

No. 609,873.

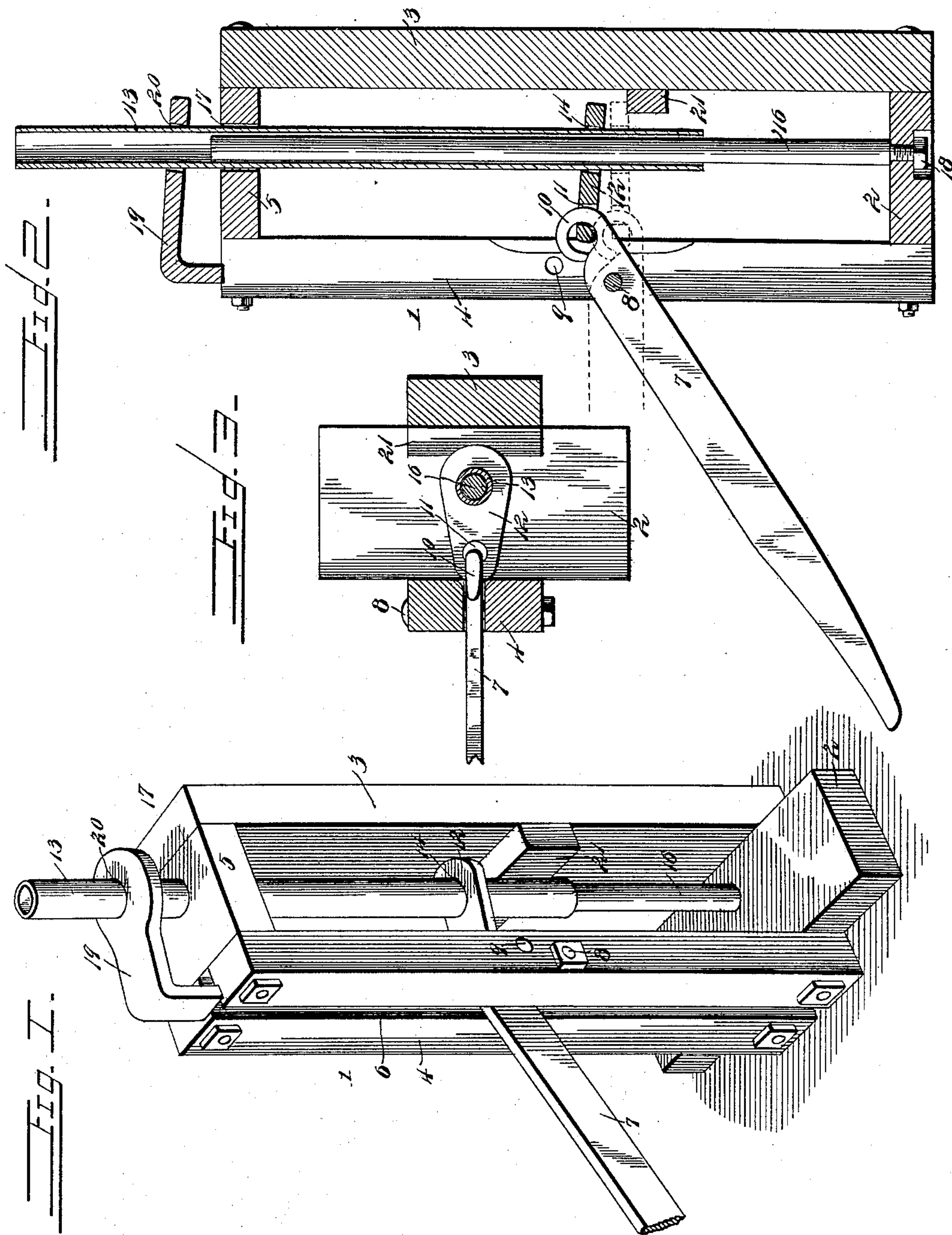
Patented Aug. 30, 1898.

R. CAMPBELL.

LIFTING JACK.

(Application filed Feb. 28, 1898.)

(No Model.)



Witnesses

R. Shepard
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UNITED STATES PATENT OFFICE.

ROBERT CAMPBELL, OF SOUTH HAVEN, MICHIGAN.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 609,873, dated August 30, 1898.

Application filed February 28, 1898. Serial No. 672,059. (No model.)

To all whom it may concern:

Be it known that I, ROBERT CAMPBELL, a citizen of the United States, residing at South Haven, in the county of Van Buren and State of Michigan, have invented a new and useful Lifting-Jack, of which the following is a specification.

The invention relates to improvements in lifting-jacks.

10 The object of the present invention is to improve the construction of lifting-jacks and to provide a simple, strong, and durable one designed especially for use in connection with vehicles and adapted to be quickly adjusted
15 to suit the height of an axle and capable of readily lifting a heavy load, such as heavy drays, delivery-wagons, and similar vehicles.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

25 In the drawings, Figure 1 is a perspective view of a lifting-jack constructed in accordance with this invention. Fig. 2 is a vertical sectional view taken longitudinally of the operating-lever. Fig. 3 is a horizontal sectional view.

30 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a supporting-frame comprising a base or bottom piece 2, vertical sides 3 and 4, and a top piece 5. The top and bottom pieces are interposed between and serve to space the vertical sides 3 and 4, and the side 4 is composed of a pair of bars or sections spaced apart to provide a longitudinal opening 6 to receive an operating-lever 7. The
40 operating-lever, which is fulcrumed near its inner end on a horizontal bolt 8, is capable of vertical adjustment, the side 4 being provided with horizontal perforations 9 to receive the bolt. The inner end of the operating-lever is provided with an eye or opening 10, which is linked into a perforation 11 at the outer end of a lower clutch 12, and by oscillating the operating-lever the lower clutch is operated to elevate a tubular lifting-bar 13.
50 The lower clutch is provided with an opening 14 slightly larger than the tubular lifting-bar, which passes through it, whereby the

lower clutch is adapted to be swung upward slightly above a horizontal position to cause it to bind against the lifting-bar and grip the same.

The tubular lifting-bar, which is guided by a vertical rod 16, extends through an opening 17 of the top of the supporting-frame and is adapted to engage an axle of a vehicle. The
60 rod, which extends above the supporting-frame, has its lower end reduced and threaded and is firmly secured to the bottom of the supporting-frame by a nut 18, engaging the threaded end of the rod and located in a recess in the lower face of the bottom piece of the frame.

The tubular lifting-bar is held against backward movement by an upper clutch 19 when the lower clutch moves downward to obtain
70 a new hold for another lifting operation, and the said upper clutch consists of a substantially L-shaped piece provided at one end with an opening and having an arm at the other end for engaging the top of the frame. The opening 20 of the upper clutch is slightly larger than the tubular lifting-bar in order to bind against the same when it is arranged at an angle to the lifting-bar less than a right
80 angle.

The side 3 of the frame is provided at its inner face with a horizontal stop 21, consisting, preferably, of a horizontal cleat and arranged to be engaged by the lower clutch to assist in holding the same in a horizontal
85 position when it is desired to lower the tubular lifting-bar. When the clutches are in a horizontal position, the lifting-bar is adapted to slide freely through them and may be readily lowered.

90 The invention has the following advantages: The lifting-jack, which is simple and comparatively inexpensive in construction, possesses great strength and durability and is especially adapted for heavy drays, delivery-wagons, and the like. It is capable of ready adjustment to adapt it to the height of an axle and is capable of enabling a heavy load to be conveniently raised.

100 Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

In a lifting-jack, the combination of a frame comprising a base 2 provided in its lower face with a centrally-arranged recess, the side 3 5 secured to the base and provided at its inner face with a horizontal cleat 21, the side 4 secured to the base and composed of spaced bars provided with registering perforations and the top piece secured between the upper 10 ends of the sides and provided with a central opening, the vertical guide-rod 16 having its lower end reduced and threaded and extended through the base, the shoulder formed by the reduction resting upon the upper face of the 15 base and the threaded portion projecting into the recess of the lower face of the same, said guide-rod having its upper end arranged within the opening of the top piece, a tubular lifting-bar guided on the rod and arranged 20 to extend through the opening of the top

piece, a nut engaging the threaded end of the rod and arranged in the recess of the base, an upper clutch engaging the tubular lifting-bar and arranged at the top of the frame, a 25 pivot arranged in perforations of the side 4, a lever fulcrumed on the pivot and operating in the space between the bars of the side 4, and a clutch carried by the inner end of the lever and engaging the tubular lifting-rod, 30 and having one of its ends located above the cleat 21 and arranged to rest thereon, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT CAMPBELL.

Witnesses:

E. A. HARTMAN,
L. L. MONROE.