(Model.) 2 Sheets—Sheet 1.

M. SIMON.

LOCK.

No. 457,872. Patented Aug. 18, 1891.

Fig. 1.

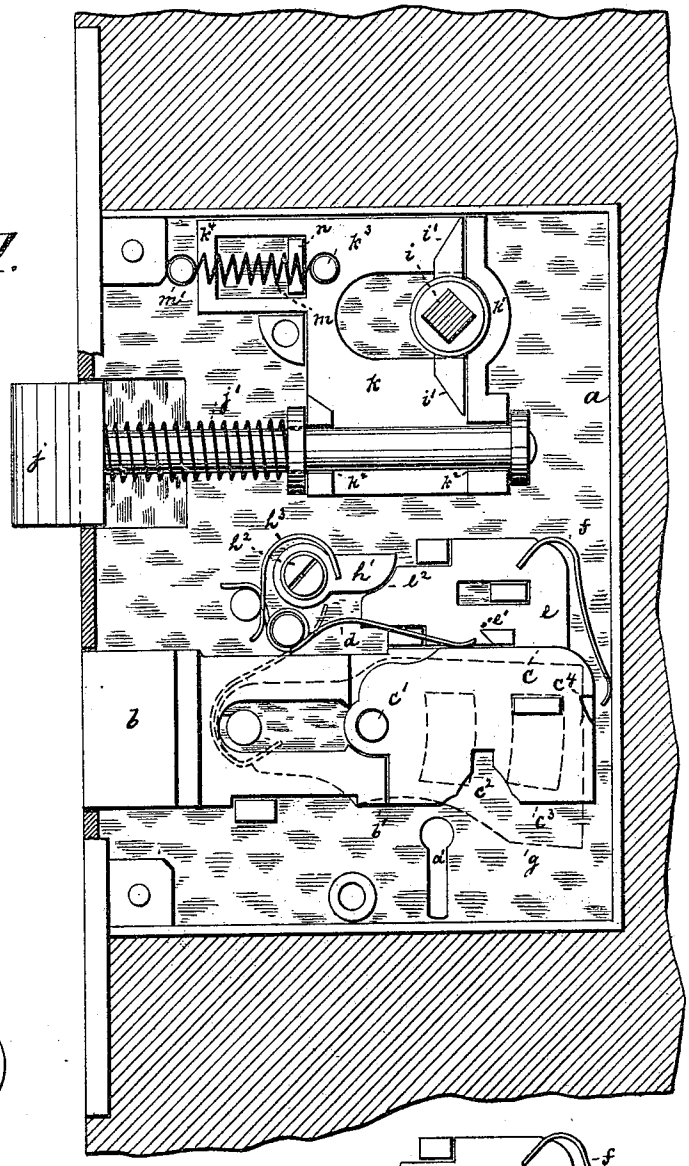


Fig. 3

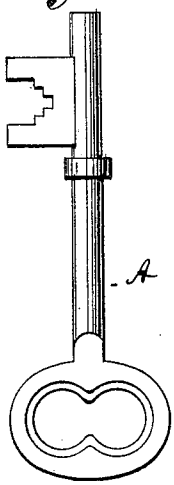


Fig. 2

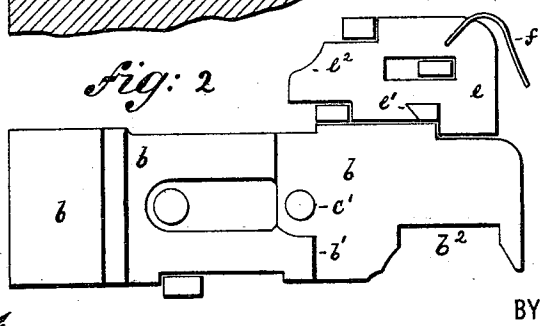
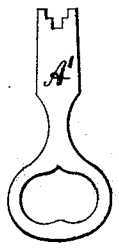


Fig. 6



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(Model.) 2 Sheets—Sheet 2.

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LOCK.

No. 457,872. Patented Aug. 18, 1891.

Fig. 5

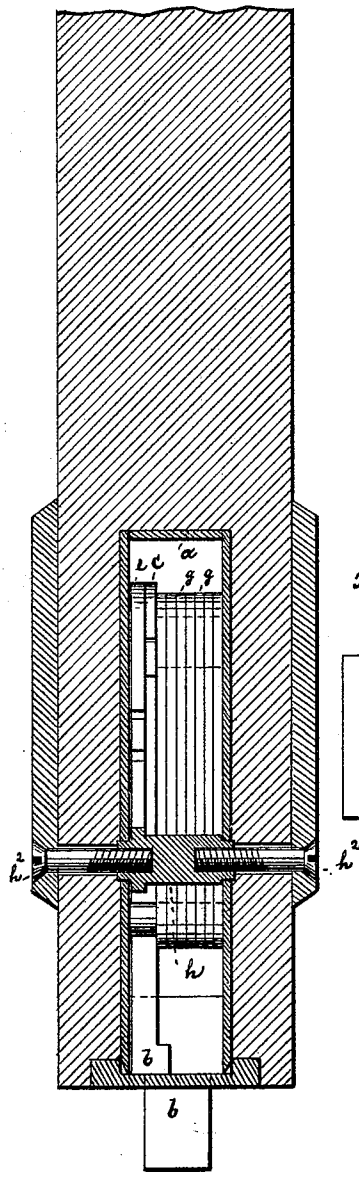
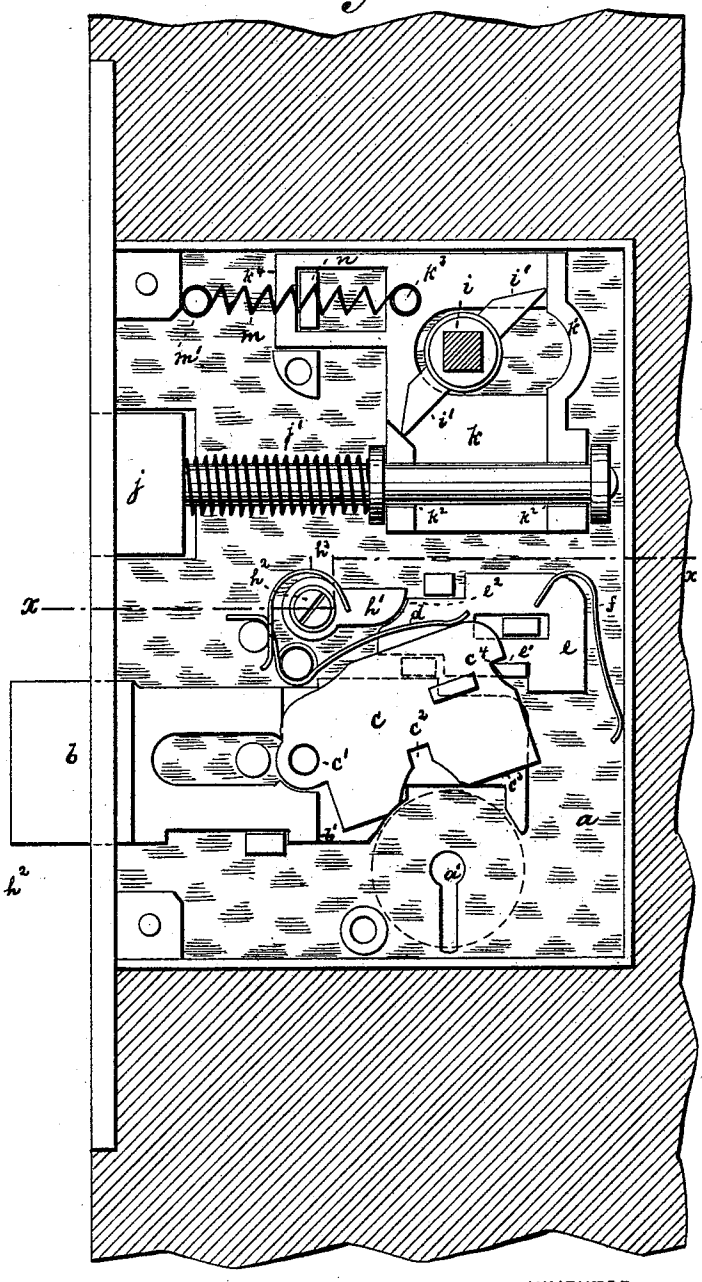


Fig. 4



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UNITED STATES PATENT OFFICE.

MORRIS SIMON, OF SOUTH NORWALK, CONNECTICUT, ASSIGNOR OF ONE-FOURTH TO LOUIS MEISLER, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 457,872, dated August 18, 1891.

Application filed April 14, 1891. Serial No. 388,914. (Model.)

To all whom it may concern:

Be it known that I, MORRIS SIMON, of South Norwalk, Fairfield county, Connecticut, have invented an Improved Door-Lock, of which the following is a specification.

This invention relates to a door-lock, which is so constructed that a double turn of the key will throw the latter entirely out of engagement with the bolt. To re-establish such engagement and permit the lock to be again opened a separate manipulation is required.

The invention consists in the various features of improvement, more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of my improved lock with the bolt shot back. Fig. 2 is a front view of the bolt and slide with plate *c* removed; Fig. 3, an elevation of the principal key; Fig. 4, a front view of the lock with the bolt shot forward; and Fig. 5 a cross-section on the line *x x*, Fig. 4. Fig. 6 is an elevation of the auxiliary key.

The letter *a* represents the lock-case; *a'*, the key-hole, and *b* the bolt adapted to be reciprocated by the key-bit. Upon the rear part of the bolt *b* there is placed a tilting plate *c*, pivoted to the bolt by pivot *c'*. This plate is held normally down in a horizontal position by a spring *d*, that holds the forward edge of the plate against an offset *b'* of bolt *b*. The lower edge of plate *c* is notched, as at c^2, and the beveled edges of this notch are engaged by the key A to reciprocate the bolt. The body of the bolt is cut away below the lower portion of plate *c*, as at b^2, so that the bolt itself is never engaged by the key directly, but receives its motion through plate *c*.

During the ordinary working of the lock the key-bit engages the beveled edges of notch c^2 to reciprocate the bolt to the usual extent, and to thus open or close the lock; but after the lock has been closed the key may be again revolved and will then bear against the lower straight edge c^3 of the plate *c*, so as to tilt the plate, Fig. 4, against the action of spring *d*. The plate *c* is provided with a notch c^4, which will now come into engagement with a beveled stop *e'* on a slide *e*, thrown forward by a spring *f*. Thus the plate *c* will be firmly held by the slide in its tilted position and the lock cannot be possibly opened in the ordinary way.

Upon the plate *c* a suitable number of tumblers *g* should be placed, which are thus also withdrawn from the key. These tumblers are only indicated by dotted lines in Fig. 1, and are entirely omitted in Fig. 4 to better expose the novel features of the lock.

Through the lock-case passes a post *h*, provided with a beveled nose *h'*, opposite a beveled edge e^2 on slide *e*. This post carries a pair of screws h^2, the heads of which project out of the lock-case. These heads are provided with the ordinary nicks or with nicks or patterns of any desired configuration. An auxiliary key A' or an ordinary screw-driver is provided with a bit adapted to fit the nick of screws h^2. In order to put the lock back into its normal position either one of the screws h^2 must be slightly revolved by the auxiliary key A'. The heads on the screws h^2 are so cut that the motion imparted to either of the screws will be transmitted to the post *h*. Thus the nose *h'* will be caused to bear against the slide *e* to push the same backward. As soon as the plate *c* has been released from the stop *e'* it will be forced down by the spring *d* until it resumes its normal horizontal position, where it can be reached by the key A. The lock can now again be opened in the ordinary manner by inserting the key A and turning it backward. After the plate *c* has descended, as described, the slide *e* is pushed forward by its spring *f*, while the post *h* is turned by its spring h^3. Thus the parts are in the proper position for a subsequent single or double turning of the key A.

The knob-spindle *i* of the latch *j* passes through a slotted sliding plate *k*. Two wings *i'* on spindle *i* bear against a flange *k'* of plate *k* to reciprocate the same. The latch *j* rests in two notched bearings k^2 of plate *k*, and is surrounded by a spring *j'*, that forces the latch outward when the door has been slammed or closed by a push.

To the plate *k* is secured a post k^3, to which is fastened one end of a spring *m*, the other end of which is secured to a fixed post *m'*. This spring is distended when the latch is opened. As soon as the door-knob is released the spring will throw the plate *k* back and

close the latch, a stop n engaging a notched extension k^4 of plate k and insuring the proper rectilinear motion of the latter.

What I claim is—

1. The combination of a bolt with a tilting plate c pivoted thereto, a slide e, adapted to engage such plate, and a post h, having a nose that is adapted to engage the slide, substantially as specified.

2. The combination of a bolt with a tilting plate c pivoted thereto, tumblers g, secured to such plate, a slide e, adapted to engage the plate, and a post h, having nose h', adapted to engage the slide, substantially as specified.

MORRIS SIMON.

Witnesses:
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