J. F. WILSON, DEC'D.

E. WILSON, ADMINISTRATRIX.

FIRE ALARM TRAP.

APPLICATION FILED JAN. 30, 1908.

949,737.

Patented Feb. 15, 1910.

3 SHEETS—SHEET 1.

Fig. 1.

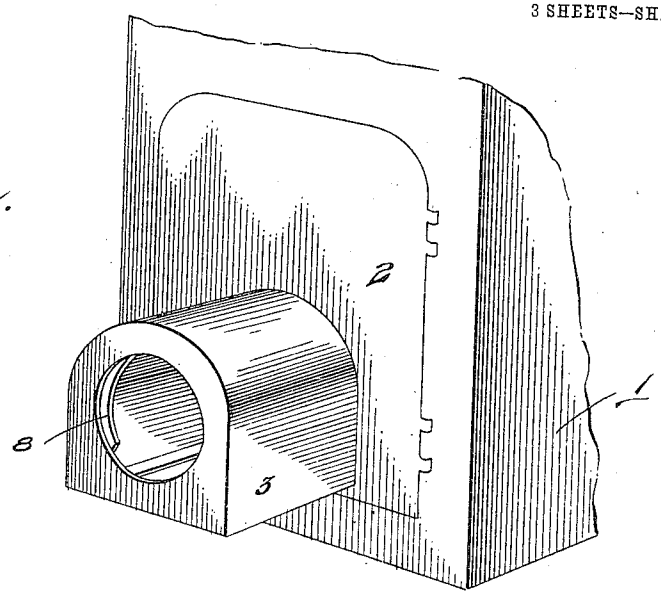
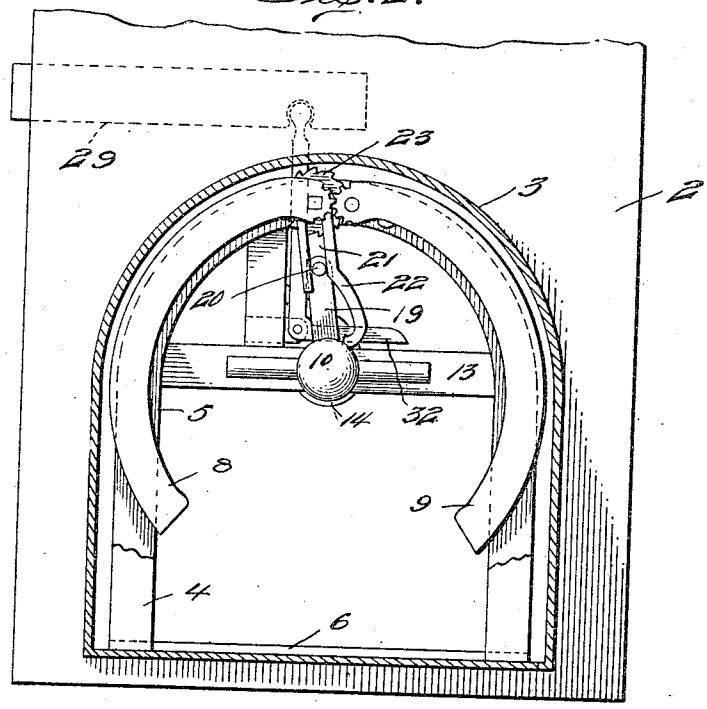


Fig. 2.



WITNESSES:

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3 SHEETS—SHEET 2.

Fig. 3.

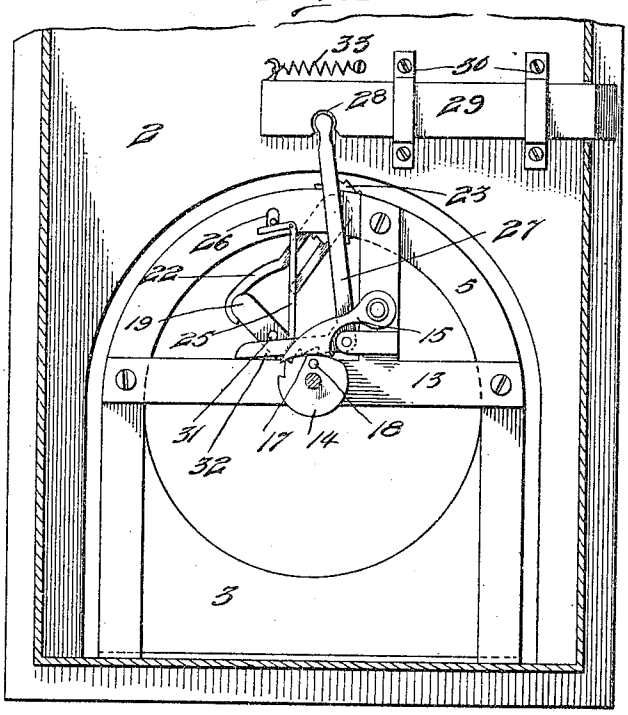
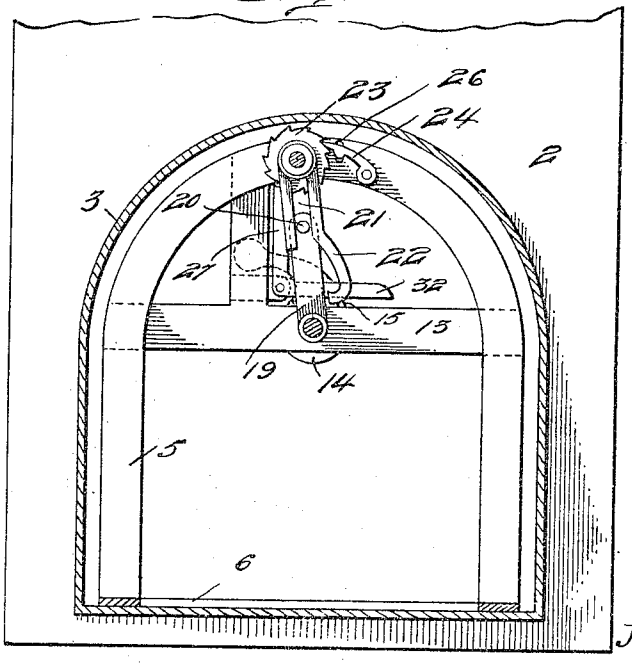


Fig. 4.



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3 SHEETS—SHEET 3.

Fig. 5.

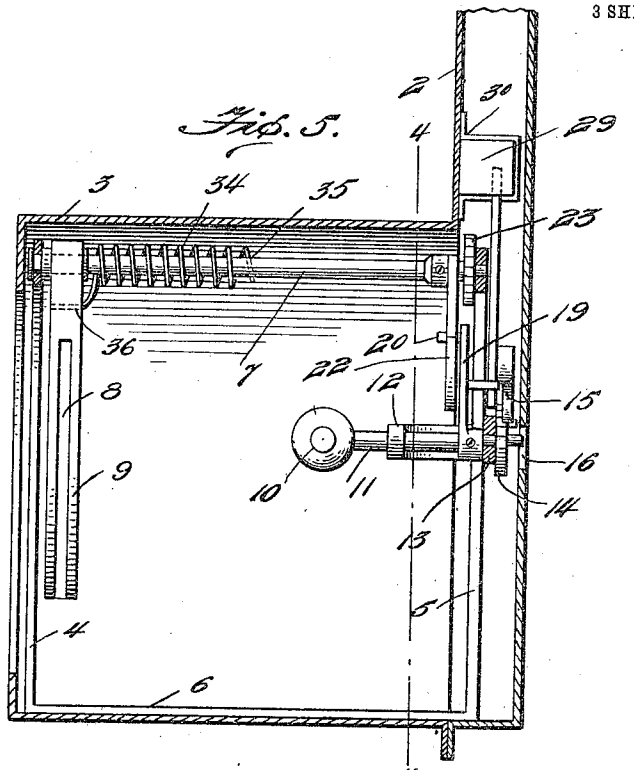
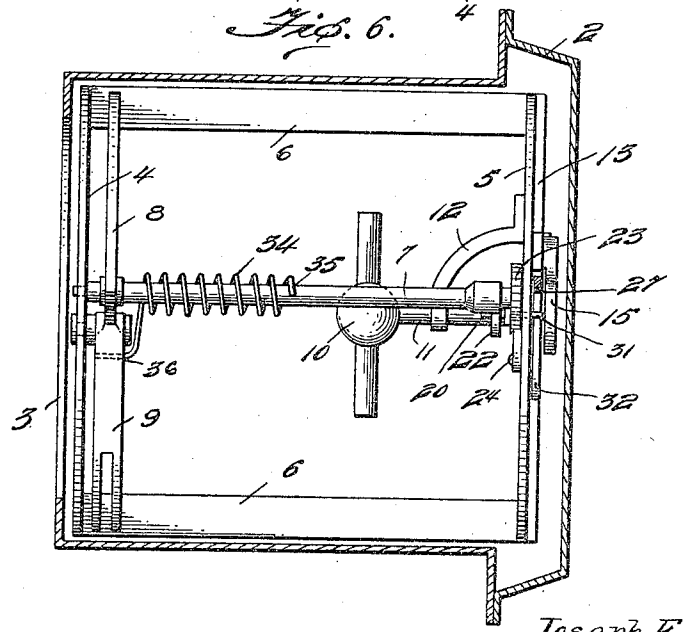


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH F. WILSON, OF NEW YORK, N. Y.; ELLEN WILSON ADMINISTRATRIX OF SAID JOSEPH F. WILSON, DECEASED.

FIRE-ALARM TRAP.

949,737. Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed January 30, 1908. Serial No. 413,401.

To all whom it may concern:

Be it known that I, JOSEPH F. WILSON, a citizen of the United States, residing at 21 Park Row, New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Alarm Traps, of which the following is a specification.

My invention relates to fire alarm traps and consists in the construction and arrangement of the parts, which will be fully hereinafter described, illustrated in the drawings and particularly pointed out in the claims.

One object of my invention is to provide an automatic trap for fire alarm boxes which will arrest and hold the person who operates it until a fireman or policeman shall arrest him as a wrong-doer or release him as a benefactor.

It is well known that in large cities many false alarms are given by mischievous and vicious persons to the great annoyance of firemen and policemen and to the great expense of the city. To put a stop to these violations of law and to protect the officers of the city from such annoyances and to protect the city from such expense, are the chief objects of my invention.

I am aware that attempts have been made to provide against the troubles and expenses hereinbefore mentioned, but without success, so far as I am informed, because the guilty persons are not caught and punished.

In the drawings forming a part of my application I have shown the means and mechanism by which I carry out my invention and in which the same parts have similar numbers.

Figure 1 is a perspective view of a portion of a fire alarm box, showing my improvement attached thereto. Fig. 2 is a front elevation of the lower portion of the door and cover, the front plate of the cover being removed. Fig. 3 is a rear elevation, the back plate of the door removed and the device being shown in operative position. Fig. 4 is a sectional view on the line 4—4, Fig. 5, looking to the rear thereof, showing the parts in position before operation. Fig. 5 is a longitudinal section of the cover and door. Fig. 6 is a plan view of the mechanism, the cover and door being broken away in order to show the same.

Referring to the drawings, the numeral 1 designates a portion of a fire alarm box, which may be of any type; 2, the door of said box; and 3, the cover or hood attached to the lower portion of said door, and which contains the mechanism of the invention.

Mounted within the cover or hood 3 is the frame which supports the working parts of the device. This frame consists of the vertical end portions 4—5 and the horizontal base portions 6, which are adapted to be fastened in any suitable manner to the bottom plate of the cover. Extending between the end pieces 4 and 5 and mounted in the top thereof, is the horizontal shaft 7. This shaft carries at its forward end, the cuffs or grips 8 and 9, which close upon and confine the wrist of anyone turning the knob or handle 10. This handle 10 is provided with the shaft or spindle 11, which is supported by the brace 12 and which extends through the portion 13 of the frame member 5 and carries on its rear end the ratchet disk 14. Adapted to engage the ratchet 14 is the pawl 15 pivoted on the vertical portion of the member 13. This pawl locks the handle 10 against any backward motion, it having once been turned, thus preventing the cuffs or grips from being opened. The pawl 15 may be lifted from engagement with the ratchet 14 by inserting a key through the opening 16 in the back plate of the door, turning the key to the right, when it will engage with the cam face 17 of the pawl 15, raising the same from the ratchet. On further movement of the key, it will come in contact with the lug 18 and a still further movement of the key will force the handle 10 back to its original position. The act of returning the handle 10 to its normal position also opens the cuffs or grips in the following manner: Secured to the spindle 11 is the arm 19, this arm is provided with the pin 20 which pin plays in the slot 21 of the depending arm 22 which is secured to the shaft 7. Thus when the handle 10 is rotated, the shaft 7 is forced to rotate in an opposite direction.

The shaft 7 carries at its rear end, in addition to the arm 22, a ratchet 23 which is provided with a pawl 24 pivoted on the frame portion 5, and which serves to hold the shaft against reverse movement. This ratchet 23 is released by the same movement

of the key that releases the ratchet 14. This is accomplished through the medium of the rod 25 which is pivoted to the frame member 5 on the rear side thereof. This rod 25 is bent at right angles at its upper end, the bent-over portion being adapted to engage a pin or lug projecting from pawl 24 through the slot 26 in the frame, so that this rod 25 is adapted, when actuated, to lift said pawl out of engagement with the ratchet 23 and said rod 25 is arranged to be so actuated by the raising of the pawl 15 which strikes against the lower end of the rod or lever 25, thus giving movement to the same.

Pivoted to the upright portion of the member 13 is the right-angled latch operating lever 27. The upper end of this lever is rounded and plays in the socket 28 of the latch 29 which is slidably mounted on the door 2 by means of the bracket 30. The latch proper is operated through the medium of the lever 27 by the pin or lug 31 on the rear of arm 19, which pin or lug comes in contact with the horizontal arm 32 of the lever 27 on rotary movement of the spindle 11, pressing the arm 32 downwardly and causing the latch to be drawn back. When the pin 31 is raised from contact with arm 32 the latch is drawn back to its normal position by the tension of the spring 33.

When the shaft 7 is caused to turn by reason of the turning of the handle 10, shaft 7 causes the member 8 of the cuff to swing in a downward direction, cuff 8 in turn causing the opposite member 9 to swing downward. This is accomplished by means of the meshing gear teeth on members 8 and 9. The member 9 is pivoted to the frame member 4 adjacent the journal point of shaft 7. The member 9 is of much greater thickness than its opposite member 8, and is bifurcated at its lower portion to allow it to straddle the member 8 and thus take a closer grip upon the wrist of the person opening the door. To reinforce this grip I provide the spiral spring 34 having one end fastened to shaft 7 as at 35 and the other end fast to the grip member 9, as at 36. It will be seen that the spring arranged in this way will tend to force the two gripping members into closer relation with each other.

The operation of my invention is so simple that it needs little description. Supposing the device to be set and ready to operate, should a person grasp the knob and turn same so as to open the door of the box he would at the same time lock his hand to the door and be unable to release himself. Should he be an honest person and wish to turn in a legitimate alarm he will not mind this, but will turn in the alarm and wait to be released upon the arrival of the fireman or any person of authority having a key. Should he, on the contrary, be a mischievous or vicious person, he will be arrested and held until the arrival of an officer.

Having thus fully described the construction and operation of my invention, what I claim and desire to secure by Letters Patent, is:—

1. An alarm trap comprising in combination an operating handle, an arm-gripping device, and means positively operated by motion of said handle arranged to operate said arm-gripping device positively.

2. An alarm trap comprising in combination an operating handle, an arm-gripping device, means positively operated by motion of said handle arranged to operate said arm-gripping device positively, and release means arranged to prevent release by said gripping device until actuated.

3. An alarm trap comprising in combination an operating handle, an arm-gripping device, means positively operated by motion of said handle arranged to operate said arm-gripping device positively, and key-controlled release means arranged to prevent release by said gripping device until actuated.

4. An alarm trap comprising in combination an operating handle, an arm-gripping device, means positively operated by motion of said handle arranged to operate said arm-gripping device positively, and release means adapted to prevent reverse motion of said handle until operated.

5. An alarm trap comprising in combination an operating handle, an arm-gripping device, means positively operated by motion of said handle arranged to operate said arm-gripping device positively, and a pawl and ratchet adapted to prevent reverse motion of said handle, said pawl adapted to be disengaged from said ratchet.

6. An alarm trap comprising in combination an operating handle, arm-gripping means comprising a swinging gripping member, two arms having a slotted connection, one said arm connected to said gripping member the other operated by said operating handle, and releasable means adapted to prevent release by said gripping means.

7. An alarm trap comprising in combination an operating handle, two swinging gripping members gear-connected to each other, means for causing said members to move toward each other to grip an arm, said means operated by operation of said handle, and releasable means adapted to prevent release by said gripping means.

8. An alarm trap comprising in combination an operating handle, an arm-gripping device, means causing operation of said han-

dle to cause operation of said gripping means, and releasable means adapted to prevent release by said gripping means, said release means and operating handle comprising key-operated means adapted to cause release by said gripping means and return of said handle.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOSEPH F. WILSON.

Witnesses:
CHAS. J. MCCARTER,
CHAS. L. CLEMENT.