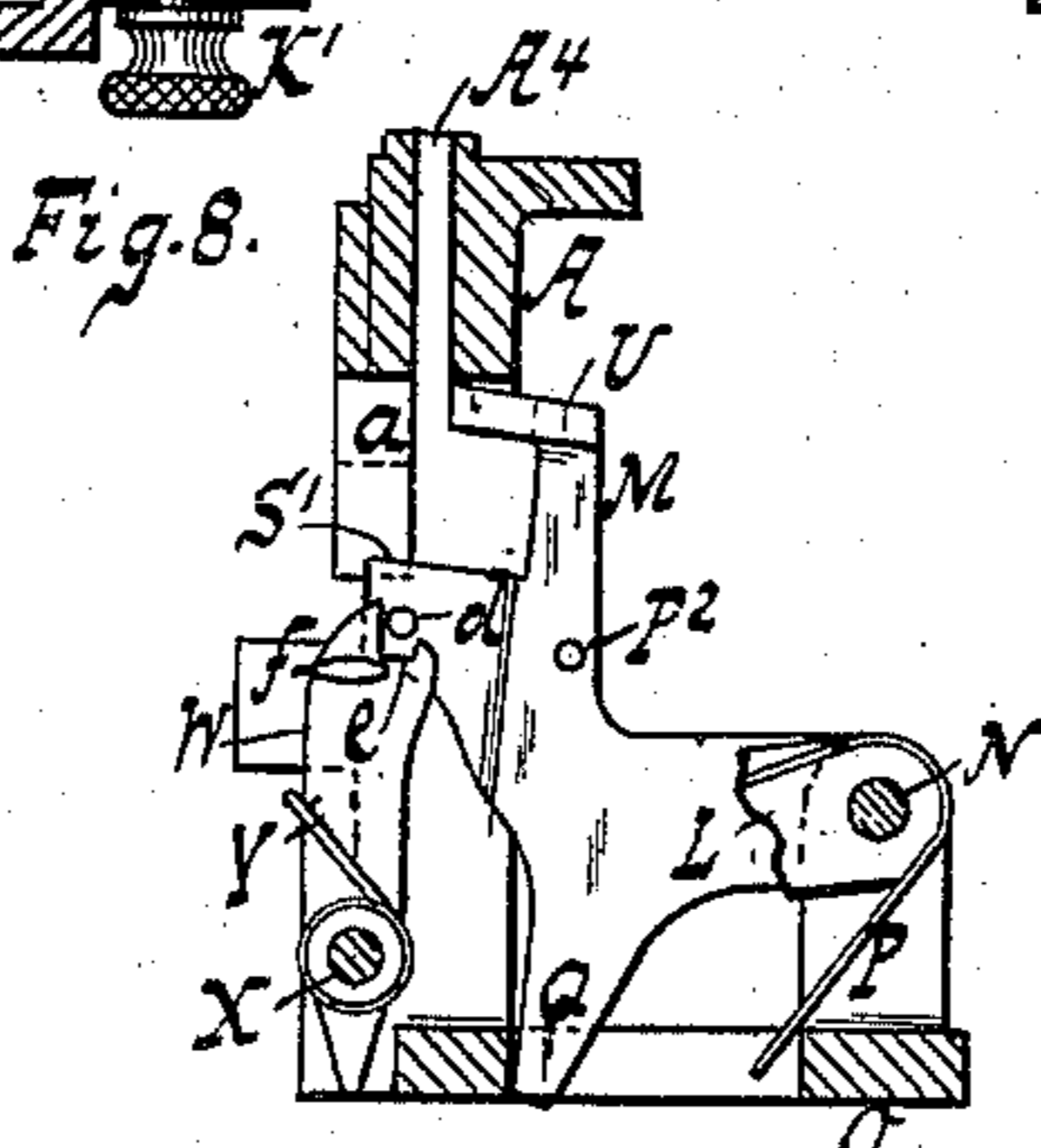
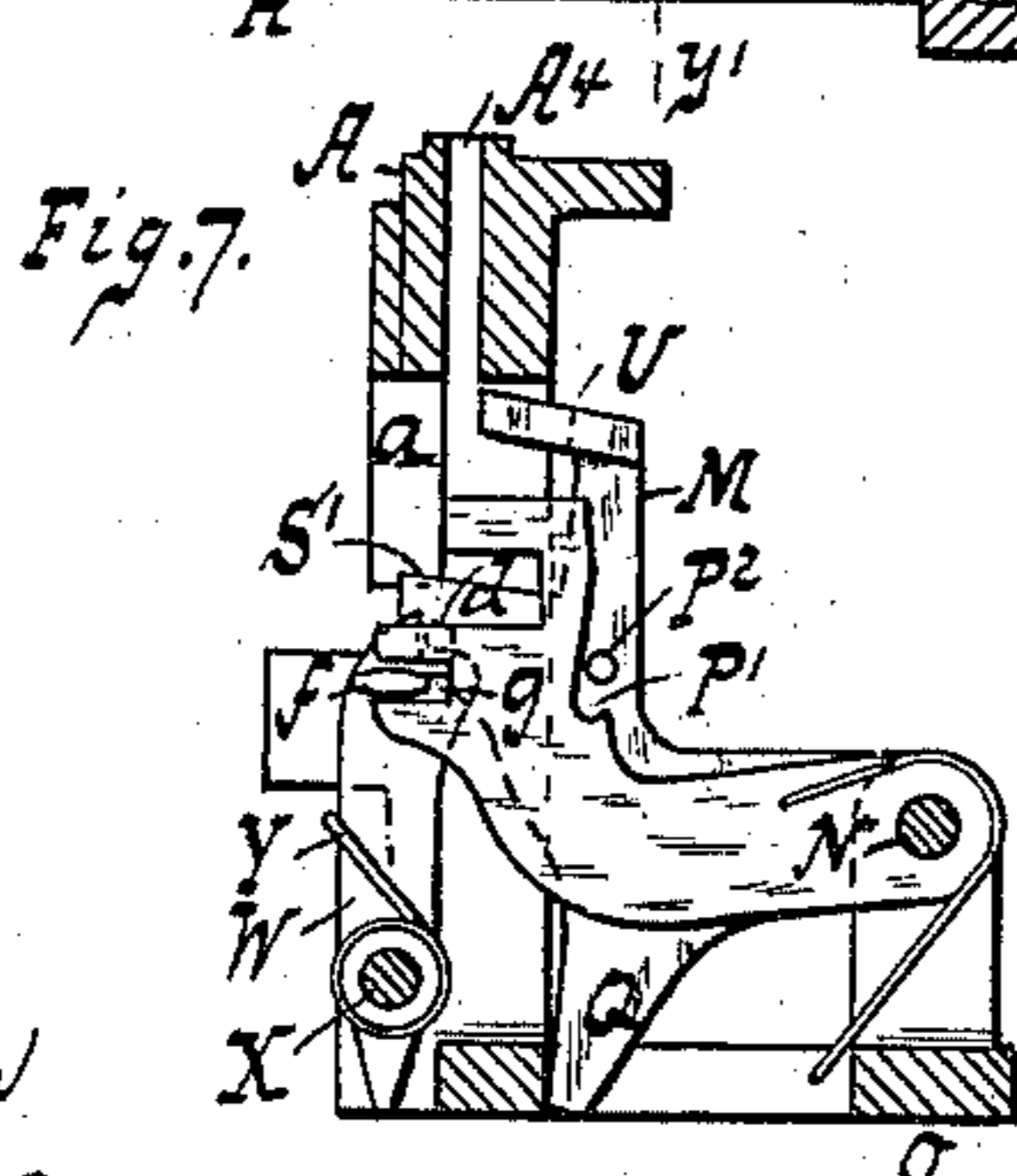
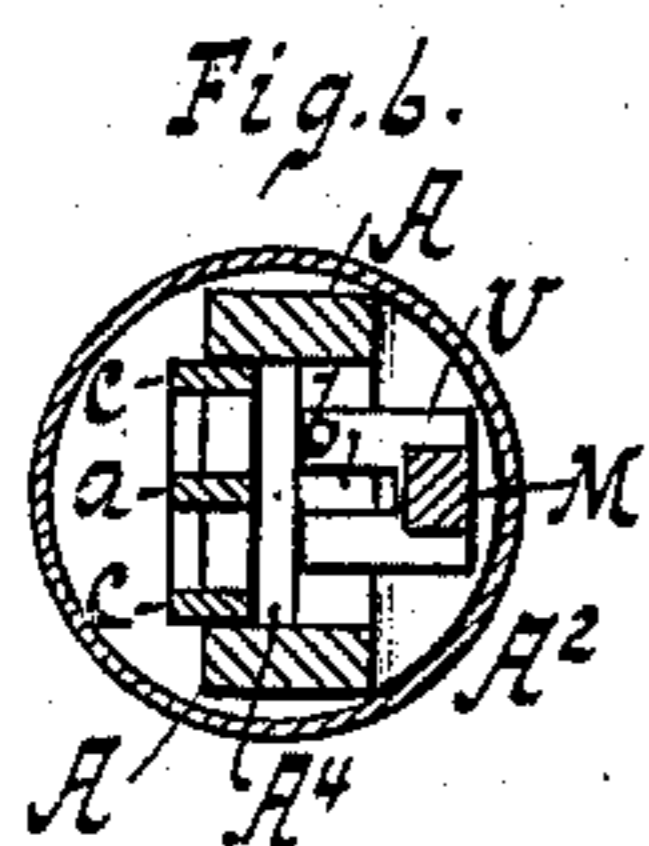
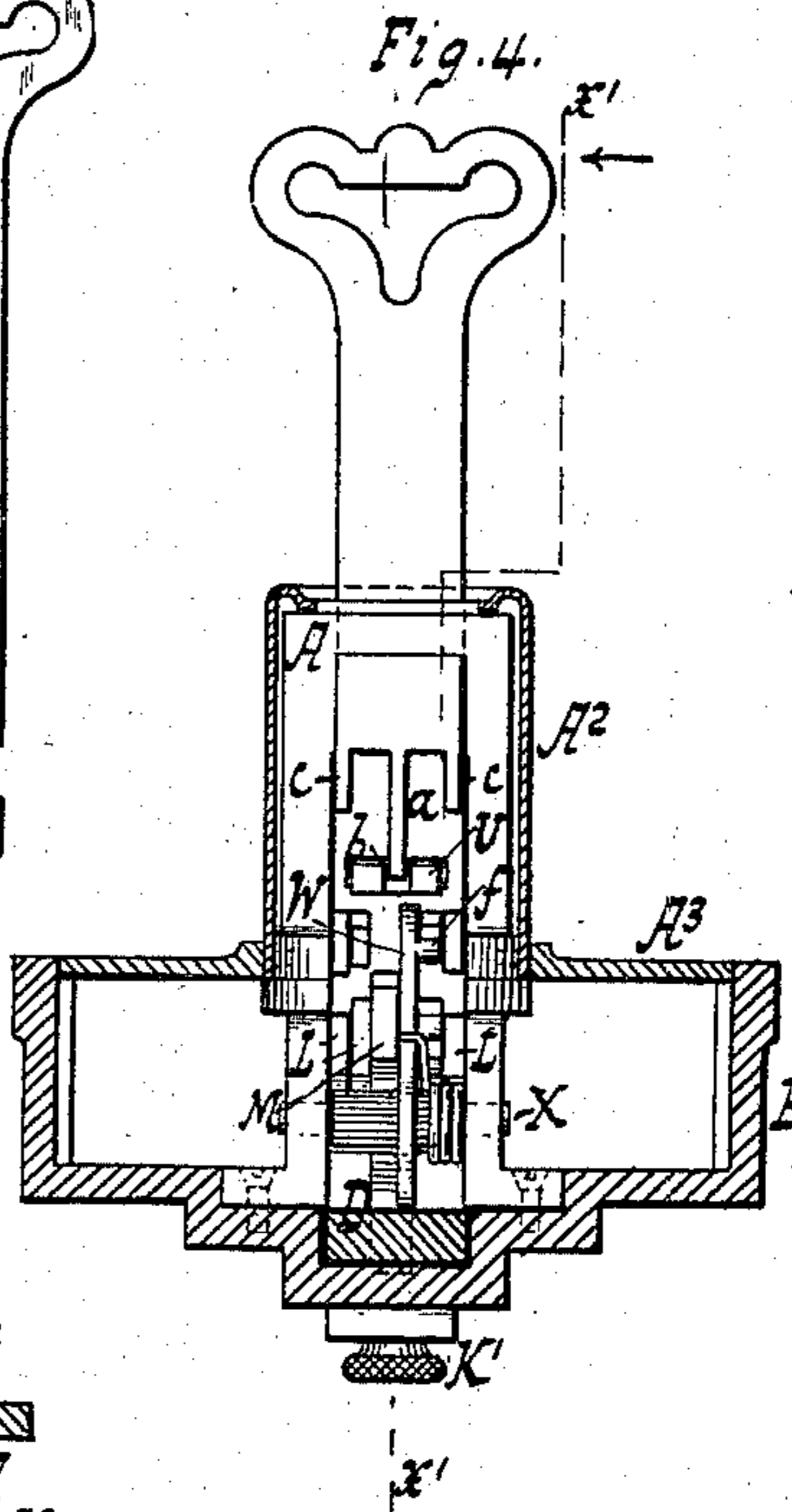
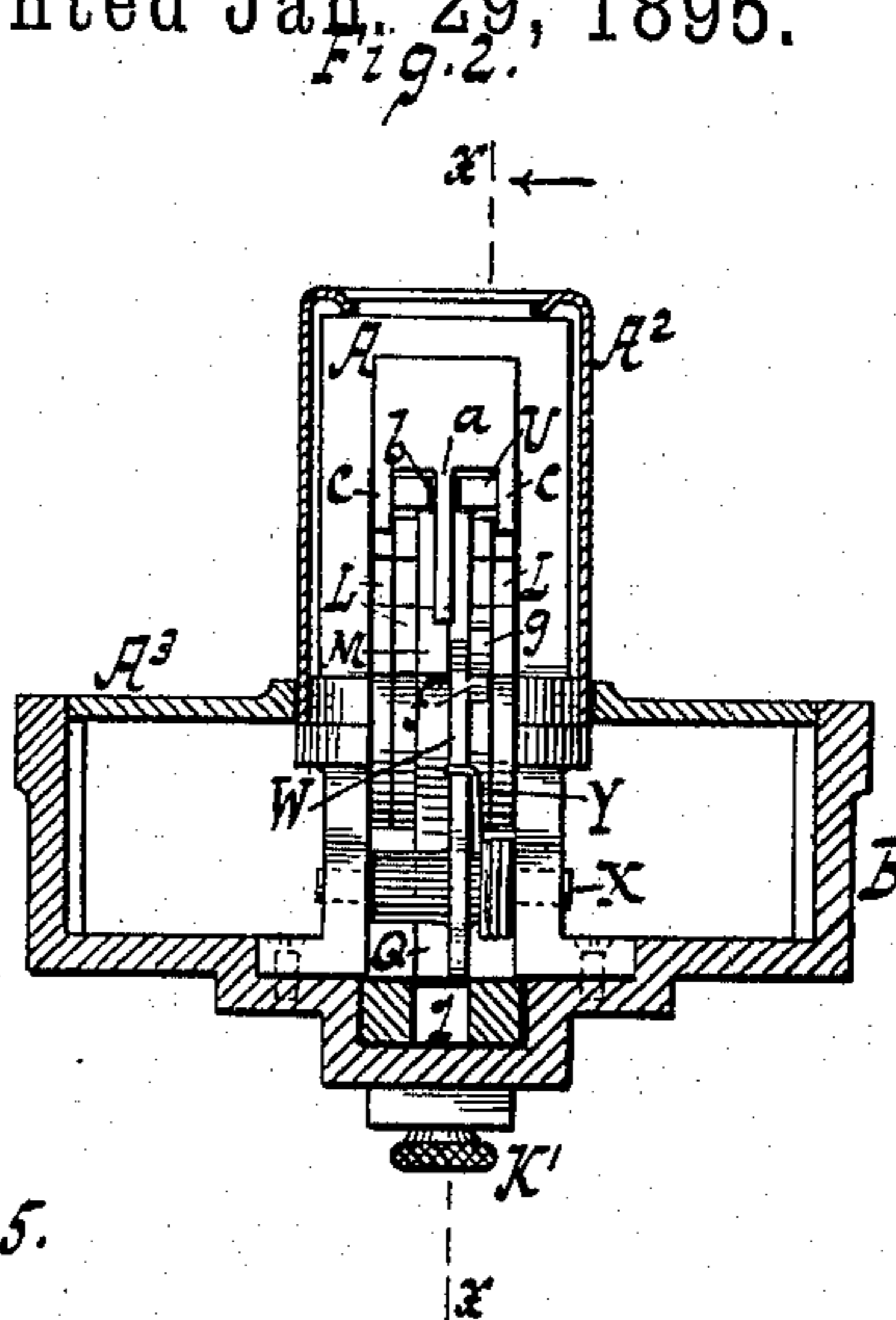


2 Sheets—Sheet 1.

CYLINDER LOCK.

Patented Jan. 29, 1895.



William Miller  
Chas. E. Pensen.

INVENTORS:  
*James H. McKee*  
*Charles S. Kennedy*  
BY  
*Hauff & Hauff*  
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

J. W. McKEE & C. S. KENNEDY.  
CYLINDER LOCK.

No. 533,369.

Patented Jan. 29, 1895.

Fig. 9.

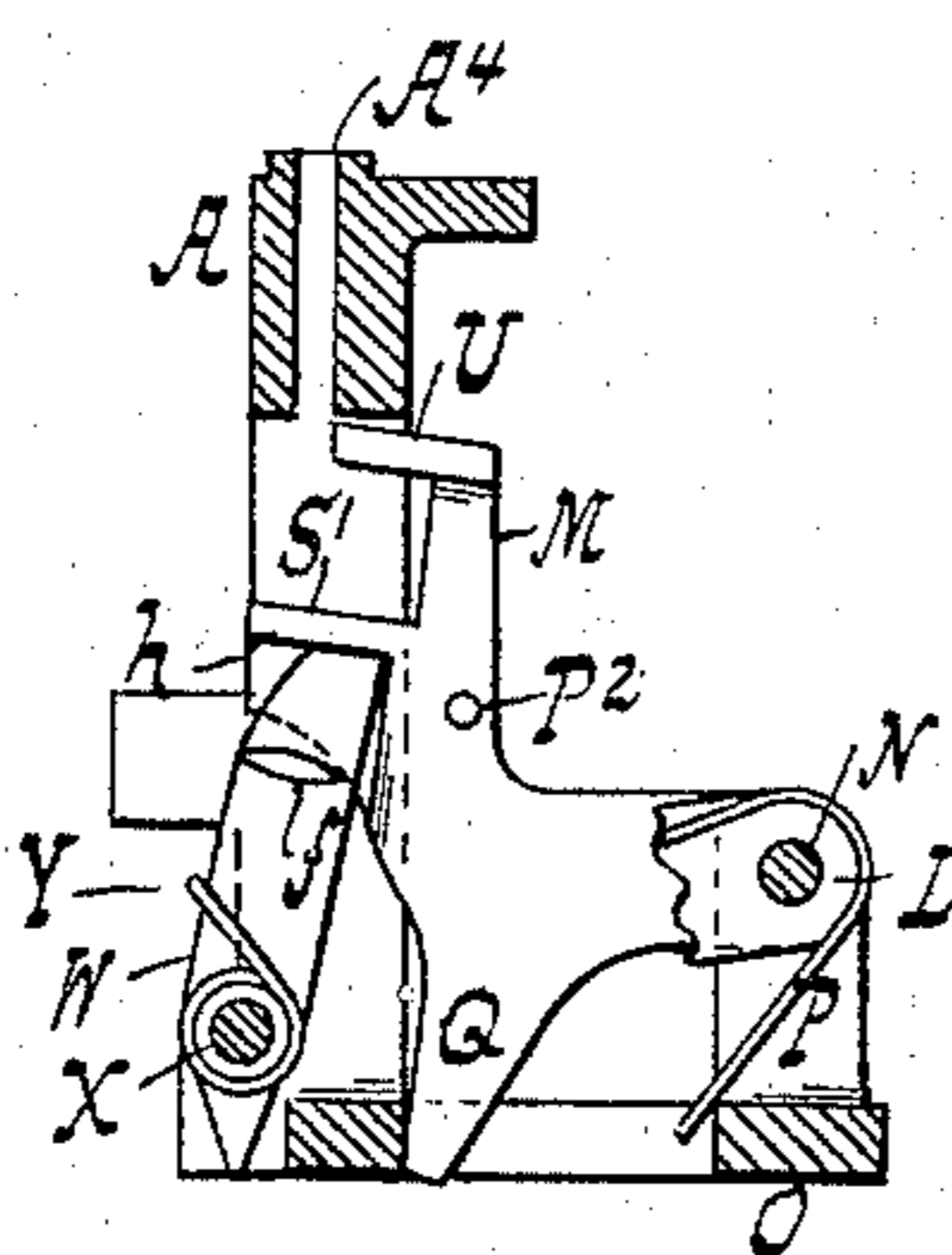
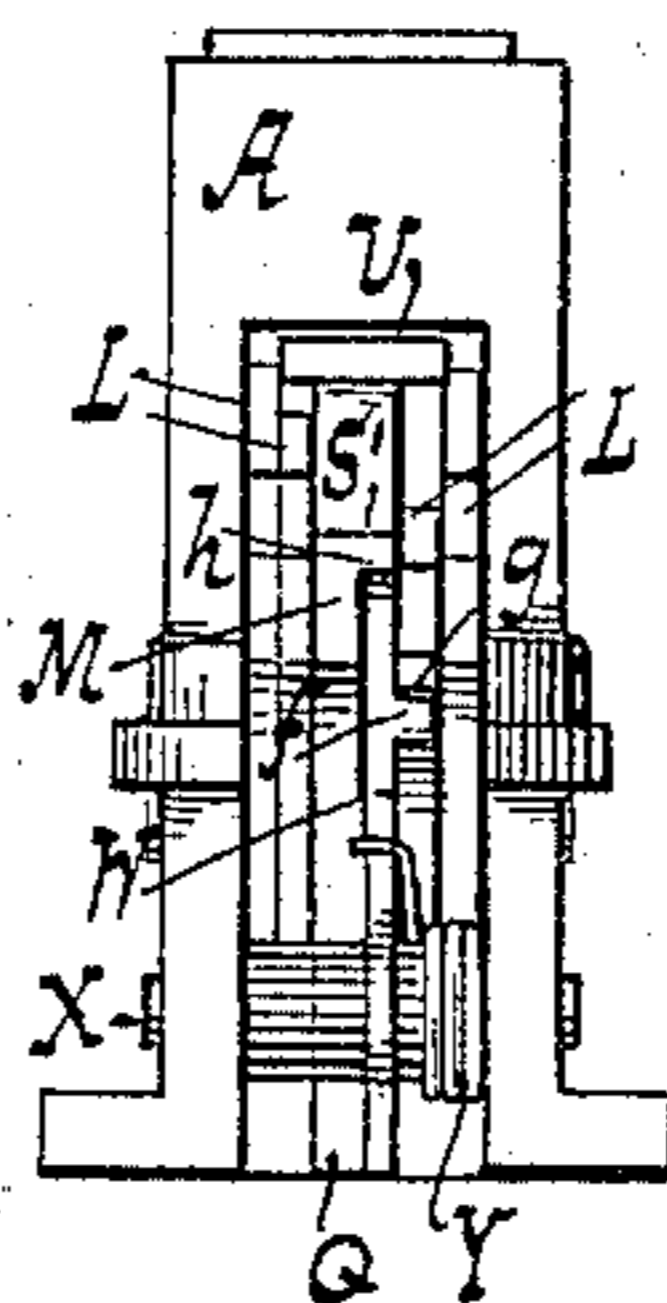


Fig. 10.



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# UNITED STATES PATENT OFFICE.

JAMES W. MCKEE AND CHARLES S. KENNEDY, OF BROOKLYN, NEW YORK.

## CYLINDER-LOCK.

SPECIFICATION forming part of Letters Patent No. 533,369, dated January 29, 1895.

Application filed March 15 1894. Serial No. 503,746. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES W. MCKEE and CHARLES S. KENNEDY, citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in a Latch and Lock Combined, of which the following is a specification.

The object of this invention is to improve on the construction of lock of the kind shown in United States Letters Patent No. 477,142, granted June 14, 1892, and by means of this invention security against picking or tampering with the lock is provided as set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a longitudinal section of the lock along  $xx$  Fig. 2 the bolt being forward or in locking position. Fig. 2 is a section along  $yy$  Fig. 1. Fig. 3 is a view similar to Fig. 1 the bolt being open or withdrawn, the section being along  $x'x'$  Fig. 4. Fig. 4 is a section along  $y'y'$  Fig. 3. Fig. 5 is a detail view of a key. Fig. 6 is a section along  $zz$  Fig. 1. Fig. 7 is a detail view of tumblers. Fig. 8 is a view similar to Fig. 7 with parts in a different position than in Fig. 7. Fig. 9 is a sectional elevation of a modification. Fig. 10 is a front elevation of Fig. 9.

The head A of the lock is secured to lock case B in which plays the tail D of bolt E, said bolt being moved outward by spring F braced against post G. The head A is inclosed in the hollow post A<sup>2</sup> rising from the cover A<sup>3</sup>. The bolt can be moved by slide H and locked by means of a button K.

The key slot A<sup>4</sup> allows of the insertion of a key to actuate the tumblers L and lever M, swinging on pin N, the tumblers being subjected to the pressure of springs P braced against block O, and the lever M having a pin P<sup>2</sup> extending to notches or shoulders P' on the tumblers. The lever M has a toe Q entering slot  $l$  in the tail of the bolt. The key with its notch S and perforation V is adapted to act on the projection S' (Fig. 8) and head U of lever M. The parts thus far referred to including the locking tongue W on pivot X and pressed by spring Y operate as in said patent of June 14, 1892.

In attempting to pick the lock a wire or

suitable tool or blade being used to pass into slot A<sup>4</sup> to depress a tumbler L and throw the locking tongue W out of action and a like tool or the same tool being used to move lever M, the bolt E might be thus actuated. To prevent such tampering a guard  $a$  is provided, said guard being suitably formed of a blade or strip of metal and placed in the path of head U. Said head being forked or provided with a slot  $b$  (Fig. 6) will straddle the guard  $a$  when properly actuated by the key. Should it be attempted to swing the lever M by a wire or the like passed into slot A<sup>4</sup> the head U of the lever M will force the wire against guard  $a$  to prevent further movement of the lever, or should the wire enter slot  $b$  in the lever head U such wire resting between guard  $a$  and lever M will prevent the latter being actuated far enough to entirely withdraw bolt E. The key by reason of its slot or eye V however allows the head U to pass and the lever M to swing the proper distance as seen in Fig. 3.

As seen in Figs. 2, 4 and 6 instead of having only one tongue or guard  $a$  additional tongues as  $c$  can be provided.

The lever M is shown provided with a stud or lug  $d$  (Fig. 8) and the locking tongue W is shown provided with a notch or recess  $e$ . Should it be attempted to push down the lever M independently of the tumblers the lug or shoulder  $d$  will enter recess  $e$  and the lever M will not only be prevented from swinging farther but the engagement of lug  $d$  and notch  $e$  will prevent any movement of the locking tongue W.

The locking tongue has a lug or shoulder  $f$  which in the position of parts shown in Fig. 1 is adapted to sit under a tumbler L or said shoulder might be made to extend under several tumblers if desired. The shoulder  $f$  is rounded as seen so that a depression of the proper tumbler will produce a lateral pressure by the under side of the tumbler on the shoulder  $f$  to swing the locking tongue to its releasing position so that the lever M can descend, the stud  $d$  of the lever M passing by the rear of the locking tongue W as seen in Fig. 3.

By providing one or more of the tumblers L with a slot  $g$  the independent motion of such tumbler by a wire or instrument used

for tampering will cause the locking tongue to snap its shoulder *f* into notch or slot *g* (Fig. 7). The shoulder *f* now acts as a catch and holds the tumbler *L* in the position shown in Fig. 7 where if the key is now inserted said tumbler will prevent the passage of the key along the slot *A*<sup>4</sup>, said tumbler now projecting into the path of the key. The lock thus furnishes evidence of tampering, and to bring the lock back to proper working condition it is necessary to swing the locking tongue *W* to carry its shoulder *f* out of slot *g* which can generally not be done except by dismounting the lock. In the regular operation of the lock by means of the key the shoulder *f* will not catch into slot *g* since before said shoulder is able to make such engagement the pin *d* on the lever *M* descending with tumbler *L* will come to the rear of the tongue *W* or ride along that side of the tongue which faces away from bolt *E*, and such pin or stud *d* riding along the rear of tongue *W* will prevent the latter from engaging its shoulder *f* into slot *g*.

In the modifications shown in Figs. 9 and 10, the stud *d* on lever *M* and the notch *e* on tongue *W* are omitted and the tongue *W* is adapted to sit squarely under a shoulder or overhanging portion *h* of lever *M* to prevent an improper depression of the lever. Said overhanging portion *h* also forms a guard for the tongue *W* to prevent the latter being grasped by a tool or pick inserted for the purpose of tampering, said guard portion *h* preventing access of the pick to the tongue *W* so that the latter cannot thus be swung out of its locking engagement with the lever *M* or its shoulder or guard portion *h*. In case the lock is properly actuated as by the key, the tumblers *L* or one of the tumblers will swing the tongue *W* to the disengaging position as heretofore, and the guard *h* then passing behind the rear of tongue *W* on the proper descent of lever *M* will hold the tongue *W* in disengaging position as already noted in the action of the stud *d* of Fig. 7.

What we claim as new, and desire to secure by Letters Patent, is—

1. A bolt and a lever connected to the bolt,

combined with a locking tongue for the lever, a tumbler (one or more) for moving the locking tongue to its releasing position, and a guard placed in the path of the lever substantially as described.

2. A bolt and a lever connected to the bolt, combined with a locking tongue for the lever, and a tumbler for moving the locking tongue to its releasing position, said tongue being provided with a catch adapted to engage the tumbler when moved independently of the lever substantially as described.

3. A bolt and a lever connected to the bolt, combined with a locking tongue for the lever, a tumbler for moving the locking tongue to its releasing position, said tumbler and locking tongue being provided with a catch and slot adapted to engage one another when the tumbler is moved independently of the lever substantially as described.

4. A bolt and a lever connected to the bolt, combined with a locking tongue for the lever, and a tumbler (one or more) for moving the locking tongue to its releasing position, said tongue being provided with a catch adapted to engage the tumbler when moved independently of the lever, and said lever being provided with a lug or shoulder *d* adapted to hold the locking tongue in its releasing position on the proper actuation of the lever substantially as described.

5. A bolt and a lever connected to the bolt, combined with a locking tongue for the lever and a tumbler (one or more) for moving the locking tongue to its releasing position, said lever being provided with a lug *d* and said locking tongue being provided with a recess into which the lug on the lever enters or locks upon an attempted independent motion of said lever substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JAMES W. McKEE.

CHARLES S. KENNEDY.

Witnesses:

SAMUEL W. MURPHY,

WILLIAM G. MURPHY.