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CIRCUIT FUSE LOCATOR

Filed Aug. 30, 1957

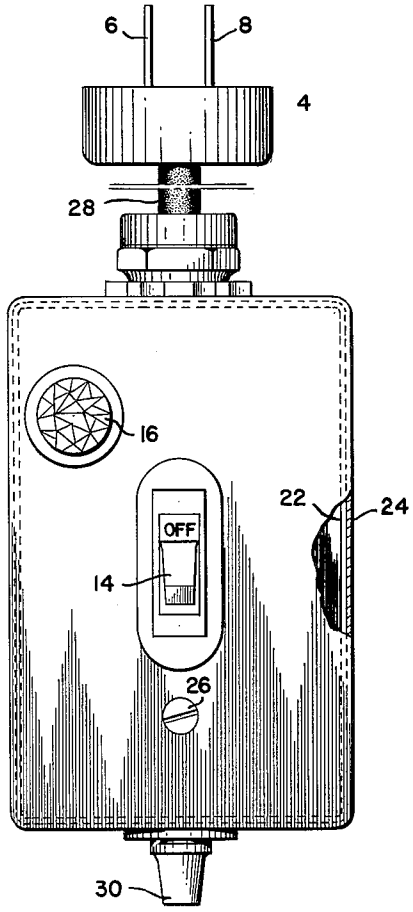


FIG. 2.

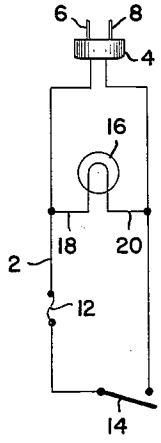


FIG. 1.

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CIRCUIT FUSE LOCATOR

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4 Claims. (Cl. 324—51)

This invention relates to a circuit fuse locator which can be employed to short circuit an electric circuit for the purpose of locating the terminal end of the circuit in its fuse panel box. Thus, for example, the fuse locator of this invention can be plugged into a conventional 110 volt receptacle to cause a short circuit resulting in a blown fuse in the fuse panel box.

As will be evident from its construction, the fuse locater in accordance with this invention is particularly advantageous in that it prevents any undue loading of circuit wiring in cases where improper panel fuses have been employed. Further, its use prevents damage to receptacles particularly incident to burning. It is further advantageous in that it is provided with means for determining whether or not the circuit involved is energized.

It will thus be apparent that the broad object of this invention is to provide a circuit fuse locator which is at once efficient and entirely safe. This and other objects of the invention will become apparent on reading the following description in conjunction with the drawings in which:

Figure 1 is a diagram of the circuit of a fuse locator in accordance with this invention; and

Figure 2 is a fuse locator embodying the circuit of Figure 1.

As shown in Figure 1, the circuit 2 of a fuse locator in accordance with this invention is provided with a plug 4 having a pair of conducting elements 6 and 8 which are adapted to connect the circuit 2 to a fused electric circuit by insertion into a conventional receptacle. Elements 6 and 8 are in series in circuit 2.

Circuit 2 is provided with a fuse 12 and a switch 14. A pilot light 16 is connected to circuit 2 by lines 18 and 20.

Referring now to Figure 2, circuit 2 is embodied in a switch box 22 provided with a cover 24. Cover 24 is secured to box 22 by screw 26. Plug 4 is connected to a flexible insulated lead wire 28 secured to box 24 by a conventional connector.

Fuse 12 is secured by means of a conventional fuse holder 30. In order to protect the circuit to which the fuse locator is connected from being damaged incident to being short circuited, fuse 12 is selected so as to have an amperage rating slightly above the amperage rating of the proper fuse for the circuit to be short circuited. Normally fuse 12 will be selected to have an amperage

rating of from 10 to 20 amps greater than the amperage rating of the fuse in the circuit to be short circuited.

Operation

In operation the conducting elements 6 and 8 of plug 4 are jacked into a receptacle with the switch 14 being in the open position. If the circuit to be shorted is energized, pilot light 16 will glow. Switch 14 is then closed to short circuit the circuit to which the fuse locator is connected which, if the latter circuit is properly fused, will result in blowing its fuse. In the event that the circuit short circuited is fused with a fuse having an amperage rating higher than the rating of the fuse 12, then fuse 12 will be blown and no damage will occur. In the latter event, pilot light 16 will be relighted thus indicating that the fuse 12 has been blown.

It is not desired to be limited except as set forth in the following claims.

What is claimed is:

1. A circuit fuse locator, comprising means to connect the fuse locator to an electric circuit having a fuse therein, an electric circuit in series with said means, a switch in said second mentioned circuit, a fuse in said second mentioned circuit having a value higher than that of the first mentioned fuse, and a pilot light connected in parallel with said switch and second mentioned fuse.

2. A circuit fuse locator system including an electric circuit having a fuse therein, an electric circuit having means connecting it across said first mentioned circuit in series with said fuse, a switch and a fuse in the second mentioned circuit, said last mentioned fuse having a higher amperage value than that of the first mentioned fuse, and a pilot light connected in parallel with said switch and second mentioned fuse, lighting of said pilot light when said switch is closed indicating blow out of the second mentioned fuse.

3. A circuit fuse locator including an electric circuit comprising a switch and a fuse connected in series, a pilot lamp connected in parallel with said switch, and conductor elements adapted to plug said electric circuit into an electric circuit having a fuse of less value than the first mentioned fuse, the connection being such that closure of said switch short circuits the last mentioned electric circuit.

4. A circuit fuse locating device comprising in a housing a pilot light, a pair of jack elements in series with said pilot light for plugging it into an electric circuit having a fuse, a second electrical circuit including a fuse in parallel with said pilot light, the value of the last mentioned fuse being greater than the value of the first mentioned fuse, and a switch between the last mentioned fuse and one of said jack elements.

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