

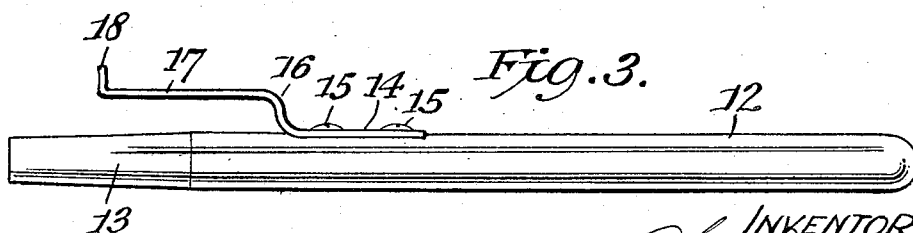
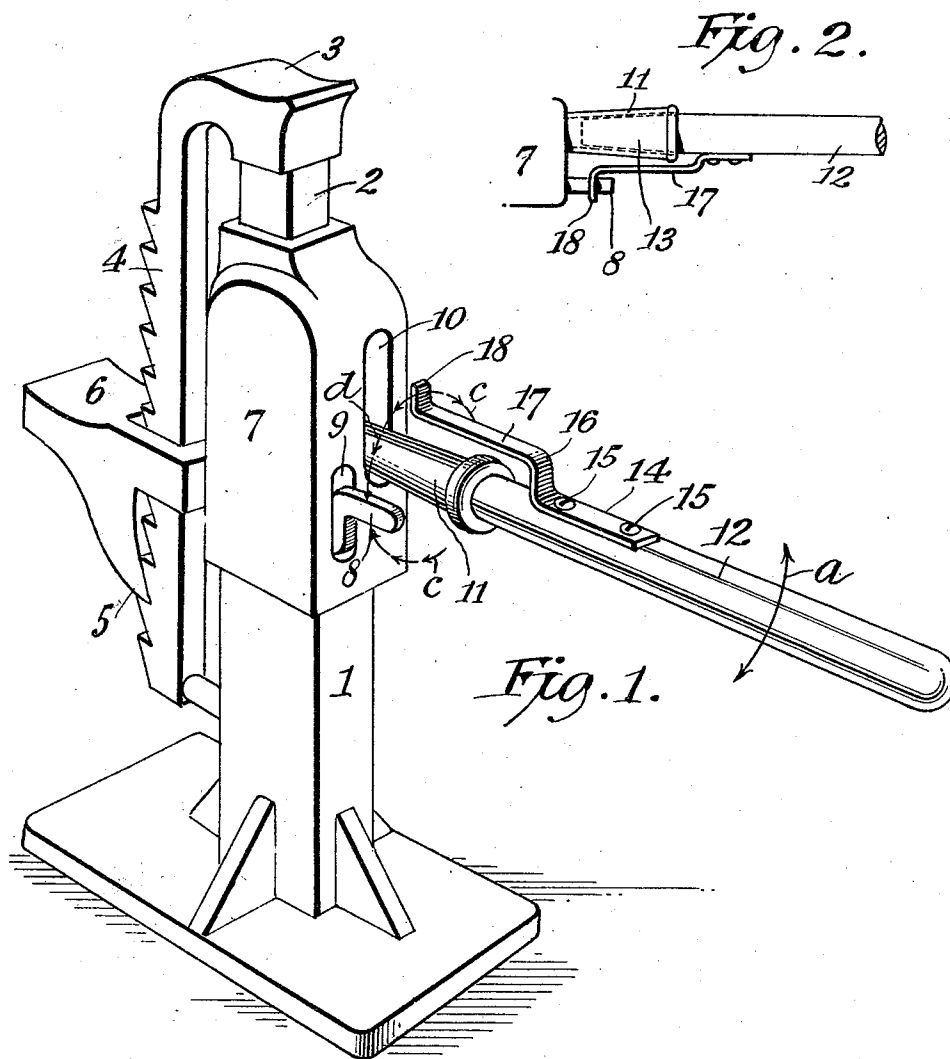
July 29, 1924.

1,503,087

A. J. BROWN

LIFTING JACK

Filed Feb. 28, 1923



INVENTOR.
Arthur J. Brown
By *H. E. Bernhard*
Attorney

UNITED STATES PATENT OFFICE.

ARTHUR J. BROWN, OF NEW YORK, N. Y.

LIFTING JACK.

Application filed February 28, 1923. Serial No. 621,742.

To all whom it may concern:

Be it known that I, ARTHUR J. BROWN, a citizen of the United States, residing at the city of New York, borough and county of Bronx, State of New York, have invented a certain new and useful invention pertaining to Lifting Jacks, of which the following is a specification:

This invention relates to lifting jacks and more particularly to that class of lifting jack in which provision is made for quick reversal of the action of the pawls, and has for its object among others to provide a simple and efficient means applicable to various forms of lifting jack whereby the reversing action of the pawls, when the jack is set beneath the automobile or other object where the pawls are practically inaccessible, is accomplished with ease and certainty without the necessity of reaching under the car.

It has for a further object to provide for the accomplishment of this end in a simple and efficient manner.

I provide a lever or operating bar detachable from the lever socket and carrying a finger so that when the bar is rotated in one direction within the socket the finger acts upon the reversing pawl so as to allow the operating bar to raise the car or other object, while the reverse rotation of the operating bar in the socket brings the finger into contact with the other side of the reversing pawl so as to change the direction of the movement of the lifting jack and permit the car or other object to be lowered through the operation of the operating bar.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention, in its preferred form, is clearly illustrated in the accompanying drawing, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a lifting jack embodying the features of my invention.

Figure 2 is a plan looking down on the operating bar with its finger engaging the upper surface of the arm of the pawl.

Figure 3 is an enlarged view of the operating bar and its finger.

Like numerals of reference indicate like parts throughout the different views.

Referring to the various parts by numerals, 1 designates the frame or stand, 2 the lifting bar and 3 its supporting head.

4 is a toothed bar depending from the head and with which engages the pawl 5 carried by the supplemental rest 6.

7 is the casing or chamber enclosing the pawl, but as my present invention in no wise pertains to the form or character of the lifting jack per se nor the particular construction and arrangement of the parts thereof except in so far as pertains to the means for reversal of the pawl, such mechanism has not been shown, and it is to be understood as being of any well-known or approved type or form of construction.

8 is an arm or finger carried by the pawl and working through an aperture 9 in the member 7.

10 is an elongated slot disposed vertically of the member 7 and through which works the lever socket 11, all as clearly illustrated in Figure 1.

12 is the operating bar. It is shown as being provided with a tapered end 13 to fit the correspondingly shaped socket 11, although this is not necessary.

The operating bar 12 is revolvably mounted in its socket. It carries a finger rotatable with the operating bar and arranged exteriorly of the member 7, as seen clearly in Figure 1, where it is always in view so that the operator can readily see its position relative to the finger 8, although this can also be readily determined by the engagement of the lateral terminal of the finger on the operating bar with the arm or finger 8 of the pawl. The finger on the operating bar 12 comprises the portion resting upon the bar and secured thereto in any suitable manner, as by the screws or the like 15, said member being offset, as at 16, and thence extended to form the member 17 substantially parallel with the bar and socket and its free end terminating in the offset member 18 substantially at right angles to the length of the member 17, as seen clearly in Figure 1. The offset 16 is provided in order to bring the member 17 out of contact with the end of the socket 11, as will be readily understood upon reference to Figure 1.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawing. Briefly stated, it is as follows:—

With the parts in the position in which they are shown in Figure 1, which is practically the normal position, although the operating bar 12 may be turned further to the right or left as per arrow *a*, it being noted that the finger 17 is in such position that its angled member 18 is out of contact with the arm 8 of the pawl. Rotating the operating bar 12 in the direction of the arrows *d* in Figure 1 will bring the member 18 into engagement with the upper face of the arm 8 of the pawl, as seen in Figure 2 in which the operating bar is shown as having been given a quarter turn from its position seen in Figure 1. Further rotation of the operating bar 12 will result in forcing the arm 8 downward, as will be readily understood upon reference to Figure 1. The bar is then manipulated up and down in the usual way to give movement to the lifting bar 2 in one direction.

When it is desired to actuate the lifting bar in the opposite direction, the operating bar 12 is rotated in the direction of the arrows *c* in Figure 1, bringing the member 18 of the finger 17 against the under side of the arm 8, and then when the operating bar 12 is manipulated up and down it will actuate the pawl to cause movement of the lifting bar in the opposite direction.

It will be noted that the operator is not required to reach under the car in order to reverse the pawl. All that he has to do is to insert the operating bar 12 in the socket 11 and rotate the bar therein to the right or left according to whether he wishes to move the lifting bar in one direction or the other.

Modifications in detail, arrangement and proportion of parts may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is:—

1. In a lifting jack, the combination with a socket member, and a reversing pawl mechanism, of a handle bar engageable detachably with the socket member, and a finger carried by the handle bar and positioned exteriorly of the socket member, said handle bar being rotatable at will relatively to the socket member and said finger being engageable on the rotative movement of the handle bar with the reversing pawl mechanism.

2. In a lifting jack, an operating bar and pawl reversing means carried by said operating bar exteriorly of the lifting jack, said operating bar being rotatable only on a longitudinal axis and said pawl-reversing means being adapted by said rotatable motion to change the direction of movement of the lifting bar.

3. In a lifting jack, an operating bar mounted relatively to said lifting jack for rotative movement on its longitudinal axis, and means disposed exteriorly to the lifting jack and carried by the operating bar for rotative movement therewith, said means being co-operable with pawl reversing mechanism of said jack and engageable by the rotative motion of the lifting bar with one side or the other of said pawl reversing mechanism.

4. In a lifting jack, a revolvably mounted operating bar and a finger carried thereby and movable therewith for engagement with opposite sides of a projecting member of the lifting bar actuating pawl.

5. In a lifting jack, an operating bar, and a finger spaced laterally with respect to said bar rearwardly of that part of the bar insertible into a socket member of said lifting jack, said finger being carried by the bar and being co-operable with a pawl-reversing mechanism for effecting a reversal in the direction of movement of the lifting bar.

6. In a lifting jack, an operating bar, and a pawl-reversing finger carried by said bar, said finger being offset relatively to the side of said bar to dispose the free end of the finger out of the plane of a receiving socket for said operating bar.

7. In a lifting jack, an operating bar adapted to be rotatably received in its socket and a finger carried by the operating bar and rotatable therewith, said finger extending in the direction of the length of said operating bar and said finger having its free end adapted to be disposed in the path of a projecting member of a pawl of the jack.

8. In a lifting jack, an operating bar one end of which is insertible into a receiving socket of said jack for rotative movement therein, and a finger fixedly attached to said bar for rotative movement therewith, said finger being offset intermediate its ends and said offset portion of the finger extending substantially parallel to that part of the operating bar which is adapted for entry into said socket.

9. In a lifting jack, an operating bar one end of which is insertible into a receiving socket of said jack for rotative movement therein, and a finger fixedly attached to said bar rearwardly of that part of the bar adapted for entry into said socket, said finger being rotatable with the bar and said finger being offset intermediate its ends and the free offset portion of said finger being provided with an angular terminal.

In testimony whereof I have hereto signed my name this 27th day of February, 1923.

ARTHUR J. BROWN.