

(Model.)

H. BALUSS.  
KEY HOLE GUARD.

No. 462,525.

Patented Nov. 3, 1891.

Fig. 1

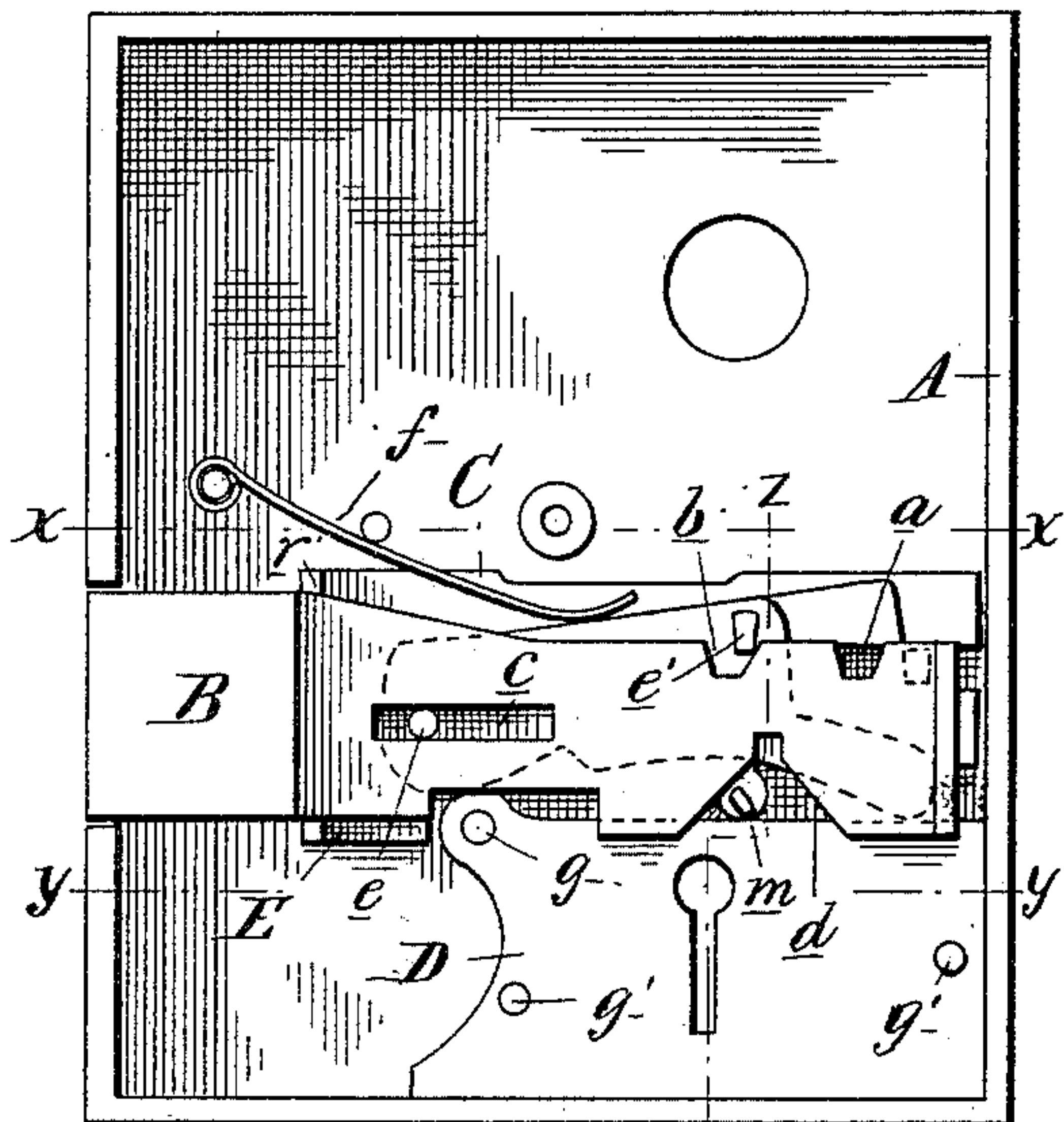
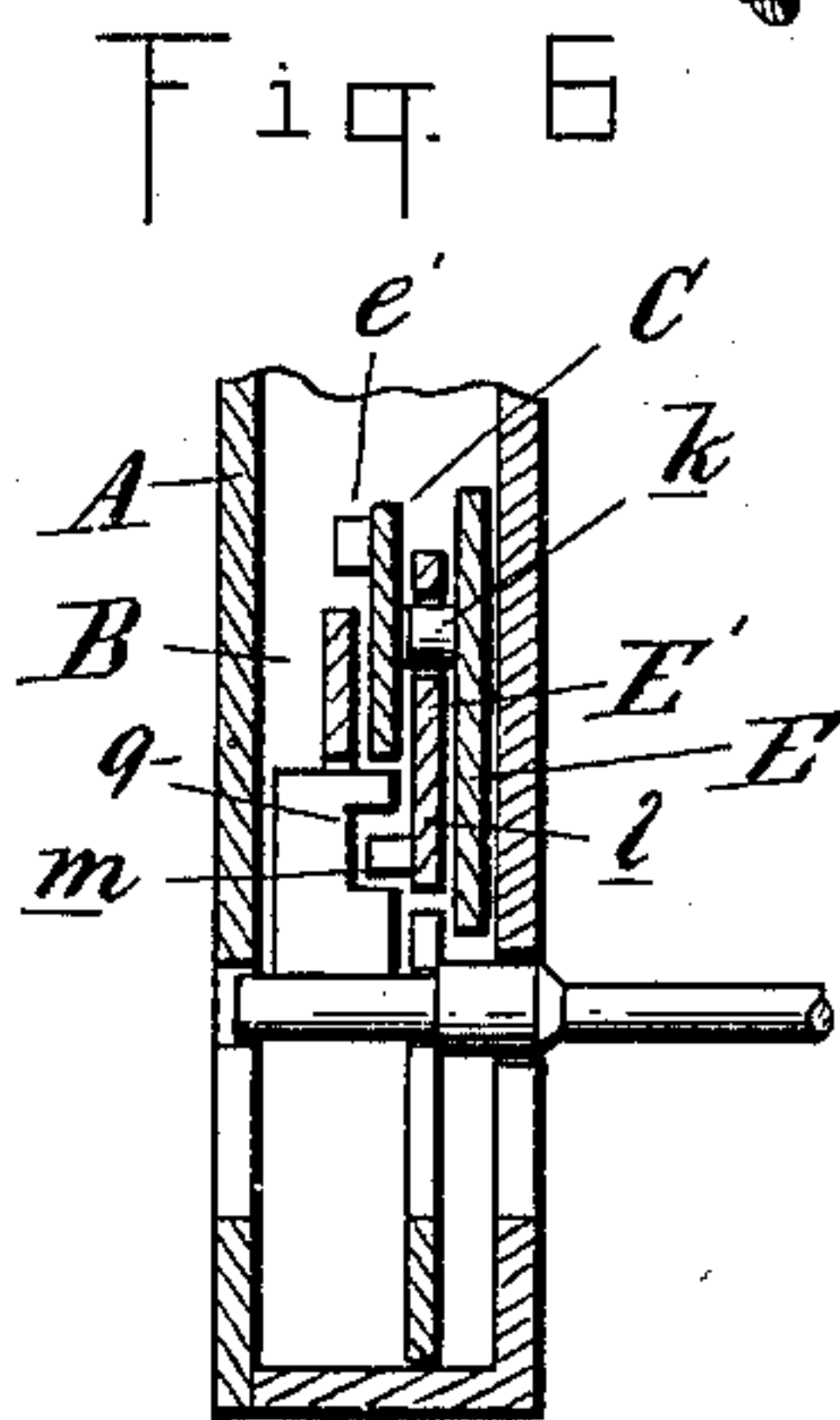
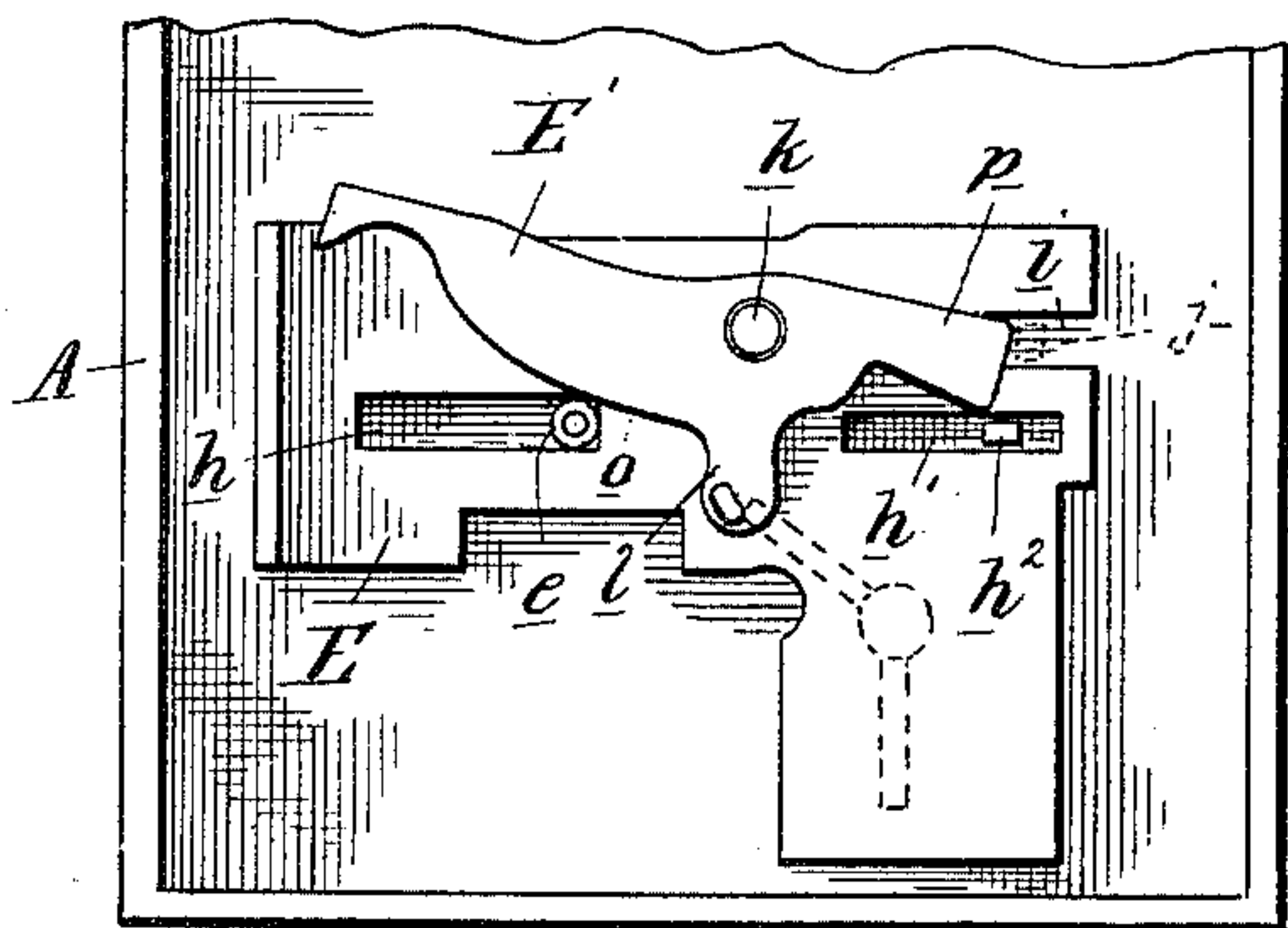
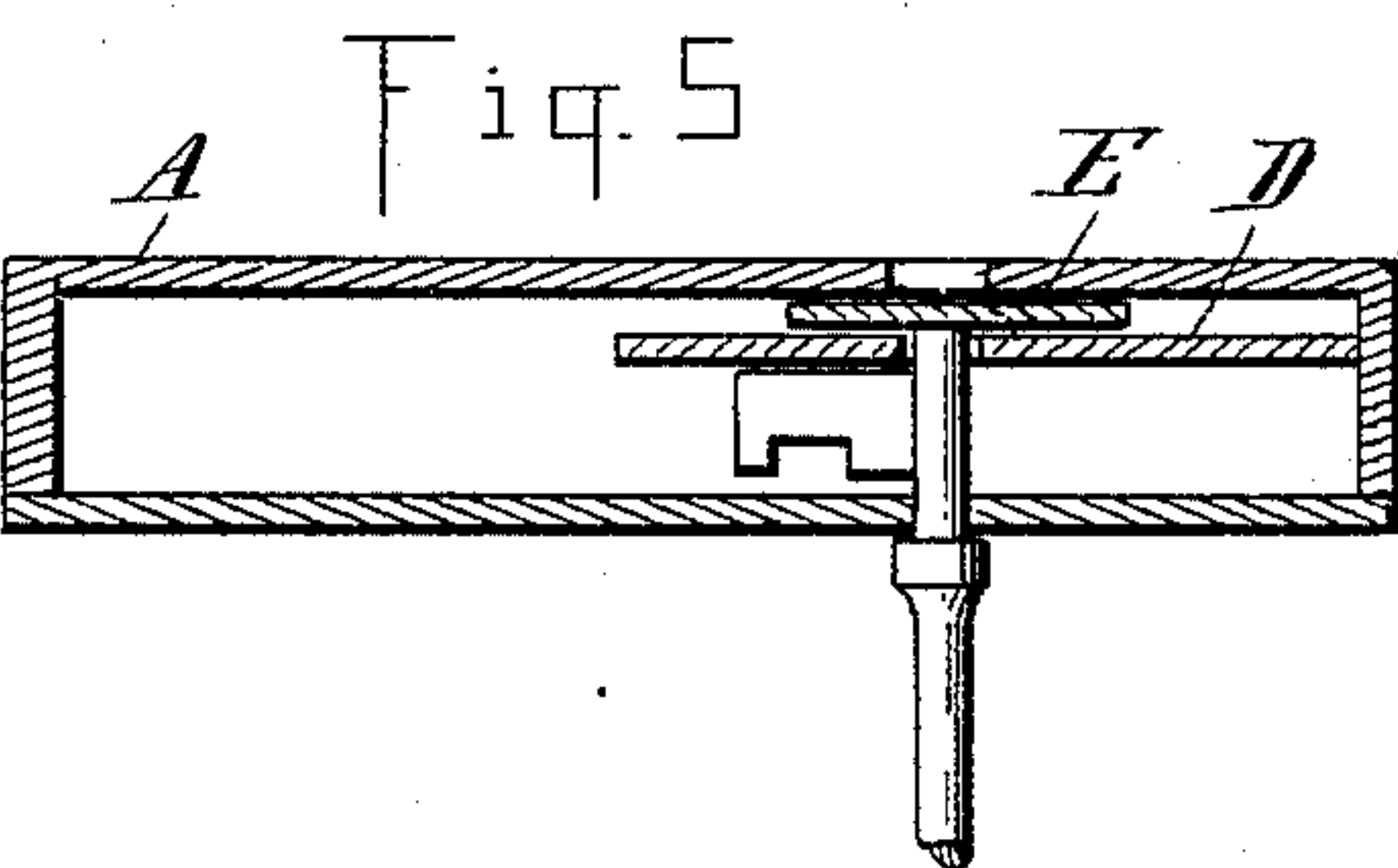
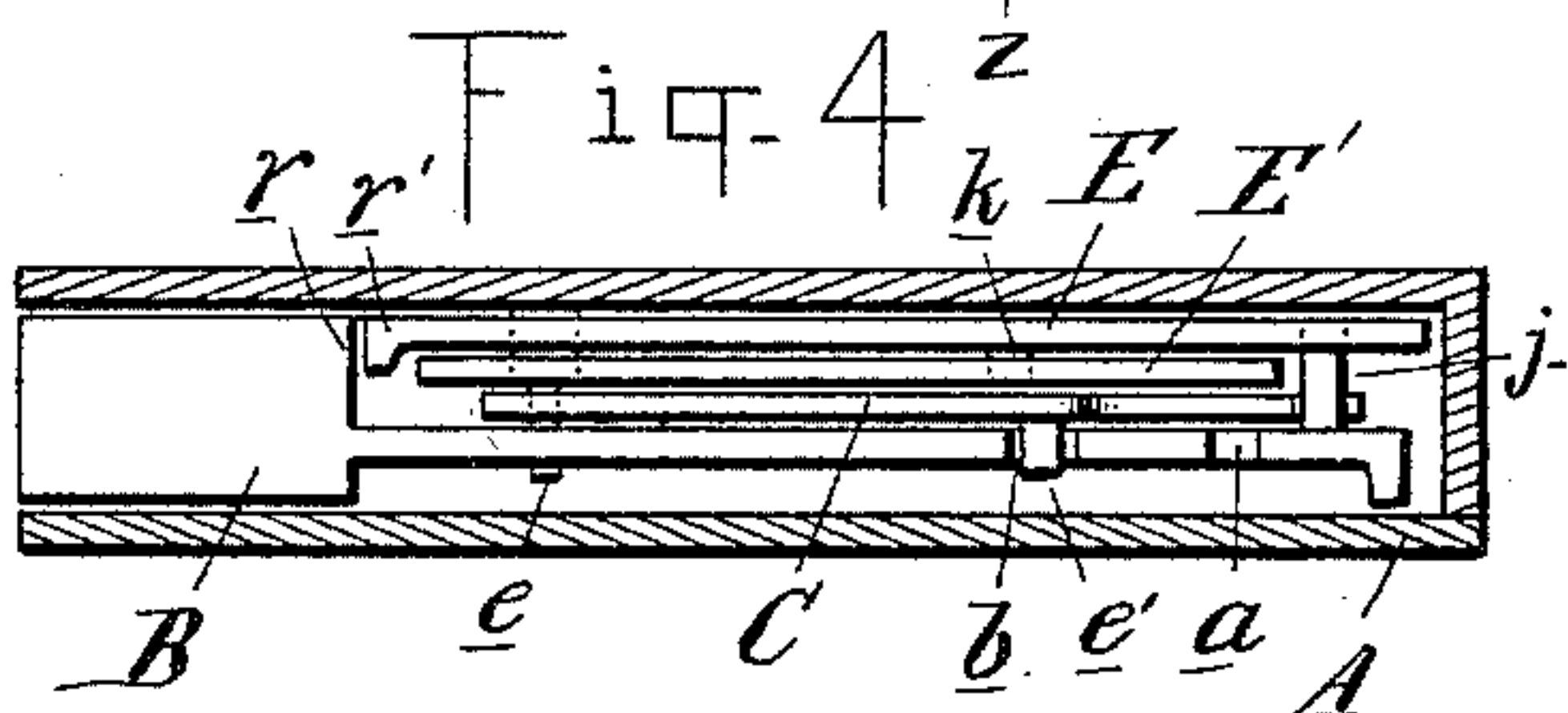
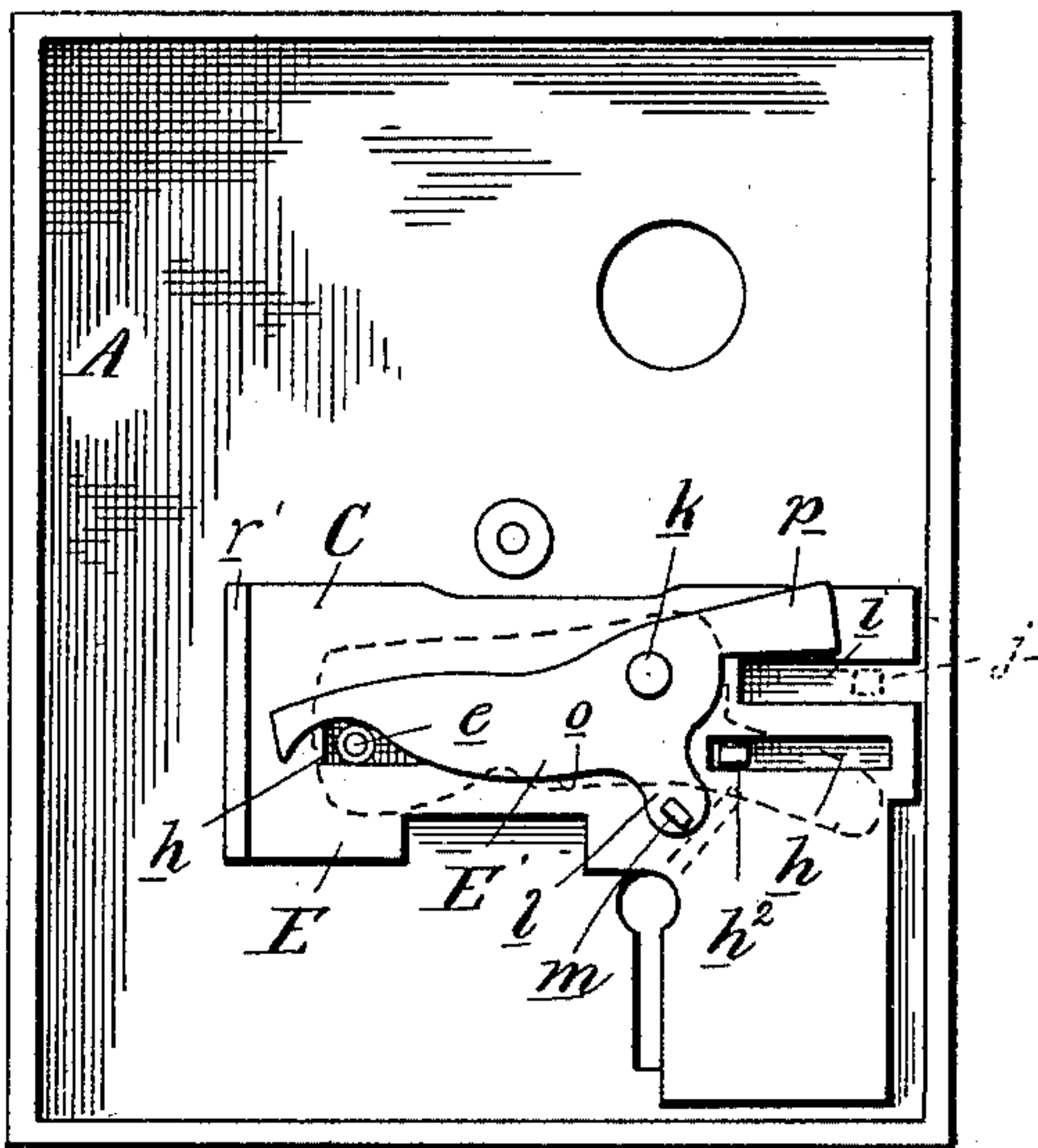


Fig. 2



Witnesses:

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Inventor:

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# UNITED STATES PATENT OFFICE.

HAMILTON BALUSS, OF WAYNE, MICHIGAN.

## KEY-HOLE GUARD.

SPECIFICATION forming part of Letters Patent No. 462,525, dated November 3, 1891.

Application filed April 7, 1890. Serial No. 346,812. (Model.)

*To all whom it may concern:*

Be it known that I, HAMILTON BALUSS, a citizen of the United States, residing at Wayne, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in locks; and the invention relates to the peculiar construction and arrangement of the guard-plate and its controlling mechanism, whereby the guard-plate is moved across the key-hole when the lock is operated from one side—for instance, the inside—and whereby when the lock is operated from the outer side, while the guard-plate is not operated, the bolt cannot be withdrawn by the key upon the inside, all as more fully hereinafter described.

In the drawings accompanying this specification, Figure 1 is an elevation of the lock with the cover removed. Fig. 2 is a similar elevation with the bolt and tumbler removed. Fig. 3 is a similar view to Fig. 2, showing the parts in their locked position. Fig. 4 is a horizontal cross-section on line *x x* in Fig. 1. Fig. 5 is a similar section on line *y y* in Fig. 1, showing the parts in their locked position. Fig. 6 is a vertical section on line *z z* in Fig. 1, the key being inserted from the outside.

I will describe my lock as applied to a door with the guard-plate on the outside of the door.

A is the casing, either of form for mortise or rim lock.

B is the locking-bolt, provided on its upper edge with the notches *a b* centrally with the slot *c* and on its lower edge with the notch *d*, the sides of this notch forming the bearing for the keys.

C is a tumbler pivoted upon the pin *e* of the casing, and having the stud *e'*, which is held in contact with the upper edge of the locking-bolt by the spring *f* and engaging with the notches *a b* of the locking-bolt in the locked and unlocked positions of the same.

D is a guide-plate secured in position opposite the key-holes by the pin *g* and having a corresponding aperture for the key to those formed in the casing. The guide-plate is held in position by suitable lugs *g'* upon both sides

bearing against the casing and forming a space between its inner face and the casing in which the guard-plate E moves. This guard-plate has a slot *h*, through which the stud *e* projects, a slot *h'*, through which the stud *h''* engages, and a slot *i*, in which the pin *j* upon the locking-bar moves. The guard-plate is guided in its movement upon the studs *e* and *h''*. The guard-plate has a pin *k*, upon which is pivoted the latch E', which has a downwardly-projecting actuating-arm *l*, upon which is the stud *m*, with which the key is adapted to engage, as shown in Fig. 2. The latch E' normally bears at its outer end upon the pin *e*, and has a cam-shaped or inclined lower edge *o*, which rests upon the pin after the forward movement of the bolt, the key first turning the latch upon its pivot by engaging with the lug *m* and bringing the tail-piece *p* across the slot *i* and into the path of the pin *j* upon the bolt, which thereby carries the latch E' with it.

The key is provided with a notch *g*, which, when it is inserted from the outside, passes over the stud *m* and does not operate the guard-plate latch. The key-hole upon the outside is enlarged to allow the insertion of the key, so that the plate D acts as the stop for the key when inserted from that side.

The parts being thus constructed, their operation is as follows: The key being inserted from the inside, the parts being in the position shown in Figs. 1 and 2, the ward of the key strikes first upon the lower edge of the tumbler, lifting it and disengaging the pin *e'* from the notch *a*. At the same time the key strikes the stud *m* and rocks the latch E', bringing the tail-piece *p* across the slot *i* into the path of the lug *j* upon the locking-bolt. The inclined face *o* of the latch riding upon the pin *e* holds the tail-piece in position to be moved by the motion of the bolt during the forward movement thereof. The bolt is thrown by the turning of the key, the ward engaging against the side of the notch *d*. The bolt carries forward the latch E', and this being secured upon the guard-plate E carries it forward also, tightly closing the key-hole upon the outside of the door. The guide-plate D being directly behind the guard-plate tends to re-enforce it and prevent the breaking of the plate E', except by a very heavy blow.



It is evident in this position a key cannot be inserted from the outside. The reversal of the key returns the parts to their normal position by means of the shoulder  $r$  of the lock bearing against the ledge  $r'$  of the guard-plate. The insertion of the key from the outside throws the bolt in the ordinary manner, but the notch in ward of key allows the key to pass over the stud  $m$  without moving the latch  $E'$ . Now if it is attempted to unlock the lock from the inside, the ward of the key will strike the stud  $m$  and prevent the bolt being withdrawn, the stud being held from moving by the engagement of the latch upon the pin  $e$ . The distance the key has to be inserted being different on opposite sides, I enlarge the outside key-hole and the plate  $D$  acts as a guard or stop on that side. The guard-plate slides between the guide-plate and the casing and has a solid bearing upon both sides. With a single guard-plate by means of the latch-piece  $E$ , I can prevent the unlocking of the lock from the side opposite to that from which it was locked and can cover the outside key-hole against any possibility of tampering with the lock.

What I claim as my invention is—

1. In a lock, the combination, with a casing having key-holes in its opposite sides, of a

guide-plate rigidly secured thereon, a guard-plate between the guide-plate and casing having a horizontally-slotted end, a bolt carrying a lug working in said slot, a tumbler pivoted on the guard-plate having a rearward extension above the slot in the guard-plate and in front of the lug on the bolt, a projection on the tumbler arranged in the path of the key, and a tumbler for the bolt, substantially as described.

2. In a lock, the combination, with the casing, of a sliding guard-plate having a horizontal slot in its rear end, a bolt having a lateral lug working in said slot, and a tumbler pivoted on the guard-plate formed with an extension at its rear normally held above the slot in the guard-plate forward of the lug and a projection on its lower side in the path of the key for carrying the extension down into the path of the lug on the bolt, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 6th day of March, 1890.

HAMILTON BALUSS.

Witnesses:

P. M. HULBERT,  
M. B. O'DOHERTY.