No. 615,745. Patented Dec. 13, 1898.

R. RABY.

LIFTING JACK.

(Application filed Sept. 27, 1898.)

(No Model.)

Fig. 1.

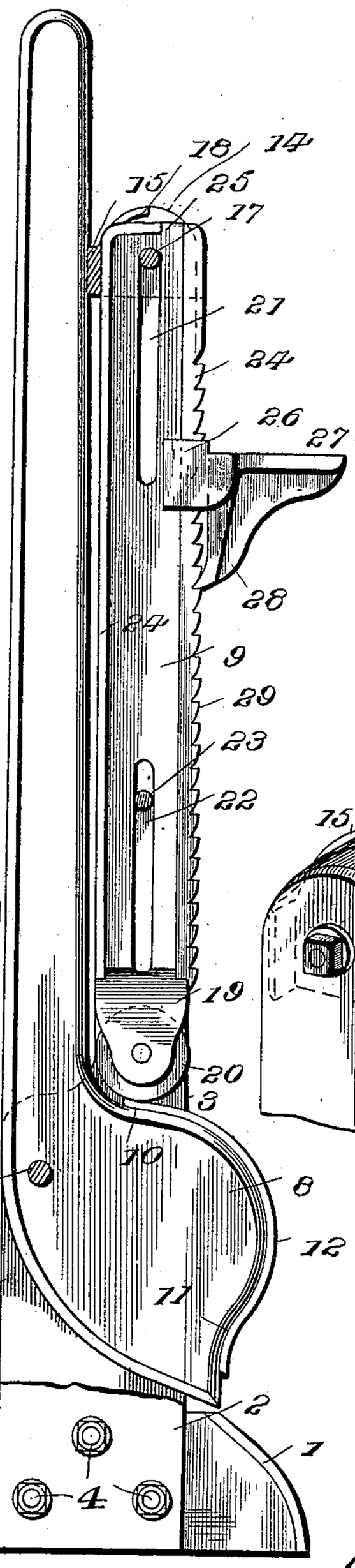


Fig. 2.

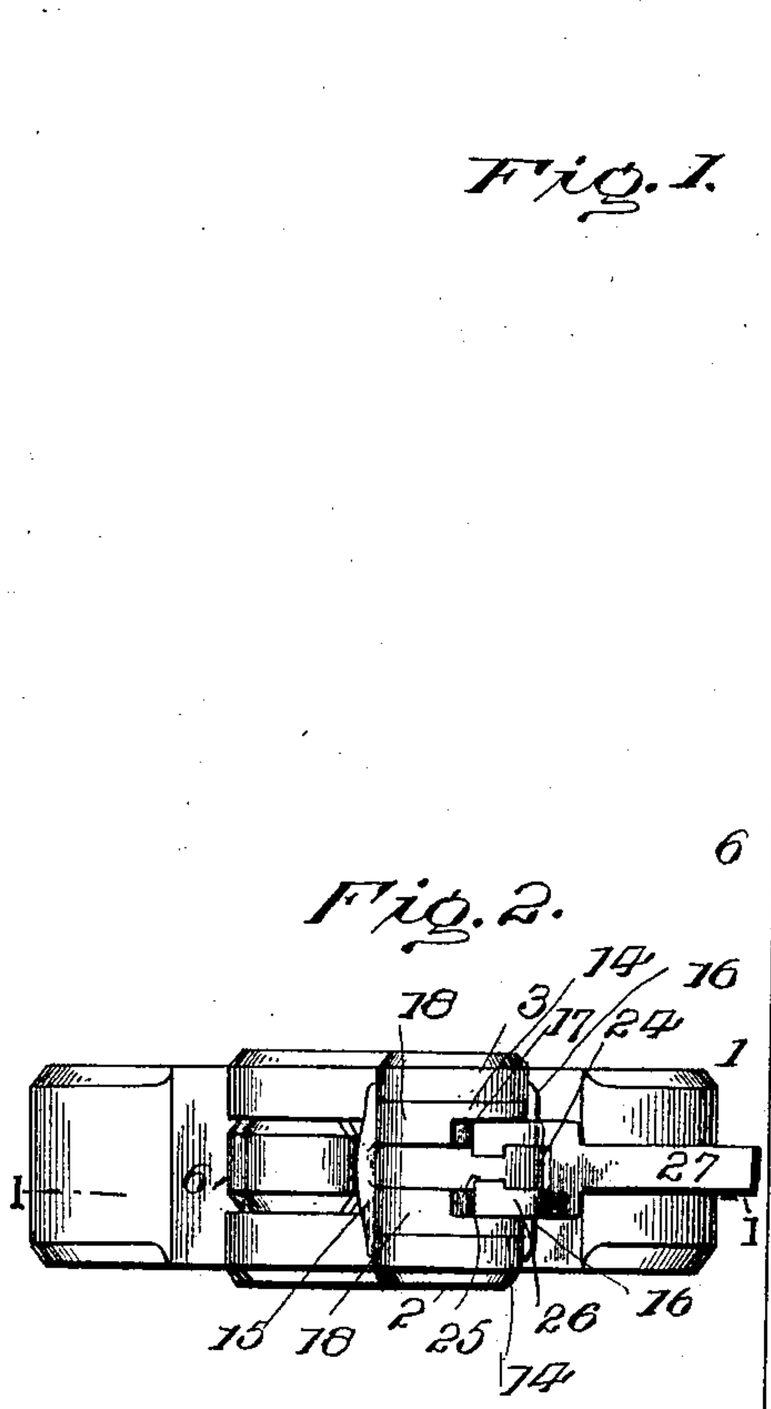
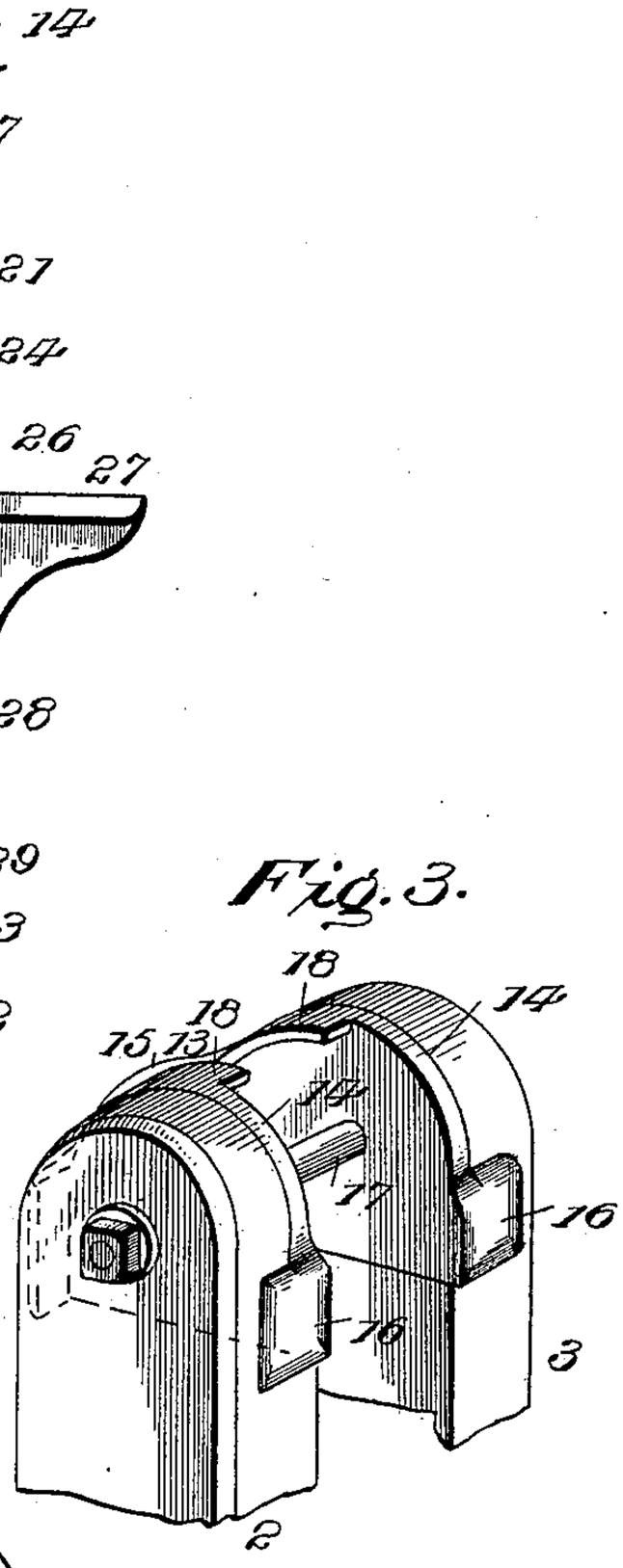


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

RICHARD RABY, OF HARRISBURG, PENNSYLVANIA, ASSIGNOR TO JAMES CAMPBELL AND WILLIAM H. HECKENDORN, OF SAME PLACE.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 615,745, dated December 13, 1898.

Application filed September 27, 1898. Serial No. 692,026. (No model.)

To all whom it may concern:

Be it known that I, RICHARD RABY, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification.

My invention relates to improvements in lifting-jacks of the kind wherein a lifting-bar is used in conjunction with a cam-lever; and the object of my improvements is to simplify and strengthen the construction of such jacks and to render them more compact for the purpose of storage or shipment.

In the accompanying drawings, which illustrate my invention, Figure 1 is a longitudinal sectional view of my improved jack, taken on the line 1 1 of Fig. 2. Fig. 2 is a top plan view of the jack, and Fig. 3 is a perspective view of the upper ends of the standards and the yoke-piece joining the same.

Referring to the drawings, 1 indicates the base or support for the jack, and 2 and 3 indicate a pair of wooden standards similar in construction and secured on either side of the base by bolts 4, passing through the standards and the base. The lower parts 5 of the standard are, as shown, wider than the upper parts, these widened portions extending rearwardly from the vertical line of the standard proper. The lifting-lever 6 is fulcrumed between the standards upon a bolt 7, passing through the rearward extensions 5. The short arm of the lever consists of a cam 8, projecting toward the front of the jack, the surface of said cam being so formed that when the long arm of the lever 6 is raised to its fullest extent, as shown in Fig. 1, the lifting-bar 9 will rest upon the upper part 10 of the cam and thereby hold the lever in its upright position, while when the long arm of the lever is moved downward to its fullest extent the lifting-bar will rest upon the part 11 of the cam. A suitable strap 12 may be placed upon the cam-surface to prevent wear by the lifting-bar.

The standards 2 and 3 are united at their upper ends by a metallic yoke 13, consisting of two flat side pieces 14, joined at the rear by a cross-piece 15. The standards fit against the outer faces of the side pieces 14, and the latter are provided with flanges 16, which project outwardly and embrace the edges of the standards. A bolt 17, passing through the standards and the yoke, holds the several parts securely together. The upper surfaces of the side pieces 14, as shown in Fig. 3, have the same general outline as the upper ends of the standards and lie flush therewith. A pair of flanges 18 project inwardly from the opposing faces of the side pieces 14, said flanges extending from the cross-piece 15 to about the central line of the side pieces and forming guides for the bar 9.

The lifting-bar 9 is formed with a yoke 19 at the bottom, and a roller 20, adapted to roll upon the strap 12, is journaled in the arms of the yoke. This yoke is nearly equal in width to the distance between the standards and forms a guiding means for holding the lower end of the bar centrally between the standards. Longitudinal guide-slots 21 and 22 are formed in the bar, through which extend the bolts 17 and 23, respectively. As shown, a rib 24 extends around the top and edges of the bar, being cut away at 25, so that the flanged arms 26 of an adjustable step 27 may be passed downward over the rib upon the front edge of the bar. The step 27 is provided with a dog 28, which engages a toothed rack 29, formed upon the front edge of the bar. The flanged arms 26 surround the rib loosely, so that the dog may be readily disengaged from the rack when desired. The bar 9 is about equal in width to the standards which inclose it, and the flanged arms project into the space between the standards. The step may be moved freely up and down through the yoke 13, as the guides 18 do not project forward far enough to interfere.

In operation the bar is raised or lowered by means of the lever in the usual manner. By reason of the location of the pivotal point of the lever at one side of the lifting-bar the long arm of the lever in its raised position will lie parallel with and close to the standards and will be held in this position by the weight of the lifting-bar resting upon the short arm of the lever. The jack will therefore occupy little space when not in use or

when packed for storage or shipment. For the latter purposes the step 27 will be removed.

The yoke 13 and bolt 17 hold the standards rigidly in position, said bolt also serving as a guide-pin in the slot 21 to prevent forward or backward movement of the bar, while the guides 18 upon the yoke prevent lateral motion of the bar.

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

1. In a lifting-jack, the combination with a pair of standards and a lifting-bar movable vertically between said standards and having a longitudinal slot, of a yoke arranged between the upper ends of said standards and having guides for said bar, and a bolt extending through said standards and yoke and through the slot in the lifting-bar, substantially as described.

2. A lifting-jack comprising a pair of parallel standards, a slotted lifting-bar movable vertically between said standards, a yoke arranged at the upper ends of said standards and having inwardly-projecting guides for said bar, bolts uniting said standards and passing through the slots in the lifting-bar, and a cam-lever pivoted at one side of the vertical line of the lifting-bar, substantially as described.

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

RICHARD RABY.

Witnesses:
WM. C. ARMOR,
MARY E. HAUER.