Sept. 16, 1952 S. NUCCIO 2,611,016

PORTABLE FIRE ALARM UNIT

Filed March 29, 1950

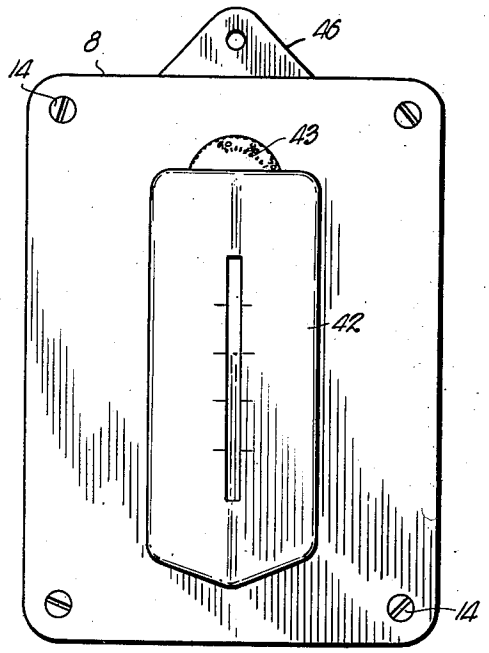

Fig. 1.

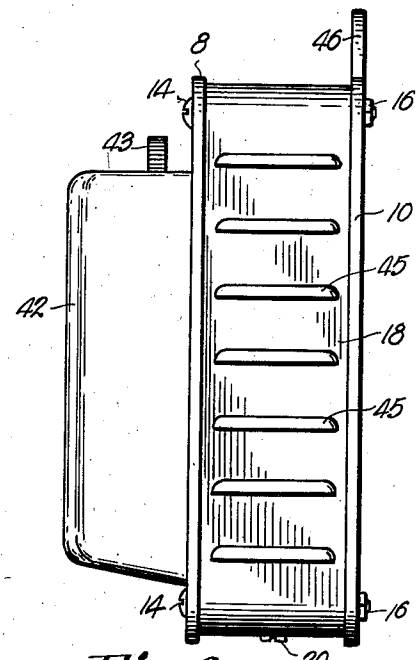

Fig. 2.

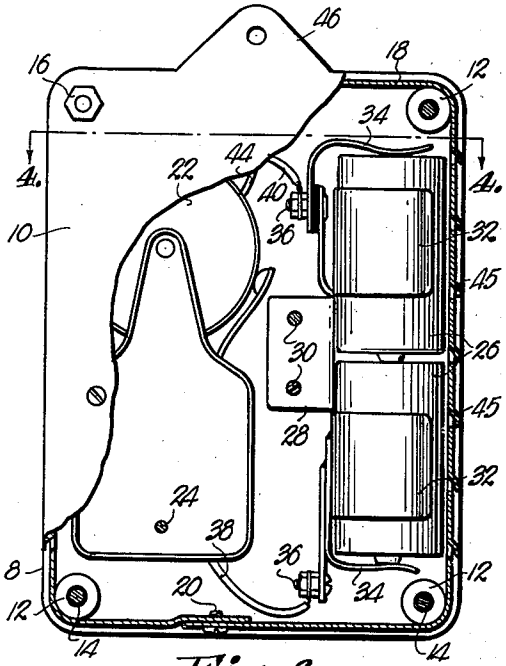

Fig. 3.

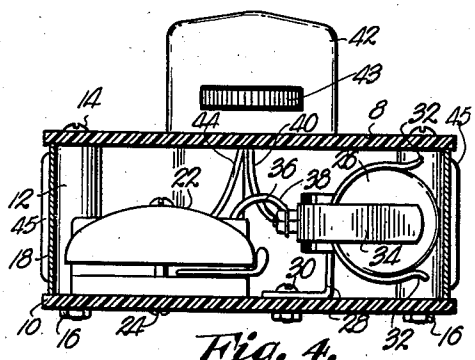

Fig. 4.

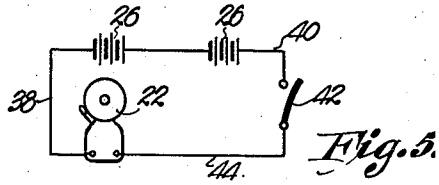

Fig. 5.

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PORTABLE FIRE ALARM UNIT

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1 Claim. (Cl. 177—311)

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The present invention relates to alarm devices, such as fire alarms and the like, and aims to devise a convenient and compact portable device or unit, adapted for efficient use as a portable fire alarm.

For accomplishing this purpose, I have devised a construction comprising the necessary elements for operation in emitting an audible alarm and proper circuit connections therefor, all housed within a suitable enclosure or casing, together with an appropriate thermal control element, such as a thermostatic device, in operative or control relation to the circuit and forming a part of the same unitary and compact assembly.

It is further sought to provide a comparatively simple and inexpensive construction comprised of standard or conventional elements readily procured and adapted to be economically assembled in a compact form and without complications, and of such a nature as to serve as a portable or baggage item—to be carried from place to place in a convenient manner.

With the foregoing general object in view, the invention will now be described by reference to the accompanying drawing, illustrating one serviceable form of construction which I have devised for embodying the proposed features of improvement, after which the particular features or combination thereof deemed to be novel and patentable will be specifically set forth and claimed.

In the drawing—

Figure 1 is a front elevation illustrating a portable fire alarm unit constructed in accordance with the present invention;

Figure 2 is a side view of the same;

Figure 3 is a rear elevation of the device with a portion of the casing structure broken away to disclose the interior parts;

Figure 4 is a transverse sectional view, representing a section taken on the line 4—4 of Figure 3; and

Figure 5 is a diagram of the electric circuit connections between the parts of the unit.

Referring now to the accompanying drawing in detail, my portable fire alarm unit is illustrated as comprising a casing structure made up of a front panel 8 and a back panel 10 spaced apart by means of a plurality of sleeves 12 and secured in such spaced relation by means of bolts 14 and nuts 16, said bolts serving also as means for supporting a flexible closure strip 18 extending continuously around the device between the outer margins of said panels 8 and 10

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and secured together in this position by screw fastenings 20 at the ends of the strip, as represented in Figure 3.

Within the space afforded by said casing structure is mounted a conventional form of electrically operated bell unit 22 which is secured to one of the panels, as by means of screws 24. Within said space is also mounted a set of battery cells 26, which are adapted to be removably secured in the position illustrated by means of a bracket member 28 secured to the panel 10 by screws 30 and also formed with spring retaining fingers 32 for removably embracing the battery cells 26. The said bracket member 28 is also formed with suitable spring-contact fingers 34 for making appropriate electrical contact with the opposite ends of the cell battery, and is further provided with a pair of binding posts 36 for attachment of the necessary conducting or circuit wires, including a conductor 38 connecting to the said bell unit 22 and also a conductor 40 for connecting with a conventional form of thermostat device 42 suitably mounted at the exterior of the panel 8, as illustrated in Figures 1, 2 and 4. The thermostat device 42 is also provided with a conductor wire connecting same with said bell unit, as indicated at 44 in Figures 3, 4 and 5.

With the device constructed as above described, the thermostat device may be set (by means of its adjusting element 43) to operate at any desired temperature, such as any excessive temperature resulting from a fire in the vicinity of the location of the device, thereby closing the circuit through the electric connections to the bell unit, and thus sounding the alarm. The closure strip 18 is preferably provided with a plurality of openings 45 as indicated in Figure 2 for more effectively emitting the alarm signal.

Thus an efficient and compact device is provided for the purposes of the invention, which is not only of a very simple and inexpensive construction but very practical for portable use; and for convenience the same may be provided with a top lug or bracket 46 readily adapting the unit to be suspended in position at the point of use. It will also be understood that, as an optional or alternative mode of use, the unit may be employed in connection with a house lighting circuit by connection of the same to the binding posts 36 and simply substituting a conventional form of transformer element (not shown) in lieu of the battery cells 26, as will be readily understood.

Having thus described the preferred form of embodiment of my portable type of fire alarm de-

vice, what I claim as the essential features of construction constituting my invention is herein set forth in the appended claim:

In a portable fire alarm device, a casing structure comprising a pair of panels separated by spacing sleeves abutting the opposed inner faces of the panels and enclosing bolt fastenings securing said panels in spaced relation, an electrically actuated bell unit and battery cells enclosed within the space between said panels at the opposite sides of said space respectively, a bracket structure secured to one of said panels within said space and formed with spring retaining fingers for removable clamping engagement with said battery cells and also having spring contact fingers in circuit with said bell unit and adapted for electric contacting engagement with said battery cells, a thermostat device carried by one of said spaced panels and provided with electric control connections to both said battery cells and said bell unit for actuating the latter in response to the operation of said thermostat device, and a closure strip of flexible material extending continuously around the space between said panels and having securing means removably connecting the ends of said strip for retaining the latter in supporting engagement with said spacing sleeves exteriorly thereof, the spring retaining fingers of said bracket structure being spread in open relation at the exterior of said space between said panels for facilitating replacement of the battery cells on removal of said closure strip.

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