No. 721,439. PATENTED FEB. 24, 1903.

J. T. HASKIN.

LIFTING JACK.

APPLICATION FILED APR. 15, 1902.

NO MODEL.

Fig. 1.

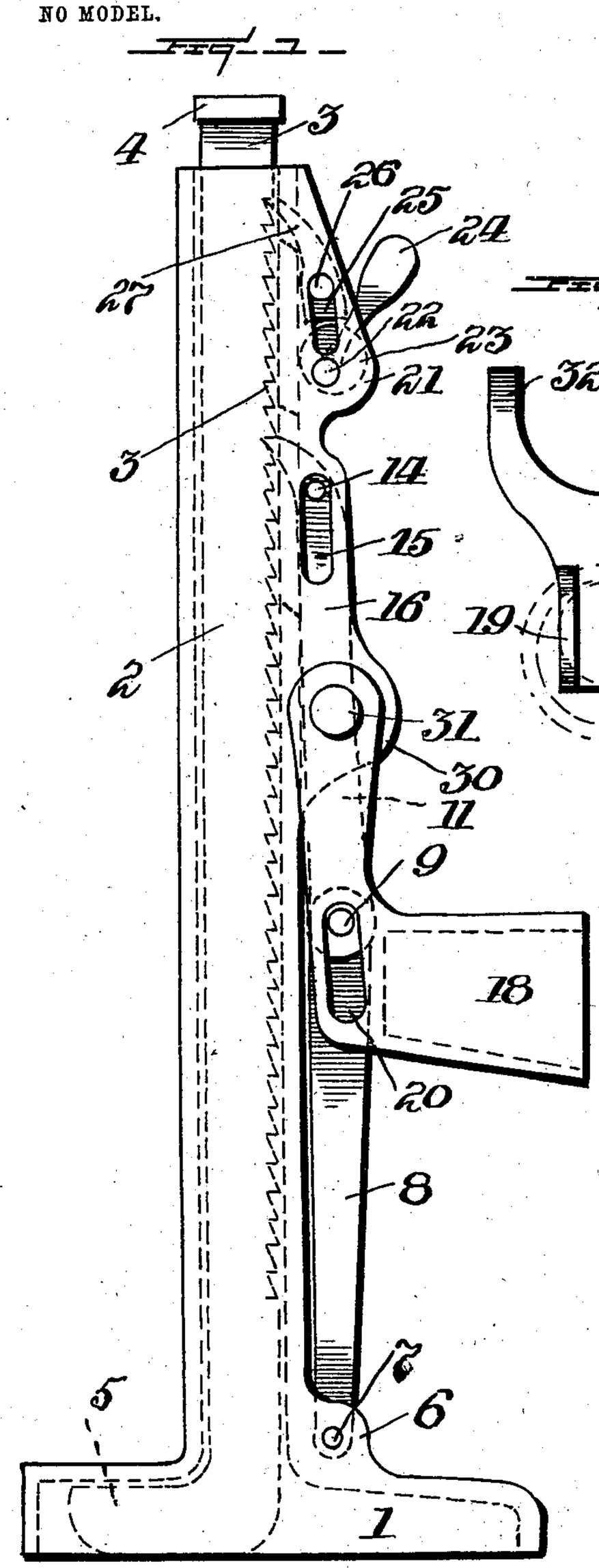


Fig. 2.

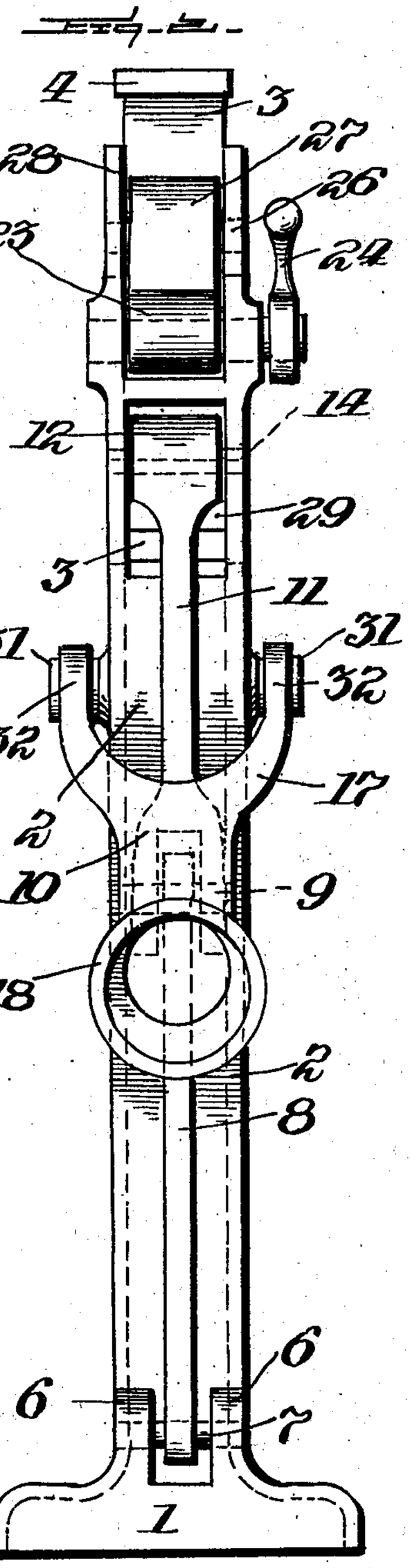
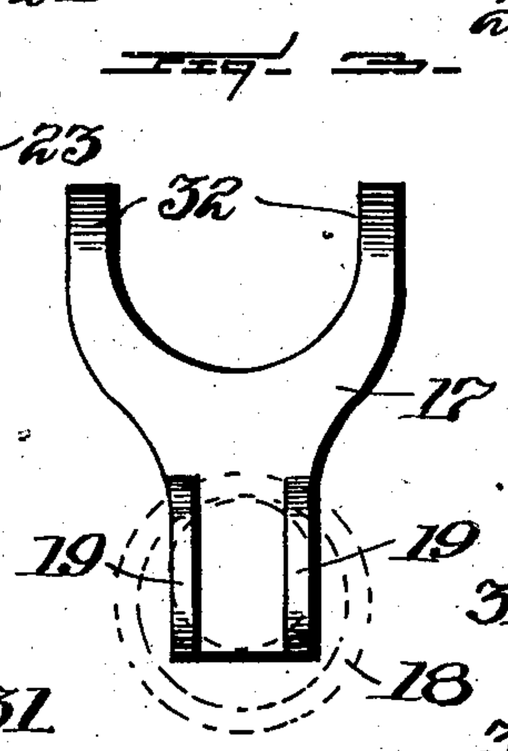


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN T. HASKIN, OF McKEES ROCKS, PENNSYLVANIA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 721,439, dated February 24, 1903.

Application filed April 15, 1902. Serial No. 102,962. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. HASKIN, a citizen of the United States of America, residing at McKees Rocks, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in jacks, and has for its object to provide a jack which will have great lifting power and one wherein its construction is of that nature as to make the same applicable to street-cars, vehicles, and the like.

Another object of my invention is to provide a lifting-jack which can be easily manipulated and one wherein the leverage is sufficient for a person to lift a great weight.

Another object of my invention is to provide a jack which will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and one which will be portable.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of my improved lifting-jack. Fig. 2 is a front view of the same. Fig. 3 is a detail view of the bifurcated member which carries the operating-handle.

In the drawings the reference-numeral 1 indicates the base of my improved lifting-jack, and 2 indicates a vertical standard carried by the base 1. The standard 2 and the base 1 are made integral with each other, the standard 2 forming a casing for the rack 3, which carries a head 4 and a claw 5. Formed integral between the base portion 1 and the vertical standard 2 is the enlarged portion 6, which has pivoted therein, as indicated at 7, a lever 8, said lever carrying a pin 9, upon which is secured the bifurcated end 10 of the lever 11, said lever carrying a head 12, which in turn carries a pin 14, said pin operating in a slot 15, carried by the side of the casing, as indicated at 16, of the vertical standard 2.

The reference-numeral 17 indicates a bifurcated member, which has formed integral therewith a collar 18, which carries an operating-handle. (Not shown in the drawings.) Formed upon the rear face of this bifurcated portion 17 are lugs 19, said lugs carrying slots 20, in which operate the pins 9, carried by the lever 8. It will be noted that the connection of these levers forms a toggle-joint, the operation of which will be hereinafter described.

Reference-numeral 21 indicates an enlarged portion forming lugs which are carried by the casing of the standard 2, and the reference-numeral 22 indicates a pin carried by the lugs 21, said pin carrying an eccentric 23, the outer end of the pin carrying an operating-handle 24.

The reference-numeral 25 indicates a slot carried by the lugs 21, and in said slot is located a pin 26, said pin carrying a pawl 27, which engages the teeth of the rack 3. The standard 2 has its upper end open, as indicated at 28, and also carries the aperture 29, through which operates the head 12 of the lever 11, said head engaging the teeth of the rack.

The reference-numeral 30 indicates another enlarged portion carried by the casing of the vertical standard 2, said enlarged portion having formed integral with it pins 31, upon which is pivoted the bifurcated ends 32 of the member 17.

The operation of my improved jack is as follows: The claw 5 of the rack 3 having been placed under the weight to be lifted, the member 18, carrying the operating lever or handle, is moved outwardly from the vertical standard 2, thus causing the pin 14, carried by the head of the lever 11, to pass to the base of the slot 15, thus allowing the head 12 to engage the teeth of the rack, and when the levers are forced inwardly by a downward pressure of the handle the rack 3 will be raised. This movement is accomplished by the member 17 being pivotally secured at 31 and carrying the slot 20, in which is pivotally mounted the ends of the levers 8 and 11. If it is

desired to hold or lock the rack in this position, the same is accomplished by means of the eccentric 23, which is operated by means of the handle 24, this eccentric bearing against the base of the pawl 27, which forces the pawl upwardly and in engagement with one of the teeth carried by the rack. If it is desired to release the same, the lever 24 is thrown downwardly, thus allowing the pawl to move downwardly, said pawl being guided in its movement by the pin 26, operating in the slot 25.

It will be noted that my improved lifting-jack may be applicable to street-cars and the like, and in using it for this purpose I employ means for securing my improved jack to the framework of the truck, the operating-handle of the jack being placed in a suitable position which will not interfere with the occupancy of the car by the passengers.

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a device of the type set forth, a casing having a rack operating therein with a claw on one end of the rack disposed opposite to the teeth of the rack, and a head on the upper end of the rack, a lever pivoted at its lower end to the casing, a second lever pivoted to the first-named one and carrying a head engaging the teeth of the rack, a means for limiting the vertical and horizontal movement of the second-named lever, an operating means comprising a bifurcated member pivoted at its upper end to the casing and to the said levers, at their point of pivot for moving the levers outward from the rack, said member being operated upwardly to engage the head of the second lever with the teeth of the rack and then downwardly, to actuate the rack, and means for locking the rack in a predetermined position.

2. In a device of the type set forth, the combination with a casing, of a rack mounted therein, a lever pivoted to the lower portion of the casing, a second lever carrying a head engaging the teeth of the rack, with a pin carried by the second lever, operating in a vertical slot provided therefor in the sides of the casing, an operating means comprising a bifurcated member pivoted at its upper portion to the casing and having vertical slots therein, with a means pivotally securing the said levers together and extending in said last-named slots, an enlarged portion at the upper end of the casing, with a pawl carrying a pin operating therein, said enlarged portion having vertical slots therein into which extends said pin, and a means for actuating said pawl upwardly to lock the same in engagement with the teeth of the rack-bar.

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

JOHN T. HASKIN.

Witnesses:
JOHN NOLAND,
E. E. POTTER.