

(No Model.)

2 Sheets—Sheet 1.

A. ARENS.
LOCK.

No. 471,595.

Patented Mar. 29, 1892.

Fig. 1.

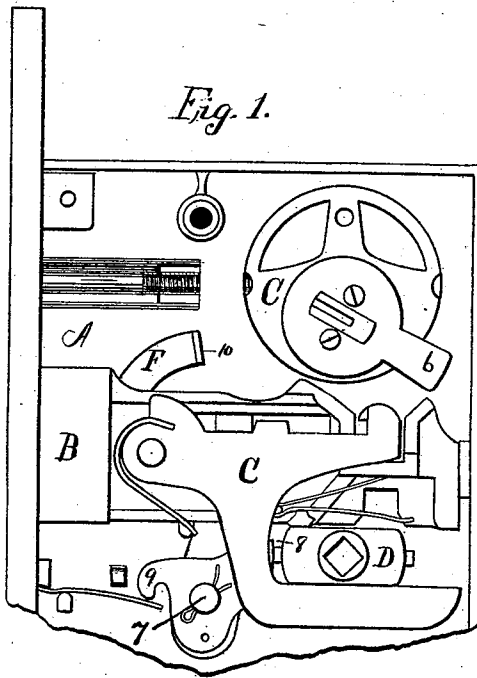
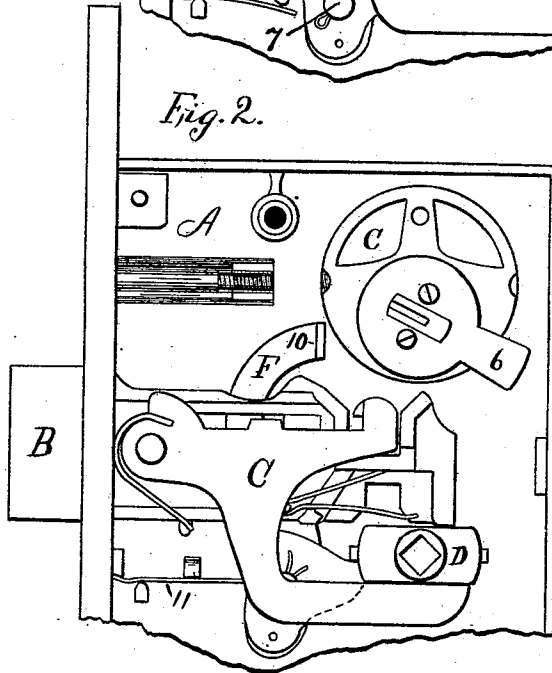


Fig. 2.



Witnesses.

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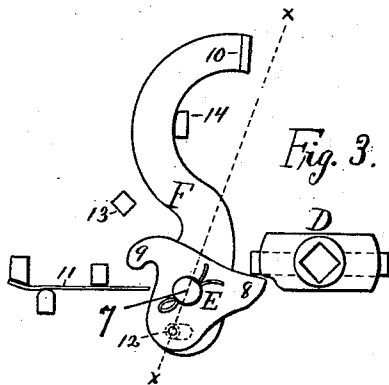


Fig. 3.

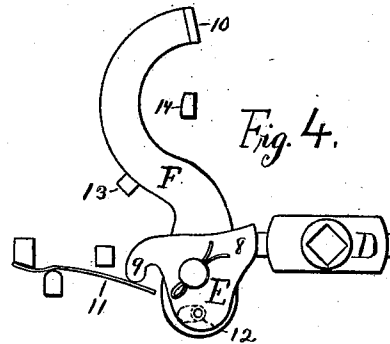


Fig. 4.

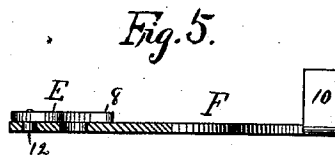


Fig. 5.

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UNITED STATES PATENT OFFICE.

AUGUST ARENS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
P. & F. CORBIN, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 471,595, dated March 29, 1892.

Application filed November 23, 1891. Serial No. 412,752. (No model.)

To all whom it may concern:

Be it known that I, AUGUST ARENS, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Hotel-Locks, of which the following is a specification.

My invention relates to improvements in hotel-locks; and the object of my improvement is to furnish cheap, simple, and effective stop devices for preventing the lock-bolt from being operated from the outside of the room whenever it has been forced out of the case to lock the door from the inside of the room.

In the accompanying drawings, Figure 1 is a front elevation of my lock with the cap-plate removed and that portion of the case that is occupied by the ordinary latch broken away. Fig. 2 is a like view of the same with the lock-bolt represented as having been forced out by the hub of the knob or thumb-turn on the inside of the room. Fig. 3 is an elevation of detached parts. Fig. 4 is a like view of the same parts in a different position, and Fig. 5 is a detached sectional view of certain parts on the line *x x* of Fig. 3.

A designates the case, B the lock-bolt, C the cylinder or pin tumbler-lock having a cam 6 for acting upon the talons at the upper edge of the lock-bolt, D the rotary hub for throwing the lock-bolt by acting upon the talons at the lower edge thereof, and E the tumbler or dog on the bolt, common to both the cam 6 and hub D, all substantially as in ordinary locks. The hub may be provided with a short shaft or spindle having a knob or thumb-turn on that side of the lock which is inside of the room.

Upon a stud or post 7 on the case I pivot the stop F and trip-piece E, the long end of the stop having a wing or arm 10 to give increased thickness to that end, (see Fig. 5,) while the body of the stop may be thin and permit the lock-bolt to be arranged in front of it, as shown. This stop is preferably formed of sheet metal. The trip-piece E is a flat plate having a point or projection 8 and arm 9, the former for being engaged by the hub D and the latter for being pressed upon by the spring 11. In the heel of the stop F there is a slot, into which a

pin 12 on the trip-piece enters, or vice versa, by means of which pin-and-slot connection the trip-piece has a certain range of movement on the pin or post independently of the movement of the stop. Stop lugs or projections 13 and 14 (see Figs. 3 and 4) are cast on or secured to the back of the case to limit the motion of the stop F.

When the lock-bolt has been withdrawn by means of the rotary hub, it is free to be operated by the cylinder-lock in the ordinary manner. If, however, the lock-bolt has been thrown out by the hub D—as, for instance, by an occupant inside of the room having such a lock on its door—then the upper side of the point 8 of the trip-piece E will be engaged by one end of the cam D, as shown in Figs. 2 and 3, and hold the wing 10 of the stop F in the path of the cam 6, so that it cannot engage the talons of the lock-bolt for unlocking the door. When the lock is withdrawn by means of the hub D, one end of said hub strikes the rounding lower side of the point 8 of the trip-piece and rocks it. At first said trip-piece may move without moving the stop F; but when the pin 12 reaches the end of the slot in the heel of the stop then if the stop has not been carried with the trip-piece by friction the trip-piece and stop will move together as one piece and the arm 9 of said trip-piece presses upon the spring 11 and the wing 10 of the stop is removed from the path of the cam 6. In reversing the movement of the lock-bolt to throw it out by the hub D the trip-piece E is released and the spring 11 moves it a short distance. Finally the opposite end of the hub engages the trip-piece on the upper side of the point 8, the slack in the pin-and-slot connection is taken up, and the wing 10 of the stop is again thrown into the path of the cam 6, changing the parts from the position represented in Figs. 1 and 4 to that represented in Figs. 2 and 3.

By my improvement very cheap and simple stop devices can easily be placed in an ordinary lock between the cylinder-lock and hub, so that when the bolt is thrown from the inside of the room the cylinder-lock on the outside cannot be made to throw the lock-bolt.

I claim as my invention—

1. The combination of a lock-bolt, a cylin-

der-lock for throwing said bolt from one point,
a rotary hub for throwing said bolt from an-
other point, and intermediate stop devices op-
erated by said hub to stop the cam of the cyl-
5 inder-lock and prevent said lock-bolt from be-
ing thrown by said cam after it has been
forced out by said rotary hub, while said stop
is held out of the path of said cam whenever
said lock-bolt has been forced in by said ro-
10 tary hub, substantially as described.

2. The combination of the lock-bolt, the cyl-
inder-lock, the rotary hub D, the stop F, and
trip-piece E, connected with said stop by a
pin-and-slot connection, substantially as de-
scribed, and for the purpose specified.

AUGUST ARENS.

Witnesses:

C. A. BLAIR,
G. E. ROOT.