(Model.)

O. SEELY.

SLIDING DOOR LOCK.

No. 414,332. Patented Nov. 5, 1889.

Fig. I.

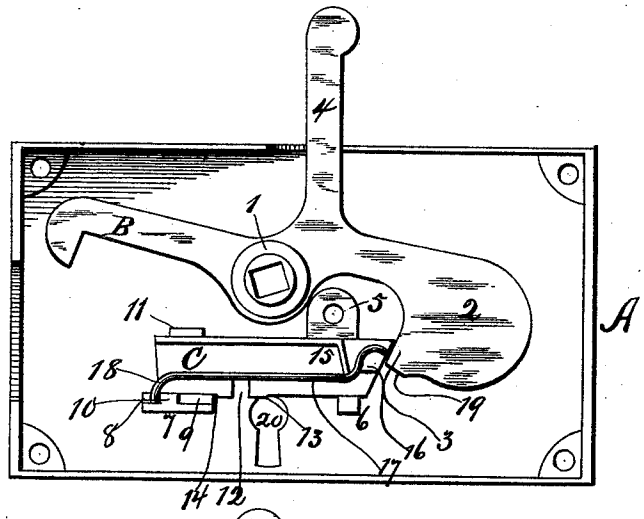
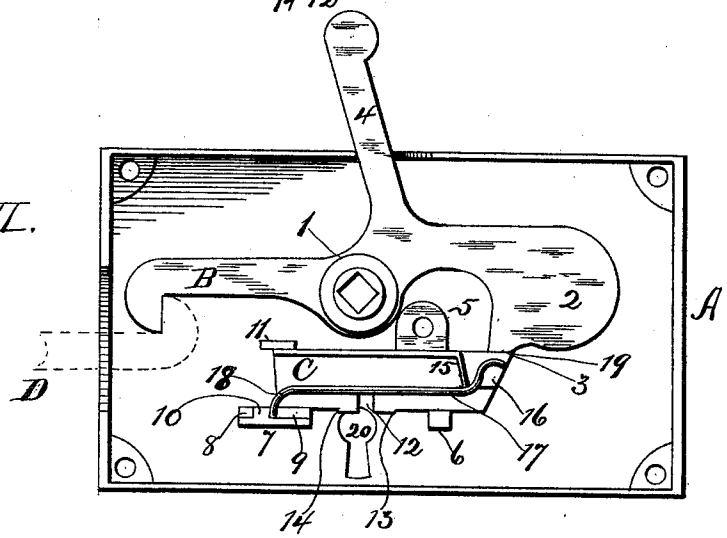


Fig. II.



Witnesses

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UNITED STATES PATENT OFFICE.

OBADIAH SEELY, OF SYRACUSE, NEW YORK.

SLIDING-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 414,332, dated November 5, 1889.

Application filed November 16, 1888. Serial No. 291,009. (Model.)

To all whom it may concern:

Be it known that I, OBADIAH SEELY, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Locks, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure I is a top plan view of the interior of the lock with the cap removed in an unlocked position as to the working parts. Fig. II is a like view of the same locked.

My invention relates to locks for sliding doors, whether suspended from an overhead trackway or standing upon a trackway upon the floor.

The object of my invention is to improve the construction of the lock and its utility, and at the same time reduce the number of parts and yet produce a lock difficult to be picked or tampered with.

My invention consists in the several novel features of construction and operation hereinafter described, and which are specifically set forth in the claims hereto annexed.

It is constructed as follows: A is the case, provided in one end with the ordinary slotway for the bolt, or, as in this case, this being a hook-lock, to receive the counter-hook set either upon the casing or upon the edge of the other door, where there are two sliding doors, as shown in dotted lines in Fig. II. In the corners of the case are the holes for the screws which secure the lock upon the door.

B is the locking-hook, projecting outward from and integral with the barrel 1, which is provided with a square mortise to receive the spindle of the door-knob, and 2 is a counterbalance provided with a shoulder 3, and 4 is a lever for operating the hook by hand when the door is unlocked.

The drawings show the lock upside down, so that the lever 4 extends outward through the lock-case in its lower edge.

5 is a stud erected within the case, and having one side straight, as shown in the drawings, and also provided with a screw-hole which holds the cap or cover of the lock-case, and 6 is another stud having a straight side facing the straight side of the stud 5, and 7 is another stud straight upon its inner face for a part of its height, and above that is rabbeted out, as at 8 9, creating the projection 10, and 11 is another stud having a straight inner face, and the inner faces of the studs 5 11 are in line with each other, and are also both of them parallel with the inner faces of the studs 6 7. C is a sliding double tumbler sliding between the inner faces of the studs. It is provided in the lower edge with a slotway 12 to receive the bit of the key, and on either side thereof are the shoulders 13 14. In its upper surface, by means of the angular rib 15 and stud 16, a slotway is created which receives and securely holds one end of the spring-tumbler 17. The lower face or back of this tumbler C is made plane and smooth, so that it will slide freely either upon the lock-case itself or upon bridges across between the studs 5 6 and 7 11.

The spring-tumbler 17 is bent at one end to be held between the rib 15 and stud 16, as shown in the drawings, and is bent at the other end so as to form a point 18, and also to properly engage with the rabbets 8 9 upon the stud 7, engaging with only one at a time, however. The edge of the tumbler sliding along against the faces of the studs 5 11 is straight, and its inner end is beveled off, substantially as shown in the drawings, creating a point 19.

At D in Fig. II, I show by dotted lines the counter-hook engaged with the hook B. This hook D is of ordinary construction, projecting outward from a base and adapted to be secured to the casing, where only one sliding door is used, or where two doors are used upon the meeting edge of the other door opposite the lock.

It is operated as follows: When the key is inserted through the key-hole 20 and turned, the slotway in the bit of the key enters the slotway 12, and the inner point of the key encounters the spring-tumbler 17, springing it back out of the rabbet 8, and when so sprung back the key-bit impinges against the right-hand shoulder of the slotway 12, and a continued turning of the key slides the double tumbler along to the right, the point 19 sliding along onto the shoulder 3, and then as the key-bits are released from the tumblers the spring-tumbler 17 throws its point 18 into the rabbet 9, and the door is locked, the parts having assumed the relative position shown in Fig. II. When the parts are in position

shown in Fig. I—that is, unlocked—the counter-balance will always hold the hook B in proper position to meet and properly engage with the hook D, and such engagement is broken either by the lever 4, by which the hook can be thrown into the position shown in Fig. I, or by the spindle of the knob inserted through the mortise in the barrel 1.

It will be observed that by this construction I have a lock and latch combined. It will also be observed that the slide is one tumbler and the spring 17 operates as a second tumbler and cannot be disengaged from the rabbets unless sprung back.

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

1. A locking-hook for a lock and latch, consisting of the hook itself, a barrel mortised to receive the knob-spindle, a counter-balance opposite the hook, and a lever to operate the hook independent of the knob-spindle, integral with each other, in combination with the knob-spindle inserted through the mortise, the lock-case, and a catch engaging with the hook, substantially as described.

2. The combination, in a lock, with a hook mortised to receive the knob-spindle, a counter-balance, a lever integral with the hook-body extending therefrom through the lock-case, and a shoulder 3, of a tumbler adapted to slide longitudinally into and out of engagement with the shoulder, substantially as described.

3. A lock-tumbler consisting of a body provided with a key-stop in its edge and a seat to receive one end of a spring-tumbler, in combination with the studs 7, provided with rabbets 8 9, and spring-tumbler 17, provided with point 18, substantially as described.

In witness whereof I have hereunto set my hand this 10th day of November, 1888.

OBADIAH SEELY.

In presence of—
HOWARD P. DENISON,
C. W. SMITH.