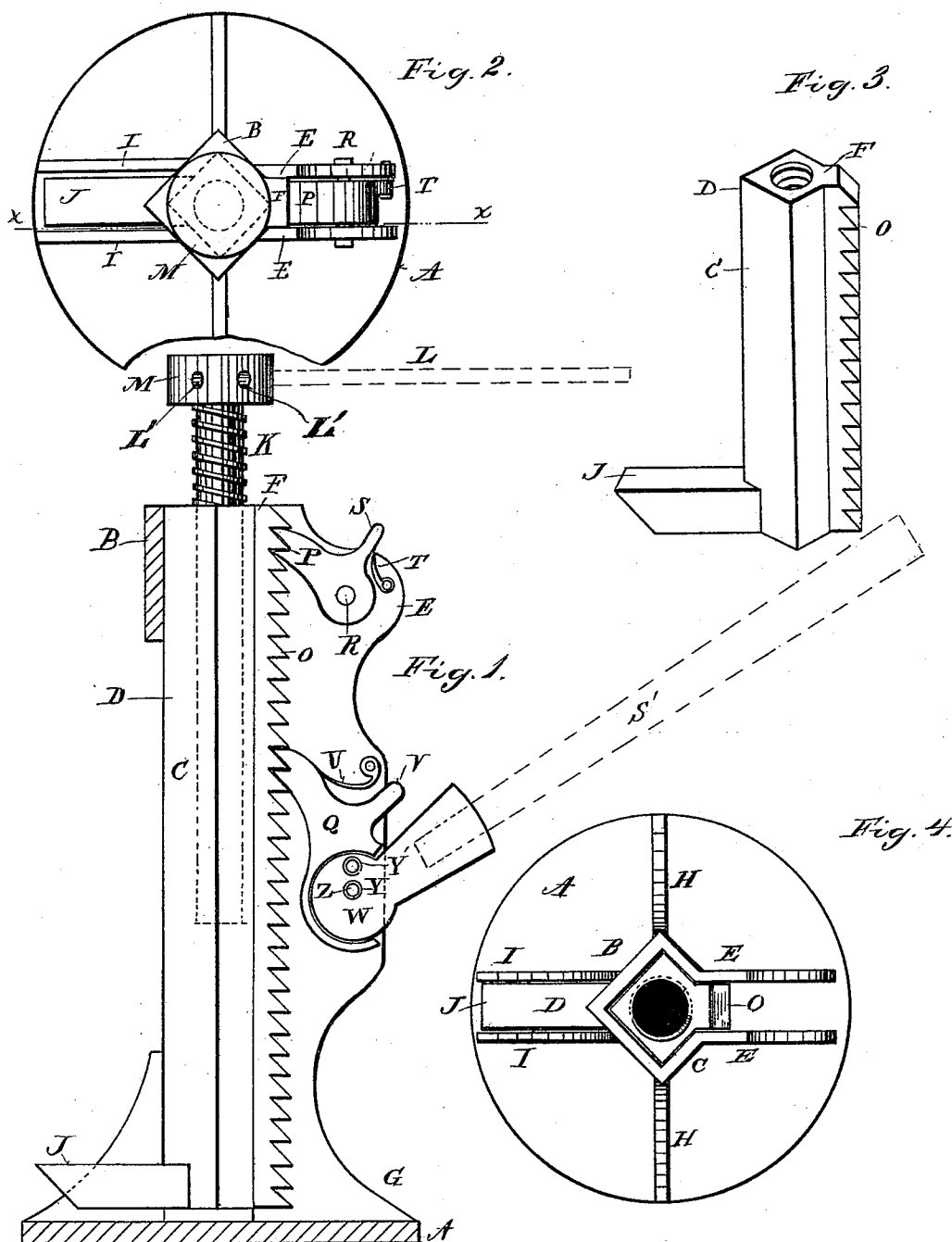


(No Model.)

P. GRIFFIN.
LIFTING JACK.

No. 463,385.

Patented Nov. 17, 1891.



WITNESSES
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UNITED STATES PATENT OFFICE.

PETER GRIFFIN, OF DAYTON, OHIO.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 463,385, dated November 17, 1891.

Application filed June 15, 1891. Serial No. 396,290. (No model.)

To all whom it may concern:

Be it known that I, PETER GRIFFIN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, 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 lifting-jacks.

My improvements have reference to an operating-pawl and an eccentric-lever having means for adjusting its throw; have reference to combining with a vertically-moving follower a lifting-screw mounted in the follower; have reference to making the follower of such shape in cross-section that it will present a projecting corner or angle adapted to enter places which the broad flat side would not enter, whereby objects may be reached which otherwise would be inaccessible to the follower, and have reference to certain features of construction in the base and guides.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a partial side elevation and a partial sectional view of my improved lifting-jack; Fig. 2, a plan view; Fig. 3, a perspective view of the follower in detail; and Fig. 4, a plan view of the base, guides, and follower with the lifting-screw, detent, and operating-lever removed.

The letter A designates the base-plate, upon which is cast or otherwise secured guides B, whose arrangement and position are preferably that shown in Figs. 2 and 4, so that the follower C will have a corner D standing opposite the operating-lever, whereby a projection or edge is provided capable of reaching into places which would be inaccessible to the flat side of the follower. By this position and arrangement the device is rendered useful in places and at times when otherwise it would not be available to lift objects access to which is circumscribed.

The letter E designates wings or flanges projecting from the guides proper, and between which is located the web F of the follower.

The guides constitute braces at their lower ends in connection with web H and I.

The lower end of the follower is provided with a stout arm J, adapted to extend under objects to be lifted, as when such objects are too low to get the follower under them. By this means such objects may be lifted until their altitude will admit of placing the follower under them, when they may be further lifted as well by the vertical adjustment of the follower as by the projection upward of the screw K by rotating it through one or more levers L, shown in dotted lines, and adapted to enter holes L' in the head M. This screw K is fitted to a screw-threaded opening of suitable length in the follower. When an object difficult of access is to be lifted by the corner of the follower, the screw may be run up until its head is out of the way, or may be removed altogether.

The web F is provided with ratchet-teeth O, with which engage a double-pointed detent P and a double-pointed pawl Q. The detent is pivoted upon a pin R, carried by the wings E, and is provided with a thumb-piece S, and is pressed against the ratchet-teeth by a spring T. The pawl is held in engagement with the teeth by a similar spring U and has a hand-piece V, and is mounted upon the eccentric W of an eccentric-lever S'. The eccentric has a plurality of holes Y Y' of different eccentricity and adapted to be mounted upon a pin Z, carried by wings E. The eccentric-lever elevates and lowers the pawl Q with a leverage and with a length of stroke varying with the particular hole Y or Y' in which the pin is placed. If a quick movement is desired, the lever is adjusted to receive the pin Z in the more remote hole in the eccentric. If a slower movement is required, the pin will be placed in a hole nearer to the center. Thus the follower may be actuated with a quick movement and at reduced leverage, or with a slower movement and at an increased leverage without change of instrumentalities, the same devices being used in each case with a mere change of the pin from one hole to another.

If the object to be lifted becomes for some reason too much for the available power that can be applied to the eccentric-lever, or if that object needs to be lifted to a point intermediate of the position reached by the follower when moved the height of the thick-

ness of one ratchet-tooth, or if that object must be lifted higher than the range of movement of the follower will accomplish, then resort may be had to the screw K, which, it will
5 be seen, can be operated with less resistance to the efforts applied to it than incident to the vertical movement of the follower.

The operation and advantages of my invention will be understood from the above.

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

1. The combination, with a base and guides and wings, of a follower mounted in said
15 guides and a lifting-screw mounted in the follower, a pawl and detent engaging the fol-

lower, and an eccentric-lever mounted in the wings, carrying said pawl and adjustable on its pivot to vary its eccentricity.

2. The combination of a base, guides and 20 wings mounted thereon, and a detent, a pawl, and a lever mounted in said wings, the lever operating the pawl, a follower engaged by the detent and pawl, and a lifting-screw mounted in the follower. 25

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

PETER GRIFFIN.

Witnesses:

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H. A. HUNTER.