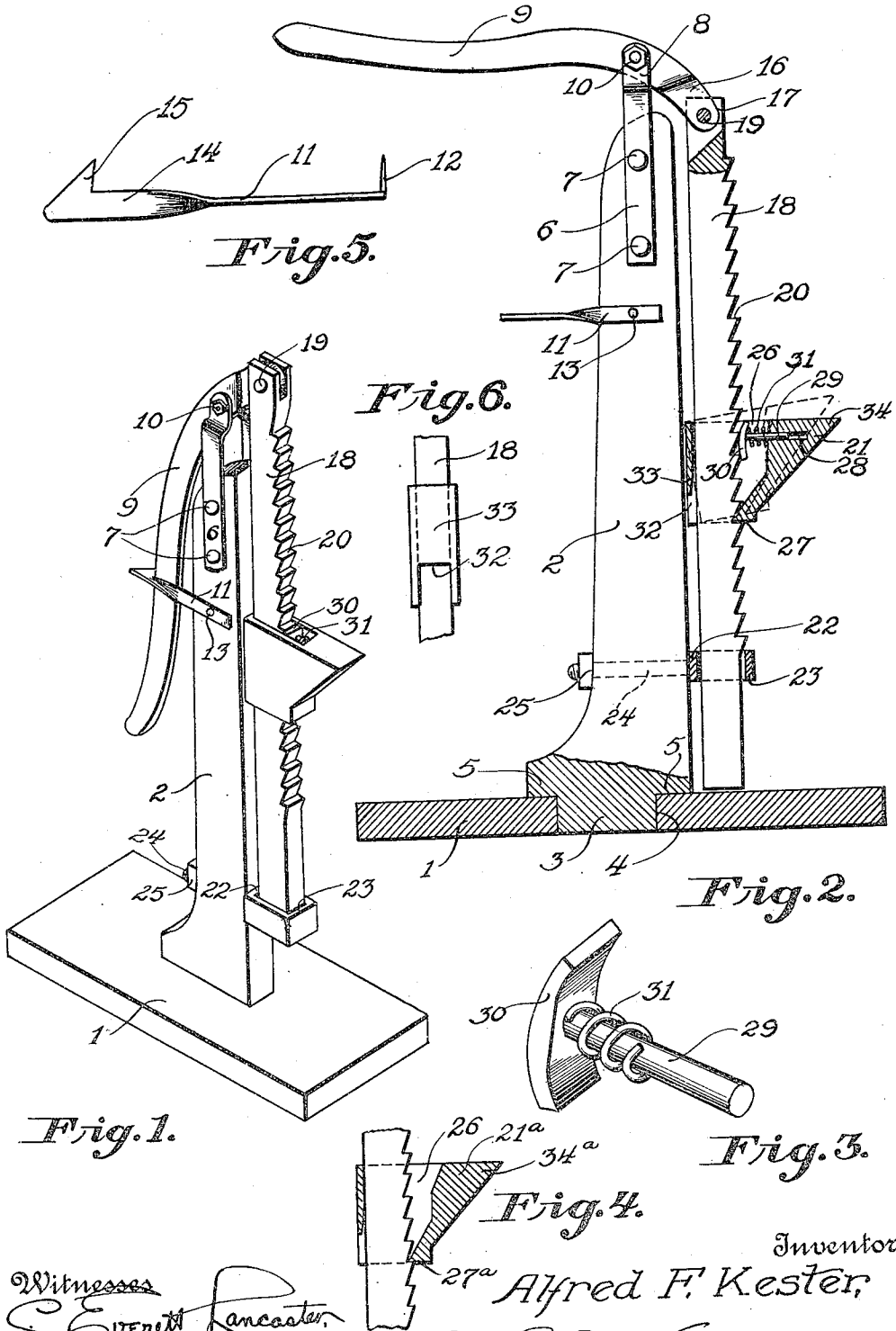


A. F. KESTER.
LIFTING JACK.
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Patented Mar. 29, 1910.

953,531.



Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED F. KESTER, OF FREELAND, PENNSYLVANIA.

LIFTING-JACK.

953,531.

Specification of Letters Patent.

Patented Mar. 29, 1910.

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To all whom it may concern:

Be it known that I, ALFRED F. KESTER, a citizen of the United States, residing at Freeland, in the county of Luzerne 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 drawing.

15 This invention relates to lifting-jacks, and has for its object the production of a jack, which is simple in construction, efficient in operation, and consists of a comparatively small number of parts.

20 Another object of this invention is the production of a movable jaw, which jaw is provided with means for normally holding the same in a set position upon the ratchet bar of the jack.

25 With these and other objects in view this invention consists of certain novel constructions, combinations and arrangements of parts, which will be hereinafter fully described and claimed.

30 In the drawings: Figure 1 is a perspective view of my jack. Fig. 2 is a side elevation partly in section of the same. Fig. 3 is a detail perspective of the spring-pressed plunger for holding the sliding jaw in engagement with the ratchet bar. Fig. 4 is a sectional view of another modification of the movable jaw showing the same positioned upon the ratchet bar. Fig. 5 is a top plan view of the catch for holding the 35 pivoted lever in a set position. Fig. 6 is a rear view of the jaw showing the same positioned upon the ratchet bar.

Referring to the drawing by numerals, 1 designates the base, which supports a 40 standard 2. The standard 2 is provided upon the bottom thereof with a reduced portion 3, which portion fits in an aperture 4 formed in the base portion 1. By means of the reduced portion 3, it will be seen that 45 the standard is provided with shoulders 5 upon each side of the reduced portion 3, thereby relieving comparatively all of the strain from the reduced portion 3, which is positioned in the aperture 4.

50 The standard 2 carries upon each side, and near the top thereof, upwardly-extending brackets 6, which are secured to said standard by means of rivets or any suitable fastening means 7. The brackets 6 are provided, near the top thereof, with offset por-

tions 8, and between said offset portions 8 is pivotally mounted an operating-lever 9, by means of a pivot pin 10. Secured to one side of the standard 2 is a catch member 11, which is adapted to engage the lever-member 9 and hold the same in a set position. 60 The catch member 11 is provided with an angle end 12 constituting a spur, which is adapted to engage the side of the standard 2, and hold said catch in engagement therewith. The catch is also held firmly upon 65 the standard by means of a pin 13. The catch 11 is provided with a twisted or angularly-disposed outer end 14, which end is, preferably, at right angles to the body portion of said catch. The end 14 terminates 70 in a laterally-extending portion 15 constituting a catch, which is adapted to engage the handle or operating-lever 9 for holding the same in a set position, as previously stated, 75 and as clearly illustrated in Fig. 1.

The operating-lever 9 is provided with a reduced end 16, which end is pivotally mounted within the upper bifurcated end 17 of the ratchet bar 18 by means of a pin 19. 80 The ratchet bar 18 is provided, upon one edge thereof, with a row of ratchet teeth 20 adapted to be engaged by a movable jaw 21, hereinafter described. A guide member 22 is provided with an outer socketed end 23, 85 which is adapted to receive the ratchet bar 18 and act as a guide therefor. The guide member 22 is provided with an inwardly-extending portion 24, which passes through the standard 2 and is held firmly thereon by 90 means of a nut 25, which is threaded upon its outer screw-threaded end.

A sliding jaw 21 is adapted to work upon the ratchet bar 18 and said jaw is provided with an aperture 26, and said ratchet bar 18 95 is adapted to pass through said aperture 26. The aperture 26 tapers upon one side toward the bottom thereof, thereby forming a biting end or a tooth engaging end 27, which tooth is adapted to normally engage one of the 100 ratchet teeth for holding the jaw 21 in a set position upon said ratchet bar 18. The jaw 21 is also provided with a socket portion 28, which communicates with the aperture 26. The stem 29 of the spring-pressed plunger is 105 adapted to work in the socket 28, and said stem carries at its outer end a shoe 30, which is adapted to rest against the ratchet teeth 20, and freely slide thereover. Interposed between the shoe 30 and the side wall of the 110

aperture is a coil spring 31, which normally exerts an outward pressure upon said shoe and holds the same in engagement with said teeth 20. By having the spring-pressed
 5 plunger so positioned within the socket 26, and near the top of the jaw the lower biting end or tooth engaging end 27 will be normally held in engagement with one of the ratchet teeth. The back of the jaw 21 is
 10 provided with a notched portion 32 and the inner side of the back is beveled or tapers toward the notch 32, as shown at 33 in Fig. 2 of the drawing. Therefore, it will be obvious that when it is desired to move the
 15 jaw upon the ratchet bar that the upper end 34 of the jaw can be moved upwardly to the position shown in dotted lines, which operation will draw the tooth engaging end 27 from engagement with the ratchet teeth 20,
 20 and by reason of the notch 33 the tooth engaging end can be so withdrawn and the jaw can be freely moved upon the ratchet bar 18 without engaging the teeth 20.

In Fig. 4 I have shown a modification of
 25 my invention, which does not involve the spring-pressed plunger for holding the lower tooth engaging end 27^a in engagement with the ratchet teeth of the ratchet bar. The outer end 34^a of the jaw 21^a is weighted
 30 so as to normally hold said tooth engaging

end 27^a in engagement with said ratchet teeth.

What I claim is:

The combination with a ratchet bar, of a jaw provided with an aperture formed there- 35 through and having one of its sides tapering toward the lower end thereof, thereby forming a biting or tooth engaging end, said ratchet bar provided with teeth formed upon one side thereof, said jaw provided with a 40 socket communicating with said aperture, a spring-pressed plunger provided with a stem arranged to work in said socket, said stem carrying at its outer end a curved shoe having its ends curved outwardly so as to have 45 the same out of engagement with said ratchet teeth of said ratchet bar, a coil spring interposed between said shoe and said beveled side for normally holding said shoe in engagement with said ratchet teeth and 50 holding said tooth engaging end in engagement with one of said ratchet teeth adapted to hold said jaw in a set position upon said ratchet bar.

In testimony whereof I hereunto affix my 55 signature in presence of two witnesses.

ALFRED F. KESTER.

Witnesses:

WILLIAM A. KESTER,

ELI S. RUTH.