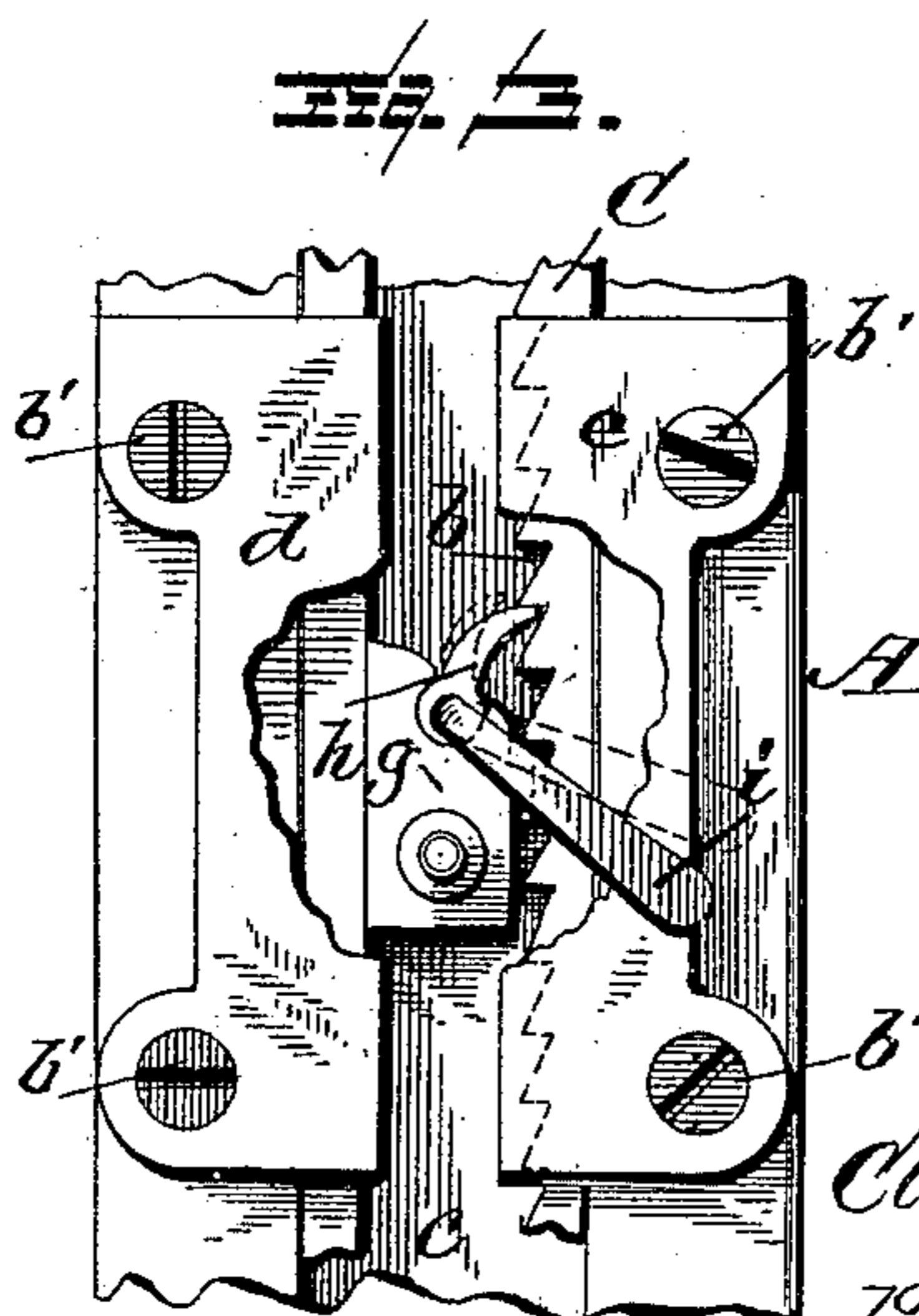
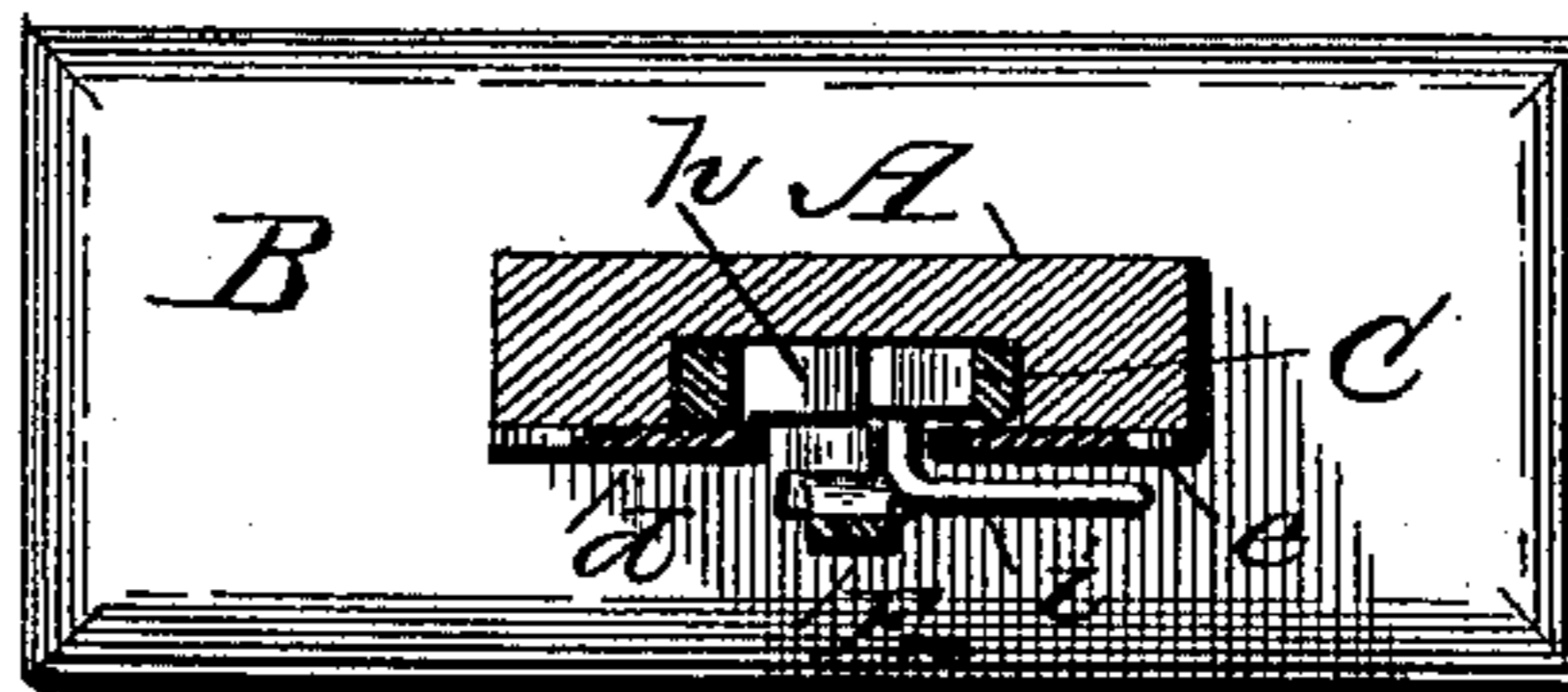
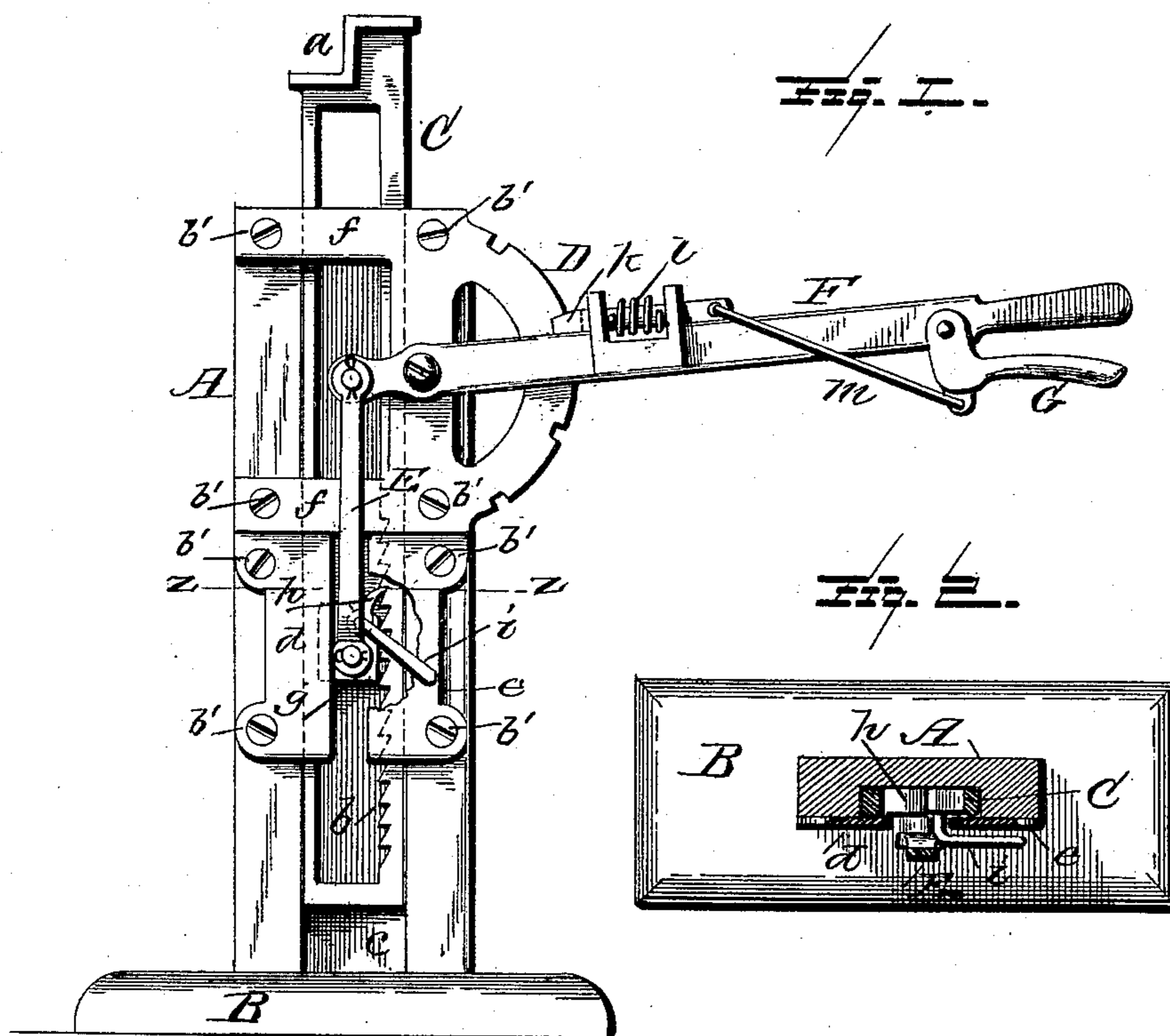


(Model.)

C. C. SMALLEY.
LIFTING JACK.

No. 451,339.

Patented Apr. 28, 1891.



Witnesses
L. C. Hills
D. W. Naylor

Inventor
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UNITED STATES PATENT OFFICE.

CLARENCE CHRISTIAN SMALLEY, OF MANITOWOC, WISCONSIN.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 451,339, dated April 28, 1891.

Application filed January 24, 1891. Serial No. 378,923. (Model.)

To all whom it may concern:

Be it known that I, CLARENCE CHRISTIAN SMALLEY, a citizen of the United States, residing at Manitowoc, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Lifting-Jacks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

Figure 1 of the drawings represents a side elevation of my improved lifting-jack; Fig. 2, a horizontal section taken on line *z z* of Fig. 1; Fig. 3, a detail view, on an enlarged scale, of a portion of the standard and connections.

The present invention has for its object to provide a lifting-jack that will possess strength and durability and that can be operated with comparative ease and rendered particularly serviceable for use in connection with carriages, buggies, or other vehicles; and it consists in the details of construction substantially as shown in the drawings and hereinafter described and claimed.

In the accompanying drawings, A represents a grooved standard, having a suitable base B, in which is seated the movable slotted lifting-bar C, having at its upper end one or more steps *a*, said bar also having ratchet-teeth *b*. The slot in the bar C extends longitudinally thereof almost its entire length, and the teeth on the bar are on the same horizontal plane therewith. The slotted lifting-bar C is confined in the groove *c* of the standard A by means of suitable plates *d e* and the straps *f*, extending from a segmental notched rack D, which are connected to the side of the standard by screws *b'*, or other well-known means.

In place of the plates and straps above referred to as a means of retaining the slotted lifting-bar in the groove of the standard, any other suitable and well-known means may be substituted without departing from the principle of my invention, and many changes may be made in the several details of construction that would come within ordinary mechanical skill.

Within the slotted lifting-bar C is a slidable block *g*, to which is pivoted a suitable pawl *h*, provided with a handle *i* or other desirable means for throwing it back out of engagement with the ratchet-teeth *b*. To the block *g* is pivoted one end of a link-bar E, the opposite end thereof being pivoted in like manner to the end of a lever F, which in turn is pivoted to the rack D, or other portion of the jack found most desirable. To the lever F is suitably connected a slidable pawl *k*, which is retained in engagement with one of the notches on the rack D by means of a spiral spring *l*. A hand-grasp G is pivoted near the handle end of the lever F and connects with the slidable pawl by means of the rod *m*, whereby the pawl is drawn out of engagement with the notched rack by pressing up on the hand-grasp, and by pressing down on the lever the bar C may be raised to any height desired by means of the pawl engaging with the ratchet-teeth thereof.

In operation, when it is desired to elevate the bar C, the pawl is engaged with the ratchet-teeth on said bar and the slidable pawl *k* disengaged with the notch on the rack D. Now by means of the link connection E between the lever F and the block *g* and the engagement of the block with the bar C by means of the pawl and ratchet-teeth, when the lever F is depressed the lifting-bar C will be elevated the desired distance, and when the bar is to be lowered to its normal position the pawl is disengaged with the ratchet-teeth thereon, when the bar will descend by gravity.

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

1. In a lifting-jack, the combination, with a suitable standard, of a lifting-bar having ratchet-teeth, a slidable block carrying a pawl to engage with the teeth, and a lever connected with said block, substantially as and for the purpose set forth.

2. In a lifting-jack, the combination, with a slotted lifting-bar, ratchet-teeth upon said bar, a slidable block, and a pawl connected thereto, of an operating-lever connected with the block, substantially as and for the purpose described.

3. In a lifting-jack, the combination of an operating-lever, a grooved standard, a slotted lifting-bar with ratchet-teeth thereon, a slidable block carrying a pawl to engage with said teeth, and a link-bar connecting the slidable block with the operating-lever, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CLARENCE CHRISTIAN SMAILEY.

Witnesses:

RICHARD MAGUIRE,

ROBT. H. MARKHAM.