H. A. CHASE.

LOCKING LATCH.

No. 189,191. Patented April 3, 1877.

Fig. 1.

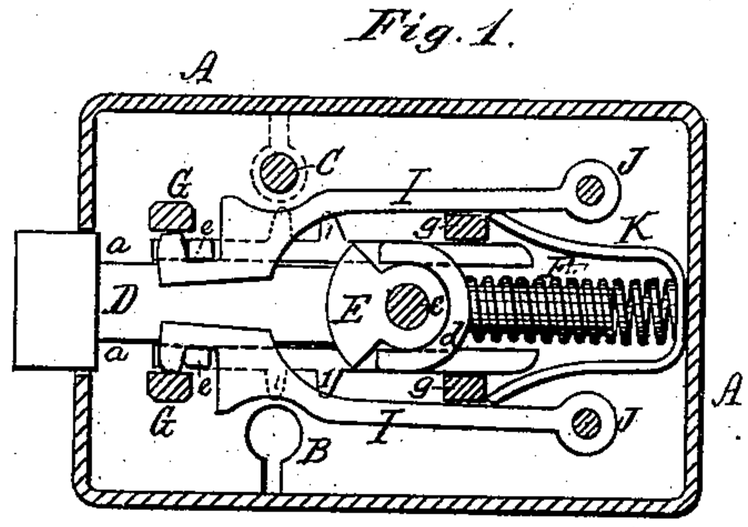


Fig. 2.

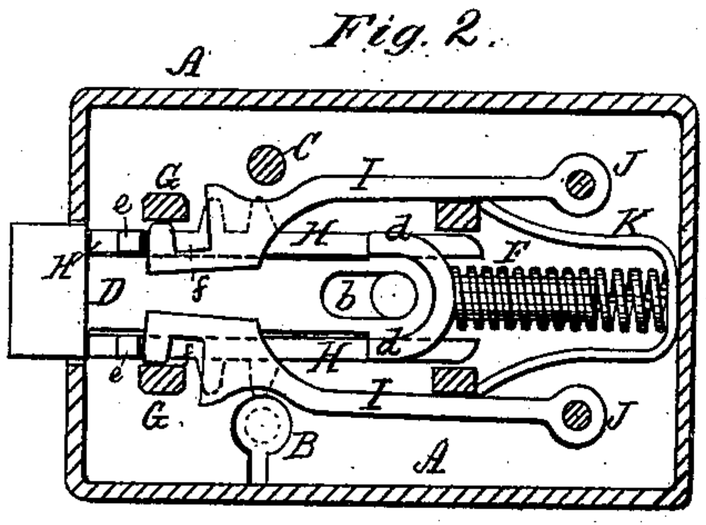


Fig. 3.

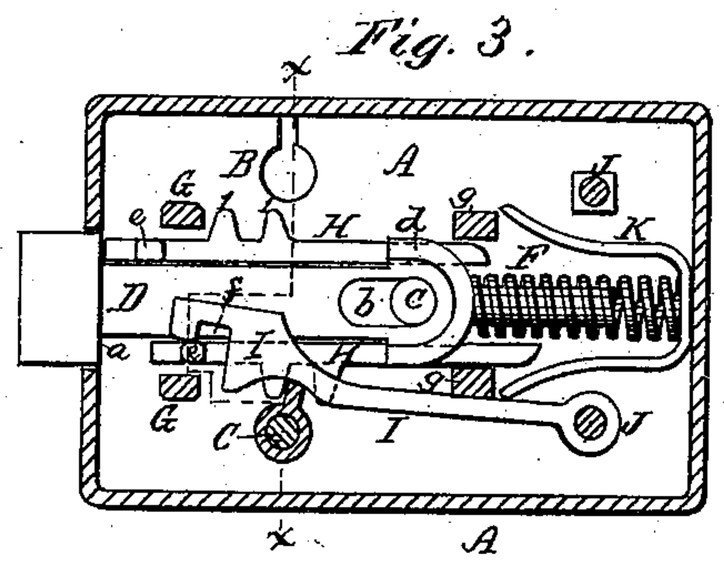
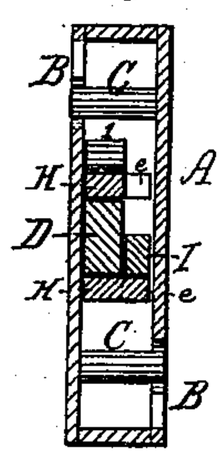


Fig. 4.



Witnesses:
John Tyler
Jno. J. Bonner

Henry A. Chase Inventor.
By Attorney
Wm. C. Witter

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY A. CHASE, OF HARTFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO S. A. HUBBARD AND C. H. CLARK, OF SAME PLACE.

IMPROVEMENT IN LOCKING-LATCHES.

Specification forming part of Letters Patent No. **189,191**, dated April 3, 1877; application filed March 2, 1877.

To all whom it may concern:

Be it known that I, HENRY A. CHASE, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Door-Locks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to certain novel improvements in that class of locks having the key-holes on opposite sides placed out of line, to prevent tampering through the key-hole opposite to that side of the case from which the bolt has been locked.

My invention consists in forming the spring latch-bolt, which, in its normal condition, is extended beyond the front of the case, with shoulders, and locating an independent locking-bar and spring-tumbler above and below the latch-bolt, each accessible through different key-holes, only in opposite sides of the casing, as will be hereinafter more fully set forth.

To enable those skilled I will describe the construction and operation of my improved lock, referring by letters to the accompanying drawing, in which—

Figure 1 is a plan view, with one side of the casing removed, of a lock embracing the features of my invention, with the latch-bolt free to be forced in and out, as an ordinary spring-latch. Fig. 2 is a similar view with the independent locking-bars shot forward to prevent the retraction of the latch-bolt, and with the knob-spindle and cam removed. Fig. 3 is a similar view with the upper tumbler removed, and the upper bar only shot into position by means of a key from the opposite side of the casing; and Fig. 4, a section at the line *x x*, Fig. 3.

Similar letters indicate like parts in the several figures.

A represents an ordinary casing, provided with key-holes B through opposite sides, and out of line. C C represent the key-posts. D is the latch-bolt, provided with shoulders *a a* behind the head, the shank of the bolt being provided with an elongated slot, *b*, to permit the passage of the knob-spindle *c*, and an arched rib, *d*, to receive the hub of the cam E, the extended portions of which come in contact with the ends of the rib, and force the bolt back when the knob-spindle *c* is rotated in either direction. The tail of the latch-bolt is rounded and adapted to lie within a spiral spring, F, employed to keep the bolt projected. G G and *g* are posts parallel with the latch-bolt, and sufficiently distant therefrom to permit the introduction and longitudinal movement of the independent locking-bars H, which are provided with projections 1 1, to receive the key, and by which the bars are shot forward and retracted. These bars are also provided near their forward ends with upright projections *e*, which lie in notches *f* of the tumblers when the latch-bolt is free, as shown at Fig. 1, or in front of the forward ends of the tumblers when the latch-bolt is locked against retraction, as shown at Figs. 2 and 3. I I are vibrating tumblers, one on either side of the latch-bolt, pivoted at J J, and kept distended by a U-shaped spring, K, the forward pair of posts G G sustaining the forward ends of the tumblers and preventing them from tumbling out.

The operation is as follows: When the locking-bars H are in the position shown at Fig. 1, the latch-bolt is free to reciprocate as an ordinary spring-latch. Now, when it is desired to lock the bolt against retraction, the key is inserted, as shown in section at Fig. 3, and, being turned, comes in contact with the tumbler I, swinging its forward notched end inwardly and off from the upright projection *e* of the locking-bar H, thus releasing the latter. The key, entering between the points 1 1 of the bar H, shoots it forward against the shoulder *a*, behind the head of the latch-bolt, the U-shaped spring forcing the tumbler back, the end of the same falling behind the upright projection *e*, and holding the latch-bolt and bar H against retraction until the key shall have been inserted, the tumbler lifted, and the bar H drawn back by the reverse movement of the key.

It will be readily seen that when the lower bar H has been projected forward to lock the

bolt D from one side of the lock, the entrance of a key from the opposite side will not effect its release, and vice versa.

What I claim as new, and desire to secure by Letters Patent, is—

In combination with the latch-bolt D, provided with shoulders behind its head, and a suitable casing having posts G parallel with the latch, independent locking-bars H and spring-tumblers I, arranged to operate substantially as hereinbefore set forth.

Witness my hand and seal this 8th day of February, A. D. 1877.

HENRY A. CHASE. [L. S.]

Witnesses:

LYMAN A. WILEY,

FRANK L. HAMILTON.