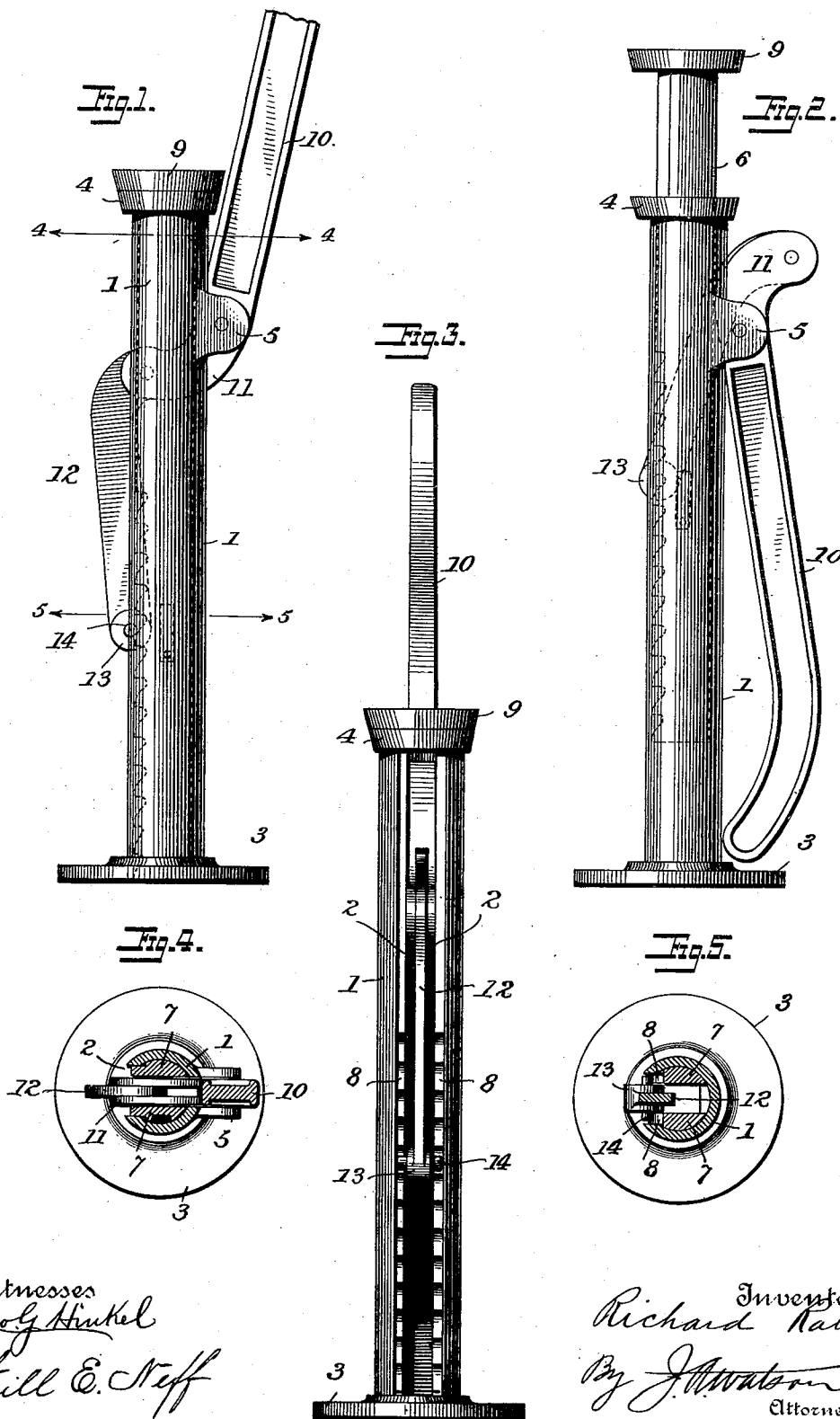


(No Model.)

R. RABY.
LIFTING JACK.

No. 507,038.

Patented Oct. 17, 1893.



Witnesses
John G. Hinkel
Will E. Steff

Inventor
Richard Raby
By *J. Watson*
Attorney

UNITED STATES PATENT OFFICE.

RICHARD RABY, OF YORK, PENNSYLVANIA, ASSIGNOR TO D. A. EBERLE, OF
SAME PLACE.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 507,038, dated October 17, 1893.

Application filed August 24, 1893. Serial No. 483,953. (No model.)

To all whom it may concern:

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

My invention relates to lever lifting jacks, and it consists in a jack which is particularly adapted for raising wagon axles and for other light work.

The object of the invention is to produce a jack which is strong and simple in construction, and in which the operating parts are protected.

My improved jack will be found very handy and not liable to get out of order, and it may be embodied in a light and graceful design.

In the accompanying drawings, wherein like reference signs refer to similar parts throughout the several views, Figure 1 is a side elevation showing the plunger of the jack in its lowest position. Fig. 2 is a similar view showing the handle depressed and the plunger raised. Fig. 3 is a front view, the handle being elevated in the rear. Fig. 4 is a section on the line 4—4 of Fig. 1, and Fig. 5 is a section on the line 5—5 of Fig. 1.

Referring to the drawings, 1 represents a cylindrical casing which has a longitudinal opening 2 upon its front side. Integral with the casing I preferably cast a foot plate 3, a head plate 4, and a pair of lugs 5 near the top and opposite the opening 2.

Within the casing 1 is a plunger 6 consisting of two separated parts 7—7 upon the front edges of which are racks or rows of teeth 8. The parts 7—7 are preferably cast integral with a head or platform 9 which is adapted to receive the axle or other object to be lifted. The plunger 6 is arranged to fit the casing 1 and to slide longitudinally therein.

As shown in the drawings, the interior of the casing is circular and the body of the plunger is also circular. To prevent the plunger from turning in the casing the racks 8 project into opening 2 and are guided by the walls of the opening.

The operating lever 10 is pivoted between the lugs 5 and between said lugs there is an

opening in the back of the casing through which the shorter end 11 of the lever is free to pass. The shorter end of the lever is bifurcated and between its branches is a link 12 which is connected to the lever near the end by a transverse pivot. The shorter end of the lever is free to move between the sections 7—7 of the plunger, and the lower end of the link 12 has a boss or hub 13 which is of sufficient width to fit between and be guided by the sections of the plunger. Through the boss 13 there is a pin 14 which projects from each side of the boss, and the ends of the pin are adapted to engage the teeth of the racks 8. The link 12 and the shorter arm of the lever are both curved in such a manner as to bring the pin 14 substantially in line with the pivot pins passing through the lever when the handle is down in its lowest position, the effect of which is to prevent the weight on the plunger from throwing the lever handle up after it has been forced down to its lowest position as shown in Fig. 2.

The operation of my improved jack is as follows: After it is placed under the object to be lifted, a wagon axle for instance, the plunger is raised by the handle until the head of the plunger is up to the axle, the handle being in the position shown in Fig. 1. The handle is then pressed down to the position shown in Fig. 2, during which movement the pins 14 engage the racks 8 and raise the plunger to the position shown in Fig. 2. To lower the jack the lever is first raised, and afterward the link 12 is pulled out slightly to free the pins 14 from the racks, and the plunger then drops to its lowest position as shown in Fig. 1.

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

1. In a lever jack the combination with the hollow casing having a longitudinal opening in front, an opening in the rear and lugs upon the sides of said latter opening, of a lever pivoted in said lugs and having its shorter end adapted to move within the casing, a link pivoted to the shorter end of the lever and provided with a transverse pin at its lower end, and a plunger adapted to move within

and be guided by the casing and consisting of separated sections having racks at their forward edges adapted to slide in the front opening of the casing and to be engaged by the pin in the lower end of the link, substantially as described.

2. In a lever jack the combination with a hollow cylindrical casing having a foot plate, longitudinal openings upon its front and rear sides, and lugs upon the sides of the rear opening, of a substantially circular plunger consisting of two separated portions having racks at their front edges and united at their

upper ends by a head or platform, a lever pivoted between the lugs and having a bifurcated curved shorter arm, and a link pivoted to the shorter arm of the lever and having a transverse pin in its lower end adapted to engage the racks of the plunger, substantially as described.

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

RICHARD RABY.

Witnesses:

M. H. JACOBS, Jr.,
HARRY P. MILLER.