

A. J. B. BERGER.
Locks for Doors, &c.

No. 148,803.

Patented March 24, 1874.

Fig. 1.

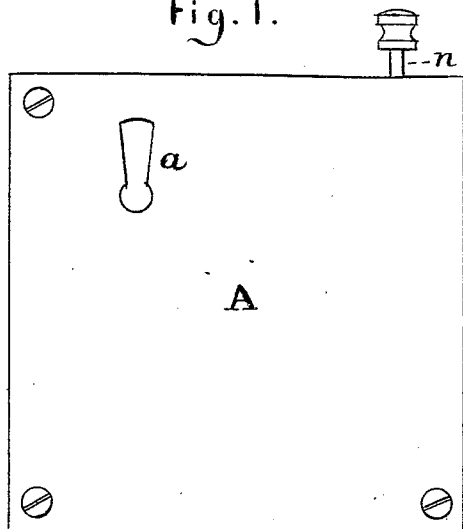


Fig. 2.

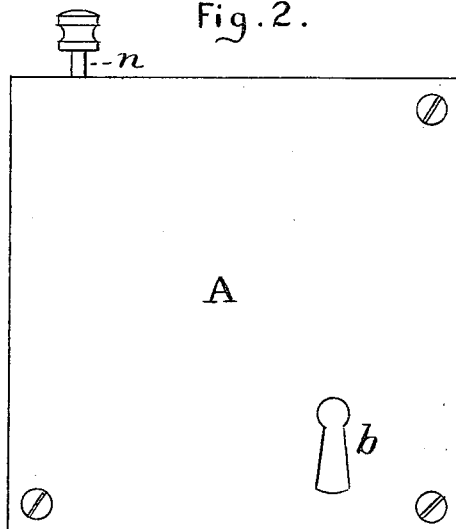


Fig. 3.

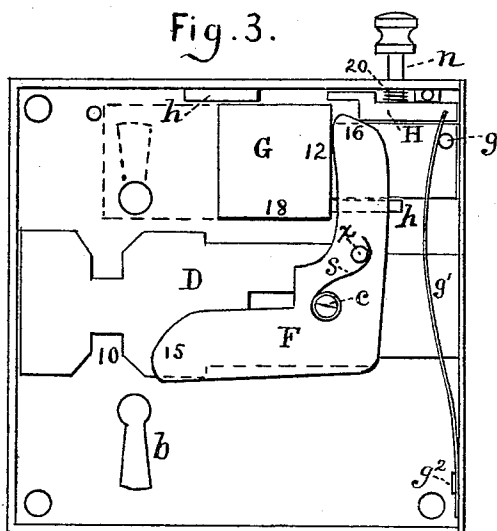
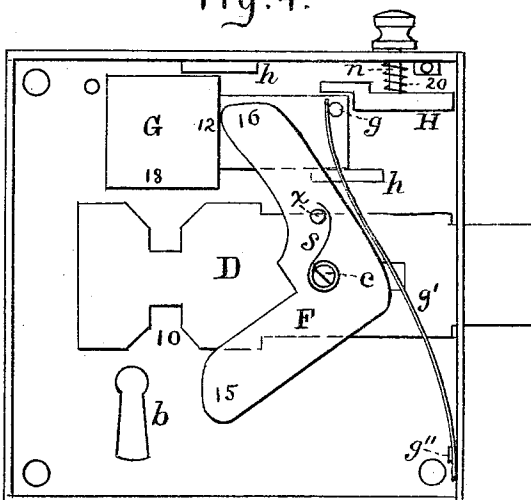


Fig. 4.



Inventor.

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by his attys,

A. H. & R. K. Evans

Witnesses.

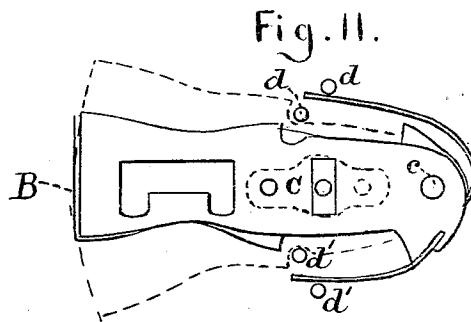
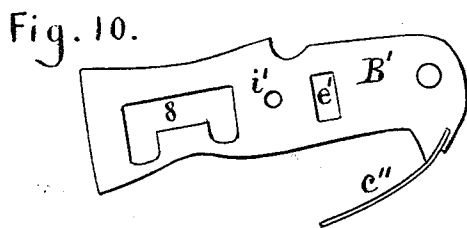
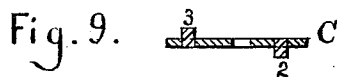
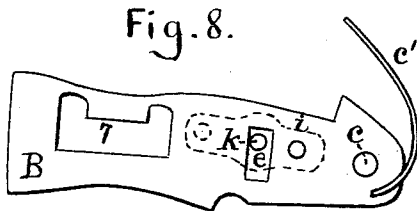
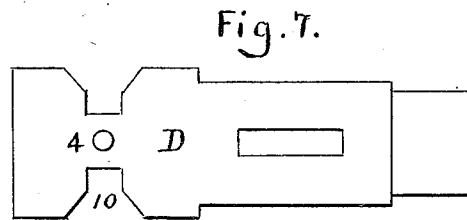
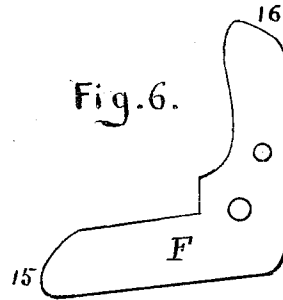
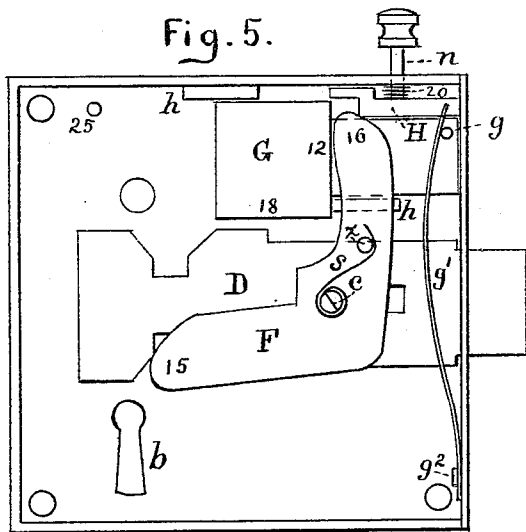
H. A. Daniels

Chas. H. Mason

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UNITED STATES PATENT OFFICE.

AMBROSE J. B. BERGER, OF EASTON, PENNSYLVANIA.

IMPROVEMENT IN LOCKS FOR DOORS, &c.

Specification forming part of Letters Patent No. **148,803**, dated March 24, 1874; application filed March 18, 1874.

To all whom it may concern:

Be it known that I, AMBROSE J. B. BERGER, of Easton, Northampton county, Pennsylvania, have invented certain Improvements in Locks; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation from entrance side. Fig. 2 is a side elevation, the reverse of Fig. 1. Fig. 3 is a side elevation from entrance side, with the casing removed and showing the interior. Fig. 4 is the same view with the bolt thrown. Fig. 5 is the same view with the key-hole guard removed. Figs. 6, 7, 8, 9, 10, and 11 are details to be referred to.

My invention relates to that class of locks having key-hole guards, and a mechanism which allows the key-hole on one side of a lock to be placed out of line with the one on the other side of the lock.

My invention consists, first, in a sliding guard, which is operated by the key from the inside of the door as the bolt is thrown, and slides over and covers the outside key-hole, being held in position by a stop actuated by a spring; and, secondly, in two tumblers, lying one upon another, working in opposite directions, and connected by a rotating lever, which has lugs entering each tumbler, in order that when the key works in either key-hole it operates one tumbler, which in turn operates the other through means of the lever, allowing the bolt to be thrown.

In order that those skilled in the art may make and use my invention, I shall proceed to describe the manner in which I have carried it out.

In the drawings, A is a lock-casing, having key-holes *a b*. Against the back of the casing is a tumbler, B, which works around an arbor, *c*, and kept depressed by a spring, *c'*, engaging in pins *d d*. The tumbler is slotted at *e*, and has a small hole, *i*, in it. An arbor, K, rising from the back of the case passes through the slot *e*, and bears upon it a rotating lever, C. This lever has on one side, at one end, a lug, 2, and on the other side, at the other end, a lug, 3. The lug 2 engages in the hole *i* of the tumbler B. Over the lever is another

tumbler, B', having a spring, *c''*, engaging in pins *d' d'*, and opening *i'*, and slot *e'*. The lug 3 of the lever C engages in the opening *i'* of the tumbler B'. Over the tumblers is the bolt D, having a pin, 4, to engage in the slotted ends of the tumblers. Supposing, for example, the key is placed in the inside key-hole *b* and turned, it will bear against the tumbler B and force it upward. As the tumbler B moves upward the lever C is brought into operation by the lug 2, and by means of the lug 3 the tumbler B' is brought downward, the tumblers approaching each other until the offsets 7 and 8 bear such a relation to each other as to disengage the pin 4 and allow the bolt to be thrown. Overlying the bolt D, and working around the arbor *c*, is a bent lever, F, shaped as shown in Fig. 6, its lower end, 15, when the lock is unlocked, about coinciding with the offset 10 of the bolt, so that the key will force it back when the bolt is thrown so as to lock the door. The opposite end 16 of the lever F bears against a shoulder, 12, on a key-hole guard, G, which slides in guides *h h*, and is at rest at one side of the outside key-hole *a*. On the end of the guard G is a pin, *g*, against which bears a spring, *g'*, one end of which is fastened to the casing at *g''*, to retract and hold back the said bolt. The head 18 of this bolt is preferably made of a thickness equal to the distance between the front and rear plates of the lock-casing. A stop, H, in the upper corner of the lock holds in place the guard G after it has been thrown by the lever F. This stop is constructed as shown, having a pin, *n*, connecting with it, and extending through the upper edge of the lock-casing. Around the pin *n*, between the stop and the lock-casing, is a coiled spring, 20, which keeps the stop depressed. A spring, *s*, is coiled around the arbor *c*, and an end bears against a pin, *x*, in the upper part of the lever F, so as to keep the lower end of the said lever out of the way of the inner key-hole.

The operation is as follows: The lock being bolted, as usual, to the inside of a door, the key is inserted in the inside key-hole *b*, and the door locked. As the key turns it bears against the end 15 of the lever F and forces it back, thereby throwing the guard G forward until it strikes the stop 25, and the stop H is forced

by the spring 20 behind it. The outside key-hole *a* will then be found to be completely closed, so as to prevent any one tampering with the lock from the outside through the key-hole. When it is desired to uncover the outside key-hole, it is only necessary to draw up the pin *n*, being on the inside of the room, which will pull the stop *H* from behind the guard *G*, bringing the spring *g'* into action, so as to retract the guard and uncover the key-hole. This operation does not disturb the bolt, and the door remains locked. Then the key may be used and the door can be unlocked.

I prefer to make the outside surface of the guard *G* of steel, chilled iron, or something of the kind, so as to resist a drill in case an attempt be made to force it back by drilling to get a hold on the bolt.

Having thus described my invention, what I

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

1. The tumblers *B* and *B'*, in combination with the central intervening lever *C*, arranged as described, whereby the tumblers can be operated from either edge, substantially as and for the purpose set forth.

2. The bent lever *F*, arranged as described, in combination with the guard *G* and stop *H*, substantially as and for the purpose set forth.

3. The guard *G*, in combination with the spring *g'*, stop *H*, and pin *n*, all constructed, combined, and arranged so that the outside key-hole can be covered independently of any other action of the lock, as set forth.

AMBROSE J. B. BERGER.

Witnesses:

WILL. H. MOXON,
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