

No. 708,948.

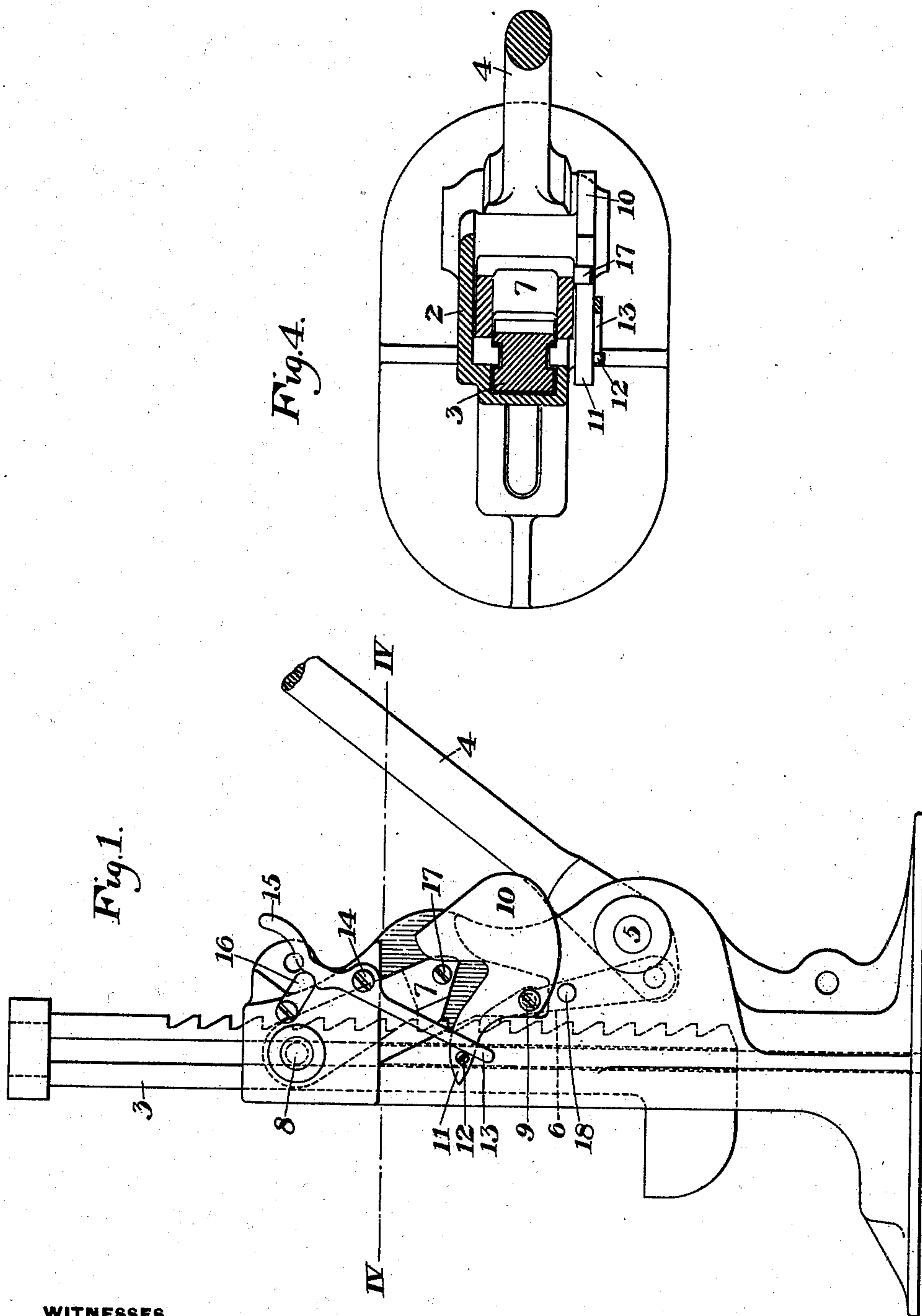
Patented Sept. 9, 1902.

E. WOODINGS.  
JACK.

(Application filed Dec. 10, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES

Warren W. Swartz  
J. W. Corbin

INVENTOR

Emanuel Woodings  
by Baxendale & Byrnes  
his Attorneys.

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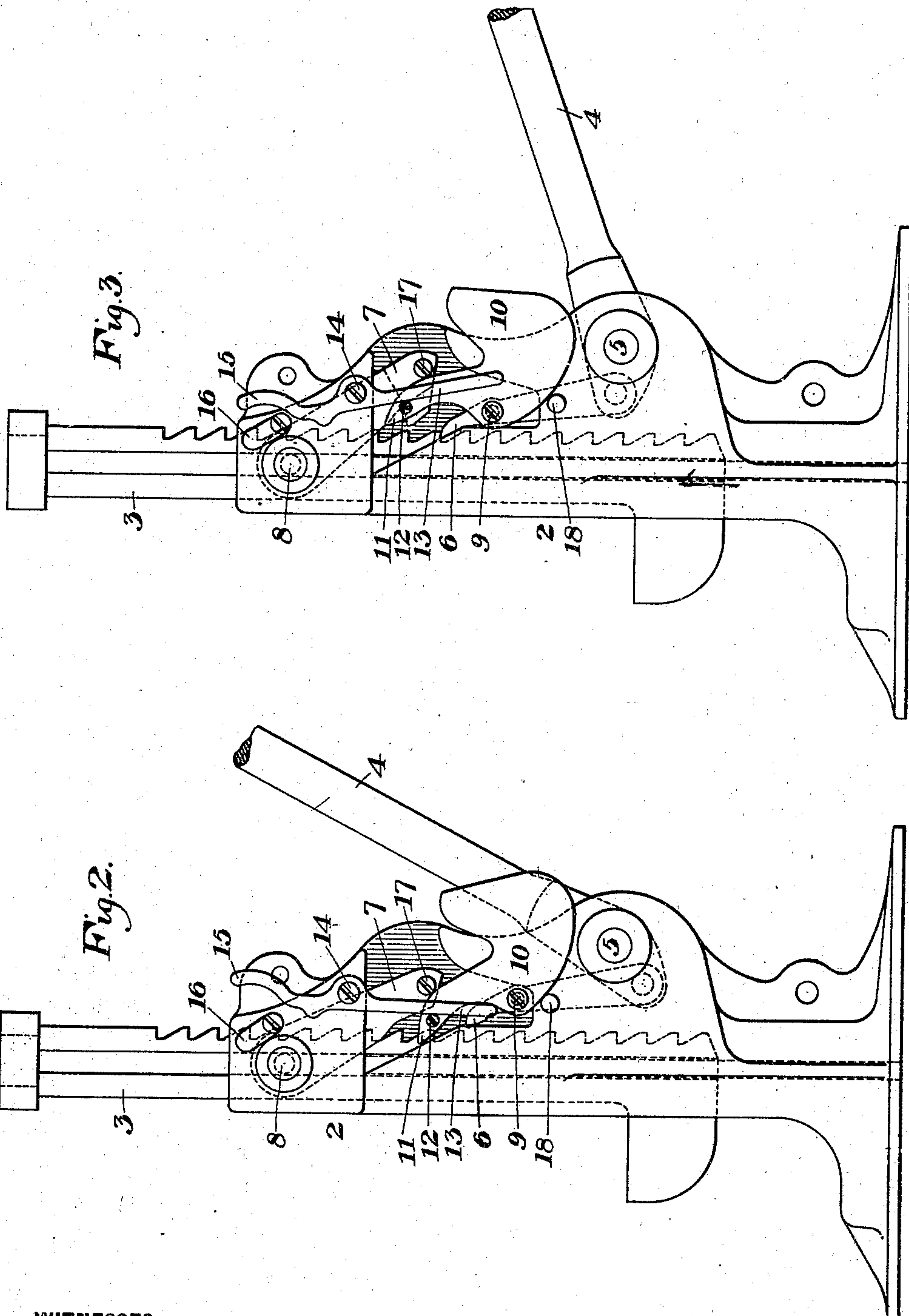
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INVENTOR

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# UNITED STATES PATENT OFFICE.

EMANUEL WOODINGS, OF OAKMONT, PENNSYLVANIA.

## JACK.

SPECIFICATION forming part of Letters Patent No. 708,948, dated September 9, 1902.

Application filed December 10, 1901. Serial No. 85,322. (No model.)

*To all whom it may concern:*

Be it known that I, EMANUEL WOODINGS, of Oakmont, Allegheny county, Pennsylvania, have invented a new and useful Jack, 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 showing the parts in position for moving the lifting-bar upwardly. Figs. 2 and 3 are similar views showing different positions of the parts in lowering the lifting-bars, and Fig. 4 is a horizontal cross-section on the line IV IV of Fig. 1.

My invention relates to that class of jacks wherein a step-by-step movement may be imparted in either direction; and its object is to provide a simple, compact, and effective jack of this type.

In the drawings, 2 represents the hollow standard or casing, and 3 a toothed lifting-bar vertically movable therein.

4 is an operating-lever which is pivoted to the standard at 5 and is provided with a pawl 6 at its inner end.

The upper or casing pawl 7 is shown as of U form, which surrounds the lifting-bar and is pivoted to the casing, as shown at 8.

A pin 9 projects laterally from the lower pivoted pawl, and a weight or block 10 is pivotally mounted on this pin. This weight is provided with an arm 11, having a pin 12 arranged to be engaged by a latch 13, pivoted to the upper frame at 14. The latch is provided with an upper thumb-piece 15 and is arranged to be held in the position shown in Fig. 1 by pivoted trigger 16 when the lifting-bar is to be moved upwardly. In this position of the parts the weight is held in inoperative position by the latch, and the two pawls are free to act in their normal manner. Thus as the operating-lever is lowered the lower pawl forces the lifting-bar upwardly, while the upper pawl is forced out by the inclined face of a tooth until it drops into the next tooth. On again lifting the lever the lower pawl moves into its original position one tooth lower down, while the upper pawl holds the bar into adjusted position. When the lifting-bar is to be lowered step by step,

the trigger is thrown back from the latch, and the parts assume the positions shown in Figs. 2 and 3, where the inclined arm portion will act upon a pin 17, projecting from the upper pawl, while the lower inclined face of the weight will be acted upon by a pin 18, projecting from the standard of the jack. In this position of the parts on lifting the lever the lower pawl will be drawn out, as shown in Fig. 2, by the action of the pin 18. As the lever is then lowered this lower pawl will move into the next tooth above, and the arm of the weight acting upon the pin of the upper pawl will force it out, the parts thus assuming the position shown in Fig. 3. The movement of the lifting-bar is thus reversed, and it is lowered with a step-by-step movement.

The advantages of my invention result from the simplicity, the compactness of the device, the small number of parts, and the positive operation in either position.

I claim—

1. A jack having two pawls engaging a toothed bar, and a single weight pivoted to the lower pawl and arranged to act upon the upper pawl to reverse the movement of the jack; substantially as described.

2. A jack having a toothed lifting-bar, two pawls arranged to engage the same, a weight pivoted to one pawl and arranged to act upon the other, a projection on the standard arranged to act upon the weight, and mechanism for holding the weight in inoperative position; substantially as described.

3. A jack having a toothed lifting-bar, a casing provided with a pawl engaging the teeth, an operating-lever also having a pawl engaging the teeth, a weight pivoted to the lever-pawl, and having one face arranged to act upon the upper pawl, and another face arranged to engage a projection on the casing, and a movable latch arranged to engage the weight; substantially as described.

In testimony whereof I have hereunto set my hand.

EMANUEL WOODINGS.

Witnesses:

GEO. B. BLEMING,  
H. M. CORWIN.