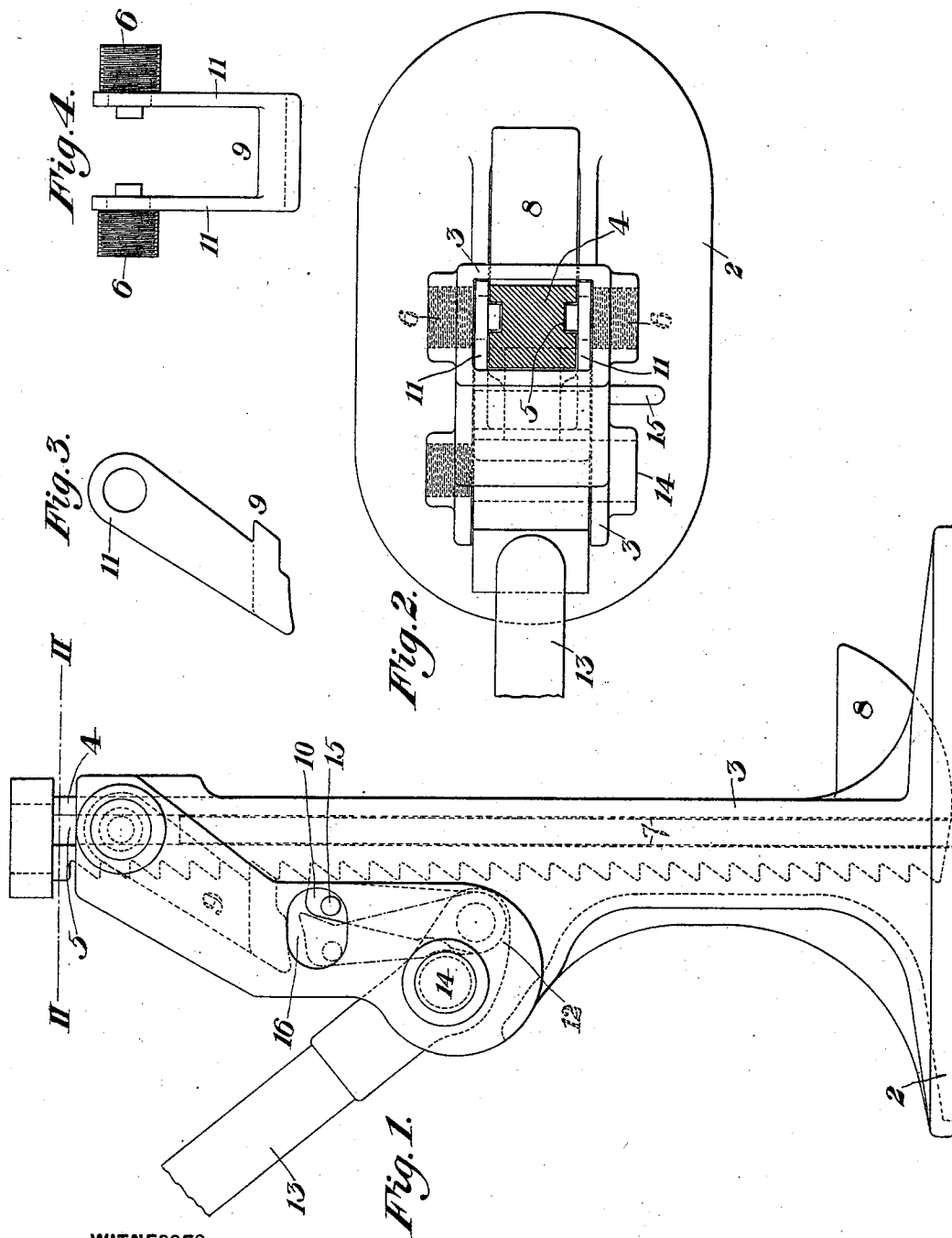


(No Model.)

H. W. ARMSTRONG.
JACK.

No. 536,594.

Patented Apr. 2, 1895.



WITNESSES

H. M. Corwin
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INVENTOR

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UNITED STATES PATENT OFFICE.

HARRY W. ARMSTRONG, OF OAKMONT, PENNSYLVANIA.

JACK.

SPECIFICATION forming part of Letters Patent No. 536,594, dated April 2, 1895.

Application filed December 11, 1894. Serial No. 531,474. (No model.)

To all whom it may concern:

Be it known that I, HARRY W. ARMSTRONG, of Oakmont, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Jacks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved jack. Fig. 2 is a cross-section on the line II—II of Fig. 1. Figs. 3 and 4 are detail views of the depending swinging pawl I employ.

My invention relates to the class of lifting jacks, and more especially to those used for jacking-up the rails of a track, though it may be used for other purposes.

In the drawings, 2 indicates a flat base having a vertical hollow standard or casing 3, which is open on one side and within which reciprocates the ratchet-bar 4. This bar is provided upon each side with a longitudinal groove or recess 5, into which grooves project longitudinal fins 7 upon the inner faces of the main casting. At its lower end the bar 4 is provided with a projecting rest 8 for the rail or other element to be lifted, and with its teeth engages two pawls 9 and 10, of which the upper one (9) is pivoted by means of projecting ears 11, through holes in which pass the projecting inner ends of screw-plugs 6, while the lower one (10) is pivoted to the projecting end 12 of the operating lever 13, which is pivoted to the standard at 14. The lower pawl is provided with a pin 15, which projects through a slot 16 in the casing, and by which the pawl may be disengaged from the teeth.

The operation is apparent. As the lever is raised, the pawl 10 is lowered, and engaging a lower tooth, raises the bar when the lever is lowered. The upper pawl slides down over the teeth, and engaging one of them, holds the bar in place while the pawl 10 is lowered. To disengage the jack, the operator raises the lever and draws back the pawl 10 by the pin 15, and then, on depressing the lever, the pawl 10 engages the pawl 9, and forces it back from the tooth, allowing the ratchet-bar to drop.

The advantages of my invention will be appreciated by those skilled in the art, since a simple, cheap and highly efficient jack is obtained.

Modifications in the form, construction and relative arrangement of the parts of my device may be made by the skilled mechanic without departure therefrom; since

What I claim is—

1. A jack having a vertically movable ratchet-bar, a depending pawl pivoted to the casing, an operating lever and a second pawl pivoted to the lever and arranged to contact with the upper pawl in certain positions, whereby the ratchet-bar is allowed to drop; substantially as described.

2. A jack having a ratchet-bar provided with side grooves, a casing having projections entering said grooves, an upper depending pawl pivoted to the casing, an operating lever and a lower pawl pivoted to the end of the operating lever, and arranged to contact with the upper pawl substantially as described.

3. A jack, having a ratchet-bar provided with side grooves, a casing having projections entering said grooves, an upper pawl having ears through which pass screw-bolts or projections upon the casing, and a lower pawl pivoted to the end of the operating lever; and arranged to contact with the upper pawl substantially as described.

4. A jack, having a ratchet bar provided with side grooves, a casing having projections entering said grooves, an upper depending pawl pivoted to the casing, a lower pawl pivoted to the end of the operating lever, and arranged to contact with the upper pawl, said casing having a side aperture through which the lower pawl may be swung back; substantially as described.

In testimony whereof I have hereunto set my hand.

HARRY W. ARMSTRONG.

Witnesses:

W. B. CORWIN,
C. BYRNES.