

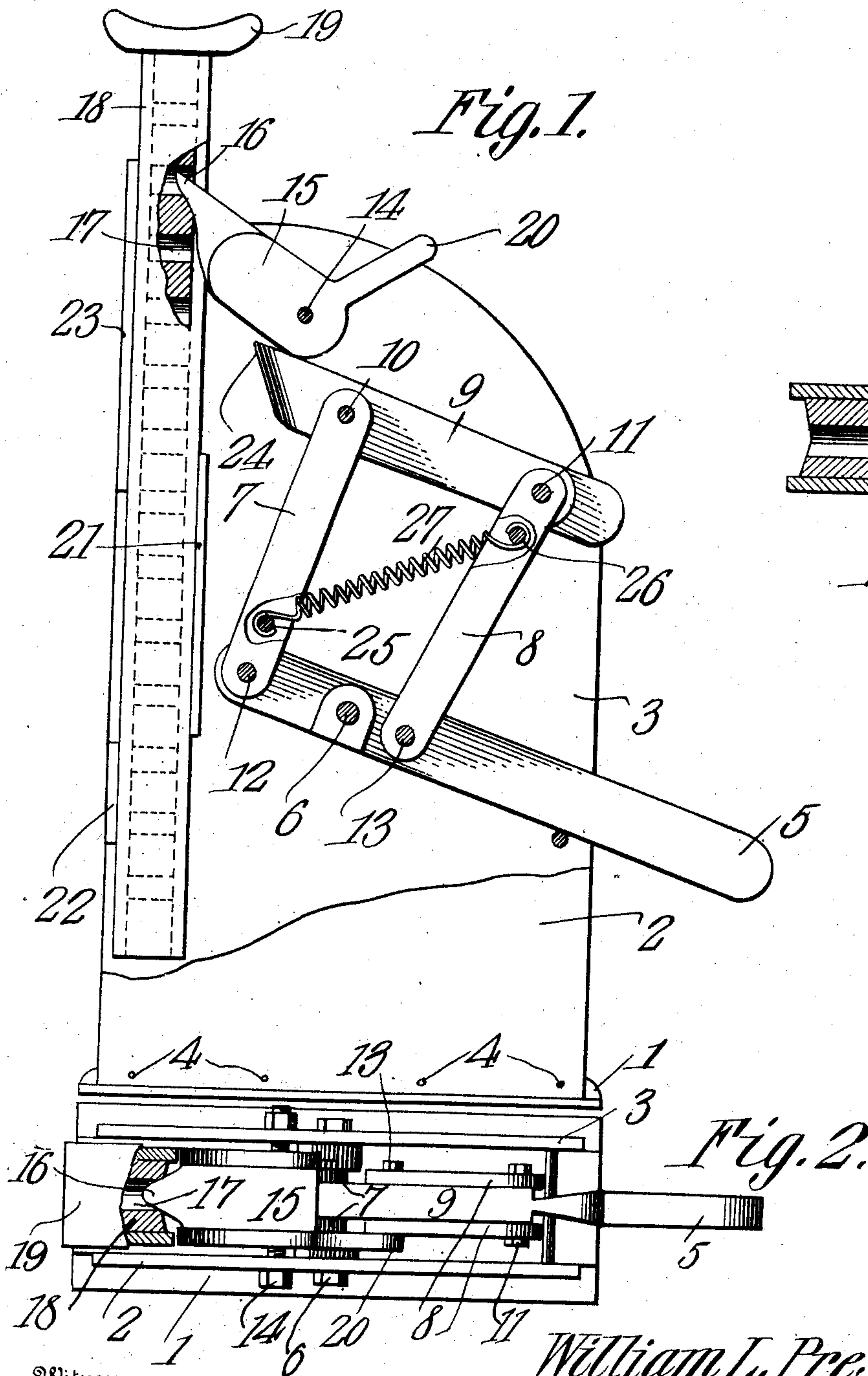
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W. L. PRESTON.

WAGON JACK.

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Witnesses:

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# UNITED STATES PATENT OFFICE

WILLIAM LAWRENCE PRESTON, OF LINCOLN, ILLINOIS.

## WAGON-JACK.

No. 883,344.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed October 28, 1907. Serial No. 399,533.

*To all whom it may concern:*

Be it known that I, WILLIAM LAWRENCE PRESTON, a citizen of the United States, residing at Lincoln, in the county of Logan and State of Illinois, have invented a new and useful Wagon-Jack, of which the following is a specification.

This invention relates to wagon jacks.

The object of the invention is to provide a novel and thoroughly efficient form of straight lifting wagon jack in which the parts shall be so constructed and assembled, that the lifting of a vehicle may be secured with a minimum of labor and a maximum of certainty. Furthermore to render it practically impossible for the lifting pawl to slide or to become accidentally disconnected from the lifting bar while the latter is supporting a vehicle, whereby danger of breakage or of injury to the vehicle is positively precluded.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a lifting jack as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts: Figure 1 is a view in side elevation, partly in section, of a wagon jack constructed in accordance with the present invention. Fig. 2 is a top plan view. Fig. 3 is a horizontal sectional view through the lifting bar.

The frame or standard of the jack comprises a base 1, and two side plates 2 and 3 secured to the base as by bolts 4. Pivotaly mounted between the plates is a lifting bar actuating mechanism, the same comprising an operating lever 5 fulcrumed upon a bar 6 carried by the plates, a pair of lifting links 7, a pair of lowering links 8, and a lifting pawl 9 arranged between the pair of links 7 and 8 and fulcrumed upon bars or bolts 10 and 11 that connect the links. The lower ends of the pairs of links are fulcrumed to the operating lever at 12 and 13 and on opposite sides of the bearing 6. Fulcrumed at 14 between the said plates is a locking pawl 15 that is provided with a pointed nose 16 adapted to engage transverse orifices 17 in the lifting bar 18, which latter is provided at its upper end with a seat 19 to engage the vehicle axle as usual. The pawl 15 is provided with a rearward projecting trip arm 20

by which it may be thrown out of engagement with the orifices of the lifting bar when desired.

It will be noted by reference to Fig. 1 that the orifices extend entirely through the lifting bar, the object of this arrangement being to permit of the bar being reversed should the walls of the orifices on one side thereof become worn or otherwise injured. The lifting bar is provided for vertical movements between guides 21, 22 and 23 that are secured in any preferred manner between the opposed faces of the plates 2 and 3, and will operate in a positive manner to prevent any rocking movement of the bar. The lifting pawl 9 is also provided with a pointed nose 24 that is designed to engage with the orifices 17 of the lifting bar and thus effect the lifting thereof when the lever 5 is operated.

The pair of lifting links 7 carry near their lower ends a bar 25, and the pair of lowering links carry near their upper ends a similar bar 26, and connecting the two bars is a coil spring 27, the function of which is to cause the lifting pawl automatically to engage with the successive orifices 17 as the operating lever is manipulated.

In the operation of the device, when the jack is brought to proper position beneath a vehicle, upon upward movement being imparted to the lever 5, the pawl will be projected into engagement with the face of the lifting bar, and in the act of lifting the lever, the lowering links 8 will be projected rearwardly, that is, away from the lifting bar, thereby placing the spring 27 under tension, and this tension will operate to cause the nose of the pawl to bear against the face of the bar so that the pawl will automatically spring into the first orifice below that which it previously engaged. Upon downward movement being imparted to the lever, the links 7 will be lifted and the links 8 lowered, thereby causing the nose of the lifting pawl to move upwardly and thereby raise the lifting bar. During this movement, the nose of the locking pawl travels along the face of the lifting bar and springs into an orifice 17 and thereby holds the lifting bar in its raised position. When the jack is to be removed, it will be only necessary to throw the trip arm backward, whereupon the nose 16 of the locking pawl will be freed from engagement with the lifting bar and thus allow the latter to drop.



Having described the invention what I claim as new and desire to secure by Letters-Patent is:—

1. A wagon jack comprising a frame or support, a lifting bar arranged for vertical movement therein, and provided with spaced orifices, a locking pawl to engage the orifices, an operating lever, a lifting pawl, lifting and lowering links connecting the pawl and the operating lever, and a spring having its terminals operatively connected with the two sets of links.

2. A wagon jack comprising a frame or support, a lifting bar guided for vertical movements and provided with spaced orifices, a locking pawl, a lifting pawl, a lever fulcrumed within the frame, pairs of lifting and lowering links connecting the lifting pawl and the operating lever, and means for causing the lifting pawl automatically to engage with the orifices when the operating lever is manipulated.

3. A wagon jack comprising a frame or support, a lifting bar, a lifting lever pivoted intermediate of its ends within the frame, a

pair of lifting links pivotally connected with the inner end of the lever, a pair of lowering links pivotally connected with the intermediate portion of the lever, a lifting pawl pivotally connected with the links, and a locking pawl.

4. A wagon jack comprising a frame or support, a lifting lever pivoted intermediate of its ends within the support, a pair of lifting links pivotally connected with the lever on one side of its fulcrum, a pair of lowering links pivotally connected with the lever on the other side of its fulcrum, a lifting pawl pivotally connected with the two sets of links, a locking pawl, a lifting bar with which the two pawls are adapted to coact, and a spring operatively connected with the two sets of links.

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

WILLIAM LAWRENCE PRESTON.

Witnesses:

HUGH HUNTER,

FRED S. MAYFIELD.