

(No Model.)

2 Sheets—Sheet 1.

S. R. LONG.
LOCK.

No. 487,878.

Patented Dec. 13, 1892.

Fig. 1.

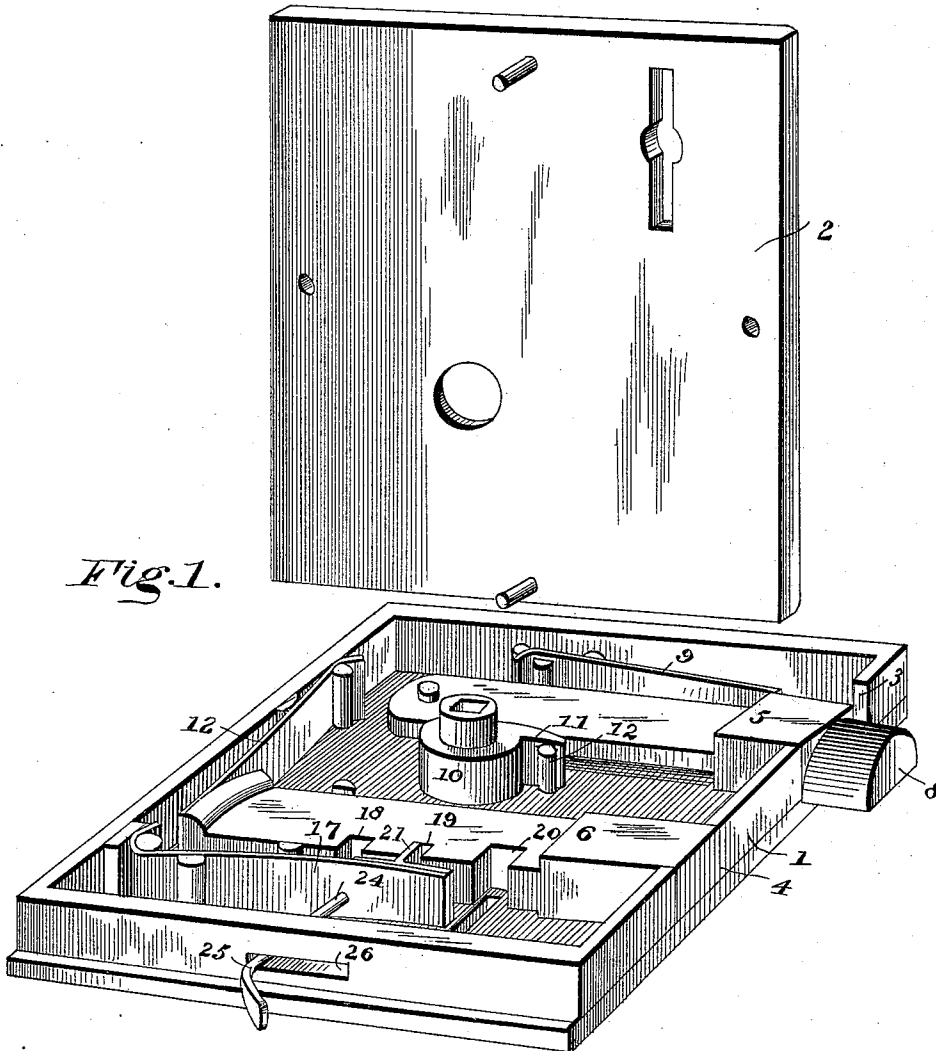
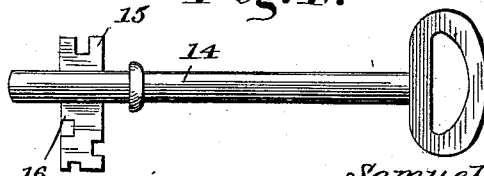


Fig. 4.



Witnesses

Wm. H. In.

H. M. Riley

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By his Attorneys,

C. A. Snow & Co.

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2 Sheets—Sheet 2.

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Fig. 2.

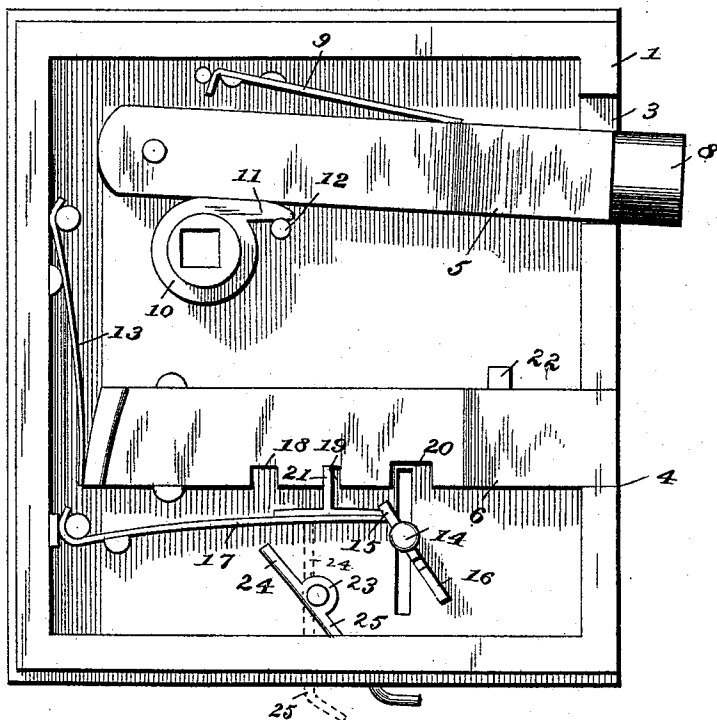
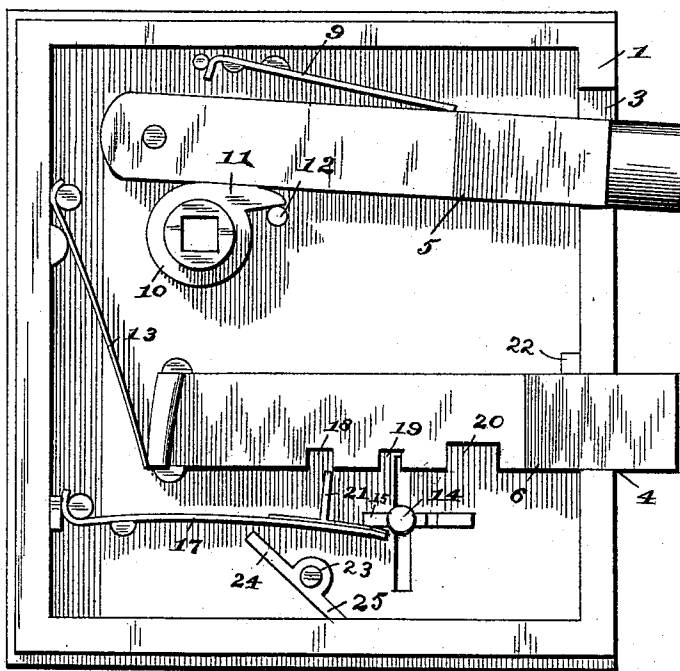


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL R. LONG, OF SPRINGTOWN, PENNSYLVANIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 487,878, dated December 13, 1892.]

Application filed May 31, 1892. Serial No. 435,035. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. LONG, a citizen of the United States, residing at Springtown, in the county of Bucks and State of Pennsylvania, have invented a new and useful Door-Lock, of which the following is a specification.

The invention relates to improvements in door-locks.

10 The object of the present invention is to simplify and improve the construction of door-locks and to increase their efficiency and durability, and to provide one which may be readily employed either as a mortise-lock or
15 be secured on the face of a door.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed
20 out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a door-lock constructed in accordance with this invention, one side of the shell or casing being removed and the key-bolt being
25 shown retracted. Fig. 2 is a side elevation, one side of the shell or casing being removed and the key-bolt being arranged as shown in Fig. 1. Fig. 3 is a similar view, the key-bolt being extended. Fig. 4 is a side elevation of
30 the key.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a shell or casing having a removable side 2 and adapted to be employed
35 as a mortise-lock and to be secured to the inner face of a door and provided with bolt-openings 3 and 4, in which are arranged a knob-bolt 5 and a key-bolt 6. The knob-bolt
40 5 is arranged in the upper opening. It has its inner end pivoted, and its outer end 8 extends beyond the lock casing or shell and is beveled on its upper and lower sides, and it is normally held depressed by a spring 9, arranged
45 above the knob-bolt and having one end bearing against the same. The knob-bolt is designed to be operated by knobs in the usual manner, and it is raised against the action of the spring 9 by a hub 10, having a
50 spindle-opening and provided with a beveled lug 11, arranged to engage the knob-bolt and

adapted to rest against a stud 12, which prevents the lug dropping below the knob-bolt.

A key-bolt actuated by a spring 13 is adapted to reciprocate longitudinally and to
55 project through the lower opening 4, and it is actuated by a key 14, having oppositely-disposed lugs 15 and 16, the former of which is shorter and is adapted to engage a spring 17 to carry the latter out of engagement with
60 notches 18 and 19 of the bolt to free the same and to permit the bolt to be moved longitudinally by the longer lug, which engages in a key-notch 20 of the bolt. The spring 17 has its inner end secured to the shell or casing,
65 and is provided near its outer end with an upwardly-extending flange or lug 21, arranged to engage either of the notches 18 and 19 to lock the bolt in its extended or retracted position. The bolt is spring-actuated, and
70 when the horizontal locking-spring 17 is disengaged from the notch 19 the vertical spring 13 causes the bolt to spring outward. The key is inserted in the lock with the shorter
75 lug 15 at the top, and by turning the key to the left the short lug is carried in engagement with the outer end of the horizontal spring 17, depressing the same and withdrawing its lug or flange 21 from the notch 19 and
80 causing the bolt to spring outward, the outward movement of the bolt being limited by a projection 22, formed integral with the bolt and arranged on the upper edge of the same and adapted to engage the shell or casing. A
85 further rotation of the key causes the longer flange to come in contact with the bolt at the key-notch 20 and the bolt may be retracted, the lug or flange of the spring 17 being held out of engagement with the notches of the
90 bolt. When the bolt is locked or distended, it is retracted by the key, the smaller lug of which depresses the spring and holds the lug or flange 21 out of engagement with the notch
95 18 until the larger lug of the key has moved the bolt inward and carried the notch 18 away from the lug or flange 21. The lug or flange 21 is then released and springs into the notch 19.

When it is desired to secure the key-bolt against retraction from the exterior of a door by a key, a catch 23, which is pivoted within
100 the casing and has an arm 24 extending upward and an arm 25 extending downward

and projecting through an opening 26 of the casing, is turned to bring its arm 24 in engagement with the spring 17, thereby holding the latter against depression.

5 It will be seen that the lock is simple and inexpensive in construction, strong and durable and easy to operate, and I desire it to be understood that I do not limit myself to the precise details of construction herein shown
10 and described, as I may, without departing from the spirit of the invention, make minor changes therein.

What I claim is—

15 In a lock, the combination of a casing having a keyhole, a spring-actuated bolt arranged within the casing and located above the keyhole and provided with a key-notch and locking notches, the former, when the bolt is shot, being in front of the keyhole, a
20 spring arranged below the bolt approximately parallel with the same and provided on its

upper face between its ends with an upwardly-extending flange to engage the locking-notches and having its outer end extending beyond the flange and terminating near 25 the opposite side of the keyhole and adapted to be depressed by a key simultaneous with the retraction of the bolt, and the pivoted catch mounted on the casing and having an arm arranged to engage the lower face of the 30 spring to prevent the spring being depressed and having an arm extending through the casing and forming a handle, substantially as described.

In testimony that I claim the foregoing as 35 my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL R. LONG.

Witnesses:

ASHER DIETERLY,
ALBERT MILLER.