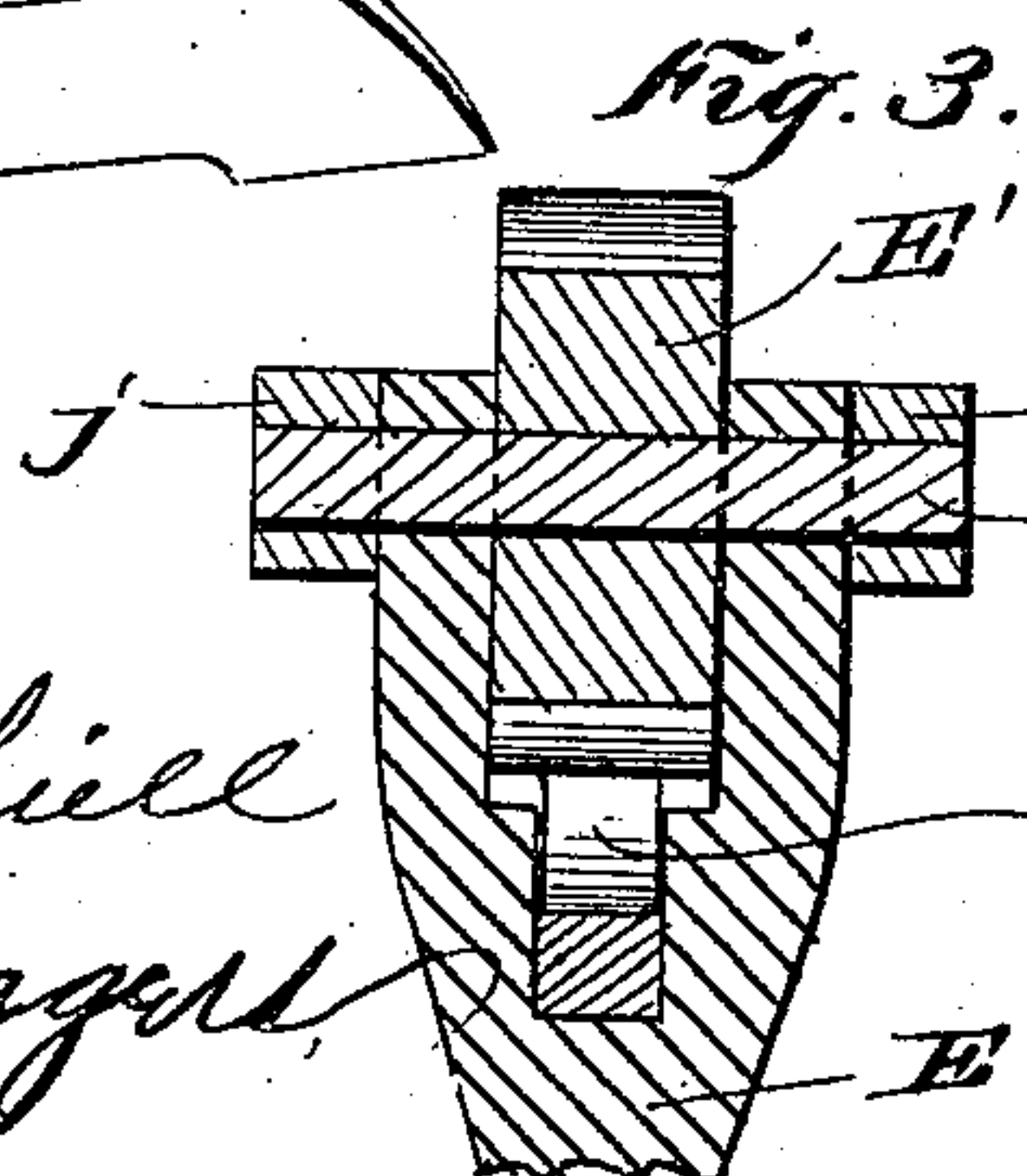
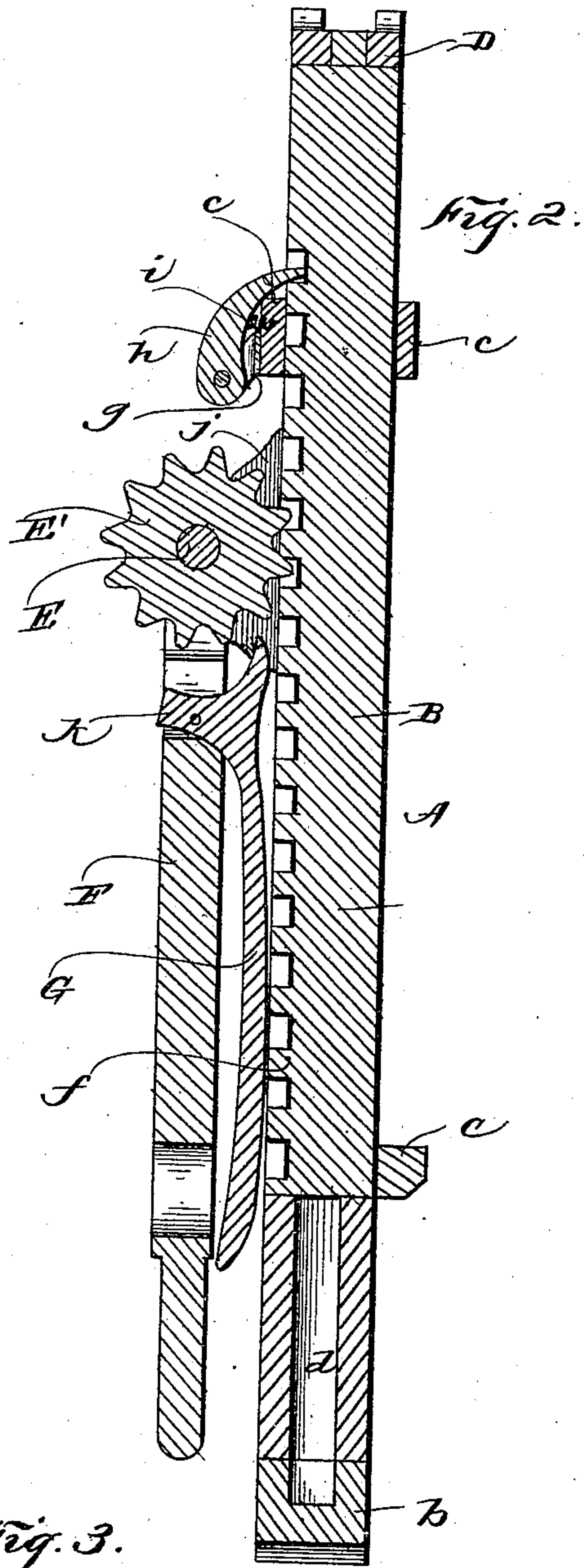
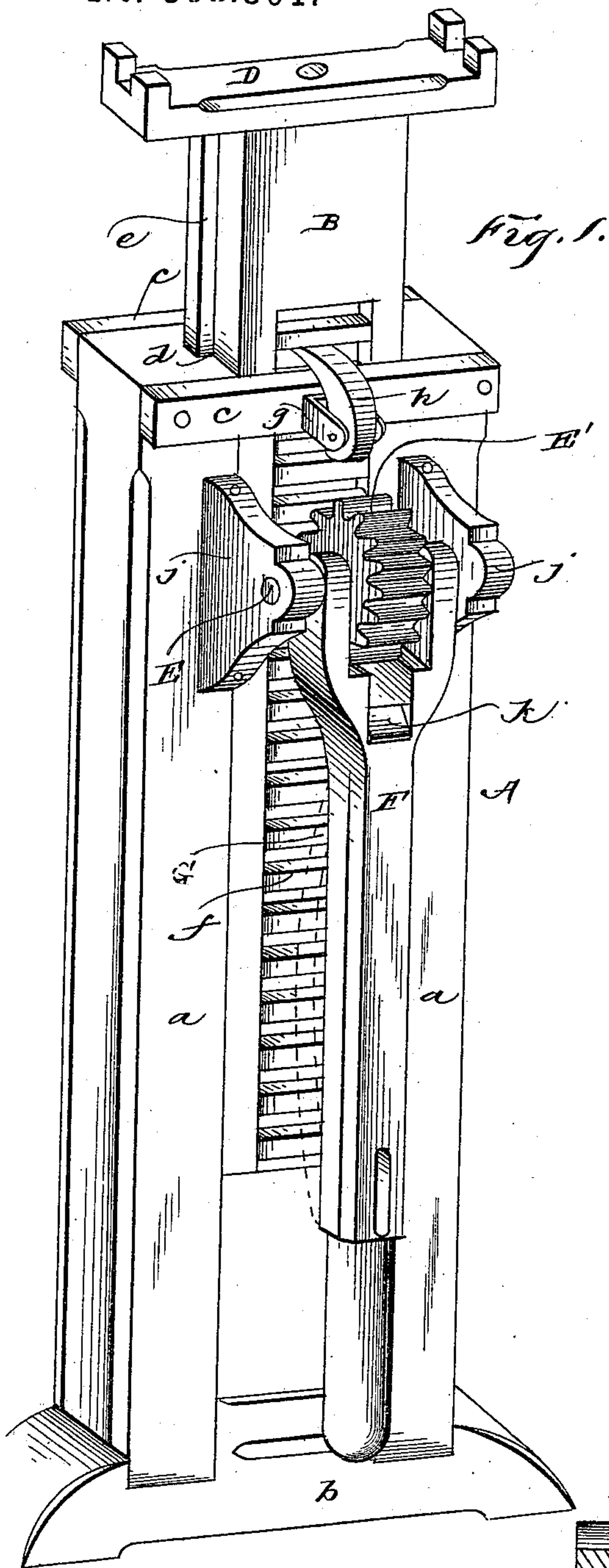


(No Model.)

J. S. HOOD.
LIFTING JACK.

No. 308,361.

Patented Nov. 25, 1884.



WITNESSES

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JOSEPH S. HOOD, OF STAHLSTOWN, PENNSYLVANIA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 308,361, dated November 25, 1884.

Application filed October 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. HOOD, a citizen of the United States, residing at Stahlstown, in the county of Westmoreland and State of Pennsylvania, have invented new and useful Improvements in Lifting-Jacks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to lifting-jacks; and it has for its object to provide a device of this character whereby a heavy weight may be raised with a minimum expenditure of power.

A further object of the invention is to provide a lifting-jack which shall be cheap and simple in its construction, effective in its operation, and one that will be strong and durable.

With these ends in view the invention consists in the combination, with a suitable supporting-frame, of a sliding rack, a suitably-journalled gear-wheel, and a pivoted lever carrying a pivoted pawl to engage the same.

The invention further consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a lifting-jack constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a vertical transverse section.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents a suitable supporting-frame consisting of the vertical uprights *a*, connected at their lower ends by a base-block, *b*, and at their upper ends by two strips, *c*, each of said vertical uprights being provided on its inner side with a groove or channel, *d*, running its entire length from end to end.

B represents a bar having an outwardly-extending tongue, *e*, on each side which fits in the grooves or channels in the supporting-frame. The said bar B is provided on its front face with a series of rack-teeth, *f*, and is provided on its rear side at the lower end thereof with an outwardly-extending block, C.

At the upper end of the rack-bar B is pivoted a cross-strip, D, which, as will be read-

ily seen, may be turned to any desired position or point.

Upon the front cross-strip, *c*, about midway between the two ends of the same, is secured a bracket, *g*, in which is pivoted a pawl, *h*. This pawl *h* is adapted to engage any one of the series of teeth *f* upon the rack-bar B, and thus hold it to any point to which it may be raised. The pawl *h* is held in engagement with the teeth upon the rack-bar B by means of a coil-spring, *i*, secured to the cross-strip *c* at one end and to the under side of the pawl at its other end.

Just below the front cross-strip, *c*, on each of the vertical uprights *a* is secured a bracket or box, *j*.

E represents a shaft which has bearing in the brackets *j*. Upon said shaft is mounted a gear-wheel, E', which engages the teeth *f* upon the bar B. A handle, F, divided at its end, is fitted upon the shaft E, said divided end bearing against the sides of the gear-wheel E'.

Between the sides of the divided end of the handle F, near the rear end thereof, is pivoted a pawl or lever, G, said pawl or lever having a lug, *k*, which bears against the rear end of the divided end of the handle F when the end of the lever or pawl is in engagement with the gear-wheel E', thus serving as a stop.

The operation is as follows: The jack is placed under the object which it is desired to raise and the handle F raised, the pivoted lever or pawl G sliding over or upon the teeth of the gear-wheel E'. As soon as the handle is raised to its fullest extent, which is a vertical position, the pawl or lever G drops into engagement with the teeth of the gear-wheel E', and upon the handle F being pushed downwardly the gear-wheel E' meshes with the teeth *f* upon the bar B and raises the same, the spring-pressed pawl preventing the downward movement of the bar B by engaging the teeth of the same.

When desired, my improved jack may be employed as a track-lifter. In this case the block upon the rear of the bar B is engaged with the under side of the tread of the track and the device operated, as before described.

A lifting-jack constructed in accordance

with my invention is simple in its construction, may be manufactured and supplied at a comparatively slight cost, and by its use a heavy or weighty object can be easily raised
5 with but a minimum expenditure of power.

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

10 In a lifting-jack, the combination, with the supporting-frame having grooves *d*, as shown, of a sliding rack-bar having tongues *e* and

teeth *f*, a gear-wheel, *E'*, a handle, *F*, lever *G*, having lug *k*, a pawl, and a spring to hold said pawl in engagement with the teeth of the rack-bar, substantially as set forth. 15

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSEPH S. HOOD.

Witnesses:

W. C. LOOR,

S. G. BRECHBILL.