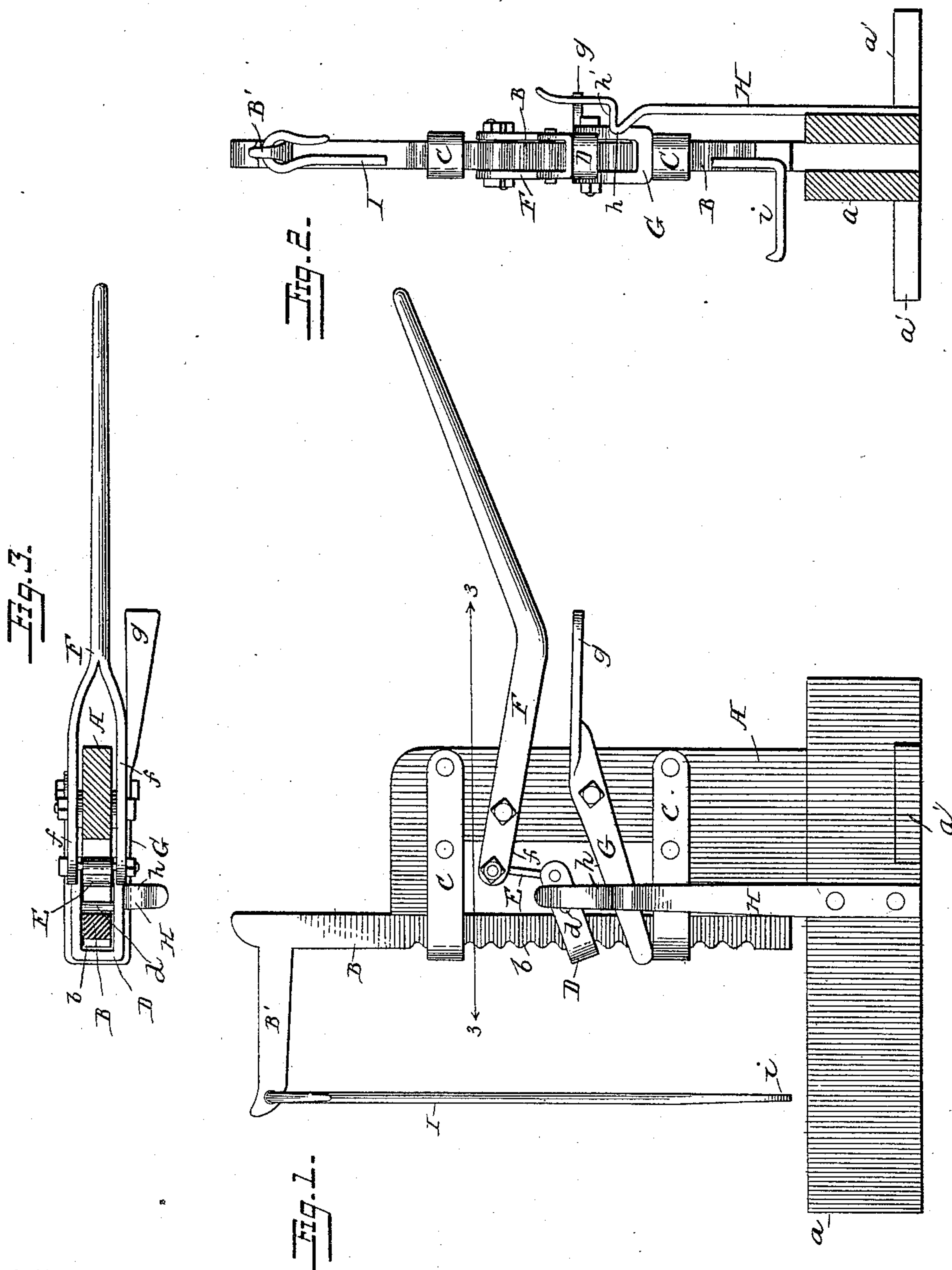


(No Model.)

F. D. WALLACE.
LIFTING JACK.

No. 428,027.

Patented May 13, 1890.



Witnesses
Jno G. Hunkel
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UNITED STATES PATENT OFFICE.

FRANCISCO D. WALLACE, OF CLYMER, NEW YORK.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 428,027, dated May 13, 1890.

Application filed February 15, 1890. Serial No. 340,576. (No model.)

To all whom it may concern:

Be it known that I, FRANCISCO D. WALLACE, a citizen of the United States, residing at Clymer, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification.

My invention relates to lifting-jacks; and it consists in certain improvements in the construction thereof, to be hereinafter pointed out.

Figure 1 is a side view of a lifting-jack embodying my invention. Fig. 2 is a front edge view of the same. Fig. 3 is a horizontal section on the line 3 3, Fig. 1.

In the drawings, A designates the standard of the jack, which may be of wood or of metal, and which is provided with suitable base or foot pieces *a a'*. Against this standard is held the lifting-bar B, it being laterally supported by the clips or guide-pieces C, but free to move vertically. At its upper end it is provided with an arm B', constituting a rest for a carriage-axle or other object to be lifted. The front edge of the lifting-bar is by preference toothed or notched, as at *b*, in order that the gripper D may the better and more surely engage therewith. This gripper is made in the form of a loop surrounding the bar B, and is connected by the link E with the short arm of the operating-lever F, which is fulcrumed to the standard A.

d is a cross bar or rod extending across the gripping-loop D about midway between its ends in rear of the lifting-bar, and at such distance from the front or gripping edge of the loop that when the latter is in a horizontal position the bar may slide freely up and down between the cross-bar and the edge of the loop; but when the loop is inclined, as shown in the drawings, the bar is tightly grasped thereby.

The fulcrum of the lever F is so situated that its handle end is sufficiently heavy to elevate its opposite end, and with it the link E and the inner end of the tilting gripper, thereby causing it (the gripper) to normally maintain an inclined position, gripping the lifting-bar. The forward end of the lifting-lever is by preference bifurcated, the two

arms *f* straddling the standard A and having the link E pivoted between their ends.

G is the catch for holding the lifting-bar in the position at which it is desired it should be sustained, and for sustaining the bar while the gripper is being moved down to take a new bite on the bar. It is fulcrumed to the standard A, and has a loop portion passing around the lifting-bar, the toothed edge *b* of which it engages and holds against downward movement when it is in the inclined position shown in Fig. 1. The rear end of the catch is extended beyond its pivot and is flattened to form a foot-piece *g*.

H is a spring having an offset or shoulder *h*, so arranged as to hold the catch-lever G in the position shown in Fig. 1, with a sufficient but not unyielding force. By reason of the under surface of the offset *h* being inclined the catch may be forced past the same and released from the spring, at the same time disengaging the lifting-bar B. The upper portion *h'* of the offset serves as a stop or rest for the catch, serving to hold it out of engagement with the lifting-bar so long as it is above the offset of the spring. The relations of the catch-lever G and the gripper D to each other are such that when the catch-lever is released or forced away from the spring H it comes into contact with the front end of the gripper, tilting it into a position to disengage the lifting-bar, which at the same time, not being supported by the catch H, will be free to descend.

I is a link carried by the arm B' of the lifting-bar and having a hooked end *i*. It is to be employed when the jack is being used for lifting fences, posts, or other objects under which the arm B' cannot be placed, but with which the hook *i* of the link may be made to engage.

The operation of the jack may now be easily understood. When it is desired to work it, the catch G is made to engage the edge *b* of the lifting-bar, this being done by so far moving to one side the spring H that the catch falls below the offset *h*, by which, when the catch is in the position shown in Fig. 1, it is held against the bar B. The operating-lever is now worked until the lifting-bar is elevated to the proper height. When it becomes de-

sirable to lower the lifting-bar, the operator, placing his foot upon the flattened portion *g* of the catch-lever, presses downward thereon or otherwise forces the catch *G* from beneath the retaining-shoulder of the spring, releasing the bar from the catch and at the same time disengaging the gripper from the bar in the manner already described. While I prefer to make the edge *b* of the bar *B* notched or toothed, as shown, it might be left plain and the gripper and catch still operate satisfactorily thereon.

Without limiting myself to the precise construction and arrangement of the parts shown, what I claim is—

1. The combination, with the operating-lever and the lifting-bar, of a catch for holding or sustaining the same, and a spring independent of the catch provided with a retaining shoulder or offset for holding the catch in engagement with the lifting-bar, substantially as described.

2. The combination, with the operating-lever and the lifting-bar, of a catch for sustaining the lifting-bar, and a spring having a

shoulder for holding the catch in engagement with the lifting-bar, and a rest or stop for sustaining it out of engagement with the bar, substantially as described.

3. The combination, with the operating-lever and the lifting-bar, of the gripper moved by the operating-lever to raise the lifting-bar, and a movable catch for sustaining the bar, the catch being arranged, substantially as described, to contact with the gripper and move it to disengage the bar when the catch is moved, as and for the purposes set forth.

4. The combination, with the lifting-bar, of the tilting gripper, the operating-handle connected therewith, the catch *G* below the lever, and the spring *II*, provided with an offset for holding the catch, substantially as described.

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

FRANCISCO D. WALLACE.

Witnesses:

JOHN G. KOLSTEE,
HENRY MEYERINK.