

No. 610,373.

Patented Sept. 6, 1898.

M. SIGNORASTRI.
LOCK.

(Application filed Mar. 22, 1898.)

(No Model.)

FIG.3.

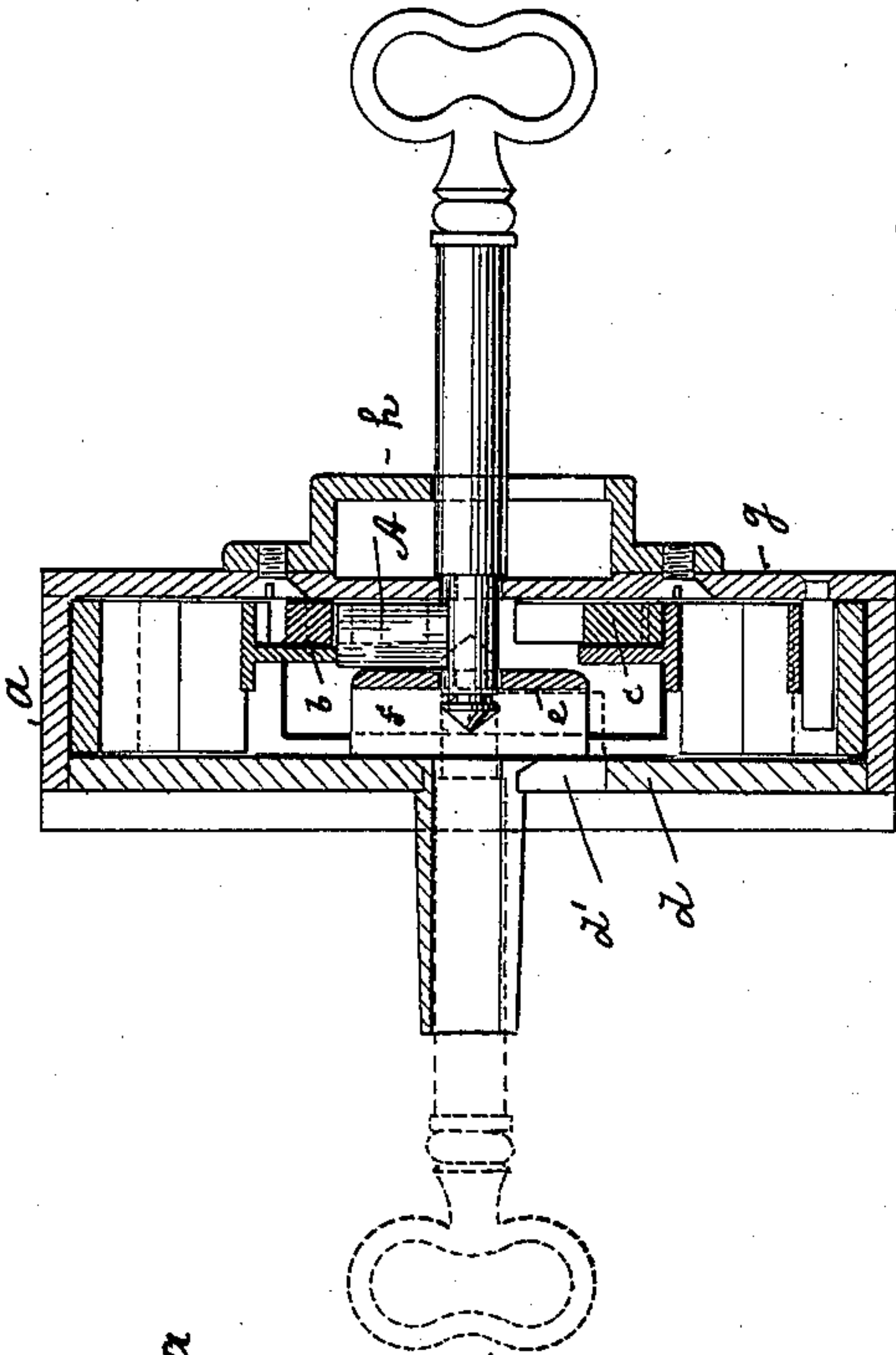


FIG.4.

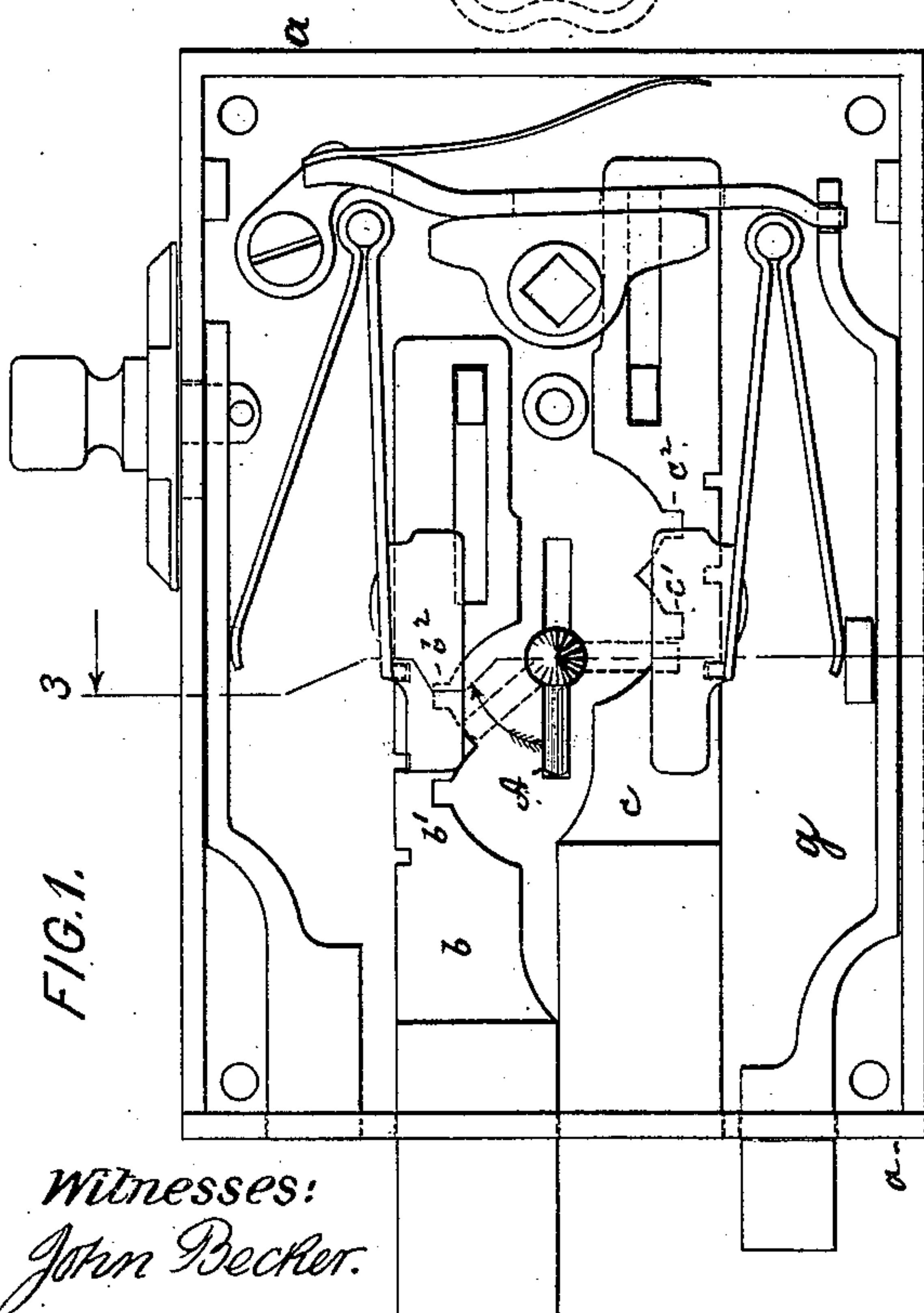
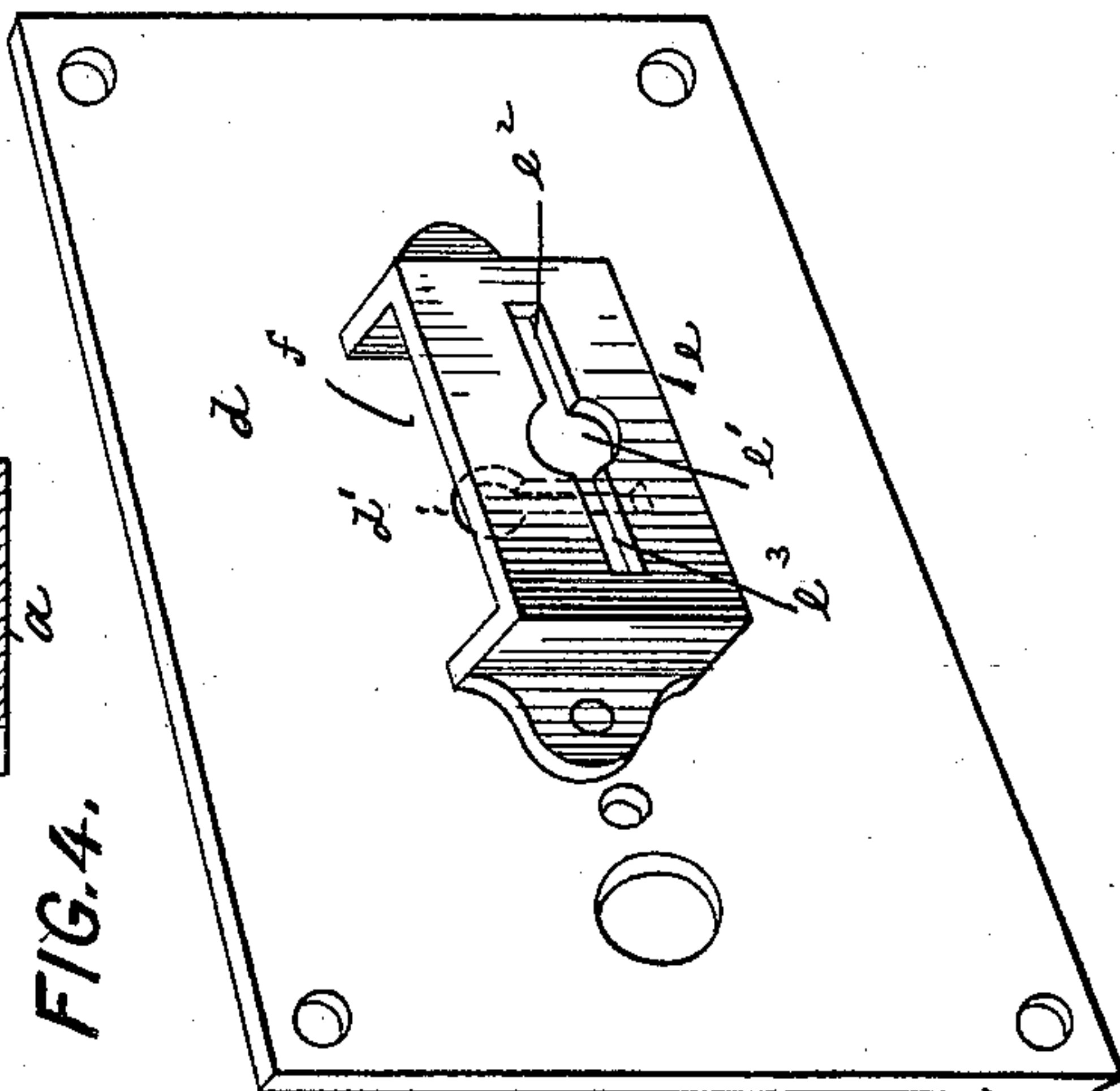


FIG.1.

Witnesses:
John Becker.
William Schuyler.

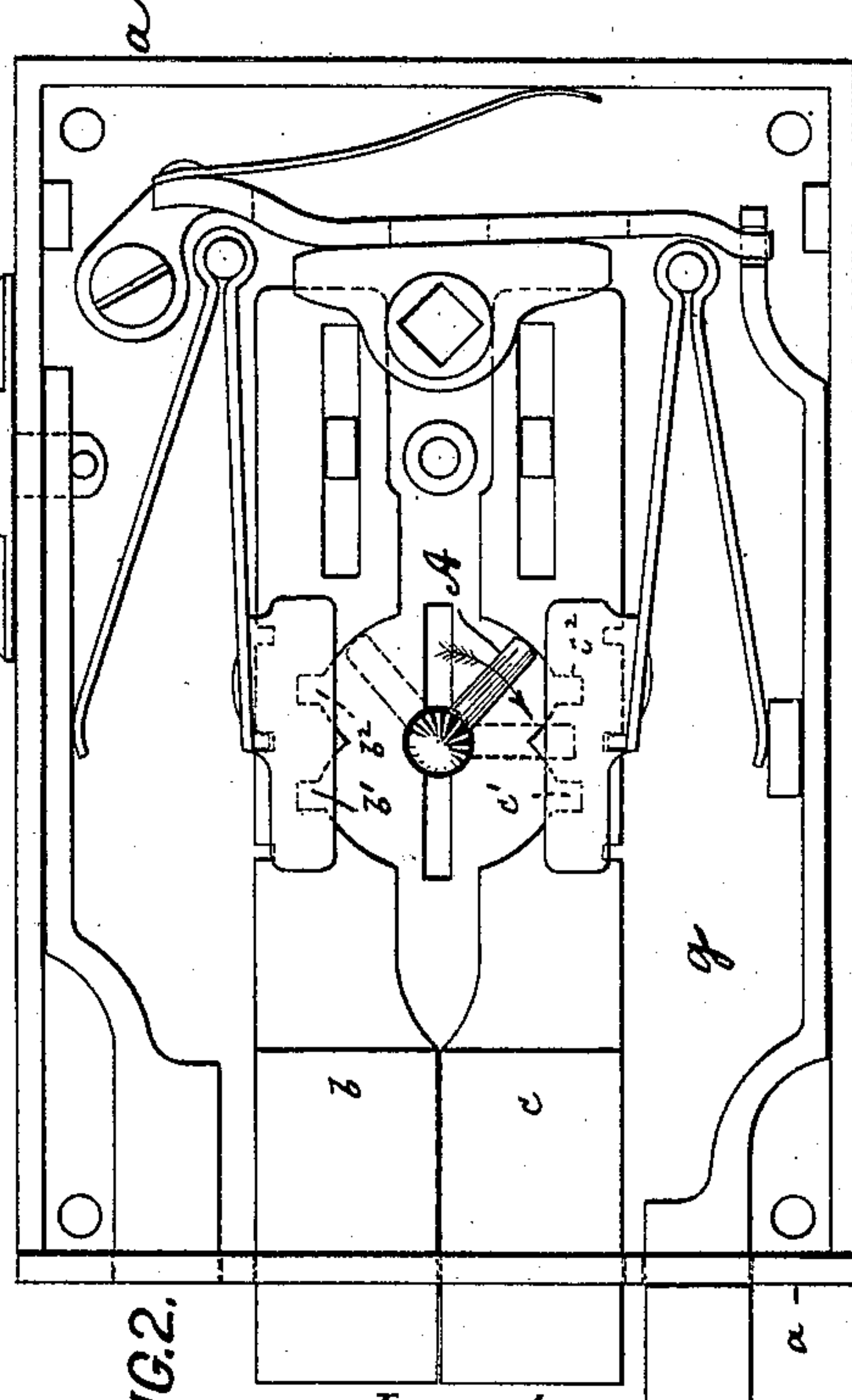


FIG.2.

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UNITED STATES PATENT OFFICE.

MICHELE SIGNORASTRI, OF NEW YORK, N. Y.

LOCK.

SPECIFICATION forming part of Letters Patent No. 610,373, dated September 6, 1898.

Application filed March 22, 1898 Serial No. 674,845. (No model.)

To all whom it may concern:

Be it known that I, MICHELE SIGNORASTRI, a citizen of Italy, and a resident of New York city, county and State of New York, have
5 invented a new and useful Improvement in Locks, of which the following is a specification.

This invention relates to a safety-lock which is so constructed that the key must be manipulated in a peculiar manner to open the
10 same.

In carrying my invention into effect I provide the lock with two bolts adapted to be engaged by a common key and with an additional guard-plate having a key-slot through
15 which the key must be drawn after having moved one of the bolts and before moving the other. If the key is not so manipulated, but turned in the ordinary manner, one of
20 the bolts will always be shot out after the other is shot back, and thus the lock will remain closed.

In the accompanying drawings, Figure 1 is a side view of the lock with the back plate *d*
25 removed, showing one bolt shot out full and the other bolt shot back full. Fig. 2 is a similar view with both bolts shot out one-half. Fig. 3 is a cross-section of the lock complete on line 3 3, Fig. 1; and Fig. 4, a perspective view of the side plate *d*, showing the
30 slotted guard-plate *e*.

The letter *a* represents the lock-case, and *b c* are a pair of locking-bolts placed at such a distance apart as to admit the key-bit *A*
35 between them. Each of the bolts has a pair of notches *b' b²* and *c' c²* on its inner edge, which are adapted to be engaged by the key; but, if desired, more than two of such notches may be provided.

d is the back plate of the lock, having the usual keyhole *d'*. To the inner face of back plate *d* and opposite the keyhole *d'* there is secured an additional guard-plate *e*, which is placed at such a distance from the back plate
45 as to form an intervening chamber *f*. This chamber is of sufficient depth to admit the key-bit and of sufficient length to permit a complete revolution of such bit. The plate *e* is centrally perforated, as at *e'*, to admit the
50 key-stem and is provided with communicating forwardly and rearwardly extending slots

e² e³ between the bolts *b c* and extending at an angle to the keyhole, so as to be concealed from view.

If the lock is to be opened from both sides, 55 its face-plate *g* is provided with a slot similar to that of plate *e*, while the keyhole is formed in an additional outer key-plate *h*. This construction effects the same result as the plates *d e*, and at the same time provides 60 sufficient interior working space for the key without unduly widening the lock.

The key-bit *A* is longer than half the distance between the bolts *b c*, so that though the key can reach both bolts it cannot be 65 completely revolved when between them. Thus after one of the bolts has been shot in or out it is necessary to draw the key-bit into the chamber *f* to be therein turned and again pushed back and into engagement with the 70 second bolt. In this way the key must be alternately rotated and reciprocated to open or close the lock, which renders the manipulation of the key novel and is a safeguard against picking. 75

The operation is as follows: To open the lock, pass the key through slot *e²* to engage notch *b²* and shoot bolt *b* back one-half, draw key through slot *e³* into chamber *f*, turn the key within such chamber, pass it through 80 slot *e²* into engagement with notch *c²*, and shoot bolt *c* back one-half. Pass key through slot *e³* back into chamber *f*, out through slot *e²* to engage notch *b'*, and shoot bolt *b* back complete, draw key through slot *e³* back into 85 chamber *f* and out through slot *e²* to engage notch *c'*, and shoot bolt *c* back complete. The closing of the lock is of course effected in a corresponding manner.

It will thus be seen that after every movement of the bolt the key must be drawn into the chamber *f* to be therein revolved and again passed out of such chamber. If this is neglected, the key will after engaging one of the bolts directly engage the other, and 95 thus while one bolt is shot back the other is shot out and the lock will not open. Thus it will be seen that a safety-lock of superior merit is provided.

The key-stem may be either solid or tubular, the drawings illustrating the former construction. 100

What I claim is—

5 A lock composed of a case, an inclosed pair of bolts, an inner guard-plate having a key-slot between the bolts and forming a partition within the lock-case, combined with a key having a bit which is longer than half the distance between the bolts, all being so constructed that the key must be alternately

rotated and reciprocated to open or close the lock, substantially as specified.

MICHELE ^{his} × SIGNORASTRI.
mark

Witnesses:

F. V. BRIESEN,
WILLIAM SCHULZ.