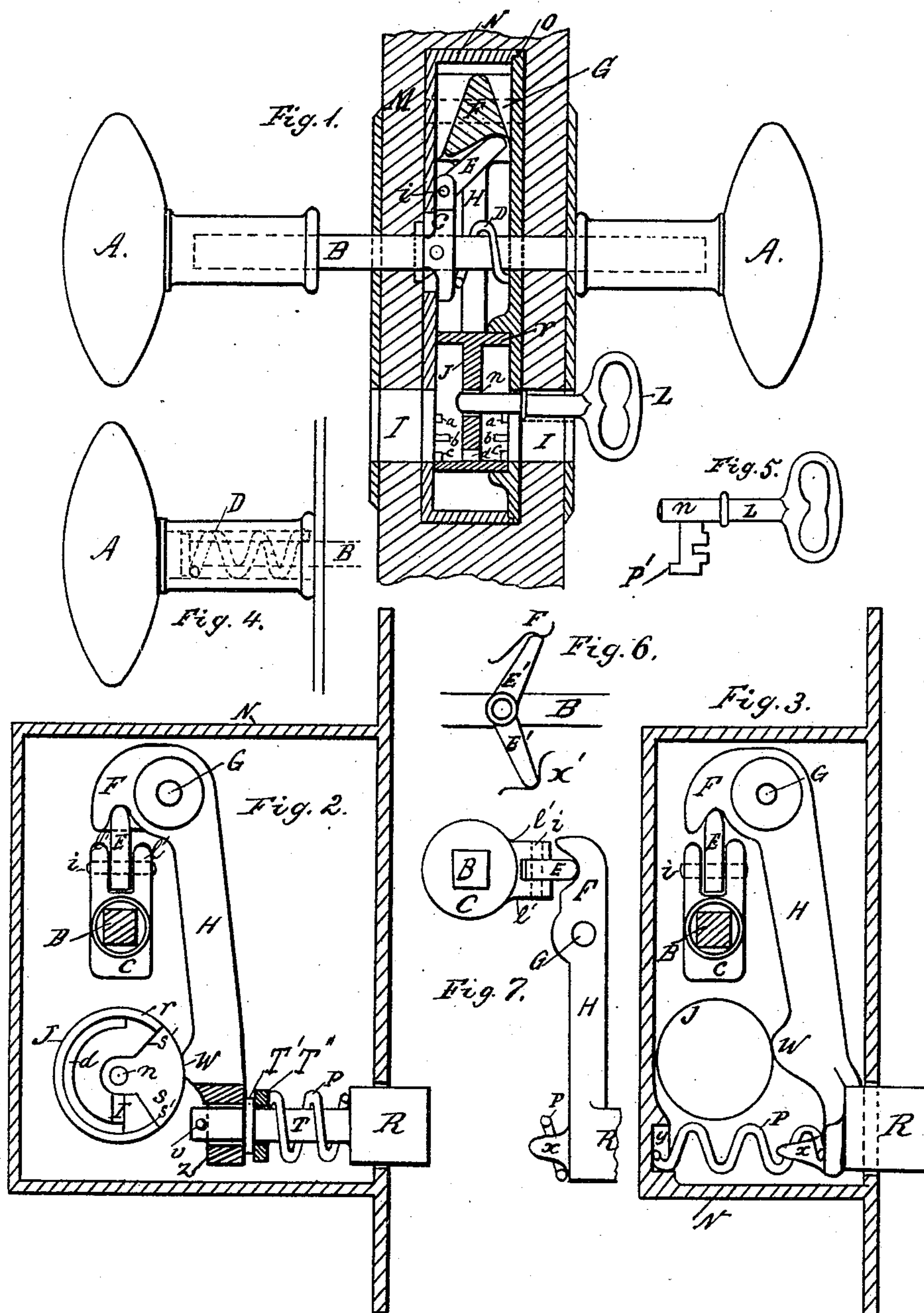


(Model.)

M. E. DE AGUERO.  
COMBINED LATCH AND LOCK.

No. 397,226.

Patented Feb. 5, 1889.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 397,226, dated February 5, 1889.

Application filed April 6, 1888. Serial No. 269,881. (Model.)

*To all whom it may concern:*

Be it known that I, MIGUEL E. DE AGUERO, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Combined Locks and Latches, of which the following is a specification.

My invention relates to that class of locks and latches in which the latch is operated by a longitudinal movement of the knob-shaft instead of a rotary one, as is the usual manner, and in which one latch serves also the purpose of a lock when properly operated upon by the key and locking mechanism. I attain these results by means of mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section; Fig. 2, a vertical section taken through the center of and at right angles to Fig. 1. Fig. 3 is a similar view of a modification. Fig. 4 is a detail view of a modification. Fig. 5 is a plan of the key. Figs. 6 and 7 show modifications of details.

Similar letters of reference refer to similar parts throughout the figures.

A A are the knobs.

B is the knob-shaft secured thereto.

C is a cross-piece provided with two lugs,  $l' l'$ , and which is secured to the shaft by means of a pin.

D is a spring bearing against C and pressing the shaft to the left.

E is a push-toggle fitted between the two lugs  $l' l'$  of C by means of a pin,  $i$ . This toggle E bears against the end F of a lever, H, pivoted at G to the casing of the lock. In Figs. 1, 2, and 3 this lever is shown as a bell-crank; but it may be straight, as shown in Fig. 7. The lever E and cross-head C may also be replaced by a knuckle-joint, as shown at  $E' E'$  in Fig. 6, one arm resting against the lever F, the other against a ledge,  $X'$ , cast with the casing.

The latch R is formed with a stem, T, which is provided with a shoulder,  $T'$ , resting against the lever H, while the end of the stem passes through a hole,  $z$ , in H. It is secured thereto by a pin,  $v$ . A spring, P, bears against the

back of the latch R and against a ledge,  $T''$ , cast to the cover. This spring presses the latch outward to the right. The lever H is also provided with a projection or cam-surface, W, against which the locking or key tumbler J acts in locking the latch. The tumbler J consists of an annular shell,  $r$ , with a segment,  $s$ , cut therefrom, so as to leave two radial cam-surfaces,  $s'$ . This tumbler is also provided with a central web and hole through which the end  $n$  of the key passes, and a semi-annular slot,  $d$ , into which one of the projections  $P'$  of the key fits.

I is the key-hole, and the casing of the lock is also provided with safety guards or projections  $a b c$ , which match the specially-formed key L.

In Fig. 4 I have shown how the spring D may be placed in the handle instead of under the cross-piece C; and in Fig. 3 the spring P is shown secured behind the latch and lever H about a projection,  $x$ , and in a cavity,  $y$ .

The following is the manner of operating my device: If the right-hand knob be pulled to the right, or the left-hand knob be pushed to the right, the toggle E will push lever H so as to draw the latch R away from the door-jamb. On releasing the hold from the knob, the springs D and P will return the same. By inserting the key, as shown in Fig. 1, and turning the tumbler J, so that the rim  $r$  presses against the projection  $w$ , the latch is securely locked, and the key may be removed.

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

1. In a latch, the combination of a longitudinally-movable knob-shaft, B, collar C thereon, spring D, push-lever E, jointed to said collar, a lever fulcrumed at G, having arms F and H, latch R, and spring P, substantially as described.

2. In a combined lock and latch, the combination of a knob-shaft movable in the direction of its length, a spring to resist the movement, a push-piece jointed to the shaft, a two-armed latch-lever operated by said push-piece, and a spring to close the latch, with a cam projection on the latch-lever and

a revoluble key-tumbler for co-operating with said cam in locking said latch, substantially as described.

5 3. The combination of a revolving tumbler, J, having rim *r* and slot *d*, a lock-casing having projections *a b c*, and a suitable key having corresponding projections and inden-

tations, whereby the tumbler may be revolved, substantially as described.

MIGUEL E. DE AGUERO.

Witnesses:

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