terminals of the sides of the link are pivoted to the arms 12 by a bolt 15 or other suitable fastening device. The lifting bar or frame is provided at the said upper angle with an eye in which the bend of the link is arranged, the upper end of the brace being spaced from the angle to permit the hinging of the link. When the operating-lever is swung downward against the vertical standard to the position shown in Fig. 2 of the drawings, the pivot 15 is carried beyond the center and the lifting-bar is locked in its raised position.

The invention has the following advantages:

The lifting-jack, which is simple and comparatively inexpensive in construction, is strong and durable and it is adapted to be readily manipulated to raise and lower the lifting-bar.

The lever and the link form a toggle connection and operate to lock the lifting-bar in an elevated position without employing a pawl and ratchet or similar device.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

5 What I claim is—

A lifting-jack, comprising a standard, a lifting-frame constructed of a single strip of metal and composed of the lower side 8 extending upward and outward from the standard at an inclination, and having its lower
10 end vertical and provided with a longitudinal slot, the oppositely-inclined upper sides provided with a series of angular bends forming steps or shoulders and having its upper
15 end horizontal and provided with an opening receiving the standard, a fastening device passing through the said slot and securing the lower end of the frame to the standard, the bracing-rod 10 arranged within the frame

and connecting the upper and lower sides 20 thereof, and having its upper end spaced from the adjacent bend of the frame, an eye arranged in the angle formed by the said bend, the substantially U-shaped link having its bend linked into the said eye and arranged 25 to straddle the bracing-rod, and the forked operating-lever fulcrumed on the standard and pivoted at the sides of its forked portion to the sides of the link, whereby the lever and the link are adapted to swing past the 30 bracing-rod, substantially as described.

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

DANIEL WARNER.

Witnesses:

R. D. STRANG,
C. B. MORSE.