S. W. Browne,

Latch.

No. 100,872. Patented Mar. 15. 1870.

Fig. 1.

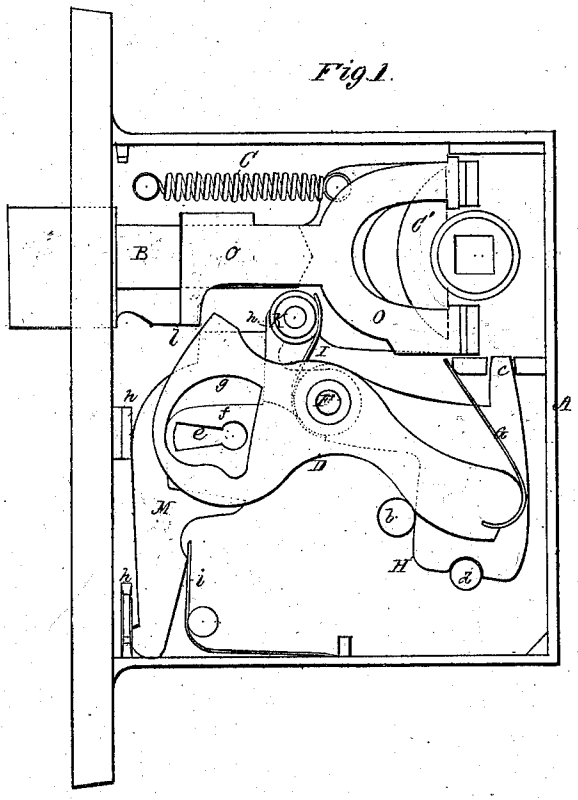


Fig. 2.

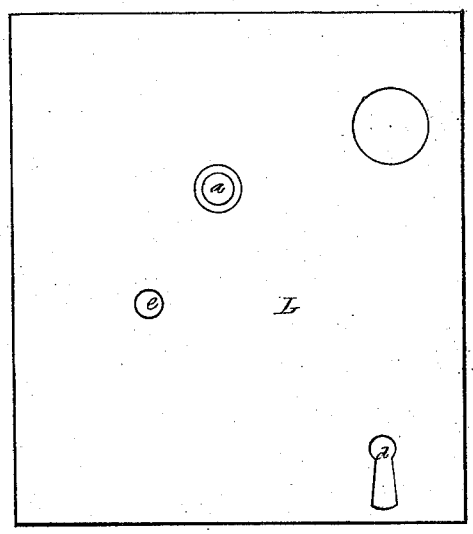


Fig. 4

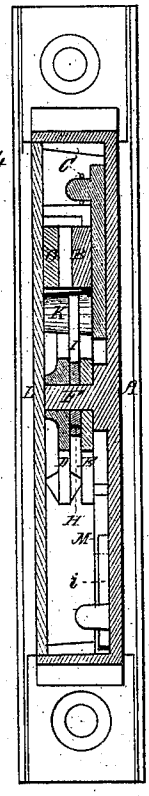


Fig. 5.

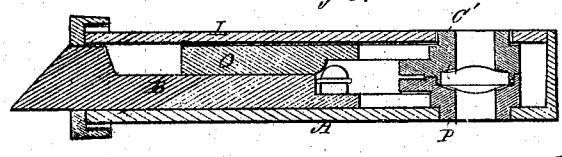
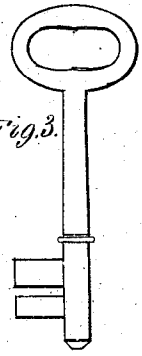


Fig. 3.



Witnesses.
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R. V. Eddy

United States Patent Office.

SIMEON W. DROWNE, OF NORWICH, CONNECTICUT.

Letters Patent No. 100,872, *dated March* 15, 1870.

IMPROVED LATCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, SIMEON W. DROWNE, of Norwich, of the county of New London, of the State of Connecticut, have made a new and useful invention having reference to Locks for Doors; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes the internal arrangement and parts of a lock containing my invention, the cover being supposed to be removed from the case.

Figure 2 is a side view of such cover, and

Figure 3 is a side view of the key.

Figure 4 is a transverse section of the lock, it being taken through the pivot of the tumblers.

The invention consists in the arrangement of a stop-slide and a false tumbler, as hereinafter described, with the latch-bolt and the main or key-tumblers and separate key-holes, the whole being constructed substantially in manner as hereinafter explained.

The purpose of the stop-slide is to enable the bolt to be so locked by the key, (when inserted in the lock from the inside of the door,) as to prevent the bolt from being thrown back by either the outside knob of the lock, while being revolved, or by a key introduced into the outer key-hole.

The purpose of the false or auxiliary tumbler, which is in no respect operated by the real key of the lock, as are the main tumblers, is to lock the bolt when a false key may be introduced into the lock from the outside of the door and employed in an attempt to throw back the bolt, or when an effort may be made to pick the lock.

In the drawings—

A denotes the box or case of the lock.

B, the latch-bolt.

C, its impelling spring.

C′, the "cam-piece" for retracting the bolt and receiving the shank of the knobs.

In this lock there are two levers or tumblers, D E, arranged on a common fulcrum or pivot, F, each tumbler being provided with an operative spring, G.

What I term the artificial tumbler or "safety catch-plate" H, shaped as represented, is arranged directly between the main tumblers and applied so as to be capable of turning on their common pivot.

The safety-plate or artificial tumbler has an operative spring, I, which extends from its heel and rests against the projection K, for receiving the cover-confining screw which goes through a hole, *a*, in the cover L. The spring I serves to force the artificial or false tumbler against a "stop-stud," *b*, so as to carry a tooth, *c*, of the said false tumbler out of the path of movement of the bolt cam-piece C′.

The outer side or outside key-hole *d* is made in the cover, so as to enable the main tumblers to be operated by the key after its introduction into such key-hole. The inner or inside key-hole shown at *e* is formed in the opposite side of the lock-case, so as to open into an opening, *f*, made in the stop-slide M. There is also in each tumbler D E an opening, *g*, to enable the tumbler to be actuated by the bit of the key.

The stop-slide, formed and arranged in manner as represented, is to be capable of being moved endwise between guides *h h h*, and has a friction-brake or spring, *i*, to press against it and hold it in position, as occasion may require.

On introducing the key into the inner key-hole *e*, and turning such key so as to revolve its bits toward the bolt, we shall throw the stop-slide M upward in rear of a shoulder, *l*, of the bolt, so as to prevent the bolt from being moved by the knobs or the cam-piece thereof, when removed by either knob, and especially the outside one. By turning the key in the opposite direction, the main tumblers D E and the stop-slide may be simultaneously moved away from the shoulder *l*, in order to admit of the bolt being thrown by power applied to the outside knob.

In case of a false key being introduced into the outer key-hole, and with it an attempt should be made to move the main tumblers far enough to admit of the retraction of the bolt by moving the outer knob, the chance will be that the false tumbler will be thrown up so as to cause its tooth to pass up in rear of the cam-piece in a manner to prevent it from being moved by the piece applied to the knob.

Thus, it will be perceived, with the stop-slide and the safety or false tumbler combined with the main tumblers, we not only have an additional means of locking the latch-bolt, the main tumblers affording one means of doing this, but we possess a mechanism for estopping the bolt when a false key may be employed in the outside key-hole, or the false tumblers may be moved upward by a pick-lock, in expectation that it may be one of the series of key-tumblers necessary to be moved into proper positions before the bolt can be released.

The drawings represent a slide-yoke, O, and an auxiliary cam-piece, P, as applied to the latch-bolt, (see Figure 5, which is a horizontal and transverse section of the lock, the section being taken through the bolt.) When the auxiliary cam-piece and the yoke are employed, the knob-spindle is to be in two parts, so connected that one may be revolved independently of the other, and each actuate its own cam-piece. It is not new to so make a knob-spindle and provide the bolt with a yoke and an auxiliary cam-piece; therefore, I make no claim thereto.

With the above-described lock the bolt cannot be actuated by force applied to the outer knob, except the key be first used in the outer key-hole so as to actuate the tumblers D E. By throwing up the stop-slide by a key introduced into the inner key-hole, the bolt will be estopped from being retracted by force applied to either knob, but when the stop-slide is down, the bolt may be actuated by force applied to the inner knob.

I claim the arrangement of the "stop-slide" M and the false tumblers H with the latch-bolt B, and the main or key-tumblers, and separate key-holes, constructed and arranged in the lock-case substantially in manner as specified.

SIMEON W. DROWNE.

Witnesses:
R. H. EDDY,
S. N. PIPER.