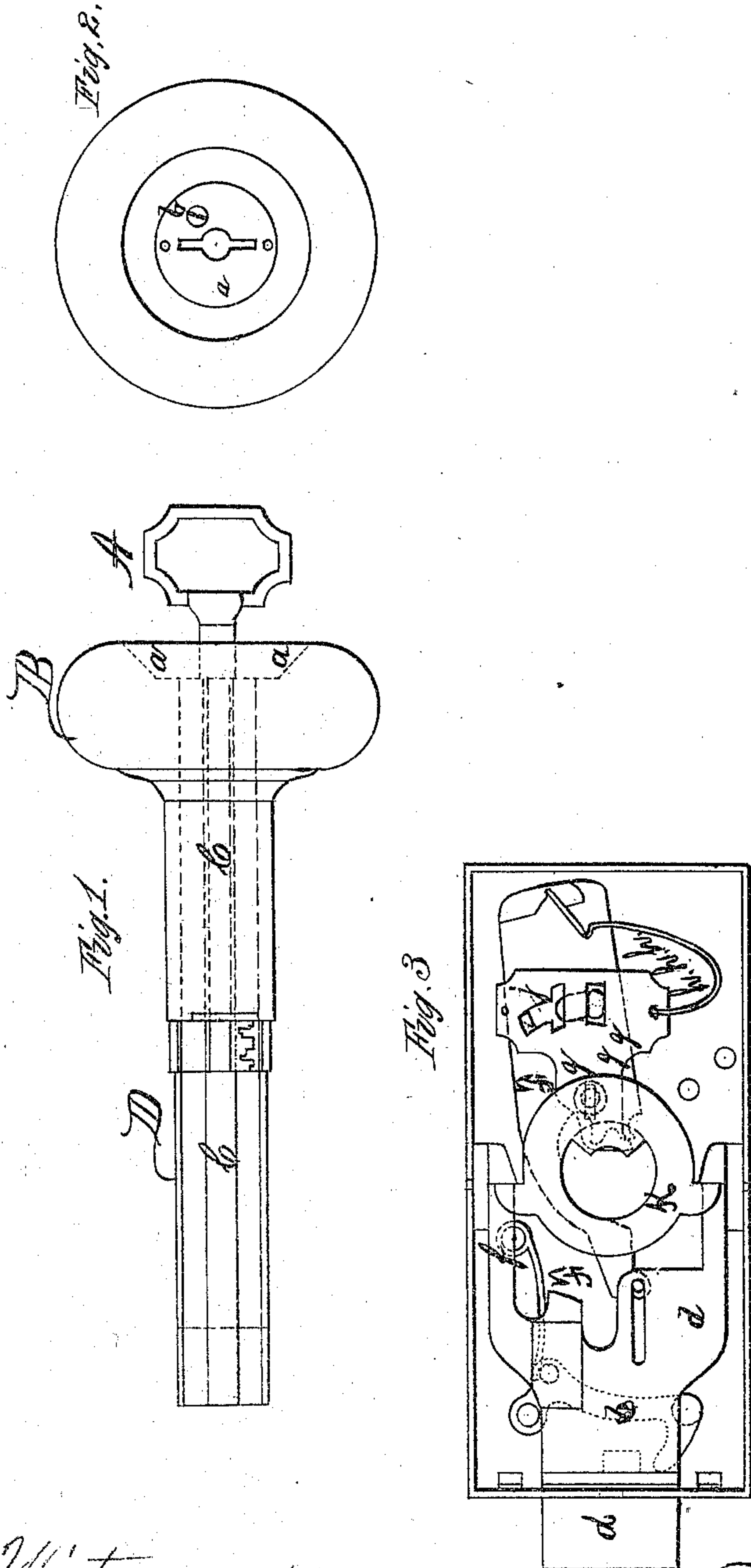


C. L. Dean,

Latch.

No. 100,734.

Patented Mar. 15. 1870.



Witnesses
Francis Snowden
W. E. Brooke

Inventor

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United States Patent Office.

CHARLES L. DEAN, OF NEWARK, NEW JERSEY.

Letters Patent No. 100,734, dated March 15, 1870.

IMPROVEMENT IN COMBINED LATCH AND LOCK.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, CHARLES L. DEAN, of Newark, in the county of Essex, and State of New Jersey, have invented a new and useful Combination of Knob and Door-Lock; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming a part of these specifications, in which—

Figure 1 is a longitudinal bisection of my improvement.

Figure 2 shows an end view of a door-knob.

Figure 3 represents an inside view of a door-latch, bolt, and lock combined.

My invention consists in a swinging bolt acting against a sliding latch-bolt, for the purpose of locking the same, in combination with a series of tumblers and a hub, so that the sliding bolt may be operated as a latch or lock.

To enable others to make use of my invention, I will proceed to describe the same.

A in fig. 1 represents a key passing through the center of knob B, at either end, through cavity O, which extends through the entire length of the spindle D. This key operates upon tumblers within the lock, like any ordinary door or safe-key; can be inserted at either end of the knob, and will permanently secure the lock or knob-bolt when turned within the knob. The key can then be taken out, and the door is secure, and cannot be opened on either side without the use of the key, thus locking the door so that no ingress or egress can be made through the door.

The face of the outer and inner knob is made concave, as shown by the dotted lines *a a*, so as to render it more easy for the key to enter, thus allowing the key to be made shorter, so as to be more conveniently carried.

This knob B may be made of wood, glass, or any kind of material, is permanently secured to the spindle on the outer side, and on the inner side secured by means of a small screw, as shown at *b*, in fig. 2.

The lock is made reversible by simply taking out small screw *b*, removing the knob, drawing out the spindle; and by turning the lock over, inserting the spindle again, is made a right or left-hand lock, as required. This will always bring the small screw *b* on the inside of the door, leaving a solid spindle upon the outer side, with no screw whatever in the spindles or

knob, rendering it impossible to remove the knob from the outer side.

d in fig. 3 represents the sliding latch-bolt, which is locked by means of the swinging lock-bolt F and the tumblers *g g g*. One or more tumblers can be used, as necessity requires. These tumblers are thrown back by the key, and retained in their proper position by means of springs *h h h*. When thrown back, the projection *i* slides into slot *j*, to hold the tumblers in their proper position while the bolt is unlocked. The key, closely fitting the tumblers, throws the projection *i* out of the slot *j*, and moves the swinging bolt or bar F, so that it does not operate against the lock or knob-bolt *d*. By turning the key, the tumblers are thrown out of slot *j*, and moves the swinging bolt F against the inner end of lock-bolt *d*.

K is a hub, having ears upon each side grasping the inner extreme end of lock-bolt *d*, closely fitting the slot in the spindle D, which can be turned either way, and the door opened when unlocked.

l is a lever, kept in its position by means of spiral spring *f*, operating against the bolt in order to throw it forward.

The knob, with a square hole through its center, is secured by a screw or rivet to the spindle, without leading or cementing by a metallic cap or sleeve.

The superiority of my device over ordinary door-locks can be readily seen. No key-hole is necessary, and consequently no escutcheons are required on either side of the door; can be made smaller than ordinary door-latches and locks; are more easily attached to the door, and less expensive in manufacture than any other door-latch and lock, where both are needed.

Having thus fully described my invention,

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

The swinging bolt F, tumblers *g g g*, springs *h h h*, slot *j*, lever *b*, acting on sliding bolt *d*, spiral spring *f*, and hub *k*, when arranged, combined, and operated as herein described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES L. DEAN.

Witnesses:

WM. E. BROOKE,
FRANCIS SNOWDEN.