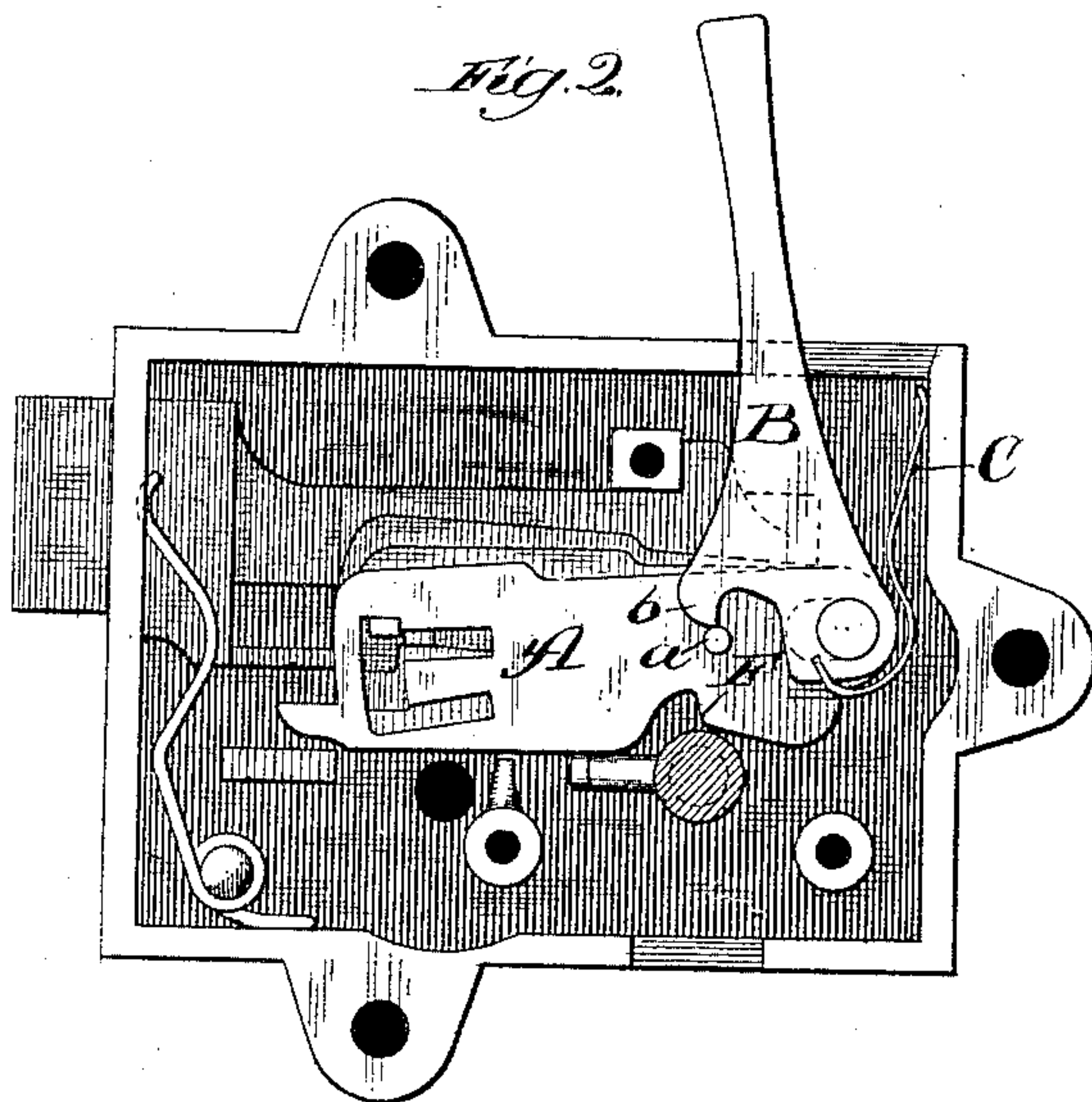
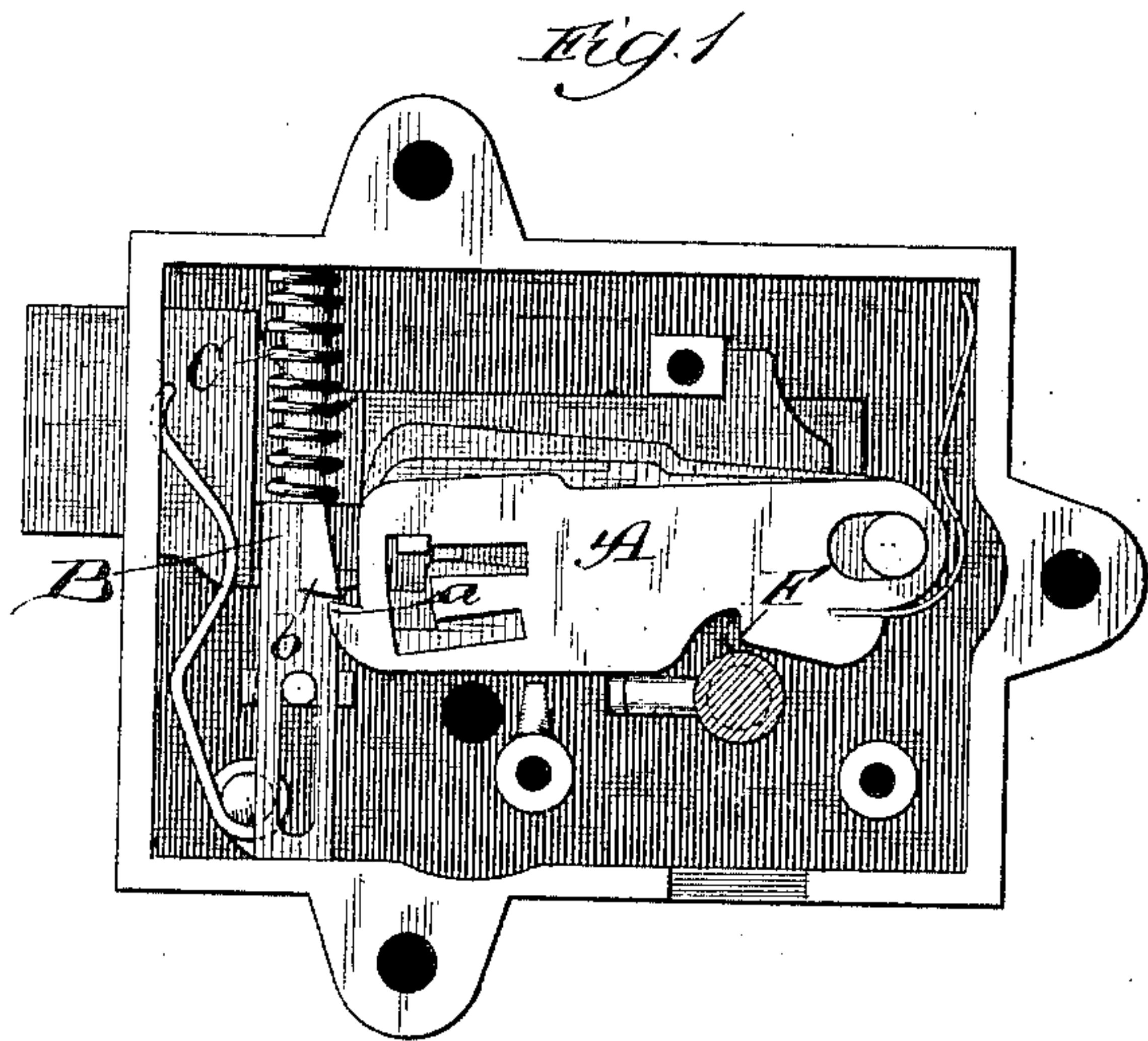


(No Model.)

J. F. WOLLENSAK.
TRAP LOCK.

No. 432,964.

Patented July 22, 1890.



Witnesses:
Carl S. Lord.
Efford A. White.

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN F. WOLLENSAK, OF CHICAGO, ILLINOIS.

TRAP-LOCK.

SPECIFICATION forming part of Letters Patent No. 432,964, dated July 22, 1890.

Application filed May 12, 1890. Serial No. 351,394. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. WOLLENSAK, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Trap-Locks, of which the following is a specification.

The object of my invention is to improve the trap-lock described and claimed in an application filed by me March 22, 1890, as No. 344,901; and my invention consists in the features and details of construction hereinafter described and claimed.

In the trap-lock described and claimed in my application above referred to I have provided means for throwing out a bar, designated by the letter B in that application and by the same letter in this, to make a contact in the parts of the electric circuit, so as to send off an alarm of fire in the very act of unlocking the door or to turn the finger or needle on the dial-plate in the box toward the word "fire," so that nothing remains for the citizen to do but to turn or pull the handle. No provision, however, was made in my application above referred to for retracting the bar or permitting it to return to its original position while the fire-key is in the lock nor until the firemen arrive and release the fire-key, so as to permit the tumbler, designated A in that application and by the same letter in this, to assume its normal position. This protruding of the bar after the door had been opened interfered with the closing of the door of the box, and in those cases where the bar is used to complete an electric circuit it interfered with the prompt breaking of the circuit again. Hence it is desirable to supplement the improvements of my other case with means for retracting the bar or permitting it to return to its original position when it has done its work. This is the particular object of my present improvement.

In the drawings, Figure 1 is a plan view of the lock with the cover of the casing removed, and Fig. 2 is a modification of the construction shown in Fig. 1.

In making my improvement, as illustrated in Fig. 1, I provide the bar B with the spring C, that tends to hold the bar in its down or retracted position. A leg, shoulder, or catch b is arranged on the bar, and the tumbler A is

provided with a nose or extension a, that engages with it as the tumbler is raised by the fire-key and operates to lift or thrust the bar into the desired position. The tumbler A, as in my other application, is pivoted at the rear end; but in this case the hole is elongated or slotted to enable the tumbler after it has been raised to the desired position to permit the stud or pin on the bolt to move back along the lower side of the opening in the tumbler to be moved back longitudinally by the fire-key far enough to disengage the nose or extension a from the lug or catch b. To secure this longitudinal movement of the tumbler after it has been raised, it is provided with the shoulder or notch F, against which the bit of the fire-key strikes and carries the tumbler back. As the extension a on the tumbler is drawn back and disengaged from the catch b on the bar, the spring C is permitted to retract the bar, so that the door of the station may be closed without waiting for the arrival of the officer having the master-key.

In Fig. 2 I have shown a modification of my invention. In that case the bar B is mounted on the pivot on which the tumbler A is mounted. It extends out through a slot in the frame of the lock, which permits it to oscillate back and forth to perform the office accomplished by the vertical movement of the bar in Fig. 1. Its catch or shoulder b is arranged at one side, and the nose or extension a on the tumbler A is in the form of a pin or stud arranged to bear against the catch on the bar as the tumbler is raised. The hole on which the tumbler is pivoted is in the form of a slot, as in the other case, to permit the tumbler to be moved longitudinally. As the fire-key is turned, it raises the tumbler, and the pin a bears against the shoulder b and causes the bar to move back in the slot in the lock-frame until the desired distance is reached. At this point the bit of the fire-key comes in contact with the shoulder or notch F on the tumbler and moves the tumbler back. This disengages the pin a from the catch b and allows the spring C to move the bar back to its original position. In both cases there is a tumbler which moves the bar into a desired position outside of the frame of the lock when it is moved by the fire-key

in one direction, and which, after a certain point is reached, is moved by the fire-key in a position that releases the bar and permits it to return to its normal position while the
5 fire-key remains in the lock, and permits the door to be closed without waiting for the officer having the master-key to arrive.

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

10 1. In a lock, the combination of a tumbler lifted and then moved longitudinally by a key, a bar moved by the lifting of the tumbler into a desired position outside of the frame of the lock and then released to return
15 to its normal position by the longitudinal movement of the tumbler while the key is in the lock, substantially as described.

2. In a lock, the combination of a tumbler lifted and then moved longitudinally by a key, a bar moved by the lifting of the tumbler into a desired position outside of the frame of the lock and then released to return to its original position by the longitudinal movement of the tumbler, and means for returning the bar to its original position while
25 the key is in the lock, substantially as described.

JOHN F. WOLLENSAK.

Witnesses:

WILLIAM E. GILL,
GEORGE S. PAYSON.