

(No Model.)

A. WATSON.
COMBINED LATCH AND LOCK.

No. 559,471.

Patented May 5, 1896.

Fig. 1.

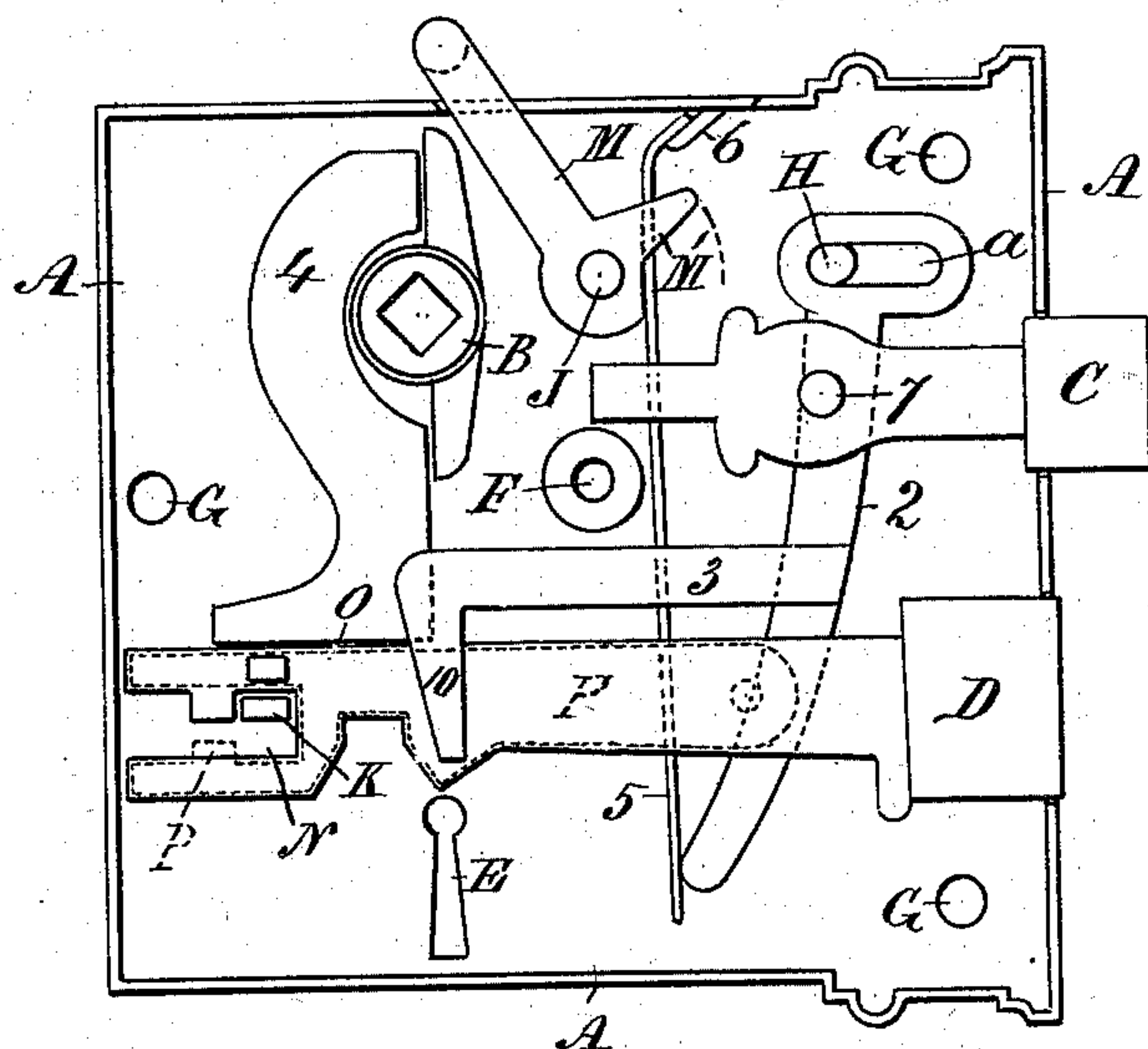
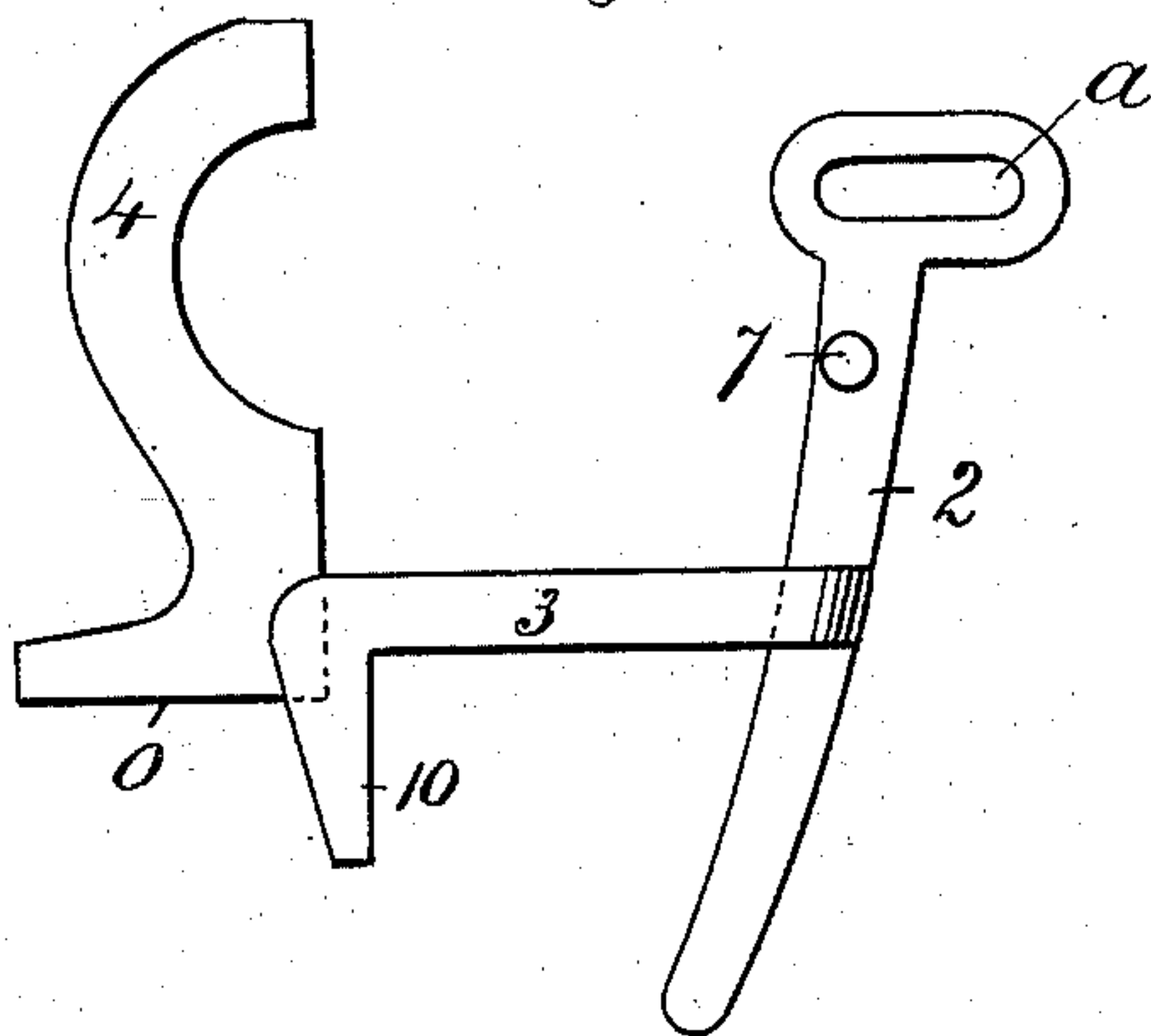


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALEXANDER WATSON, OF KINMOUNT, CANADA.

COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 559,471, dated May 5, 1896.

Application filed October 10, 1895. Serial No. 565,233. (No model.) Patented in Canada July 8, 1895, No. 49,420.

To all whom it may concern:

Be it known that I, ALEXANDER WATSON, of Kinmount, in the county of Victoria, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in a Combined Latch and Lock, (for which I have obtained a patent in Canada, No. 49,420, dated July 8, 1895,) of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is an elevation of the interior of my improved latch and lock, the cover removed from the lock-case; and Fig. 2 is an elevation of a lever removed from the lock-case to show the form and construction thereof.

My invention has for its object to lock the latch when the locking-bolt is projected by a key, said latch and locking-bolt connected by a lever which is operated by the tappets in turning the knob-spindle, and a spring engaging said lever to shoot the latch and react the locking-bolt after being lifted and moved by the lock-key, said spring also frictionally holding a pawl engaging the latch to keep the latch locked independently of the locking-bolt, said pawl projecting through the top of the lock-case for operation.

My invention consists in the construction, combination, and arrangements of the operating parts within the lock-case, as set forth in the claim.

A is the lock-case; B, the tappet through which the knob-spindle passes, and said tappet is journaled at the ends of the lock-case, as usual.

C is the latch-bolt, having the usual beveled end, and D is the locking-bolt projected by a key entered at the keyhole E.

F is a post integral with the case, into which post screws the screw which holds the cover on the case, and G are holes in the case to fasten the lock to a door by screws, said parts being of ordinary construction and arrangement.

H J K are studs integral with the lock-case for ordinary purposes.

2 is a lever having arms 3 4 integral therewith, and one end of said lever has an elongated eye *a*, which slidingly receives post H, and the other end of said lever is engaged by

the free end of a flat spring 5, which is held in place by the other end engaging a stud 6, integral with the top rim of the lock-case and by frictional contact with the pawl M, pivoted on post J, and by the pressure of the spring against the free end of the lever, and said spring in a normal state or detached from the lock is bow-shaped, but when in place in the lock is approximately straight and crosses the under side of the locking-bolt.

The sliding latch-bolt C is connected to lever 2 by a pin 7, so that the movement of the lever by turning the lock-knob reciprocates the latch, as hereinafter described.

The pawl M has an arm projecting through the slot in the top rim of the lock-case and a lug M' at about right angles to said arm, which lug engages a notch in the latch when the projecting arm is moved by the thumb and finger toward the front edge of the lock to prevent the latch being retracted by the tappet when moved by the lock-spindle to operate the lever when it is desired to lock the latch-bolt C.

The spring 5 keeps the arm 4 of lever 2 against the tappet, and said tappet resists the arm of the lever and by connection of arm 3 causes lever 2 to resist the spring, whereby the spring and lever will be kept in place for action and the spring utilized for the service of the locking-pawl, the sliding latch-bolt, and the locking-bolt.

The locking-bolt has at the rear end the usual notched slot N, which receives the post K after said bolt has been moved by the key, and the locking-bolt may be provided with one or more tumblers P. (Shown in dotted lines in Fig. 1.) The power of the spring 5 is exerted on the locking-bolt D, near its inner end, by lever 2, having an arm 4, provided with a straight portion O, engaging the bolt, so that said locking-bolt offers resistance to the key when turned in the lock to reciprocate the bolt, and without using the key the reciprocation of the bolt is prevented by the fixed stud K, engaging the bifurcated notched end of the said bolt.

The arm 3 of lever 2 has, preferably, a finger 10, the end serving as a ward during the operation of the key, and said finger stops laterally against a shoulder offset from the locking-bolt, if so preferred.

By my invention the sliding latch, the lock-

ing-bolt, and the pawl or safety-catch M, and the tumblers are all held resistingly by one straight spring 5 and the lever having the arms 3 and 4.

5 I claim as my invention—

The combination with the lock-case, safety-catch M, sliding latch C, locking-bolt D, and tappet B, through which the knob-spindle passes, of the lever 2, having arms 3, 4, and
10 a spring 5, engaging said lever near the free

end, said lever pivoted slidingly to the lock-case through an elongated eye *a*, and the arm 4, engaging the tappet and having frictional contact with the tail of the locking-bolt, and the latch loosely connected to said lever, as 15 and for the purpose set forth.

ALEXANDER WATSON.

Witnesses:

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