June 5, 1956 R. E. FARISH, JR 2,749,381

SAFETY PROTECTIVE DEVICE

Filed June 26, 1952

Fig. 1.

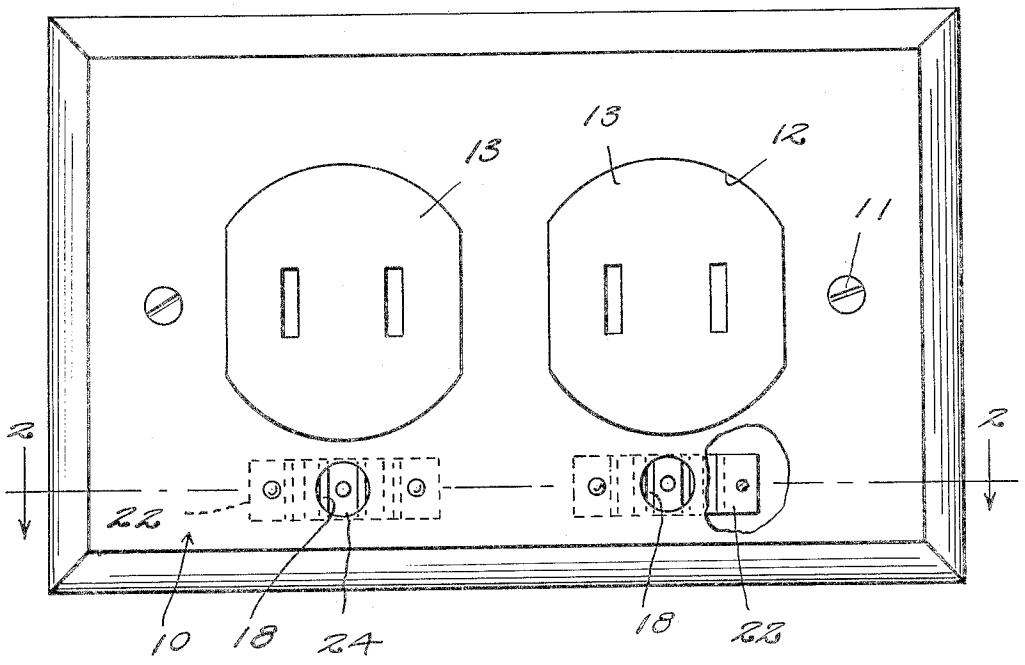
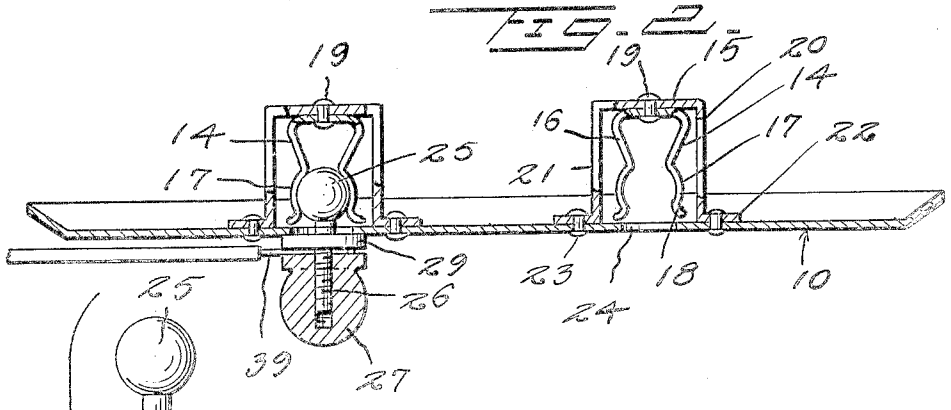


Fig. 2.



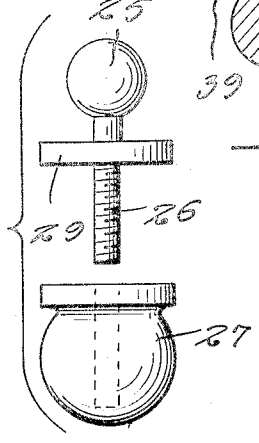


Fig. 3.

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United States Patent Office 2,749,381 Patented June 5, 1956

2,749,381

SAFETY PROTECTIVE DEVICE

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Application June 26, 1952, Serial No. 295,678

1 Claim. (Cl. 174—51)

This invention relates to a safety means for grounding an electrical accessory connected by a flexible cord to an outlet receptacle.

An object of this invention is to provide an improved means for grounding an electrical cord so as to eliminate the possibility of fire and/or hazard to life by shock in the event a short circuit should occur. The grounding device is carried by the cover or escutcheon plate with no protruding portions on the outer side of the plate so that the ground receptacle or socket cannot be injured.

Another object of this invention is to provide an improved grounding means which is readily accomplished, simple in construction and positive in action so that it will function at all times.

A further object of this invention is to provide an improved grounding means which will be universal in scope and fulfill all of the requirements of the underwriters.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawing and specification, and then more particularly pointed out in the appended claim.

In the drawing—

Figure 1 is a plan view of an outlet connector box or receptacle having a cover plate or escutcheon mounted thereon constructed according to an embodiment of this invention,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1,

Figure 3 is an exploded side elevation of the ground connectors embodied in this invention.

Referring to the drawing, the numeral 10 designates generally a cover or escutcheon plate which is secured by fastening members 11 to a conventional electric outlet box. The plate 10 is provided with a pair of openings 12 through which a pair of receptacles or sockets 13 are exposed.

In order to provide a means whereby the electric cord connected to a receptacle 13 may be grounded, I have provided a socket or receptacle generally designated as 14. The socket or receptacle 14 comprises a base 15 having outwardly convergent resilient arms 16 extending therefrom, and the arms 16 have formed integral therewith arcuate socket members or contacts 17. The outer ends of the contacts 17 are reversely bent as at 18. The receptacle or socket 14 is secured by fastening means 19 to a U-shaped bracket or support 20. The receptacle 14 is secured to the bight of the bracket 20, and the parallel arms 21 of the bracket 20 are formed with outwardly extending lugs 22 which are secured by fastening means 23 to the inner side of the plate 10. The plate 10 is formed with an opening 24 providing means whereby a plug 25 may be inserted into the receptacle 14.

The plug 25 is spherical in configuration and has extending therefrom a threaded stud 26. A metal cap 27 which is formed with inferior threads is adapted to be threaded onto the stud 26. A shoulder 29 is integral with the stud 26 and adjacent the inner end of the latter.

One end of a ground conductor 30 is adapted to be interposed between the shoulder 29 and the cap 27 so as to provide an electrical connection between conductor 30 and plug or contact 25. The cap or nut 27 is colored green and the insulation or covering for the conductor 30 is also colored green so as to definitely indicate, in accordance with the rules and regulations of the underwriters, that the conductor 30 is a ground conductor.

There will be a receptacle 14 for each receptacle 13 so that the flexible electric cord connected with a receptacle 13 may be individually grounded. In practice, the ground conductor 30 will be slightly longer than the two-wire conductor which is to be connected to a receptacle 13 so that in pulling the connector from the receptacle 13, the ground connector 30 will be the last connector to be removed. If any short circuit should develop in the accessory connected to the receptacle 13, the electric current will be grounded and the result will be a burned out fuse rather than a fire or danger of shock which might develop from such short circuit.

The safety device is grounded to the cover plate, which in turn is grounded to the metal outlet box. The outlet box is provided with screws for grounding to a suitable ground as required by the wiring code of the National Board of Fire Underwriters.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claim.

What I claim is:

In combination, an electrically conductive substantially quadrilateral outlet box having an open side, at least one electric outlet socket substantially centrally positioned within said outlet box, means electrically grounding said outlet box, and a cover plate for said open side of said outlet box, said cover plate having a substantially rectangular configuration and having a centrally positioned opening, said cover plate having a second opening formed therein, said second opening being of reduced dimensions with respect to said first opening and being positioned intermediate said first opening and an edge of said cover plate, a substantially U-shaped electrically conductive supporting bracket having the outer ends of the arms thereof electrically connected with a side of said cover plate on opposite sides of said second opening, said bracket projecting laterally away therefrom with the bight portion of said bracket confronting said second opening in spaced confronting relation, a substantially U-shaped metallic second socket having outwardly convergent resilient arms, means electrically connecting the bight portion of said second socket with the bight of said bracket and the arm portions of said second socket disposed intermediate the arm portions of said bracket and being in spaced parallel relation relative thereto, electrically conductive means extending through said cover plate for securing said cover plate to said outlet box across said open side thereof with said first opening in registry with said first socket and said bracket projecting into said outlet box adjacent a side of said first socket, an elongated externally threaded plug having an enlarged substantially spherical head at an end thereof, said plug being insertable through said second opening with said head releasably secured between said arm portions of said second socket, said plug having a portion thereof projecting externally away from the other side of said plate, and an internally threaded cap threadedly mounted on the projecting portion of said plug.

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