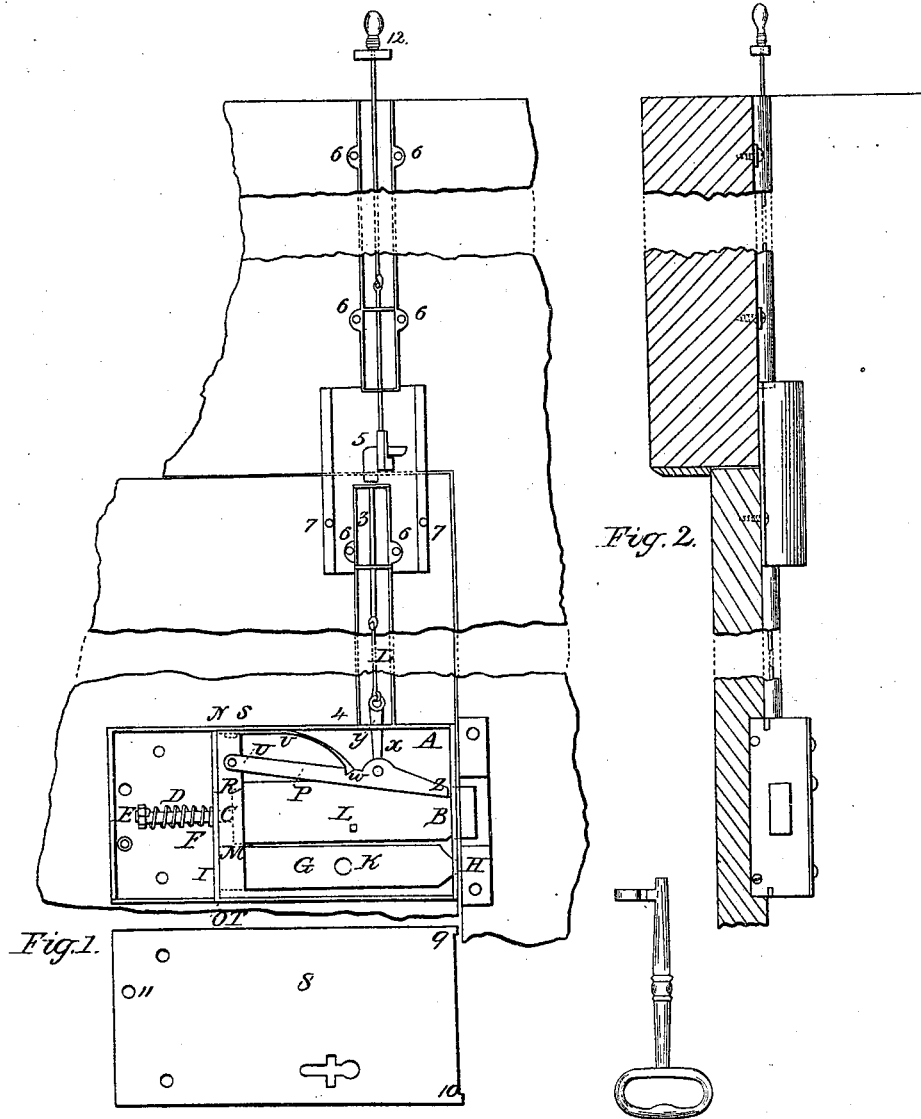


W. Reynolds,
Lock.

N^o 5,557.

Patented May 9, 1848.



UNITED STATES PATENT OFFICE.

WILLIAM REYNOLDS, OF GREENBRIER COUNTY, VIRGINIA.

IMPROVEMENT IN LOCKS FOR DOORS.

Specification forming part of Letters Patent No. 5,557, dated May 9, 1848.

To all whom it may concern:

Be it known that I, WILLIAM REYNOLDS, in the county of Greenbrier and State of Virginia, have invented a new and improved mode of preventing thieves from unlocking locks of doors and other places to be locked up; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in the arrangement of the inside works of the lock, as seen in the accompanying drawings, so that a wire or cord may be used without any key whatever, and can only be unlocked by pulling the extreme end of the wire or cord.

To enable others skilled in the art of making locks to make and use my invention, I will proceed to describe its construction and operation, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is the inside view, and Fig. 2 is the end view.

I construct my lock-case in one of the ordinary forms used for locks with the edges and front end turned to a square, so as to form a box or case six or seven inches in length and three or four inches wide, with the front end made longer than the sides, so as to lap over the edge of the doors and screw to the edge of the same. This case is made of sheet iron or brass, and may be of one size. The case is designated in the drawings by the letter A in one corner. The bolt is made of iron, and is introduced into its place lengthwise of the case by means of a mortise cut through the end of the case about midway between the bottom and upper edges of the case, as is represented at B. The hind end of the bolt is made round, forming a square shoulder upon each side, about two and a half-inches from the end just mentioned, the round part passing through a partition-plate, as seen at C, and has a spiral spring of cast-steel tempered in oil, of wire form, slipped on it, as seen at D. At the end of the rounded part of the bolt is a tap screwed on, as seen at E. When locked, one end of the spiral spring presses against this tap, and the other against the partition-plate at F.

G is a flat iron bar placed close along one side of the bolt. The front end comes almost to a point, and passes through the front end of the case at H. The hind end of this bar has

a shoulder on each side, leaving a nib in the middle. This nib passes through the partition-plate at I, and both ends of the bar are riveted. At K in this bar is a hole passing through it for the foot of the key to rest in when locking. The key, being turned to the right, presses against a nib, as seen at L in the bolt, and thus locks the door, causing a contraction of the spiral spring. When unlocked, the spring expands and causes the bolt to fly back. The lock may be locked on either side.

M is the partition-plate, the two upper corners of which are left long enough to cross the upper edges of the case. These long corners are let into the two side edges of the case, as seen at N and O, leaving in the center of the lower edge of this partition-plate a nib which is let through the bottom of the box or case.

P is the latch on the side opposite the bar G, which latch falls into the side of the bolt behind a shoulder when locked, as seen at Q.

R is a cross-bar passing through the case immediately before the partition-plate, and nearly at the upper edges of the case, and is made fast at each end by being riveted through the sides of the case, as seen at S and T. The hind end of the latch is split with a saw about a half-inch horizontally and slipped on this cross-bar, and a steel rivet passes through all, as seen at M.

V is a little flat cast-steel spring screwed to the inside of the case near the end of the cross-bar and partition-plate, and is curved so as to bear against the latch, pressing it into the bolt in locking, as seen at W. This spring has a broad end curved, so as to keep it in its place on the latch.

X is a loop put through a hole in the latch. This loop passes through a hole in the side of the case, as seen at Y.

Z is the wire or cord attached to this loop to be extended any direction you please.

Now, I will specify the unlocking system. Fig. 3 is a half-tube, made of brass, iron, or wood. This half-tube rests on the side of the lock, as seen at 4, the upper end of which has a cap. Two inches below is a piece like the cap, put in crosswise, and soldered fast, and each of these has a small square hole through the center to receive the stem of a small hook. The hook is on the upper end of the stem, and from the ceiling above is another half-tube like the one just described, and reaches within two

inches of the upper end of the lower one. This half-tube contains a stem with a hook on the lower end. These hooks lock together at 5 as the door shuts. These tubes are screwed fast, as may be seen at 6. Over these hooks is a square piece of brass or sheet-iron turned to a curve and screwed only to the door, as seen at 7. When the door opens, the hooks easily leave each other. When the door is shut, they are again locked. Above the ceiling is a round smooth piece of iron with a loop, as seen at 12. The wire is to go through this loop, and from thence may be extended in any direction. It may pass down into any room in the house, even to a man's pillow where he sleeps; or it may come down through a turned and varnished tube of wood and enter the top of a bureau or clock-case or any piece of furniture under the same roof; or it may, with a little cost, be made to connect with a piece of furniture in every room in the building, so that a person may unlock his door by putting his hand into a bureau or clock-case. He may have every lock in his house connected, so that there will be but one beginning-place to unlock every lock in his house. The plate, Fig. 8, covers the inside view of the lock. The two nibs 9 and 10 at the front corners slip into two corresponding chasms in the front corners of the case, so that one screw at the other end, 11, fastens it on.

I would now give a brief view of the utility or benefit to be derived from the unlocking system. It is admirably adapted to all store-doors, especially those in cities and towns, where no stranger nor any other person, not even the clerks, can enter the store, for in the owner's bed-room is the place to unlock the door on the street, and nowhere else can it possibly be unlocked. No ingenious blacksmith can make keys to unlock and then lock it up again. The end of the wire or cord for unlocking may be in a secret place and changed at pleasure.

The lock is well adapted to money-safes, and might be used with perfect security in banks. The arrangement may be varied so that no two houses would be unlocked alike.

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

The arrangement of the inside works of the lock, as herein described, so that it cannot be unlocked by its own key or any lock-pick whatever, and can only be unlocked at the extreme end of the wire or cord.

WILLIAM REYNOLDS.

Witnesses:

WM. T. MANN,
JOHN MOOREHEAD.