

(Model.)

C. R. UHLMANN.

KEY HOLE GUARD.

No. 382,122.

Patented May 1, 1888.

Fig. 1.

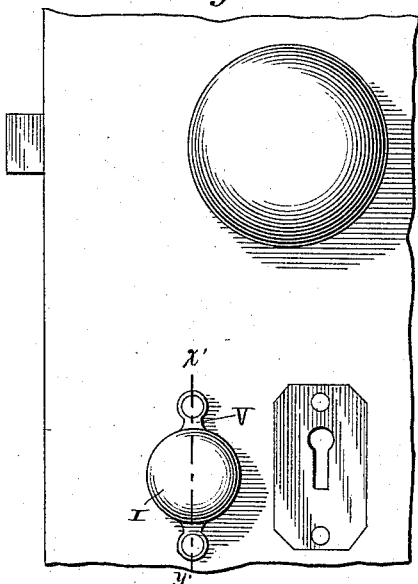


Fig. 2.

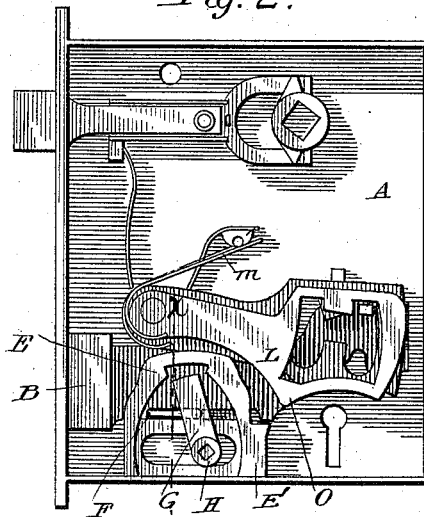


Fig. 6.

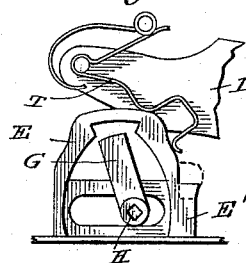


Fig. 5.

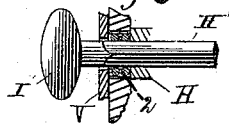
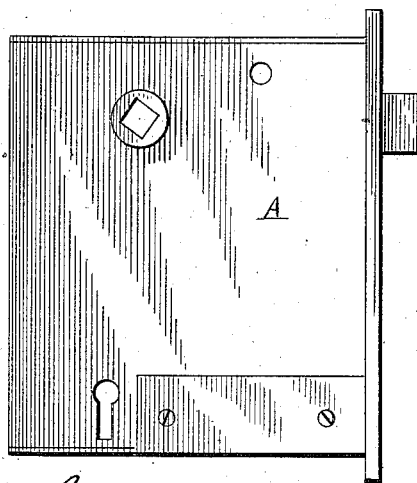


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES R. UHLMANN, OF PEORIA, ILLINOIS.

KEY-HOLE GUARD.

SPECIFICATION forming part of Letters Patent No. 382,122, dated May 1, 1888.

Application filed April 8, 1887. Serial No. 234,137. (Model.)

To all whom it may concern:

Be it known that I, CHARLES R. UHLMANN, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Key-Hole Guards; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The invention is fully set forth and claimed in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a side view of a portion of a door provided with a lock embodying my devices. Fig. 2 is a view of the lock with the side plate and external parts removed. Fig. 3 is a section on the line *xy* of Fig. 2. Fig. 4 shows the side opposite to that illustrated in Fig. 2. Fig. 5 is a detail view, hereinafter explained. Fig. 6 illustrates a modified construction.

The object of this invention is to improve the practical working of devices set forth in prior patents granted to me, and I therefore do not claim as new most of the devices necessarily illustrated in the drawings and described herein.

In all the figures wherein the specific parts are shown, A is an ordinary mortise or rim lock-case, and B is a bolt thrown forward or retracted in the usual manner by a key inserted from either side of the lock-case.

E is a key-hole guard sliding in a way formed by the two side walls of the lock, its lower wall and a plate-like lug, F, formed integrally with one of said side walls and lying between the key-hole guard and the bolt B. The lower side of the bolt B is cut away, and the lug F projects into the space thus formed and serves both as a guide for the bolt and guard and as a stop limiting the motion of the former in each direction.

The key-hole guard E is much thicker than the adjacent portion of the bolt, and thus a portion of it may project over the bolt and lug F, as shown in Figs. 2 and 3. The central part of the guard is removed, leaving a space of somewhat irregular outline, and in this space works an arm, G, rigidly attached to or formed integrally with a short hollow shaft, H, which rotates in a suitable perforation in

the removable wall of the lock. The arm G, by impinging upon the walls of the space wherein it lies, serves when rotated to force the guard to the right or left, according to the direction of its own rotation. It is itself actuated by a square bar, H', provided with a knob, I, whose end is removably fixed on its square axial opening, and as neither shaft nor bar extends through but one wall of the lock it follows that the guard can be actuated from one side only of the door. The arm, space in which it moves, size of the guard, and its distance from the key-hole are such that rotation of the arm in one direction throws the corresponding side of the guard across the key-hole, while rotation in the opposite direction withdraws the guard entirely from the space traversed by the key in locking and unlocking the door.

The side E' of the guard may be, as indicated in full lines in all the figures, of such vertical width that when thrown across the key-hole it does not cover the space for the key-shaft, (as distinguished from the bit,) and consequently the presence of the key in the lock does not necessarily interfere with the movement of the guard. The part E' may, however, be wider, in which case the guard can be thrown across the key-hole only when the key is removed.

The lug F, which lies between the body of the guard E and the bolt B, and affords an important support to both while improving the practical working of the lock, is thought to be new; but the remaining devices thus far explained are shown substantially in my prior patents.

In order to prevent the accidental obstruction of the key-hole by the block, which, were access to the bar H impossible, as when the operator is without the door secured by the lock, would compel destruction of parts of the door or lock, and in order to prevent careless partial withdrawal of the obstructing-block from the key-hole, and to prevent the leaving of the key in such position as to prevent the block from moving into obstructing position, I make use of a tumbler, L, pivoted and held in position by a spring, *m*, in the usual manner. The lower margin of the tumbler is provided with a projecting point, O, from which the marginal line in general course slopes

away on each side. The position of the tumbler and its form upon the side next the key-hole are such that it is raised by turning the key to throw the bolt in either direction; but if by chance the key-bit be left in locking the door in a horizontal line passing through the axis of the key-shaft, where it would prevent the advance of the obstructing-block, the spring *m* presses the tumbler's inclined edge against the key-bit, forcing it below such line, when the advancing block readily pushes it still farther and passes into position. Accidental advance of the block is also prevented by the spring *m*, which resists the raising of the tumbler *L* when its inclined edge is pressed by the rounded margin of the advancing block, and the action of the spring through these same contact-surfaces tends to force the partially-retracted block completely out of the path of the key.

Fig. 5, which is a view of a portion of the apparatus, parts in section being cut on the line *x' y'*, Fig. 1, shows a spring, 2, coiled about the bar *H'* between the external guide-plate, *V*, and the shaft *H*. This, by producing slight friction, tends to keep the bar and the shaft with its arm in the position in which they happen to be left, and removes any appearance of looseness in the operation of the parts.

Instead of the spring-actuated tumbler *L* a spring, *T*, acting directly upon the guard, may be used; but I prefer the forms already de-

scribed to the simple spring which is illustrated in Fig. 6.

What I claim is—

1. The combination, with a lock-case and a sliding key-hole guard, *E*, of a pivoted tumbler, *L*, having a portion of its marginal surface normally in and inclined to the path of said block when advancing, and another portion of its marginal surface normally in and inclined to the path of the key-bit, and a spring adapted to offer a yielding resistance to the displacement of said tumbler by the action of the key or block upon said surfaces, whereby the key may be prevented from remaining in position to obstruct the advance of the block, and both accidental advancement and partial retraction of the block may be avoided.

2. The combination, with the lock-case *A*, provided with the integrally-formed lug *F*, of the sliding key-hole guard *E*, the shaft *H*, and rigidly-connected arm *G*, for actuating said guard, the shaft-actuating bar *H'*, with its encircling-spring 2, the pivoted tumbler *L*, having two oppositely-inclined marginal surfaces, and the spring *m*, acting upon said tumbler, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES R. UHLMANN.

Witnesses:

DAVID H. MEAD,
ARTHUR KEITHLEY.