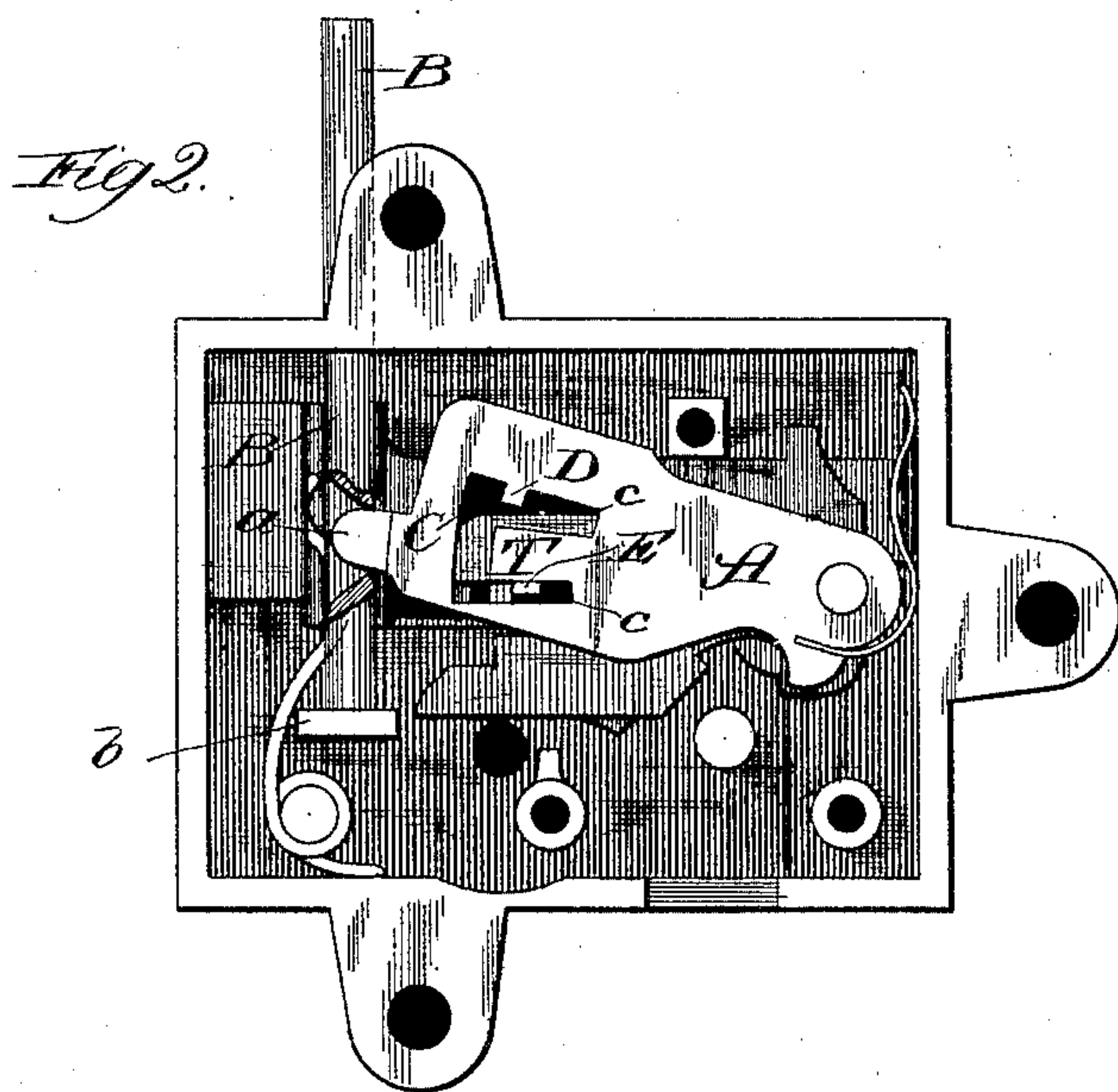
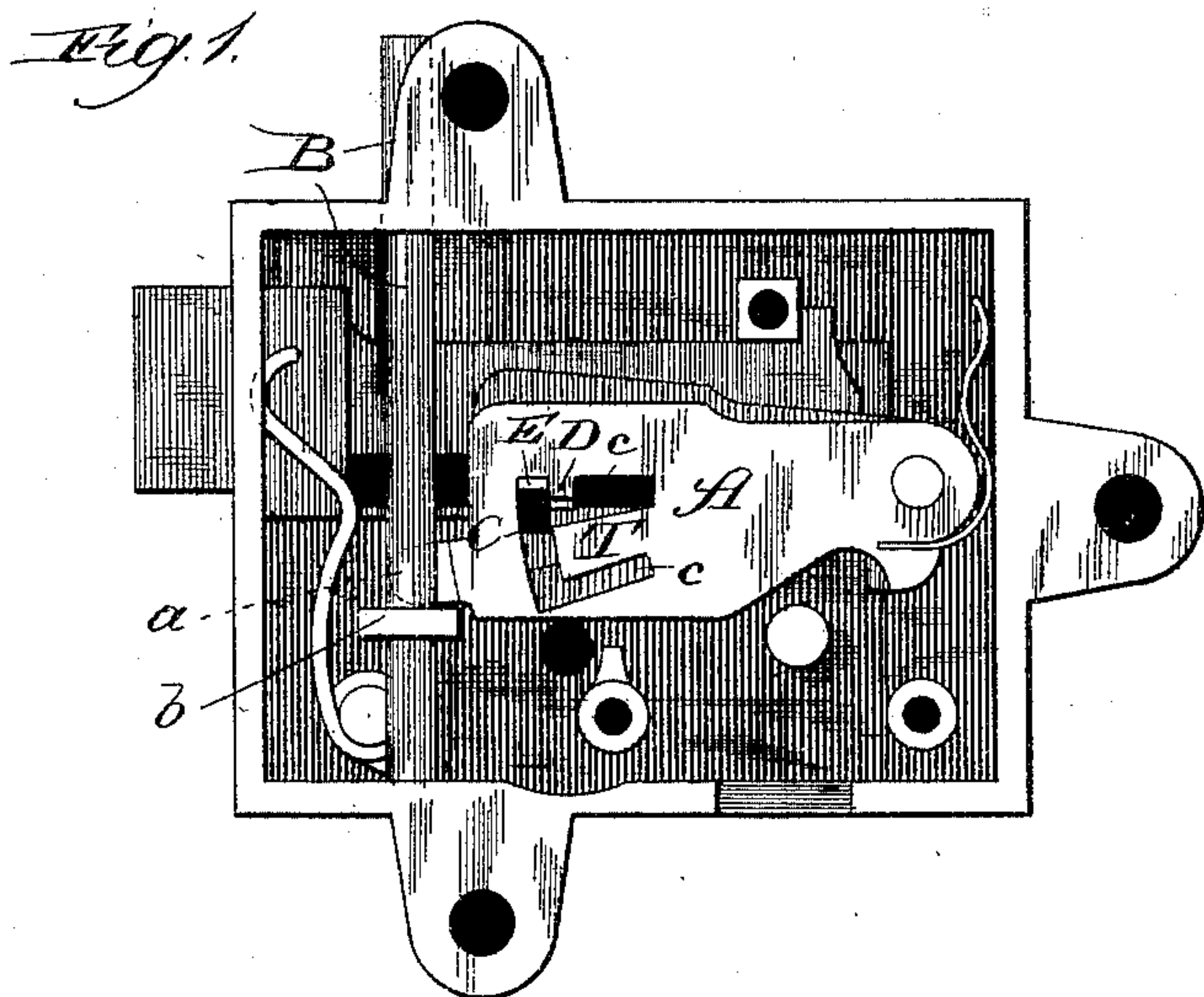


(Model.)

J. F. WOLLENSAK.
TRAP LOCK.

No. 432,716.

Patented July 22, 1890.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN F. WOLLENSAK, OF CHICAGO, ILLINOIS.

TRAP-LOCK.

SPECIFICATION forming part of Letters Patent No. 432,716, dated July 22, 1890.

Application filed March 22, 1890. Serial No. 344,901. (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-locks shown and described in Letters Patent No. 369,901, issued to me September 13, 1887; No. 372,834, issued to me November 8, 1887, and No. 372,923, issued to me as the assignee of Jacob F. Mehren, November 8, 1887; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings the figures are plan views of my lock with the cover of the frame removed, showing the tumbler down in Fig. 1 and up in Fig. 2.

In the patents above referred to I have described and claimed in general terms a lock for use on telephone-stations or police and fire boxes, which is provided with a number of tumblers, which are thrown into position by the main key to enable it to retract the bolt of the lock, but which operate to trap the key, so that it cannot be withdrawn from the lock until the police, fire, or other department provided with a master-key, which operates the tumblers, but which does not become locked, has arrived at the station or box and releases the main key. As is well known, these stations or boxes are intended for use for various purposes, as to summon police, order a carriage, call a doctor, turn in an alarm of fire, &c., and they are provided with a dial-plate containing words indicating the use, as "Fire," "Police," &c., for which the citizen desires to call. This dial-plate is provided with a needle or finger that must be turned to point toward the particular word indicating the use before the handle of the apparatus is turned or pulled to send the call. On entering the box the citizen must therefore, before sending his message, adjust the finger of the dial-plate in proper position, otherwise a mistake will be made. If he desires to call the fire department, but in his hurry and excitement fail to turn the hand or needle toward the word "Fire," some other department will be called, determined by the particular word to which the finger or needle points, as

"Police," "Messenger boy," "Carriage," &c. I propose to obviate the delay occasioned in adjusting the finger and the mistakes which frequently occur through turning it toward the wrong word from ignorance or excitement, and insure a perfect, certain, and speedy fire-call.

In describing my present improvement it is unnecessary to describe the improvements already shown and described in my patents above named; but I will assume that the construction in my present lock is the same as in either of those patents so far as the various tumblers and their arrangement for trapping the main key, releasing it by the master-key, &c., are concerned, and will pass at once to the particular features which constitute my present invention. I provide the lock with an additional tumbler A, which need not be affected by the main key or the master-key in retracting the bolt of the lock. This tumbler is pivoted at one end, as shown in the drawings, and provided with a nose or extension *a* at the other, which rests in a slot or notch of a vertical bar B. This bar passes through the frame of the lock at one side and through a lug *b* near the other, so as to be held in its proper position. As this bar is intended simply to afford means to an end, I do not intend to limit myself to its details of construction. It might, indeed, be formed as a part of the tumbler, if preferred, and extended out through a hole in the side of the lock-frame, so as to be moved up and down with the tumbler; but however made, I shall, for convenience, term it a "bar." The tumbler is provided with an opening C, having slots *c c* extending toward its pivoted end, and with a small lug D extending down into the upper one of the backwardly-extending slots. If desired, the tongue T between these slots may be cut away or dispensed with, as it in no way affects the result aimed at, and one large opening employed in place of the small slots. These slots in the tumbler A are intended to accommodate the stud or pin E on the bolt, which is moved back and forth in the slots of the tumblers as the bolt is advanced or retracted. When the main key or the master-key is inserted to retract the bolt the tumbler A is barely raised enough to enable the stud E on the bolt to pass the lug D so as to move

back along the upper edge of the opening. Another key, however, which I term the "fire-key," is provided, which not only operates all of the tumblers operated by the main and master keys, but also lifts the tumbler A far enough to enable the stud on the bolt to pass back along the lower edge of the opening as the bolt is retracted. Of course as the tumbler is raised the point *a*, fitting into the slot or notch of the bar B, moves up and carries the bar B with it, as shown in Fig. 2. It will be understood, of course, that the slot or notch in the bar B is made of a size and shape to enable the point *a* to move therein, as the relative positions of the tumbler and bar are changed while the fire-key is raising the tumbler. The upper end of the bar B is intended, through proper connections, to move the finger or needle on the dial-plate in the box where one is used opposite to the word "fire" as the key is being turned, so that the citizen can instantly turn the knob or pull the handle without delay and without the possibility of mistake; or, if it be preferred, the upper end of the bar B may press the contact-points of the electric circuit together, so as to complete the circuit and send off the alarm of fire while the key is being turned in the lock and without the necessity of any additional act on the part of the citizen. I recommend the latter arrangement and use of my invention, although in existing systems it may be found preferable to arrange simply for turning the needle or finger to proper position for the citizen to pull the handle or turn the knob. The fire-key, like the main key, is also trapped whenever the box is opened, and can only be released when the firemen arrive with the master-key. As the fire-keys are numbered or otherwise registered when given into the possession of citizens, it will always be known whose key has opened the box.

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

1. In a lock, the combination, with tumblers adapted to trap a fire-key, of a tumbler operated by such fire-key, and a bar moved by such tumbler into a desired position outside of the frame of the lock, substantially as described.

2. In a lock, the combination, with tumblers adapted to trap the main key and the fire-key until released by the master-key, of a tumbler unaffected by the main key and the master-key, but operated by the fire-key, substantially as described.

3. In a lock, the combination, with tumblers adapted to trap the fire-key until released by the master-key, of a tumbler unaffected by the master-key, but operated by the fire-key, and provided with an opening, along the upper side of which the stud on the bolt moves when the master-key is used, and along the lower side of which it moves when the fire-key is used, substantially as described.

4. In a lock, the combination, with tumblers adapted to trap the fire-key until released by the master-key, of a tumbler unaffected by the master-key, but operated by the fire-key, and a bar moved by such tumbler into a desired position, substantially as described.

5. In a lock, the combination, with tumblers adapted to trap the fire-key until released by the master-key, of a tumbler unaffected by the master-key, but operated by the fire-key, and provided with a nose or point, and a bar provided with a slot or notch, in which the nose or point on the tumbler rests and which bar is moved by the tumbler into a desired position, substantially as described.

JOHN F. WOLLENSAK.

Witnesses:

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