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ELECTRICAL OUTLET PROTECTOR

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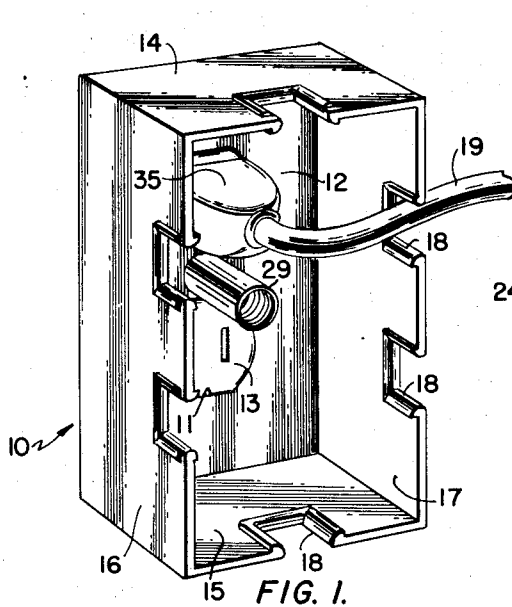


FIG. 1.

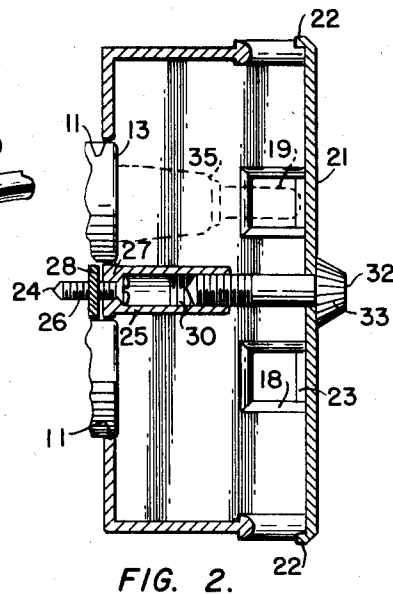


FIG. 2.

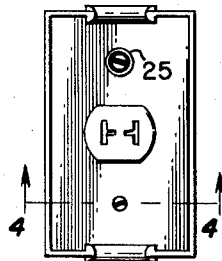


FIG. 3.

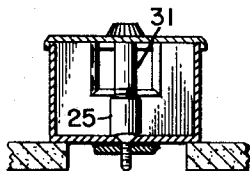


FIG. 4.

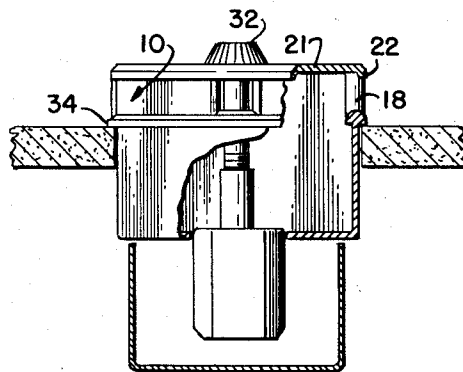


FIG. 5.

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ELECTRICAL OUTLET PROTECTOR

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3 Claims. (Cl. 174—67)

This invention relates to electric insulators, and has reference to a protective cover for wall service outlets.

Electrical outlets of the type commonly used in households provide no protection against dangerous electrical shock except for insulated portions of plugs to fit flush against a wall plate. While this type of protection may be ample for most adults, conventional outlets constitute a safety hazard for small children who are prone to stick small metal objects in the outlet openings. Another hazard for small children occurs when an extension plug does not fit securely against the outlet face plate, thus allowing the uninsulated prongs of the plug to be exposed.

An object of the present invention is to provide a guard fixture for wall outlets which is capable of rendering such outlets safe in the presence of small children.

A further object of the invention is to provide a protective cover for wall outlets which may be quickly and easily installed or removed by adults, but which cannot be removed by children easily.

Another object of the invention is to provide a protective cover for wall outlets which may be used in conjunction with conventional wall outlets and without expensive alterations thereto.

A particular object of the invention is to provide a protective guard for wall outlets which may be installed or removed by unskilled persons and without the use of special tools.

An important object of the invention is to provide construction for an outlet protector which requires no grommets or other cumbersome wire protecting devices and wherein electrical lines are not subjected to dangerous wear.

These and other objects of the invention will become apparent from the following description and the accompanying drawings, wherein:

Figure 1 is a perspective view of an electric outlet guard in accordance with the invention and shown attached to a double plug fixture with the front cover of the invention removed.

Figure 2 is a longitudinal sectional view of the guard illustrated in Figure 1 and showing the relative position of an electrical plug by means of dotted lines.

Figure 3 is a front elevational view of a modification of the present invention adapted for use with a single plug outlet shown with the front cover removed.

Figure 4 is a sectional top view taken along the line 4—4 of Figure 3 and shown with the front cover in place.

Figure 5 is a partially sectional and elevational view of a modified form of the invention.

The construction of wall service outlets is generally standardized and well known in the art. Conduits and electrical outlet boxes are typically recessed within a wall and are suitably attached to structural members. A socket assembly is secured in the electric outlet box so that individual sockets project slightly beyond the surface of the wall in which the outlet box is recessed. A

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face plate is attached by a screw or screws to the socket assembly and rests flush against the wall; openings within the face plate are adapted to receive and expose the sockets and the projecting portions of the sockets serve as bosses to prevent lateral displacement or rotation of the base plate relative to the wall.

In the drawing, a substantially rectangular box-like structure 10 is provided with openings 11 in the back 12 for receiving the projecting ends of electric outlet sockets 13. Upper, lower and side walls 14, 15, 16 and 17, respectively, of the box-like structure 10 project perpendicularly from the back 12 and the forward edges of said walls and lie in a common plane which is substantially parallel with said back, and are provided with rectangular recesses 18 regularly spaced therein to accommodate an electric service line or extension cord 19. The perimeter of each recess 18 is enlarged with a thickness greater than the thickness of the respective walls 14, 15, 16 and 17 and is arcuately formed to serve as a protective lip so that no sharp or abrasive edges will bear upon an electric service line 19 placed therethrough. A rectangular front cover plate 21 is provided with an inwardly formed flange 22 about its perimeter to receive the outward projecting edges of the respective sides of the box 10. The flange 22 is likewise enlarged and arcuately formed, as at 23, where the flange 22 intersects and spans the rectangular recesses 18. A conventional face plate screw 24 is positioned within a cylindrical sleeve 25 integral with the back 12, and which sleeve projects forwardly from the center thereof. The threaded portion 26 of the screw 24 projects outwardly through a suitable opening in a closed end 27 of the sleeve 25, and which threaded portion 26 of the screw 24 engages the conventional threaded opening in a socket assembly 28. The outward projecting end 29 of the sleeve 25 is provided with internal threads 30, and the threaded portion of a screw 31 projects through an opening in the front cover plate 21 and engages the internal threads 30 of the sleeve 25. The head 32 of the screw 31 rests against the outer surface of the front cover plate 21 and is provided with knurls 33 to permit the screw to be turned by the fingers.

The box-like structure 10, the cover plate 21, the sleeve 25 and screw 31 may be made from any electrical insulating material and are preferably constructed of synthetic resin, hard rubber or other material suitable for use with the various moulding processes utilized in the mass production of plastic products. It will be noted that the sleeve 25 may be constructed as an integral part of the box-like structure 10 or that the sleeve and box may be constructed separately in accordance with the different economic considerations involved in different manufacturing processes.

To adapt the protector or guard to various styles and forms of wall service outlets, modifications may be made within the spirit of the invention. For wall service outlet using more than one screw for attachment of a wall plate to a socket assembly (as illustrated in Figures 3 and 4) only one sleeve 25 need be provided as described, and only one corresponding opening in the cover plate 21 is required for admission of the threaded portion 30 of the screw 31 therethrough. Appropriate openings of conventional type are provided through the back side 12 of the box-like structure 10 to receive other attaching screws. For socket assemblies which are mounted within a wall and which are not substantially flush therewith, a protector may be provided with a shoulder ridge 34 about the sides of the box 10, which ridge lies in a plane parallel with the cover plate 21 and which is rearwardly spaced from the wall recesses 18.

In operation, the face plate is removed from a conventional wall service outlet and the same screw 24

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which held the plate in place is positioned within the sleeve 25. The back 12 of the box-like structure 10 is then placed over the socket assembly 28 so that the sockets 13 are received by the openings 11. A screw driver is then placed through the open end 29 of the sleeve 25 and is used to secure the screw 24 to the socket assembly 28. Plugs 35 for various appliances are then inserted into the sockets 13 and electric service lines 19 from the respective plugs are positioned within the recesses 18 in the outer edges of the sides of the structure 10. The front cover plate 21 is placed over the front of the box-like structure 10 so that the flanges 22 engage the outer edges thereof, and the front cover plate 21 is secured in place by the screw 31 which engages the threads 30 within the sleeve 25.

The invention is not limited to the exemplary construction herein shown and described, but may be made in many ways within the scope of the appended claims.

What is claimed is:

1. A protector assembly for an electrical wall outlet having at least one projecting socket therein, said protector comprising a box-like structure of dielectric material including a back and forwardly projecting walls therearound, the forward edges of which walls lie in a common plane and include cord receiving recesses therein, means detachably securing said box-like structure to said electrical wall outlet, a threaded sleeve of dielectric material within and integral with said structure and pro-

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jecting forwardly from the back thereof, said back including an opening therethrough for receiving said projecting socket, a cover plate of dielectric material adapted to fit the forward edges of said walls, and a headed screw through said cover plate and adapted to threadedly engage said sleeve.

2. A protector assembly for an electrical wall outlet as defined in claim 1, and wherein the peripheries of said recesses are arcuate in cross section for protecting an electrical cord received therein and for eliminating grommets on said cord.

3. In a protector assembly as defined in claim 1, the construction wherein said sleeve of dielectric material is substantially closed at the inner end thereof and provided with an opening therethrough for securing the same and said box-like structure by means of a screw with said electrical wall outlet.

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