

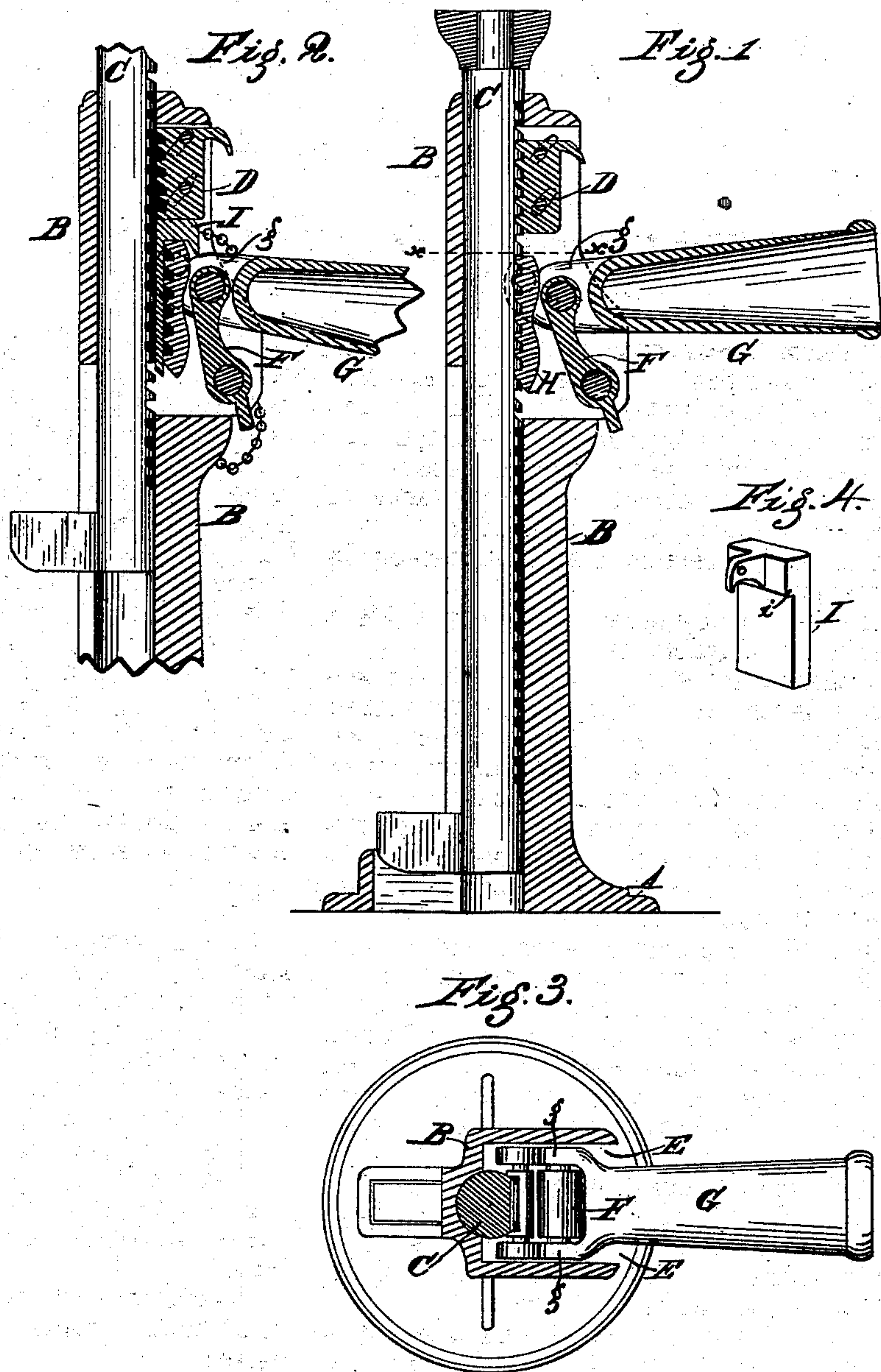
(No Model.)

J. O. JOYCE.

LIFTING JACK.

No. 271,863.

Patented Feb. 6, 1883.



Attest,
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UNITED STATES PATENT OFFICE.

JACOB O. JOYCE, OF DAYTON, OHIO.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 271,863, dated February 6, 1883.

Application filed August 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB O. JOYCE, a citizen of the United States, and a resident of the city of 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.

My invention relates to an improvement in lever-jacks.

The object of my invention is to provide a powerful and durable lever-jack.

Another object of my invention is to so construct a lever-jack employing many toothed lifting and holding pawls that a tripping device can be readily applied to suddenly throw out the holding-pawl and drop the lifting-bar, all of which will be explained in the description of the construction and operation of my improvement, which is illustrated in the annexed drawings, in which—

Figure 1 represents a vertical central sectional view of a lever-jack constructed in accordance with my invention; Fig. 2, a broken view similar to Fig. 1, showing a modification of the invention, the rack-bar being elevated; Fig. 3, a transverse sectional view on the line *xx* of Fig. 1; and Fig. 4 is a perspective view of the trip-block.

A represents the base of the jack; B, the upright frame; C, the rack-bar; D, the holding-pawl, which is preferably constructed as shown in my former Letters Patent No. 154,989, granted me September 15, 1874.

E represents the slotted opening in the upper part of the frame, in which the pawls and lever operate to engage with the rack-bar. F represents a stud-link on which the lever G hinges, so as to allow it to be moved in and out to operate the rack-bar. *g g* represent forks forming the inner end of lever G, and between which

the lifting-pawl H and the supporting stud-link F are pivoted. Lever G is moved out or in by the oscillation of stud F on its fulcra near the bottom of opening E.

I represents a trip-block, which is employed to trip the jack. It is shown in position for tripping in Fig. 2, the shoulder *i* resting on the lifting-pawl H, and the top engaging with the bottom of the holding-pawl D. When lever G is raised pawl D slides upward in its box out of mesh with the teeth of rack-bar C, which drops and lowers the load. By pivoting the lever G on the stud-link F, and pivoting the parts in the free opening E of the frame, a sufficient movement of the lever G is obtained to carry it, with the suspended pawl H, backward and upward far enough from the rack-bar C to allow of the ready insertion or removal of the trip-block I.

I claim—

1. In a lever-jack, the lever G, hinged to the stud-link F, within the opening E of the frame of the jack, substantially as herein set forth.

2. In a lever-jack having the lever G hinged to the stud-link F, within the opening E in the frame of the jack, the lifting-pawl H and rack-bar C, substantially as herein set forth.

3. In combination with the holding-pawl D and lifting-pawl H, pivoted to the swinging lever G, the trip-block I, adapted to engage between the pawls, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JACOB O. JOYCE.

Witnesses:

JOHN L. H. FRANK,
THOS. H. CRIDLAND.