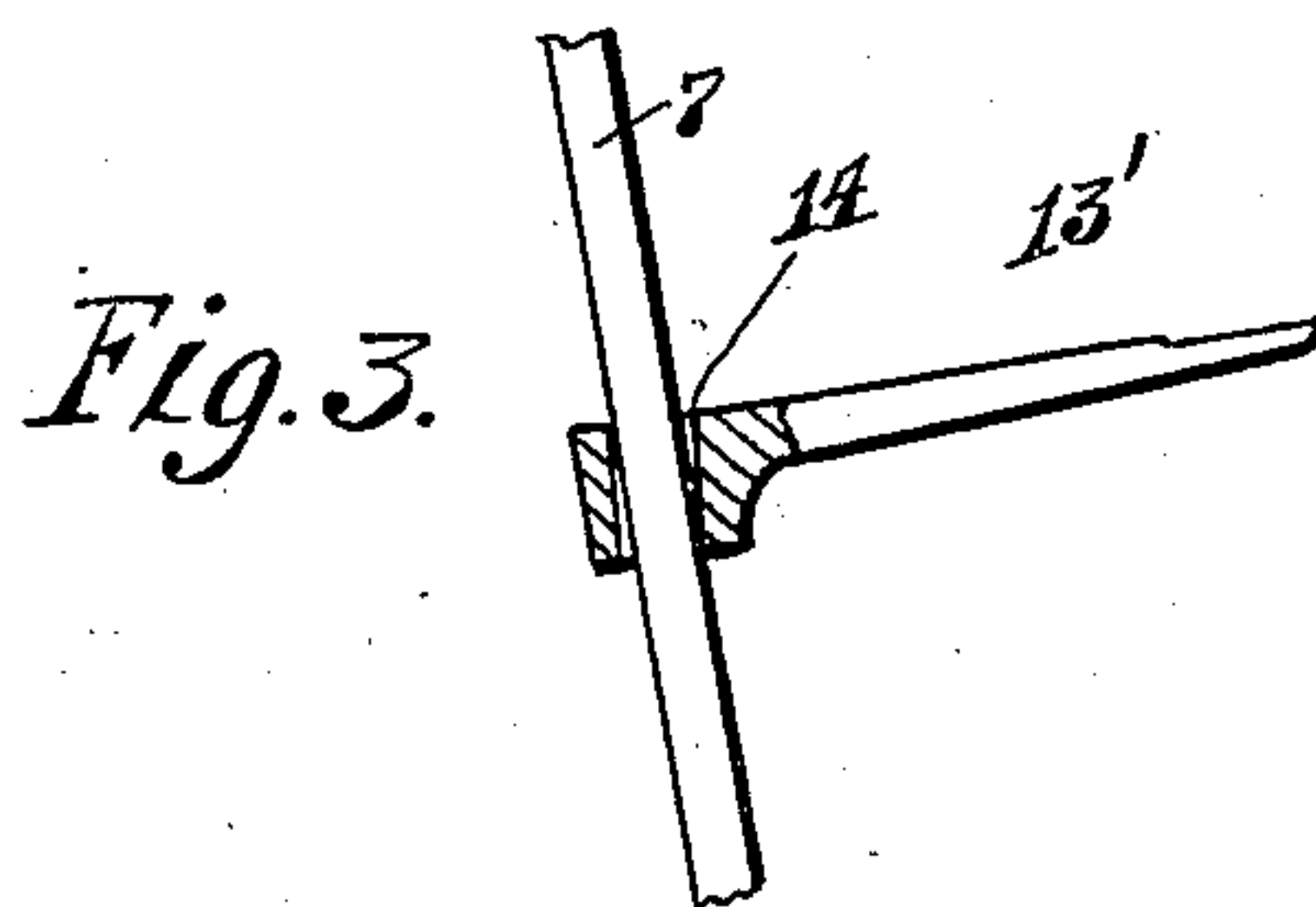
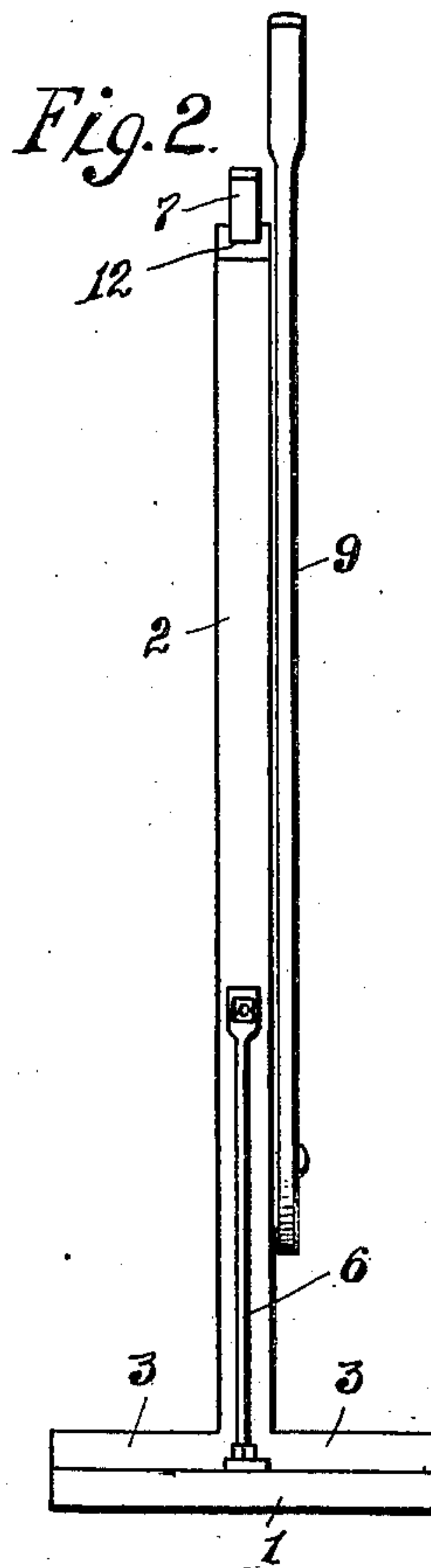
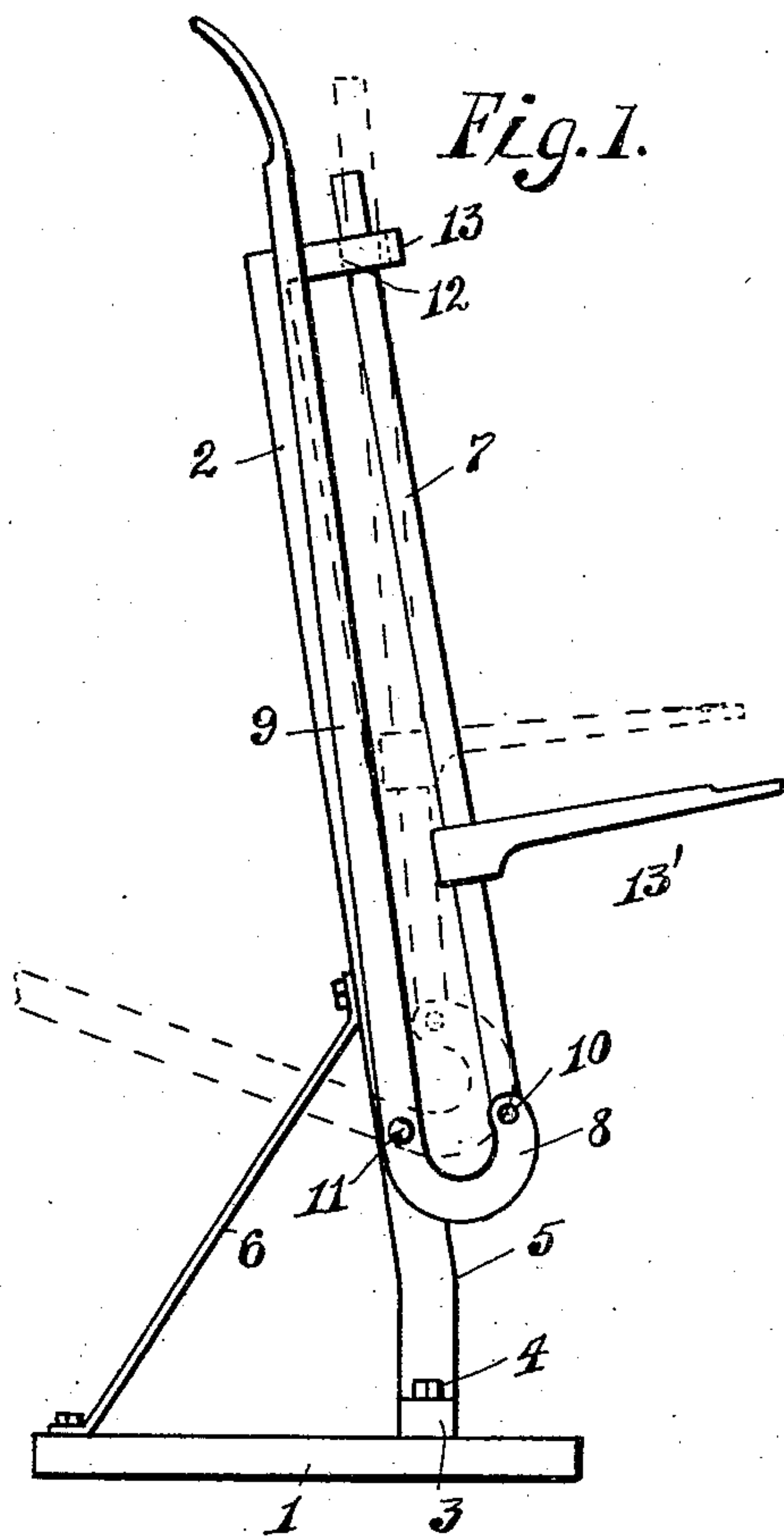


No. 879,592.

PATENTED FEB. 18, 1908.

E. E. RYAN.
LIFTING JACK.

APPLICATION FILED AUG. 1, 1907.



Witnesses:
George Altsch
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UNITED STATES PATENT OFFICE.

ELBERT E. RYAN, OF SOUTH BEND, INDIANA.

LIFTING-JACK.

No. 879,592.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed August 1, 1907. Serial No. 386,668.

To all whom it may concern:

Be it known that I, ELBERT E. RYAN, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification.

This invention relates to lifting jacks.

One object of the invention is to provide a simple, inexpensive, durable and efficient lifting jack embodying such characteristics that the load may be easily and quickly lifted in the manner and for the purposes customary in the use of devices of the present character.

Another object of the invention resides in the provision of a lifting jack whose operating lever is connected directly with the lifting bar.

A still further object resides in the provision of a lifting jack whose operating lever has its inner end curved and connected with the lower end of the lifting bar so that in the operation of the device there is a cam action between the operating lever and the lifting bar, there being an arm adjustably carried by the lifting bar and held in adjusted positions upon the latter by frictional engagement therewith.

With the above and other objects in view the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes may be made in the form, proportion, size and minor details without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of my invention. Fig. 2 is a rear view and, Fig. 3 is a detail view illustrating the lifting arm in section at its point of connection with the lifting bar.

Referring now more particularly to the accompanying drawings the reference character 1 indicates a suitable base upon which is secured a standard 2 provided with feet 3 at its lower end projecting upon opposite sides thereof by means of which feet the standard may be firmly secured upon the base through the instrumentality of bolts or other suitable fastenings 4. The lower portion of the standard 2 is preferably vertical while its upper portion is deflected from the point 5 rearwardly, as clearly shown in Fig.

1 and to provide for means other than the feet 3 and the fastenings 4 to support the standard 2 I brace the latter to the base 1 by means of the brace rod 6.

The character 7 indicates the lifting bar of my improved jack which is supported at its lower end directly upon the curved or cam end 8 of the operating lever 9 by means of a suitable pivot 10, the operating lever 9 being pivotally supported upon the standard 2 above the point 5 of the latter, as indicated at 11. The lifting bar 7 is guided in its movement owing to the disposition of its upper end in the eye or guide 12 of the arm 13 at the upper end of the standard 2.

In normal position, the operating lever 9 lies substantially parallel with the upper inclined portion of the standard 2, by virtue of which, the pivots 10 and 11 are disposed opposite each other with the lifting bar substantially parallel with the rearwardly inclined upper portion of the standard 2. When these parts are in their normal position, the lifting arm 13' is held upon the lifting bar 7 incident to frictional engagement due to the inclined perforation 14 in the enlarged inner end of the lifting arm 13'. To lift the load it is merely necessary to place the lifting arm 13' under the load and then pull or throw the operating lever 9 downwardly upon its pivot 11 which causes the curved or cam inner end 8 of the operating lever to force the lifting bar 7 upwardly by a cam action into substantially vertical position, as indicated by dotted lines in Fig. 1, the opening or guide 12 being of such size as to permit this bodily shifting of the lifting bar 7 from an inclined to nearly a vertical position.

What is claimed is:—

1. In a lifting jack, a base, a standard mounted upon the base, the standard rising from the base in a vertical plane and subsequently directed into an inclined plane and at its upper end provided with a laterally directed guide, a lifting bar slidable through said guide, a lever directed back upon itself at one end to provide a relatively long and a relatively short arm, the shorter arm at its free end being pivoted to the extreme lower end of the lifting bar and a pivot connecting the lever at the juncture of its two arms to one side only of the standard immediately above the vertical part of the standard, whereby the lower end of the lifting bar may be drawn toward the standard in the upward movement of the lifting bar.

2. In a lifting jack, a base, a standard
mounted upon the base and provided with a
laterally directed guide, a lifting bar slid-
able through said guide, a lever directed
5 back upon itself at one end to provide a rela-
tively long straight arm and a relatively
short curved arm, the shorter arm at its free
end being pivoted to the extreme lower end
of the lifting bar, and a pivot connecting the
10 lever at the juncture of its two arms to one
side only of the standard, whereby the lower

end of the lifting arm may be drawn toward
the standard in the upward movement of the
lifting bar.

In testimony whereof I have signed my 15
name to this specification in the presence of
two subscribing witnesses.

ELBERT E. RYAN.

Witnesses:

GEORGE OLTSCH,
WALTER DONOVAN.