B. E. KELLER & J. W. FLATT.

FLOOR JACK.

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1,166,691.

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Fig. 1.

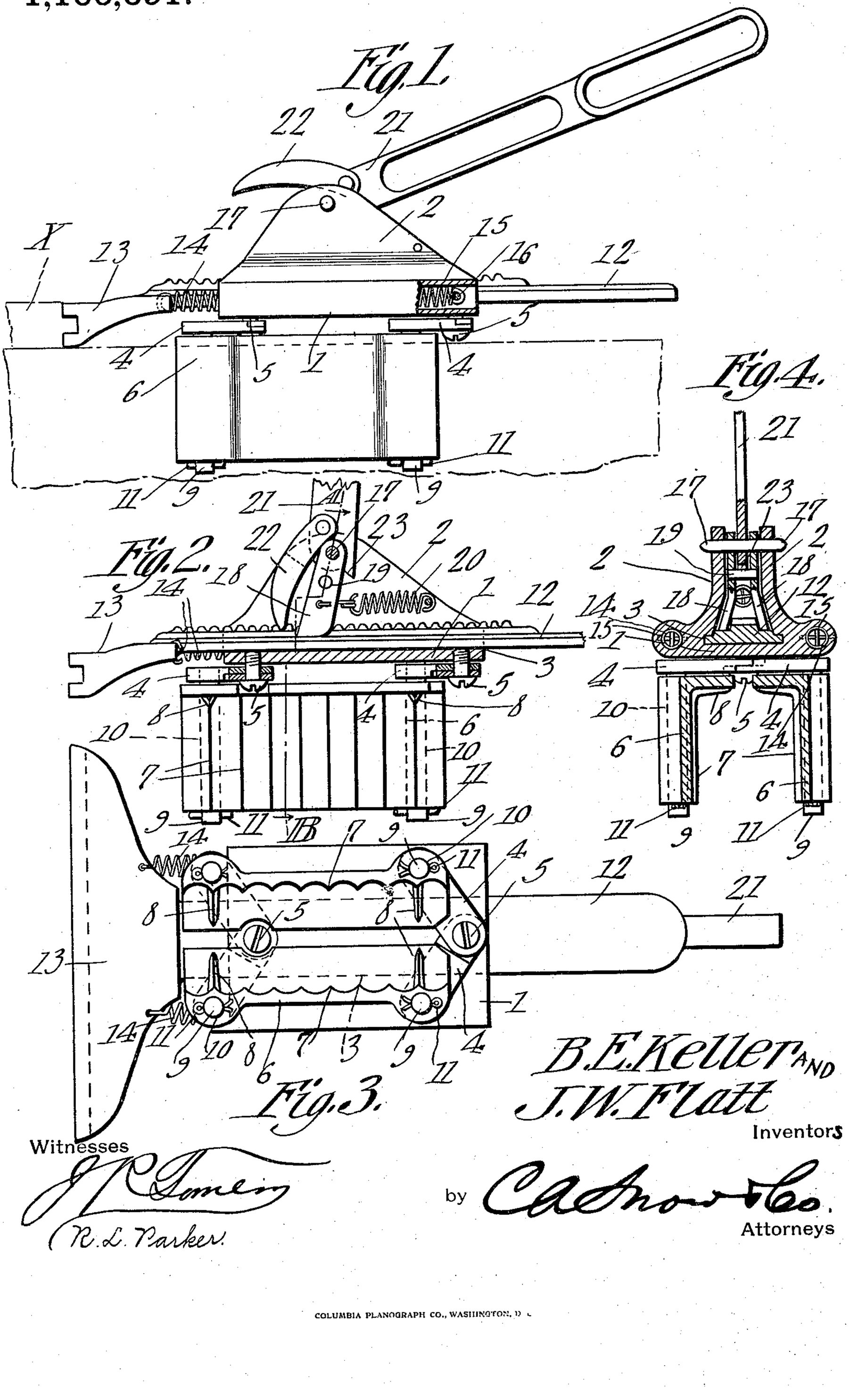

Fig. 2.

Fig. 4.

Fig. 3.

Witnesses

J. R. Somers

R. L. Parker.

B. E. Keller and J. W. Flatt

Inventors

by Cushman & Co.

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BERT E. KELLER, OF TOLEDO, AND JOHN W. FLATT, OF WEST TOLEDO, OHIO.

FLOOR-JACK.

1,166,691. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed March 18, 1915. Serial No. 15,326.

To all whom it may concern:

Be it known that we, BERT E. KELLER and JOHN W. FLATT, citizens of the United States, residing, respectively, at Toledo and West Toledo, in the county of Lucas, State of Ohio, have invented a new and useful Floor-Jack, of which the following is a specification.

This invention relates to floor jacks, one of its objects being to provide a simple, durable and compact tool of this character, which can be quickly applied to a joist, the same having means combined therewith for gripping the joist to hold the jack against displacement while in use.

A further object is to provide a jack, the board engaging jaw of which has improved means for adjusting it and for holding it against return movement, the actuating lever employed for shifting the jaw against the board also serving as a means for releasing the jaw.

A further object is to provide means whereby the jaw, when released, will be automatically returned to its initial position.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings—Figure 1 is a side elevation of the tool. Fig. 2 is a vertical longitudinal section therethrough. Fig. 3 is a bottom plan view. Fig. 4 is a section on line A—B Fig. 2.

Referring to the figures by characters of reference, 1 designates a flat base having upstanding ears 2, the inner faces of which are formed, close to the base, with longitudinal panels 3. Pivotally connected to the bottom of the base 1 near each end, are links 4, these links being arranged in pairs, the links of each pair being mounted on a common pivot 5. The corresponding links of the two pairs are pivotally connected to the top of opposed jaws 6, each jaw being substantially L-shaped in cross sectional contour and being provided, on its inner side, with ribs 7 adapted to bite into the side of the joist or other structure on which the device may be mounted. Certain of these ribs project along the lower face of the top of each jaw, as shown at 8, so as to bite downwardly into the joist or other support and thus hold the tool in position, while the jaws 6 are being adjusted against the sides of the joist. The links 4 are so positioned that when the base 1 is pushed in one direction, these links will pull the jaws 6 toward each other, thus forcing the ribs 7 into opposite sides, respectively, of the joist or other support. As shown in the drawings, the jaws are preferably connected to the links 4 by extending pintles 9 from the links, there being openings 10 within the jaws through which the pintles project, said pintles being held in the jaws by cotter pins 11 or the like.

The grooves or channels 3 receive the side edges of a rack bar 12 slidably mounted on the base, this rack bar being formed at one end with a jaw 13 designed to engage the tongue edge of a board indicated generally at X. A spiral spring 14 is preferably connected to the jaw 13 close to each side of the rack bar, these springs extending into bores 15 formed in the sides of the base 1, one end of each spring being secured in its bore as indicated at 16. These springs serve to hold the jaw 13 normally drawn close to the base 1, and, when said jaw 13 is thrust away from the base, the springs 14 are elongated or placed under stress.

A pivot pin 17 extends transversely through the ears 2 on the base and pivotally mounted on the pins and between the ears, are the spaced cams 18 connected by a cross pin 19 so that they work together. A spring 20 is secured to the cams and between the ears 2 and serves to bind the cams yieldingly on the top face of the rack bar 12 so as thus to hold said bar against movement in one direction.

Pivotally mounted on the pins 17 and between the cams 18, is a lever 21 to which a dog 22 is pivotally connected. This lever has a shoulder 23 adapted, when the lever is swung a predetermined distance in one direction, to engage the pin 19 and thrust the cams 18 out of engagement with the rack 12. When the lever is brought to this

position, the dog is caused to ride onto the upper edge of the cams, and thus be lifted out of engagement with the rack bar 12.

In using the device, the same is placed astride a joist, the ribs 8 sliding downwardly into the joist to prevent the tool from slipping while the jaws 6 are being adjusted inwardly against the opposed sides of the joist. The jaw 13 is then adjusted forwardly against the board X by the oscillating lever 21. This oscillation of the lever results in the dog 22 engaging the teeth of the rack and pushing the rack forwardly, the cams 18 holding the rack against return movement while the dog 22 is being drawn back. After the board has been properly adjusted by means of the tool herein described, the lever 21 can be swung downwardly to the right when in the position shown in Fig. 1, so as to bring the shoulder 23 against the pin 19. This will result in the cams 18 being swung out of engagement with the bar 12 whereupon the springs 14, which have been placed under tension during the outward adjustment of the jaw 13, will return said jaw and the bar 12 to their initial positions.

What is claimed is:

1. A floor jack including opposed angular jaws, means upon the inner faces of the sides and tops of the jaws for biting into a support therebetween, a base overhanging the tops of the jaws, links interposed between and connecting the tops of the jaws and the base, said links constituting means for drawing the jaws toward each other when the base is thrust in one direction, a jaw movably mounted upon the base, and means for actuating the jaw relative to the base.

2. A floor jack including opposed angular jaws, means upon the inner faces thereof for biting into a support therebetween, a base, link connections between the jaws and base, said connections constituting means for drawing the jaws toward each other when the base is thrust in one direction, a rack slidably mounted on the base and having a jaw at one end, an actuating lever pivotally mounted above the base, means operated by the lever for shifting the rack in one direction, means for holding the rack against return movement, means operated by the lever when moved in the opposite direction for releasing the rack from its holding means, and means for automatically returning the released rack to its initial position.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

BERT E. KELLER.
JOHN W. FLATT.

Witnesses:
SHERMAN R. SPINDEL,
JOHN A. PRICE.