(No Model.) 2 Sheets—Sheet 1.

B. H. MEAD.

TILL LOCK.

No. 444,708. Patented Jan. 13, 1891

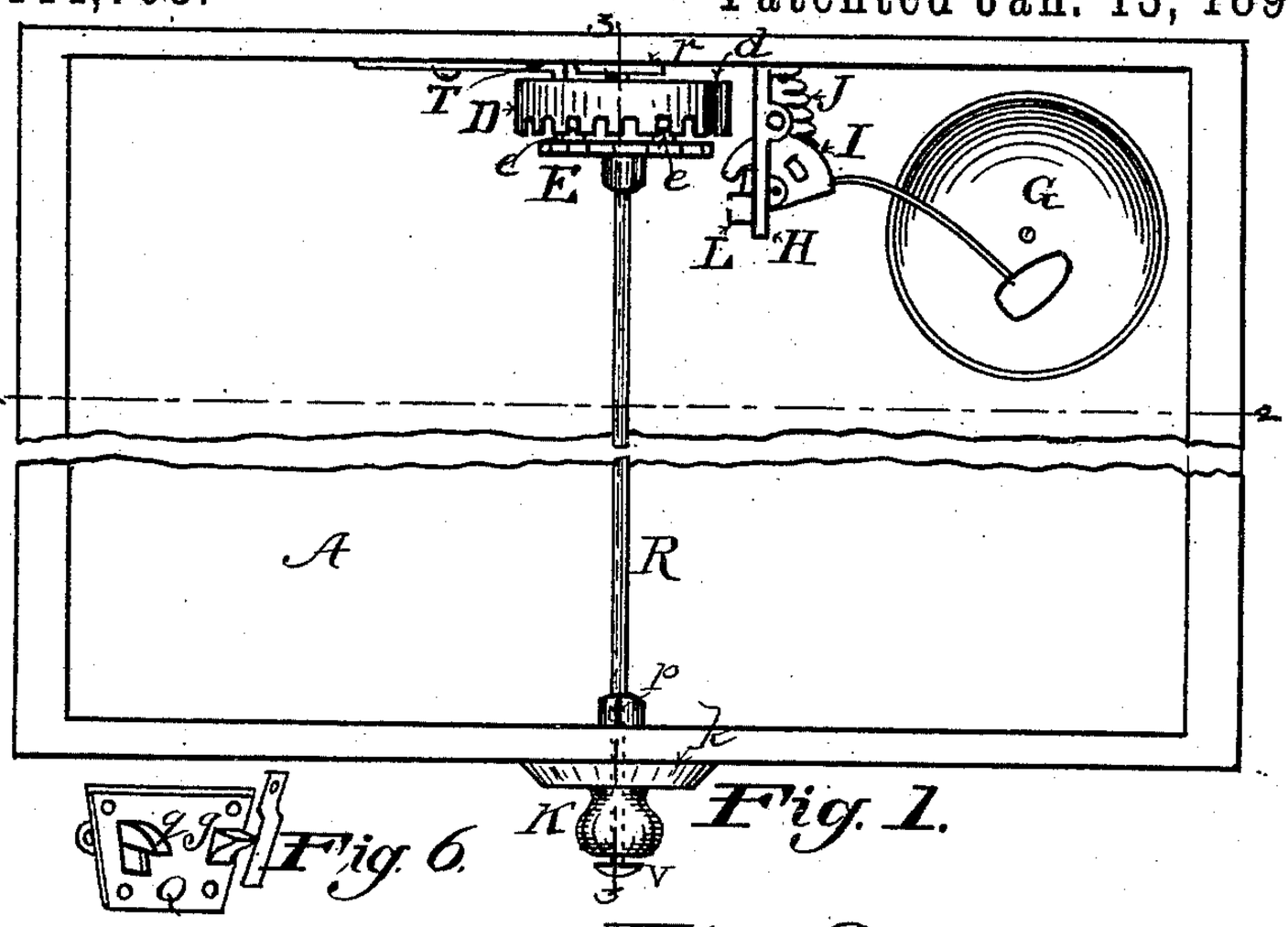
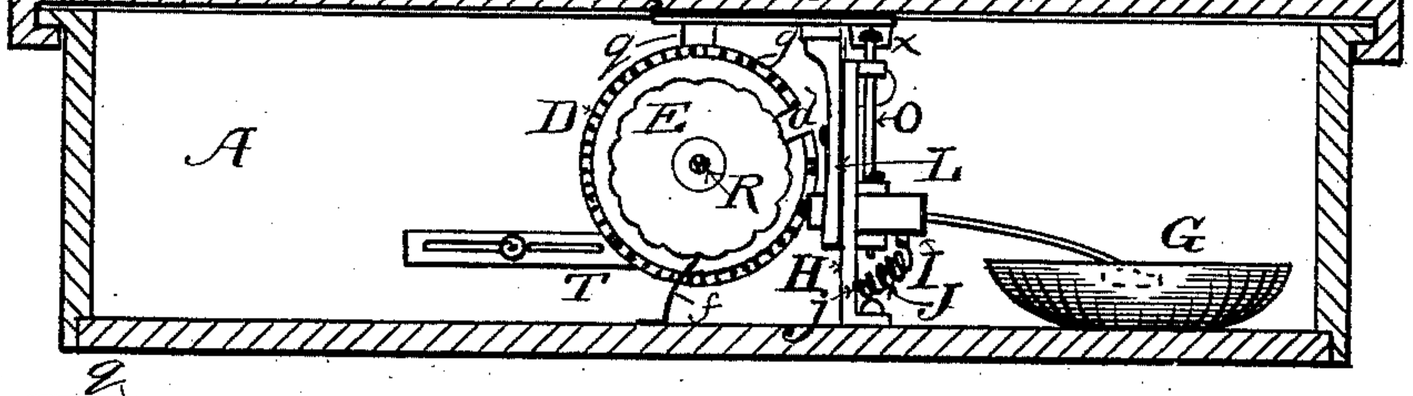


Fig. 1.

Fig. 6.

Fig. 2.



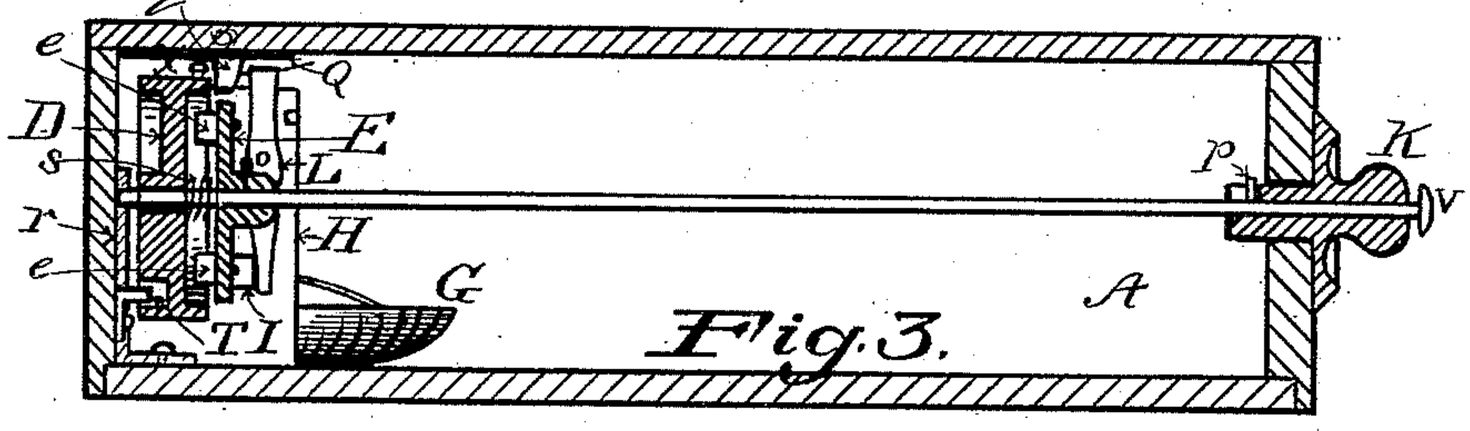


Fig. 3.

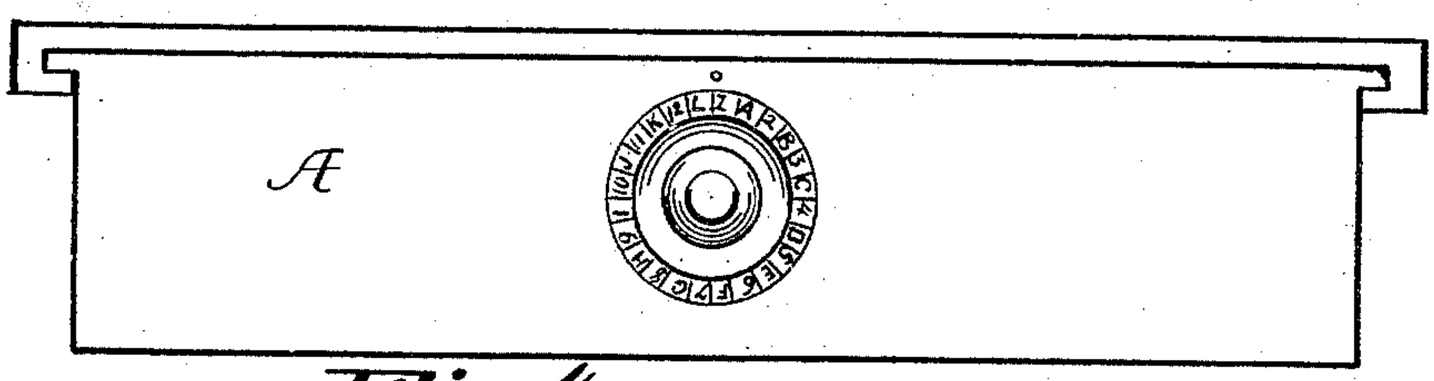


Fig. 4.

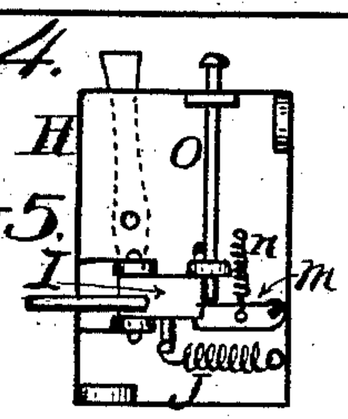


Fig. 5.

Witnesses:

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By Geo. H. Tibbitts atty

(No Model.) 2 Sheets—Sheet 2.

B. H. MEAD.

TILL LOCK.

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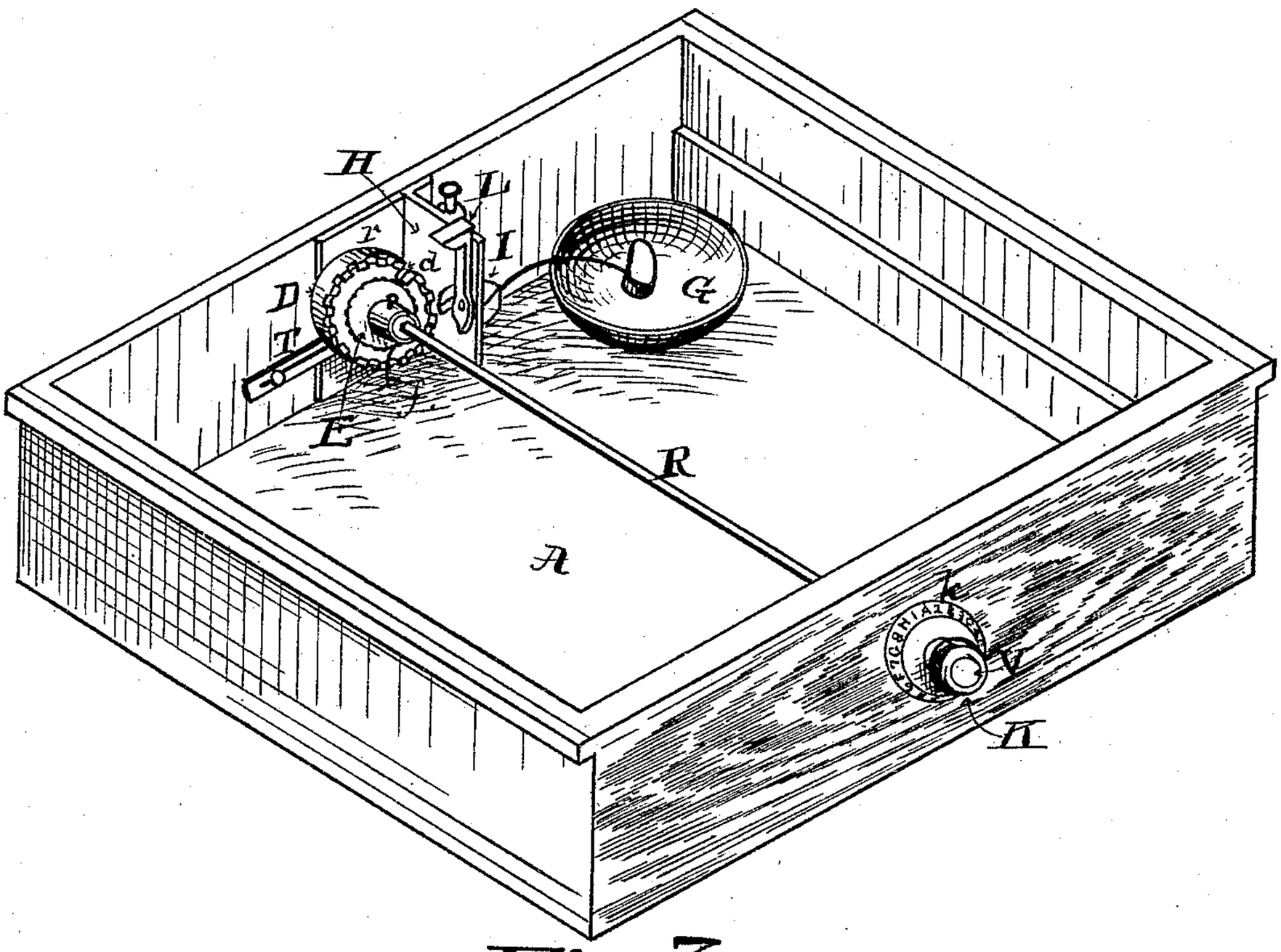

Fig. 7.

Witness,
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Inventor,
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UNITED STATES PATENT OFFICE.

BIRDSALL H. MEAD, OF CLEVELAND, OHIO.

TILL-LOCK.

SPECIFICATION forming part of Letters Patent No. 444,708, dated January 13, 1891.

Application filed April 17, 1890. Serial No. 348,416. (No model.)

To all whom it may concern:

Be it known that I, BIRDSALL H. MEAD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Combination-Locks for Money-Drawers, of which the following is a specification.

This invention relates to a combination-lock for a money-drawer accompanied with an alarm; and it consists in the novel constructions and combinations, as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top or plan view of a drawer having my new lock attached. Fig. 2 is a vertical longitudinal section in line 2 2 of Fig. 1. Fig. 3 is a vertical cross-section in line 3 3 of Fig. 1. Fig. 4 is a front view of the drawer, showing the knob and dial. Fig. 5 is a detached side view of the gong-striking mechanism. Fig. 6 is an under side view of the locking and alarm-operating device attached to the drawer cover or support. Fig. 7 is a perspective view of a drawer having my improved lock attached.

Like letters of reference indicate like parts throughout the several views.

A represents a money-drawer, which may be of the usual construction. To its front I affix a knob K, having a dial *k*, on which are marked a given number of figures or letters, the stem of said knob passing through and turning in the front, and through the knob is passed the end of a rod R loosely, so that it may have movement therein, and is provided with a button V on the outer end, by means of which the rod may be pushed. On the rod, however, is fixed a pin *p*, playing in a slot in the stem of said knob for the purpose of having the rod turn with the knob, but may have longitudinal play.

The rear end of the rod is journaled in a plate *r*, attached to the back of the drawer, and on the rod is loosely placed a disk or wheel D, having its rim flanged and one side weighted, so that when free will always turn by gravity on the rod. In front of said disk D is permanently fixed on the rod a second disk E, and between the two disks is interposed a spring *s*, for the purpose of pressing the disks apart. Upon the inner face of disk E are provided rubber or other suitable friction-pieces *e e*, which when pressed against the face of disk D will hold, so that it may be turned with disk E. The front rim of disk D has a given number of notches, corresponding with the numbers on the aforesaid dial *k*, and in one side of the disk is made a deep slot *d*, for a purpose hereinafter shown.

To the cover or support over the drawer is attached a plate Q, having a hinged lug *q* depending therefrom and which hangs in front of disk D, and serves as a locking device to the drawer. The working of this device is as follows: To open the drawer, the knob K is grasped with the thumb on the button pressing thereon, pressing disk E against disk D, and then turning the knob and turning the disk to bring the slot *d* uppermost, so that it can pass the lug *q*. Then the drawer may be drawn out.

T is an adjustable stop fixed to the back of the drawer, designed for limiting the turning of said disk D on the rod in its self-rotations backward. This is to provide for setting said disk to arrange for changing the combination of numbers of notches the disk shall be turned for opening the drawer. The alarm device is an accompaniment of this locking device.

H is a plate secured to the back and bottom of the drawer, in a hole or mortise of which is pivoted a segmental lever I, carrying a hammer *h*, arranged to strike a gong G. A retracting-spring J, attached to said lever I and connecting it with a lug *j* on the plate, serves to forcibly pull said lever. L is a lever fulcrumed on opposite side of plate H, and is designed for turning the aforesaid segmental lever I by means of a lug *g* on the aforesaid plate Q, pulling top end of lever L forward whenever the drawer is pulled out. *m* is a latch-lever, also fulcrumed to said plate H, one end of which catches in a notch in the edge of said lever I and holds it, said lever *m* being actuated by a spring *n*. O is a push-pin held in loops on the side of said plate H and standing on the moving end of lever *m*. This pin is pushed downward by an inclined strip *x* on the under side of the cover or support, the end of said pin riding over it when the drawer is pushed in. This releases the lever I as the said push-pin pushes down the latch-lever *m*,

and the actuating-spring J throws the lever and its hammer.

The periphery of disk E is provided with a number of notches corresponding with the notches on disk D and with the figures on the dial, and a spring-pawl *f* is suitably arranged to operate in connection with said notches, by which whenever the disk is rotated the operator will be enabled to count notches by the sense of feeling, thus providing a means for operating the lock in the dark by pulsation.

Having described my invention, I claim—

1. In a locking mechanism for drawers, a rod extending from front to rear of said drawer, the front end having a dial-knob arranged to turn the rod, but which allows a slight longitudinal movement of the rod, and a friction-disk on said rod for engaging with and turning the notched and slotted disk, substantially as and for the purpose set forth.

2. In a locking mechanism for drawers, a rod R, extending from front to rear of said drawer, a dial-knob K on front end of said rod, arranged to turn the rod, but allows the rod to have longitudinal movement, a friction-disk E, fixed on said rod, a notched disk D, having slot *d* and loosely placed on the rod, and a spring *s*, interposed between said disks, substantially as and for the purpose set forth.

3. In a locking mechanism for drawers, the combination of a rod, as R, extending from front to rear of said drawer, a dial-knob K on front end of said rod, arranged to turn the rod substantially as described, a fixed friction-disk E on said rod, the notched and slotted loose disk D, also on the rod, and a spring *s*, interposed between said disks, an adjustable stop T, and the plate Q, having a swinging lug *q* for engaging with and locking the drawers, substantially in the manner specified.

4. In a locking mechanism for drawers, the combination of a rod, as R, extending from front to rear of said drawer, a dial-knob K on front end of said rod, arranged to turn the rod substantially as described, a fixed friction-disk E on said rod, provided with notches in its periphery, a spring-pawl *f*, engaging with said notches, a notched and slotted loose disk D, also on the rod, and a spring *s*, interposed between said disks, constructed to operate substantially as and for the purpose specified.

5. In combination with a locking mechanism for drawers, substantially as described, the alarm device consisting of a gong G, a plate H, a segmental lever I, pivoted in a slot in said plate and carrying hammer *h*, a spring J, connecting the lever I with a lug on plate H, a lever L, fulcrumed to plate H, for throwing said lever I, a latch-lever *m*, engaging lever I, spring *n*, actuating said latch-lever, and a push-pin O, both the lever L and pin O being actuated by lug *g* and spring-strip *x* on the cover by the movements of the drawer, substantially as described.

BIRDSALL H. MEAD.

Witnesses:

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ABNER SLUTZ.