J. BUEL.
Lifting-Jack.

No. 207,850. Patented Sept. 10, 1878.

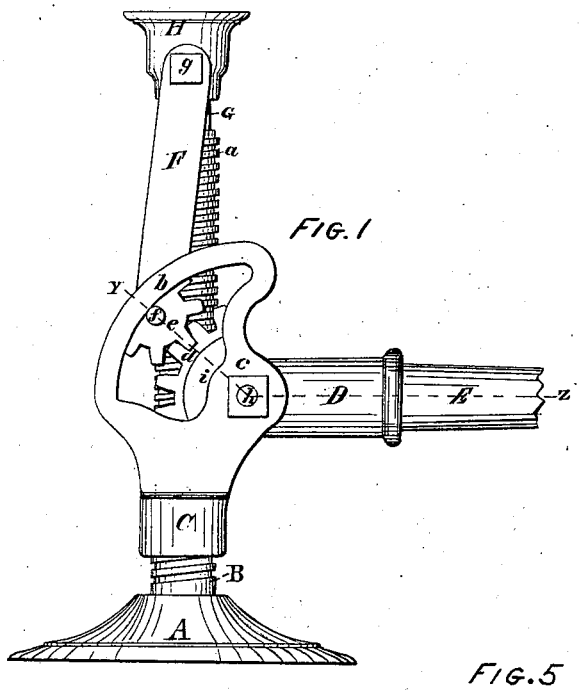


FIG. 1

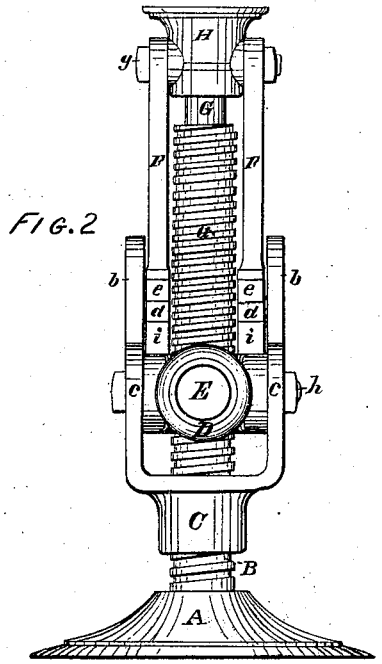


FIG. 2

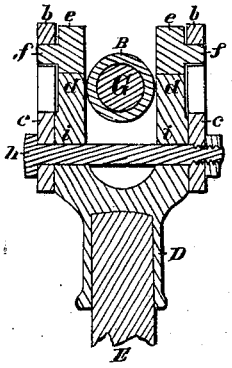


FIG. 5

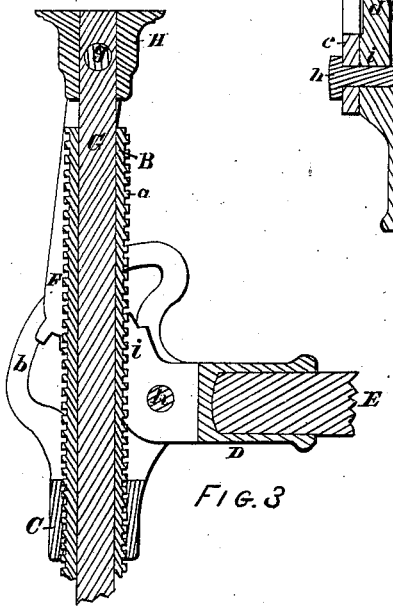


FIG. 3

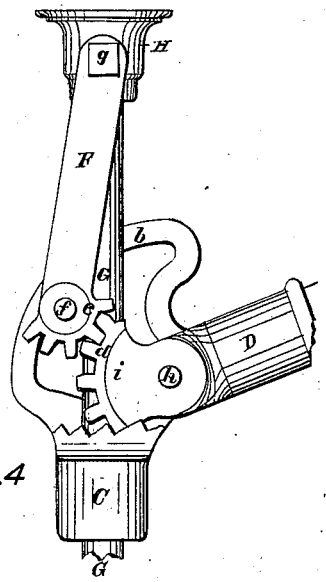


FIG. 4

WITNESSES;
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# UNITED STATES PATENT OFFICE.

JAMES BUEL, OF WOBURN, MASSACHUSETTS.

## IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. **207,850**, dated September 10, 1878; application filed August 26, 1878.

*To all whom it may concern:*

Be it known that I, JAMES BUEL, of Woburn, State of Massachusetts, have invented an Improvement in Lifting-Jacks, of which the following is a specification:

This invention relates to that class of mechanical appliances wherein are combined in one machine a levered lifting-jack and a jack-screw; and the invention consists in the peculiar construction and combination of the constituent parts of the machine, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a front elevation. Fig. 3 is a detached vertical section taken in the direction of the handle, which latter and the lower portion of the standard are broken away. Fig. 4 is a detached side elevation similar to Fig. 1, but omitting the standard, and with the hither cam on the screw-nut broken away to show the inside parts. Fig. 5 is a section through the pivot-bolt of the handle and on line Y Z, Fig. 1.

In these drawings, A is the base, which is preferably formed of iron, and B is the tubular standard secured therein, and on which is the male screw-thread *a*. C is a nut threaded correspondingly and to fit the male thread *a*. On opposite sides of this nut are formed the perforated ears *c c*, for reception of the pivot-bolt *h*, on which the lever works; also the cams *b b*, within which the pins *f f* move.

D is a metallic socket, in which the lever or handle E is secured. This socket is bifurcated, and its members *i i* receive the pivot-bolt *h*, and terminate in segmentary gears *d d*.

G is a rod sliding freely in standard B. H is a head, which may be either rigidly secured to rod G or arranged to revolve thereon, as desired.

F F are two connecting-rods, which at their upper ends are pivoted upon bolt *g*, which passes through head H. On the lower ends of these rods are formed the segmentary gears *e e*, which mesh into gears *d d* formed upon the forks *i i* of socket D. The pins *f f* formed upon these rods and moving within cams *b b* serve to retain the respective gears in contact.

In operation, the screw-nut C is turned up to such point on standard B as will bring head H sufficiently near the object to be raised, when, by depressing handle E, such object will be raised to the extent of the scope of movement of head H, through the action of the gears on such lever and the connecting-rods F.

I claim as my invention—

In a lifting-jack, the combination, with the hollow standard B, having screw *a*, of the nut C, having the cams *b b*, bifurcated socket or lever D, having gears *d d*, rods F F, having gears *e e* and pins *f f*, and the sliding rod G, moving within standard B, and provided with a suitable head, H, all substantially as described and shown.

JAMES BUEL.

Witnesses:
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