

J. V. SHIER, SR. & J. LA VERGNE, SR.
FIRE ALARM SIGNALING APPARATUS.
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1,043,975.

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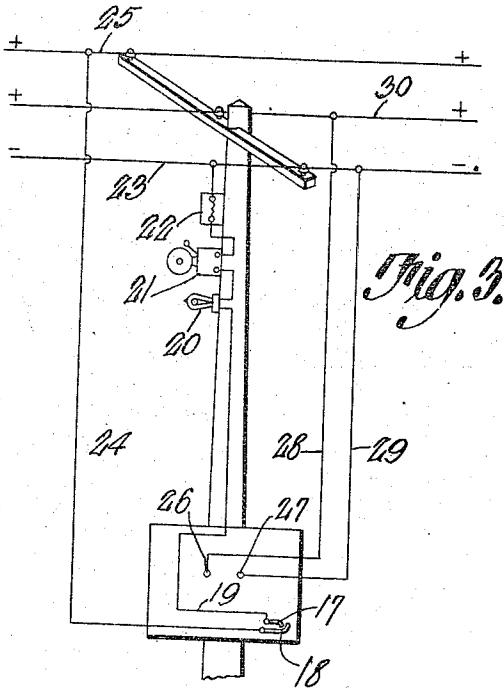


Fig. 3.

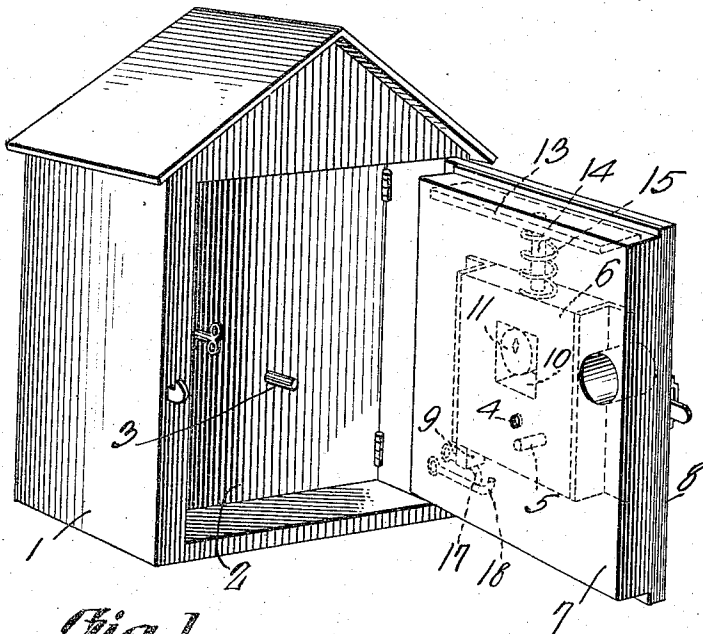


Fig. 1.

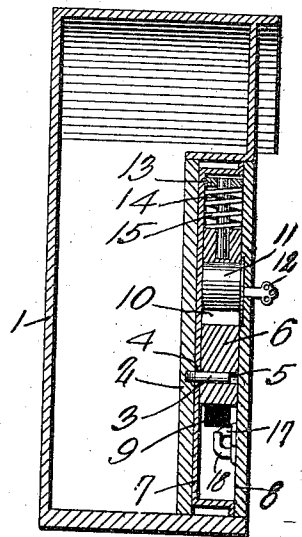


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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FIRE-ALARM SIGNALING APPARATUS.

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To all whom it may concern:

Be it known that we, JOHN V. SHIER, Sr., and JULES LA VERGNE, Sr., citizens of the United States, residing at Charleston, in the county of Charleston, State of South Carolina, have invented a new and useful Fire-Alarm Signaling Apparatus, of which the following is a specification.

The present invention relates to improvements in fire alarm signaling apparatus, the primary object of the invention being the provision of an attachment operably connected to a fire alarm box to actuate a visual and audible signal adjacent the box whether a false or true alarm is sent and to thereby lessen the possibilities of false alarms.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a perspective view of a fire alarm box with the present invention attached thereto, the auxiliary door being open with the parts shown in dotted lines in the position they assume when actuating the local signal. Fig. 2 is a vertical central sectional view through the fire alarm box with the auxiliary mechanism in circuit open position. Fig. 3 is a diagrammatic view showing a simple electric circuit used in connection with the present detection device and the regular fire alarm circuit.

Referring to the drawings, the numeral 1 designates the usual fire alarm box having an inner door 2, which is similar to the door now employed to permit of access to the distant alarm mechanism therewithin. A pin 3 is connected to and carried by the door 2 and projects outwardly and normally enters the apertures 4 and 5, respectively, formed in the rear wall 7 of the outer or auxiliary door 8 and of the reciprocatory block 6.

The block 6 is mounted in the casing of the door 8 and is provided with the projection 9 at one end thereof and with the rectangular aperture 10 for the reception of

the eccentric 11. The eccentric 11 is actuated by means of the removable key 12, which is carried by the proper official or party in authority, who places the door 8 in the normal closed position, or as shown in Fig. 2, after an alarm has been sent. The coil spring 15 tends to move the block 6 downwardly to the dotted line position, as shown in Fig. 1. This spring is held in place by the plate 13 and pin 14, whose lower end is slidably mounted in the block 6. By this construction it is evident that the rotation of the eccentric 11 to the position as shown in Fig. 2, will elevate the block 6 against the tension of the spring 15 and bring into registration the aperture 5 with the aperture 4. The auxiliary door is now closed and the pin 3 enters the apertures 4 and 5 and thus retains the block 6 elevated, with the projection 9 out of engagement with the upper spring contact 17. The free end of said contact 17 is disposed to, when the block 6 is propelled downwardly, assume the dotted line position Fig. 1, and the projection 9 pushes the contact 17 into engagement with the contact 18 to close the local signal circuit.

As clearly shown in Fig. 3, the electrical circuit controlled by the contacts 17 and 18, is through the conductor 19, the visual alarm 20, the audible alarm 21 and the fuse 22 to the line conductor 23, the conductor 24 connecting the other line conductor 25 to the spring contact 18. It will thus be seen that when the parts are in the position as shown in Fig. 2, the contacts 17 and 18 open, that the opening of the auxiliary door 8 will cause the withdrawal of the pin 3 from the apertures 4 and 5, releasing the block 6, so that the spring 15 will propel the block 6 downwardly and cause the insulating projection 9, to push the contact 17 into engagement with the contact 18 and close the circuit including the visual and audible alarms. If this alarm is actuated previous to the opening of the door 2, it is evident that a local signal will be given, said signal being placed at any desired point, either at the pole carrying the fire alarm box, or in police or fire department stations, thus giving a warning that the fire alarm box is being opened, either to send a true or a false alarm.

From the foregoing description taken in connection with the drawings, it is evident

that with a local signal of this character is provided a simple means to assist in lessening the sending in of false alarms, and that by the light 20, a visual signal will be actuated to assist the patrolman in locating the point from which the alarm was sent. It will also be noted that when the auxiliary door 8 has been opened that an unauthorized person cannot close the same, so that the various audible and visual alarms will be energized until the proper party in authority will actuate the sliding block 6 against the spring 15 to align the opening 5 with the opening 4 to permit the pin 3 to enter the opening 5 when the door 6 is fully closed.

What is claimed is:

1. In a signal for fire alarm apparatus, the combination with a fire alarm box, of an auxiliary door therefor, a pair of contacts carried by the door, an auxiliary circuit including a source of electrical energy, said contacts and a visual and an audible alarm, a spring actuated contact closer carried by the auxiliary door, and co-acting means carried by the auxiliary door and box for locking the spring actuated contact closer inactive, the opening of the auxiliary door releasing the closer to close the contacts and energize the visual and audible alarms.
2. In a signal for fire alarm apparatus, the combination with a fire alarm box, of an auxiliary door therefor, a pair of contacts carried by the door, an auxiliary circuit including a source of electrical energy, said

contacts and a visual and an audible alarm, a vertically slidable spring projected block carried by the auxiliary door, a projection carried by said block to engage and close the contacts when the block is projected, key actuated means for retracting the block and co-acting means carried by the block, and the box for locking the block in retracted position and when the auxiliary door is closed.

3. In a signal for fire alarm apparatus, the combination with a fire alarm box, of an auxiliary door therefor, a pair of normally open contacts carried by the door, an auxiliary circuit including a source of electrical energy, said contacts and a visual and an audible alarm, a vertically slidable spring projected block carried by the auxiliary door, a projection carried by said block to engage and close the contacts when the block is projected, key actuated means for retracting the block, said block being provided with an aperture therein, and a pin carried by the fire alarm box and in the path to register with the aperture of the block to retain the block retracted when the auxiliary door is closed.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JOHN VICTOR SHIER, SR.
JULES LA VERGNE, SR.

Witnesses:

J. H. MOSELEY,
H. D. HASKEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."