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FIRE ALARM.

APPLICATION FILED MAR. 20, 1914.

1,132,103.

Patented Mar. 16, 1915.

Fig. 1.

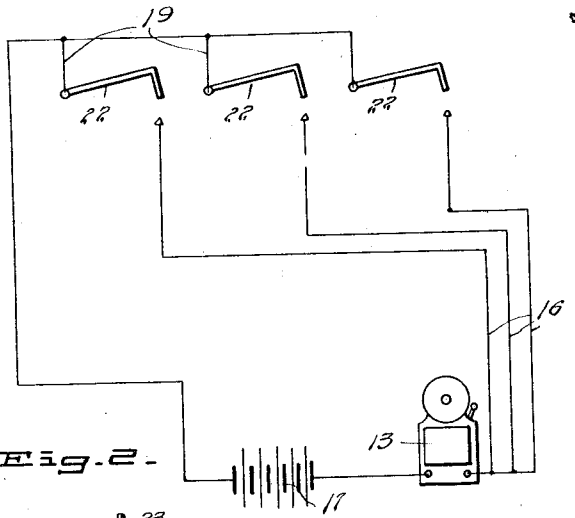


Fig. 4.

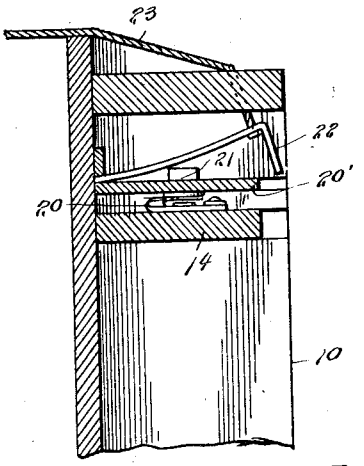


Fig. 2.

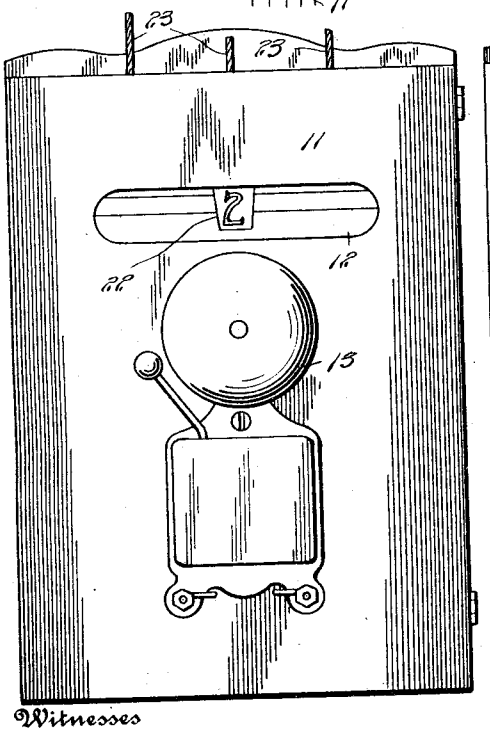
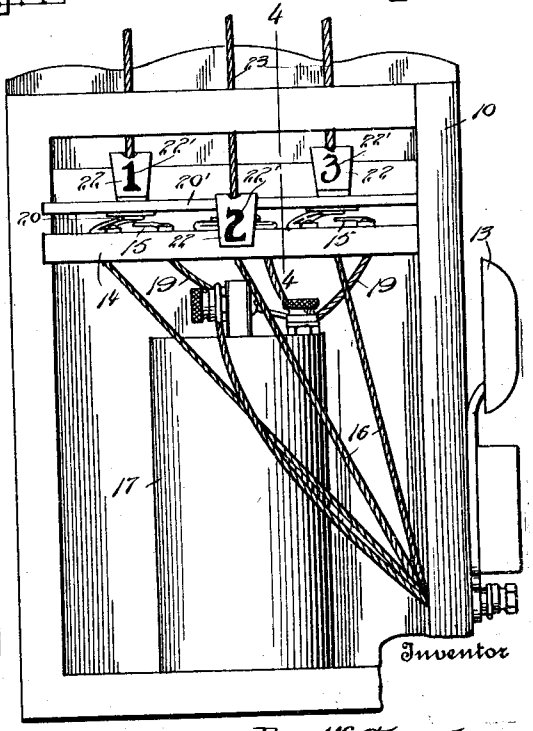


Fig. 3.



Witnesses

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FIRE-ALARM.

1,132,103. Specification of Letters Patent. Patented Mar. 16, 1915.

Application filed March 20, 1914. Serial No. 826,075.

To all whom it may concern:

Be it known that I, DAVID MCCLANAHAN, a citizen of the United States, residing at Stacy, in the county of Buchanan, State of Virginia, have invented certain new and useful Improvements in Fire-Alarms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fire alarms and has special reference to that type of fire alarm which is designed to ring a bell and simultaneously display a signal upon the severing of a strand of material adapted to be burnt in two or melted by the action of the fire or heat.

The principal object of the invention is to provide a novel form of fire alarm of this description which is adapted for use in connection with several rooms or stations and wherein spring means is used to hold the flexible strands under tension, the same spring means serving to close a circuit closer and audible alarm.

With the above and other objects in view the invention consists in general of certain novel details of construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and Figure 1 is a general diagrammatic view showing the wiring system used in connection with this invention. Fig. 2 is a front view of the alarm box showing the door closed and one of the visual signals displayed. Fig. 3 is a similar view showing the door open to disclose the interior of said box. Fig. 4 is a section on the line 4—4 of Fig. 3.

In carrying out the objects of this invention there is provided a box or casing 10 the front of which is closed by a door 11 having a sight opening 12 therein, said sight opening preferably covered with glass or other transparent material. This door is hinged to the box in the usual manner and is provided with any suitable form of catch or lock. On the front of the door there is provided an alarm bell or gong 13 which is preferably of large size so as to be heard from all parts of the house when operated.

Fitted within the casing 10 is a casing 14 whereon are mounted certain spring contacts 15 which are connected in multiple by wires 16 to the bell 13. Beneath the casing 14 is also provided a battery 17 which is connected by a wire 18 with said bell 13. The remaining pole of the battery 17 is connected by means of wires 19 with certain spring contacts 20 arranged above said shelf 14.

Above the shelf 14 and in spaced relation thereto there is located a second shelf 20′ provided with a suitable series of openings to receive the push buttons 21. Fixed to the shelf 20 are a series of springs 22 each spring being located immediately above a respective push button 21 and having a forward end bent downward and provided with a number or other indication as at 22′, the downwardly bent end lying at right angles to the body of the spring and being so arranged as to be displayed through the sight opening 12 when the spring is depressed. In order to hold these springs normally raised and consequently the contacts open, there is attached to each one of these springs a strand 24 which passes through a suitable opening in the top of the box and is led around the walls of the room which it is desired to protect. This strand is either made of some material, such as cord, which will readily burn, or may be made of some material which melts under low heat or preferably of such material in the manner usual in such devices.

In operation, whenever the strand 24, in any room, is severed by reason of fire in that room then the spring is free to work and the front end of the spring drops down exposing the numbered portion 22′ through the sight opening 12. At the same time the action of the spring pushes down on the push button and closes the circuit through the bell 13 thus sounding the alarm. The occupants of the house can then step to the alarm and see at once which room is on fire and take the usual measures to put out such fire.

There has thus been provided a simple and efficient device of the kind described and of the character specified.

It will be obvious that many minor changes may be made in the form and construction of this invention without departing from the material principles thereof.

It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as come properly within the scope claimed.

Having thus described the invention, what is claimed as new, is:—

1. In a fire alarm of the class described, a casing provided with a sight opening, a series of springs mounted within said casing and having downwardly bent ends normally invisible through said sight opening, said springs when relaxed moving said ends to visible position, and strands severable under the influence of heat, each of said strands having one end attached to a respective spring to hold the same under tension and the other attached to a fixed object within a room to be protected.

2. In a fire alarm of the class described, a casing provided with a sight opening, a series of springs mounted within said casing and having downwardly bent ends normally invisible through said sight opening, said springs when relaxed moving said ends to visible position, strands severable under the influence of heat, each of said strands having one end attached to a respective spring to hold the same under tension and the other attached to a fixed object within the room to be protected; in combination with a circuit closer adapted to be closed by movement of said spring to relaxed position, said circuit closer being included in an alarm circuit.

3. In a device of the kind described, a casing, a shelf arranged within said casing, an alarm carried by said casing, a series of spring contacts fixed on said shelf and connected in multiple to said alarm, a battery, a second series of spring contacts fixed on said shelf and connected in multiple to said battery, a connection between said battery and alarm, said contact being normally open, a second shelf supported above the first shelf, a series of buttons movable through the second shelf to close respective pairs of contacts, springs fixed to the second shelf and adapted to urge said buttons down and close the contact, and severable means for restraining said springs from action on said buttons, said means being severable under the influence of heat.

In testimony whereof, I affix my signature, in the presence of two witnesses.

DAVID McCLANAHAN.

Witnesses:

ELIJAH STACY,

GEO. McCLANAHAN.