

(No Model.)

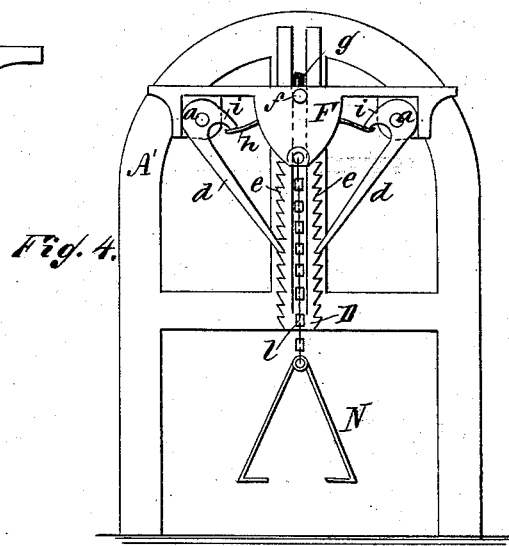
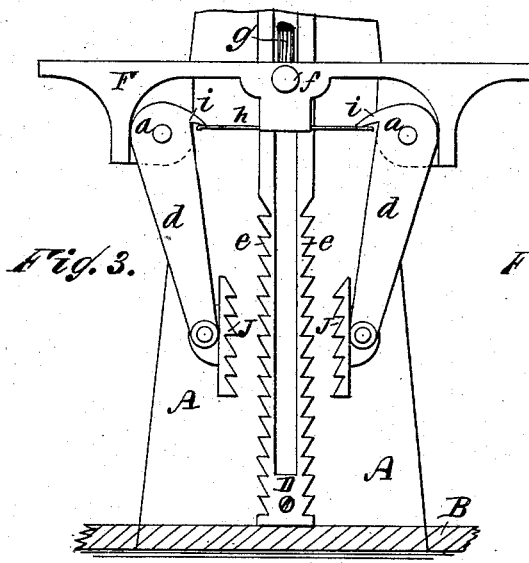
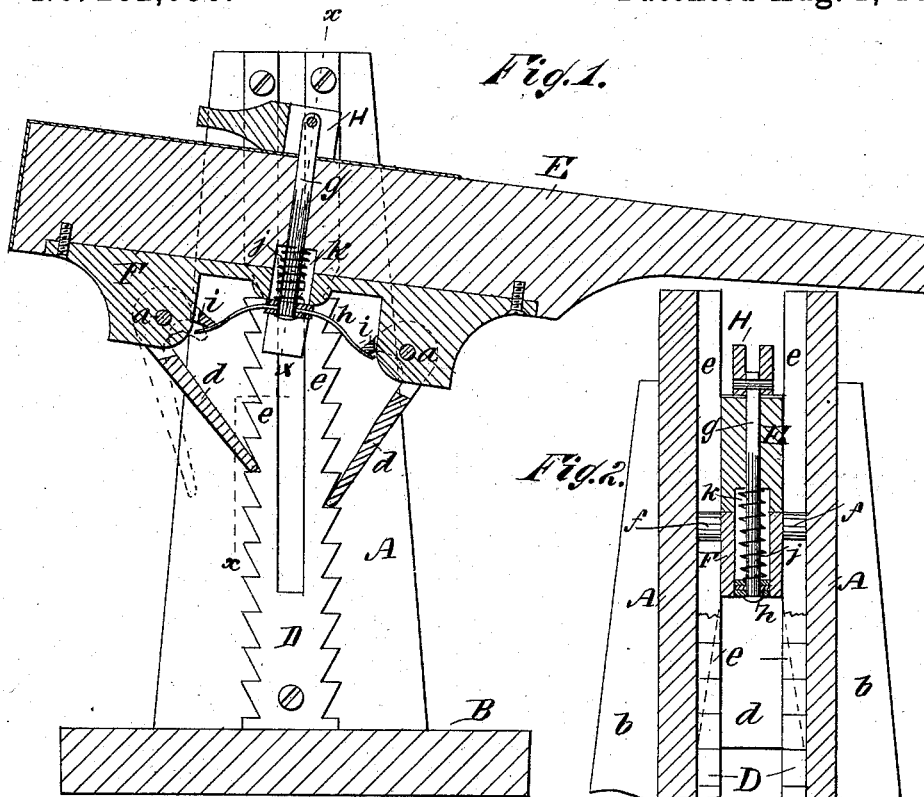
2 Sheets—Sheet 1.

H. C. KEELER.

LIFTING JACK.

No. 262,050.

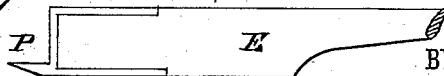
Patented Aug. 1, 1882.



WITNESSES:

Thos. G. Waterhouse
L. Sedgwick

Fig. 5.



INVENTOR:

H. C. Keeler
BY *Munn & Co.*

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

H. C. KEELER.
LIFTING JACK.

No. 262,050.

Patented Aug. 1, 1882.

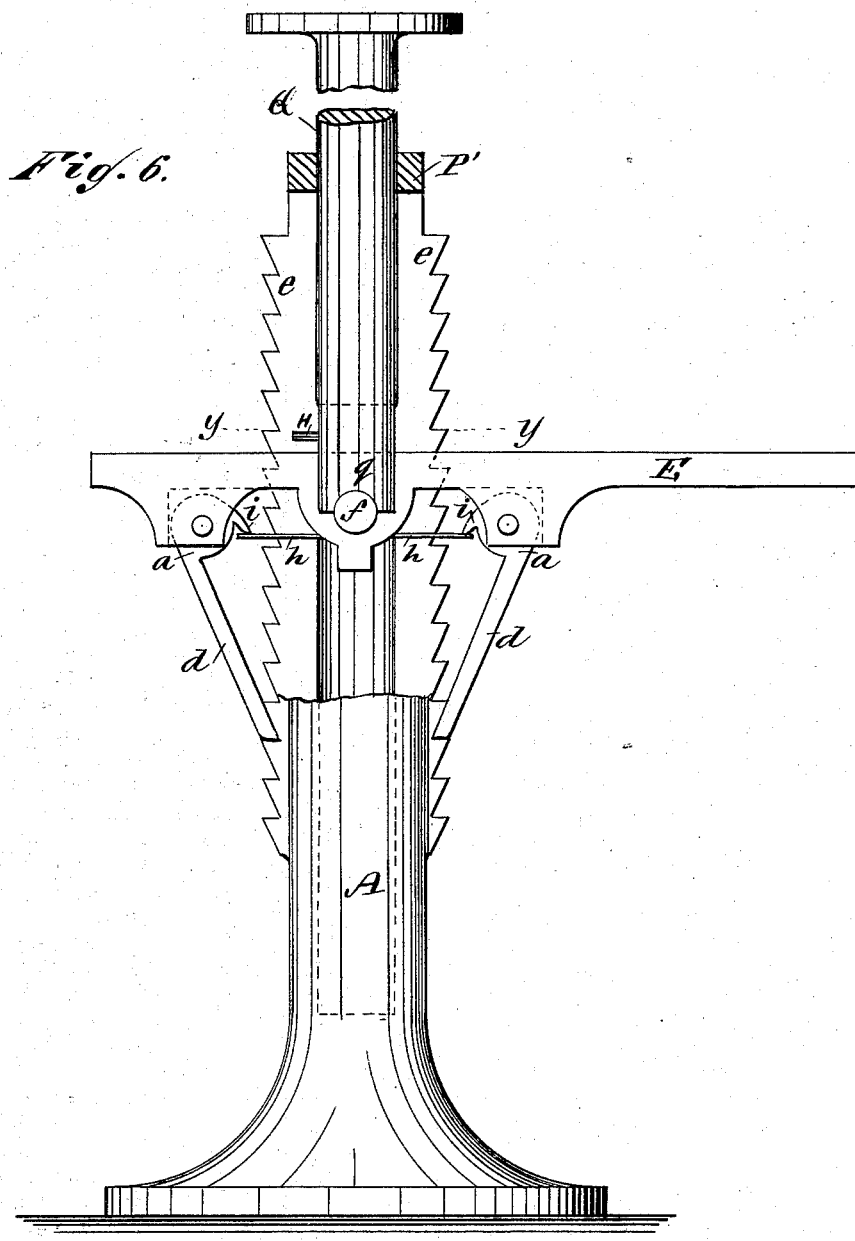
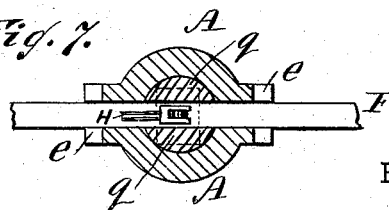


Fig. 7.



WITNESSES:

Theo. G. Horton
W. Sedgwick

INVENTOR:

H. C. Keeler

BY

Miner Ho

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY C. KEELER, OF COUNCIL BLUFFS, IOWA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 262,050, dated August 1, 1882.

Application filed December 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. KEELER, of Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented a new and useful Improvement in Lifting-Jacks, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation through the longitudinal center of the main lever of my improved lifting-jack. Fig. 2 is a cross-sectional elevation of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a vertical section taken between the standards, showing a modification of the pawls. Fig. 4 is a similar section showing the jack arranged for grappling and raising weights that lie upon or near the ground, or below the base of the standard or frame of the jack; and Fig. 5 shows a modification of the main lever. Fig. 6 is a sectional elevation, showing the jack arranged to be placed immediately under the object to be raised; and Fig. 7 is a section of the same, taken on the line *y y* of Fig. 6.

The frame or standard of my improved lifting-jack is composed of the parallel uprights *A A*, which are secured upon the base-board or support *B*. These uprights *A A* are braced upon the outside by the braces *b b*, and they are each provided upon their inner faces with the slotted plates *D D*, having notched projections *e*, with which the pendent pawls *d d* of the main lever *E* engage for raising and lowering the weight.

The pawls *d d* are each formed with the lips or projections *i i*, and are pivoted at *a a* in the casting *F*, which is secured by screws or other means to the under side of the main lever. This casting is provided with the side studs or trunnions, *f f*, which are adapted to move in the slots in the stepped plates.

Through the center of the casting *F*, and up through the main lever, passes the sliding bolt *g*, the upper end of which is pivoted in the lever *H*, which rests upon the top of the main lever. To the lower end of this sliding bolt is attached the flat spring *h*, the ends of which are adapted to impinge against the projections

i i of the pawls, and in the chambers or socket so formed in the casting *F* and in the lower side of the main lever is placed upon the sliding bolt the coiled spring *j*, which tends at all times to force the bolt downward.

The lever *H* is so constructed and pivoted to the sliding bolt *g* that when tipped forward upon the main lever to the position shown in Fig. 1 the bolt and flat spring *h* will be raised, so that the spring will exert a tension upon the projections or lips *i i* of the pawls *d* and cause the lower ends of the pawls to be held against the stepped plates, in which position, upon rocking the main lever in the frame, they will alternately engage with the successive steps of the plates *D D* upon opposite sides of the slots, and thus automatically cause the lever to move upward in the frame. Upon reversing the position of the lever *H* the sliding bolt and spring will be lowered, so that the spring will exert no force upon the pawls *d*, leaving them to swing away out of contact with the plates *D D*, as shown in Fig. 2, in which position the main lever is free to drop to its lowest position in the frame. Upon standing the lever *H* upon its end, instead of tipping it over upon either side, as just described, the spring *h* will be held in such position that the pawls will be placed in close proximity to the steps of the plates, but not in actual contact with them, as when the lever is tipped forward. In this position, upon rocking the main lever the pawls will alternately engage with the steps of the plates and cause the main lever to be gradually lowered in the frame.

For fitting the jack for raising very heavy weights, the lower ends of the pawls are provided with the hinge clutch-plates *J J*, which are adapted to engage with several of the steps or projections of the plates *D D*, thus furnishing a broad fulcrum or support for the lower ends of the pawls and diminishing the danger of bending or breaking the parts or arms of the plates by the weight and force upon the main lever.

For grappling and raising weights which lie upon or near the ground—such as railroad ties or rails—the frame of the jack will be made of the arched side pieces, *A' A'*, the legs of which are adapted to rest upon the ground astride

the object to be raised, and the casting F will be provided with the chain l, to the lower end of which are attached the grappling-hooks or similar means, N, for grappling and holding the load to be raised.

In some instances and for some uses the end of the main lever will be provided with the pointed metal plate P, (shown in Fig. 5,) for adapting the jack to raise weights which cannot be raised by a blunt lever such as shown in Fig. 1, thus fitting the jack for a wider range of work.

When constructed as shown in Figs. 6 and 7, the standard will be round in cross-section and hollow and slotted for the passage up and down of the lever, and the side pieces or parts of the standard will be tied together at their upper ends with the cross-piece P', which guides and supports the beaded follower Q. This follower is divided and the lower end of the parts q q thereof are concaved, and reach over the lever H and rest upon the studs or trunnions f f of the main lever, so that the follower will permit the free action of the lever, and will be raised and lowered with it for raising and lowering any load upon the follower under which the jack may be placed.

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

1. In a lifting-jack, the combination, with the uprights A, provided with the slotted plates D, having notched projections e, of the lever E, provided with the studs, and the adjustable spring-actuated pawls a, substantially as and for the purpose set forth.

2. The pawls d d, formed with the lips or projections i i, in combination with the adjustable spring h, substantially as and for the purposes set forth.

3. In combination with the pivoted pawls d d, provided with the lips i i, the sliding bolt g, spring h, and the eccentric lever H, substantially as and for the purposes set forth.

4. The lever H, eccentrically pivoted to the upper end of the bolt g, in combination with the spring h, pivoted pawls d d, main lever E, and the stepped plates D D, substantially as and for the purposes described.

H. C. KEELER.

Witnesses:

E. H. ODELL,
DAVID JERENAN.