

D. F. AUSTIN.

DOOR-LOCK.

No. 169,611.

Patented Nov. 9, 1875.

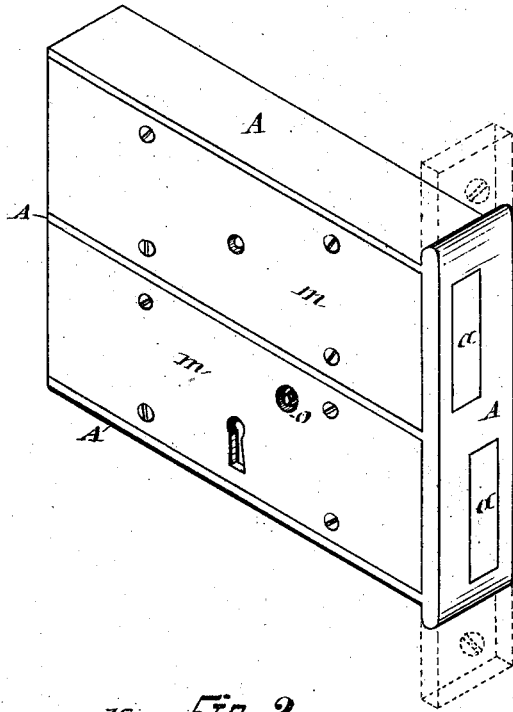


Fig. 1

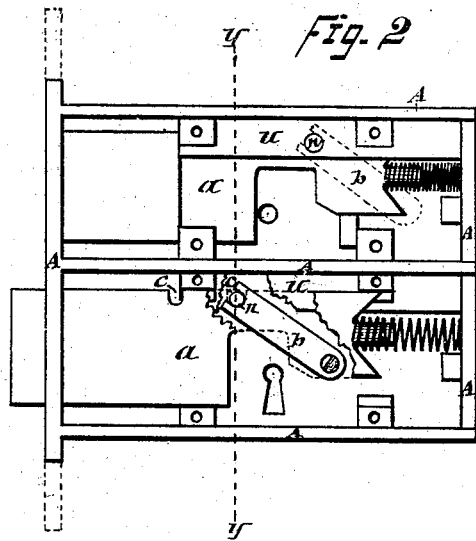


Fig. 2

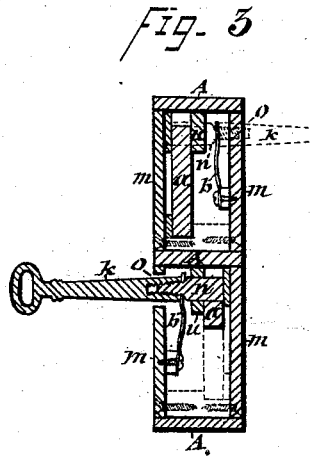


Fig. 3

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN DOOR-LOCKS.

Specification forming part of Letters Patent No. **169,611**, dated November 9, 1875; application filed October 8, 1875.

*To all whom it may concern:*

Be it known that I, DAVID FORMAN AUSTIN, of the town of Geddes, in the county of Onondaga, in the State of New York, have invented a new and useful Improvement in Locks, of which the following, taken in connection with the accompanying drawing, is a full, clear, and exact description.

The object of my invention is to retain the bolt of a spring-lock in both a projected and retracted position, and render it inoperative for the general key without the aid of an extra key of peculiar construction, not easily substituted by an ordinary simple tool, and, at the same time, produce a lock that shall be applicable to either side of a door, operative from inside as well as outside, and easily converted from a rim to a mortise lock.

It consists, principally, in the construction and combination, with the bolt, of a check-pin actuated by a spring to engage notches or holes in the bolt at proper points to retain it when projected and retracted, and provided with screw-threads on its outer end for the attachment of a suitable key, likewise provided with screw-threads, whereby the check-pin is drawn out of the notch and the bolt released. It consists, also, in the construction and combination, within one common case, of two locks, each provided with the check-pin before described, and arranged to render one operative from the inside and the other from the outside of the door, and the covering-plates removable on both sides, all constructed as hereinafter more fully described.

In the drawing, Figure 1 is an isometric view of my improved spring-lock, the dotted lines indicating the simple alteration necessary to convert it into a mortise-lock; Fig. 2, a front view of same, with the cover removed to show the construction and combination of the two locks, and Fig. 3 a transverse section through line *y y*, in Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the case, consisting of four sides and one central longitudinal partition. *a* represents the bolt, arranged to be projected by a spring. *c c* are the notches or holes in the bolt. *u* is a guide, cast onto the case; *n*, the check-pin, fitting and passing through an ori-

fice in the said guide, and into the notches *c c* in the bolt, into which it is forced by a spring, *b*, attached to the cover *m*. The outer end of the check-pin *n* is provided with screw-threads, and the key *k* has a recess in the end provided with corresponding screw-threads to engage the end of said check-pin, the plate *m* being provided with a suitable hole for the insertion of this key.

The operation of locking and unlocking is as follows: When the bolt is projected the extra key *k* is inserted through the hole *o* in the plate *m*, and screwed onto the end of the check-pin *n*, as best seen in Fig. 3. After being thus engaged it is drawn outward, thereby raising the check-pin out of the rear notch in the bolt. The latter being thus released it is readily retracted by turning the general key. This being accomplished the hold on the extra key *k* is relaxed, and the check-pin *n* allowed to enter the forward notch in the bolt and retain it in that position. For locking it is only necessary to draw the check-pin outward, as before described, when the bolt will be projected without the aid of the general key.

It will be observed that the general key is entirely inoperative in both a projected or retracted position of the bolt without the aid of the extra key *k*, and this, by its peculiar construction, is difficult to be substituted by an ordinary tool.

In order to render the lock operative from the inside as well as the outside of a door I combine two locks, constructed as before described, within one common case, A, in such a manner as to cause the screw-threaded ends of the check-pins *n n* to project in opposite directions, and make the four plates *m m m m* removable, as shown in Fig. 3 of the drawing, rendering, at the same time, the lock applicable to either the right or left side of a door.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The check-pin *n*, passing through rigid guide *u*, and provided with screw-threads on its outer end, the spring *b*, attached to cover *m*, and arranged to force the said pin inward, and the extra key *k* having a recess in its end with screw-threads therein, in combination

with the spring-bolt *a*, provided with recesses *cc* and arranged to be retracted by the general key, all constructed to operate substantially as described, for the purpose specified.

2. The combination of two lock mechanisms, constructed as herein described, with the case *A*, consisting of four sides and a central longitudinal partition, and provided with the four removable plates *m m m m* in such a manner as to render the lock operative and applicable at either side of a door, substantially as described and shown.

In testimony whereof I have signed my name and affixed my seal in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 1st day of October, 1875.

DAVID FORMAN <sup>his</sup> X AUSTIN. [L. S.]  
mark.

Witnesses:

I. C. LAASS,  
C. HOLMSTRUP, Jr.