

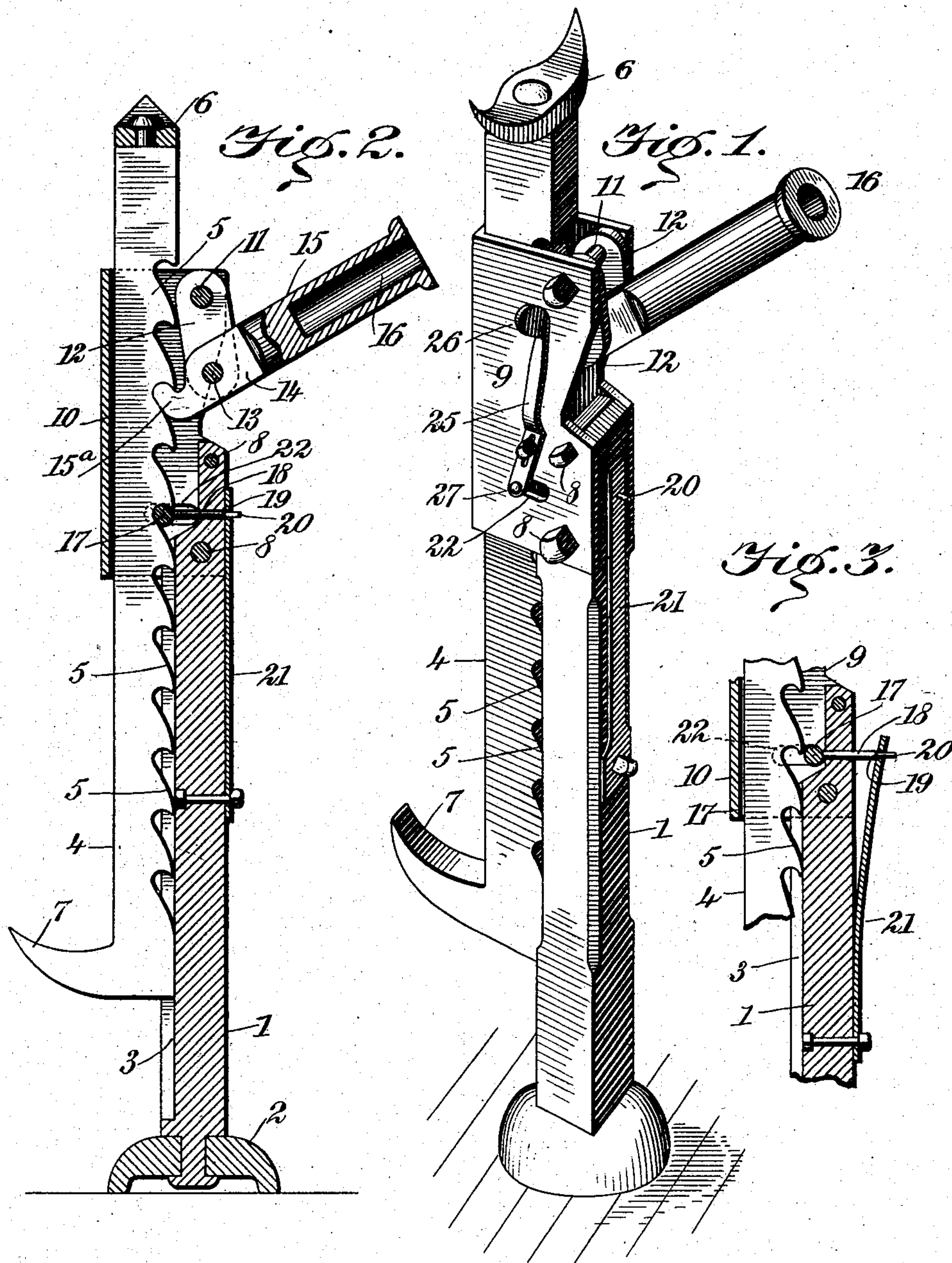
No. 751,309.

PATENTED FEB. 2, 1904.

L. O. LANDER.
LIFTING JACK.

APPLICATION FILED JULY 25, 1903.

NO MODEL.



WITNESSES:

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LEROY O. LANDER, OF LISABUELA, WASHINGTON.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 751,309, dated February 2, 1904.

Application filed July 25, 1903. Serial No. 166,968. (No model.)

To all whom it may concern:

Be it known that I, LEROY O. LANDER, a citizen of the United States, and a resident of Lisabuela, in the county of King and State of Washington, have invented a new and Improved Lifting-Jack, of which the following is a full, clear, and exact description.

This invention relates to lifting-jacks; and it consists, substantially in certain parts, and details and combinations of the same, herein-after particularly described, and pointed out in the claims.

My improvements have reference more especially to the type of lifting-jacks of which the one shown and described in my former Letters Patent, No. 391,165, granted on the 16th day of October, 1886, is an example; and one of the principal objects of my present invention is to provide means for overcoming numerous disadvantages and objections found to exist with many jacks of this kind hitherto devised, and also to provide a jack which is simple in construction, strong and durable in use, not liable to get out of order, and which is also comparatively inexpensive to manufacture.

A further object of the invention is to provide a lifting-jack of the character referred to which is effective and reliable in use, as well as easily operated and controlled, besides possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a lifting-jack embodying my improvements. Fig. 2 is a vertical view thereof; and Fig. 3 is also a vertical sectional view in detail, showing the operation of the spring-actuated dog or detent for the lifting-bar.

Before proceeding with a more detailed description it may be stated that in the form of my improvements herein shown I employ a suitable stock provided with a lifting-bar working in a guide and provided with teeth which are engaged by a toe at the inner end

of a pivoted operating-lever, the said lifting-bar being automatically caught and retained in different vertical positions by means of a dog having special means for operating the same, and while I have herein represented my improvements in a certain preferred embodiment it will be understood, of course, that I am not limited thereto in practice, since immaterial changes therein may be resorted to coming within the scope of my invention.

Specific reference being had to the accompanying drawings by the designating characters marked thereon, 1 represents a stock having a base 2 and formed with a vertical groove 3, between the sides of which works the lifting-bar 4, provided on its inner vertical face with a series of teeth or projections 5, as shown, and having at its upper end a detachable head 6 and at its lower end an integral foot 7, designed to be placed beneath a log or other device to be lifted by the structure. Secured to the upper part of the stock by means of bolts 8 are the cheek-pieces 9 of a guide 10 for the lifting-bar, said cheek-pieces being connected by an additional bolt 11, swinging on which within the said cheek-pieces are preferably duplicate links 12, between the lower ends of which is pivoted at 13 the inner end portion 14 of an operating-lever 15, which may be socketed at 16 for the insertion of a handle, (not shown,) the said end portion of the lever terminating in a toe 15^a, adapted to the spaces between the said teeth 5, so as to engage the latter, as shown. I have found it a decided advantage to thus organize the connecting-links for the lever, since the links are brought closer together, resulting in greater strength, besides rendering the same less liable to breakage or injury from contact with external objects, as is apparent, and, moreover, any tendency to spreading of said links with consequent binding of the operating-lever is overcome. The lifting-bar is maintained in its different positions after being elevated by proper manipulation of the lever by means of a transverse member 17 and a slide 18, which works in an opening therefor in the stock, as shown, said slide being shouldered at 19 and having its free end 20 passing through an opening near the upper end of a

flat spring steel spring 21, the lower end of which is secured to the front of the stock, it being noted that the member 17 is supported by and works between the edges of straight-sided slots 22, formed in the lower part of the said cheek-pieces of the guide 10. At the outer side of one (or both) of said cheek-pieces is a pin or screw 23, passing through a slot 24 in a hand-lever 25, having thumb-piece 26, the lower end of said hand-lever being pivoted at 27 to an end of the slidable slide member 17, and thus it will be seen that by proper manipulation of this hand-lever the lifting-bar may be caused to be released from engagement with the teeth 5 to enable lowering of the bar when desired.

The organization of the special form of actuating-spring for the slide has the advantage of greater strength with less liability to accidental operation thereof in use, which would cause a release of the lifting-bar, which is a disadvantage in many former lifting-jacks of this class. The upper end of said spring works against the shoulder on the slide, and thus will the operation of my improvements be fully understood.

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

1. A lifting-jack comprising a stock having a guide, with slots therein, a lifting-bar working through the guide and provided with a series of teeth, an operating-lever for the bar having means for engaging said teeth, a slide working through the stock, having a shoulder near its outer end, said slide having a member movable in said slots and engaging said teeth to lock the bar, and a flat spring operating at one end against said shoulder and secured at its other end to said stock, said spring operating to hold said slide normally in engagement with the teeth.

2. A lifting-jack comprising a stock, having

at its upper end an upwardly-projecting guide, constructed with duplicate cheek-pieces, having straight-sided slots therein, a lifting-bar working through the guide, the same having an integral foot, and provided on its inner face with a series of teeth, an operating-lever for the bar, having means for engaging said teeth, a slide working through the stock, and having a shoulder near its outer end, said slide having a member moving in said slots, and engaging said teeth to lock the bar, a flat spring operating at one end against said shoulder, and secured at its other end to the front of the stock, and a slotted hand-lever for moving said slide outwardly.

3. A lifting-jack comprising a stock, having at its upper part an upwardly-projecting guide, constructed with duplicate cheek-pieces, having straight-sided slots therein, a lifting-bar working through the guide, the same having an integral foot, and provided on its inner face with a series of teeth, an operating-lever for the bar, having a toe for engaging the teeth, links pivoted within the cheek-pieces, and having movable connection with the lever, a slide working through the stock, and provided with a shoulder near its outer end, said slide having a member moving in said slots, and engaging said teeth to lock the bar, a flat spring operating at one end against said shoulder, and secured at its other end to the stock, and a slotted hand-lever mounted at the side of one of the cheek-pieces, for disengaging the slide from said teeth.

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

LEROY O. LANDER.

Witnesses:

JOHN TODD,
WM. O. DILLEY.