Feb. 11, 1947. G. C. MONACO 2,415,602

GUARD FOR FLUSH WALL OUTLETS

Filed March 16, 1944

Fig. 1.

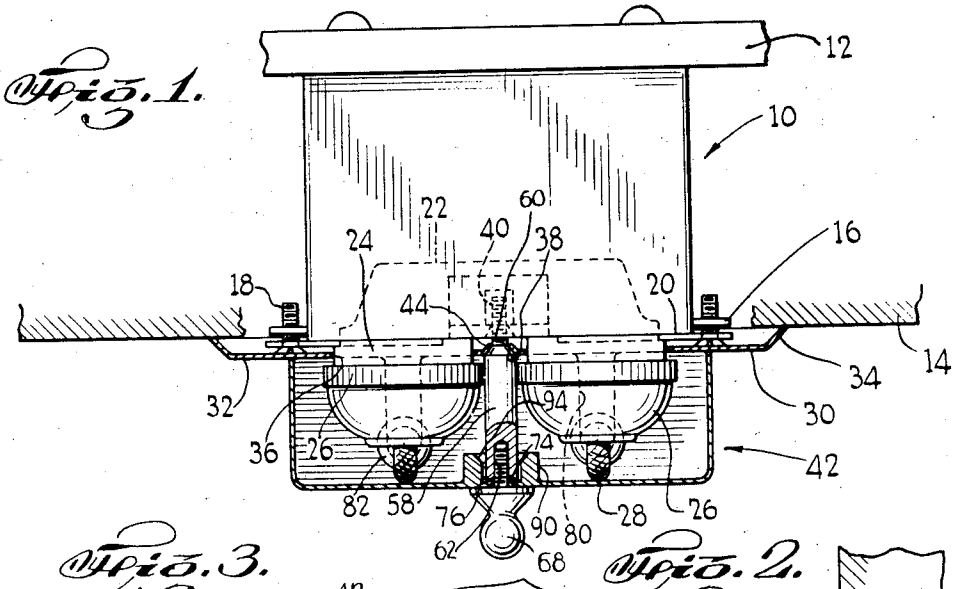


Fig. 3.

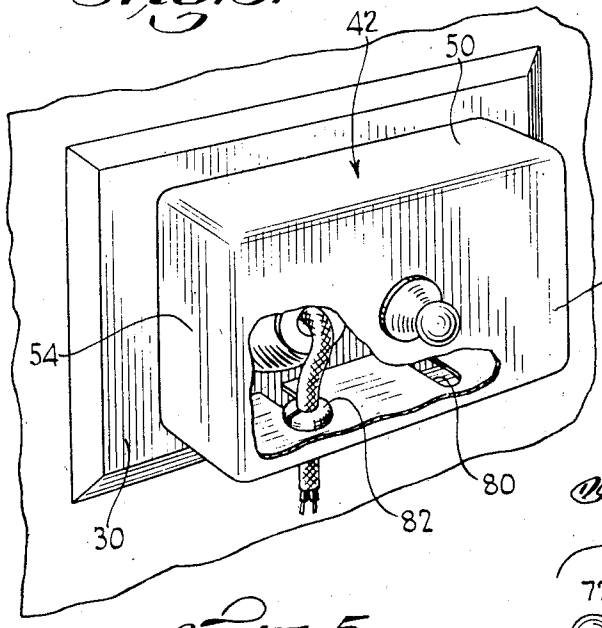


Fig. 2.

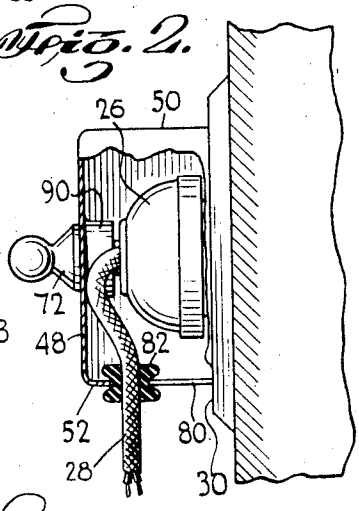


Fig. 4.

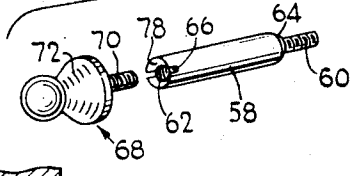
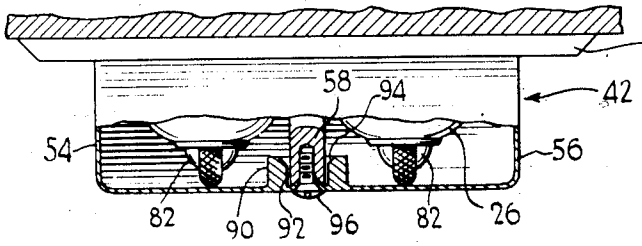


Fig. 5.



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GUARD FOR FLUSH WALL OUTLETS

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4 Claims. (Cl. 174—48)

1

This invention relates to guard fixtures for flush wall outlets.

It is the primary object of the invention to provide an improved guard fixture for removably covering electric plugs in wall outlets and thus preventing children from tampering with the same.

More specifically, it is an object of the invention to provide a guard fixture of the character described which may, time and again, be easily removed for insertion or withdrawal of plugs, and then resecured without impairing the wall or the means which holds the guard in position.

Another object of the invention is to provide a guard fixture of the character described which helps to hold electric plugs in wall outlets.

A further object of the invention is to provide a guard fixture of the character described which is particularly adapted to be detachably connected to flush wall receptacles whose escutcheon plates are normally secured to the wall outlet with screws.

Still another object of the invention is to provide a guard fixture of the character described which comprises extremely few and simple parts, is inexpensive to manufacture, and is rugged and efficient in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the constructions hereinafter described, and of which the scope of application will be indicated in the appended claims.

In the accompanying drawing, in which are shown various possible embodiments of this invention,

Fig. 1 is a horizontal sectional view through a guard fixture embodying the invention attached to a flush wall outlet;

Fig. 2 is a side elevational view thereof in partial section;

Fig. 3 is a perspective view thereof;

Fig. 4 is an exploded view of the means for detachably securing the guard fixture to an outlet; and

Fig. 5 is a top plan view of said guard fixture attached to a wall outlet in accordance with a modified aspect of the invention.

Referring now to the drawing, and more particularly to Figs. 1–4, 10 denotes an electric outlet box which is secured by a strap 12 to adjacent studs (not shown). The forward portion of the box is embedded in the plaster surface of a

2

wall 14, the rim of the box being spaced slightly inwardly from the room surface of the wall. Said box is provided with a pair of ears 16 which receive screws 18 employed to hold the strap 20 of a duplex receptacle 22 of the flush wall type which is herein referred to as a "flush wall outlet." Said receptacle includes a body of insulating material, like Bakelite, having twin bosses 24 projecting therefrom and extending beyond the room surface of the plaster wall 14. Each of these bosses has a pair of slots for receiving the jack blades of an electric plug 26. Said slots communicate with contacts in the housing which are connected in conventional manner to a source of electric potential. The plugs are attached to the ends of two-wire supply cords 28 which lead to electric current consuming appliances.

The hole in the plaster into which the outlet box is fitted, the straps 20, ears 16, and screws 18, and the body of the flush wall outlet are all concealed by an escutcheon plate 30 which is secured to the body and is part of the flush wall outlet. Said escutcheon plate, which may be made from any suitable form maintaining material, such as brass or Bakelite, comprises a plane portion 32 having angular rearwardly extending terminal edges 34 which rest on the surface of the plaster wall around the receptacle 10. The plane portion 32 is in front of the receptacle body 22 and is spaced slightly away from the room surface of the plaster wall 14, although to all intents and purposes said escutcheon is flush with the wall and is considered as such in the trade. The escutcheon has two apertures 36 through which the twin bosses 24 extend. The escutcheon is also provided with a central aperture 38 which is in registry with a tapped bore 40 in the receptacle body 22. Before the guard fixture 42 embodying my invention is attached to the flush wall outlet, the escutcheon plate is secured to the body 22 by a screw (not shown) whose beveled head is fitted into a countersunk portion 44 surrounding the central aperture 38 and whose shank is threadedly received in the tapped bore 40.

The flush wall outlet just described is a conventional type and it will be appreciated, as the description proceeds, that other standard flush wall outlets may be employed in lieu thereof and that the only element necessarily present in a flush wall outlet to enable my novel guard fixture to be used therewith is a screw which holds the escutcheon plate in position or a tapped aperture which is accessible from the exterior of the outlet with or without removal of a screw. Such tapped aperture may be located anywhere on the

external surface of the flush wall outlet although I prefer that the same be centrally disposed for simplicity and economy of manufacture.

Pursuant to my invention, I provide for use in conjunction with a flush wall outlet such as just described, a guard 46 which may be formed from any suitable material into any desired size and shape and preferably is molded from insulating material, such as Bakelite, into a hollow structure such as the box-like form shown, the same including a front wall 48, top wall 50, bottom wall 52, and side walls 54, 56 form a rearwardly directed skirt. The rear face of the box is open and is preferably of such outline that it rests against the escutcheon plate 30, in order not to mark the wall when the guard is repeatedly mounted on and dismounted from the wall outlet in a manner soon to be described. The width of the walls 50—56 may be such, pursuant to ancillary feature of the invention, that the front wall 48 will press against supply cords 28 where they emerge from the plugs 26. This aids in firmly holding the plugs in position, particularly when, due to improper handling or a long period of use, the contacts in the receptacle or the jack blades of the plugs have lost their resiliency or are improperly positioned.

In accordance with my invention, I provide highly improved means for detachably holding the guard 46 in position on the flush wall outlet. Said means comprises a post 58, at one end of which is a screw rod 60 of reduced diameter and at the other end a tapped aperture 62 having the same thread diameter as the rod 60. The end of the post 58 adjacent said rod 60 is beveled as indicated at 64 to provide an inclined shoulder conforming to the taper 44 surrounding the central aperture 38 in the escutcheon plate 30. It is also desirable to provide suitable means to facilitate turning of the post 40 with a tool, such as a screwdriver or wrench, and to this end a slot 66 may be formed at the end of the post 58 remote from the threaded rod 60, said slot being designed to receive the tip of a screwdriver blade. The means for holding the guard also includes a thumb screw 68, having a threaded shank 70, which is designed to be threadedly received in the tapped aperture 62, and an enlarged head 72 which may be of ornamental appearance.

It may be mentioned that the rod 60 and shank 70 have screw threads of the same diameter and pitch, the reason for which will shortly be explained; however, it is also within the scope of the invention for the screw threads on the shank 70 and tapped aperture 62 to be designed for threaded engagement but to have a thread diameter or pitch different from the rod 60.

The shank 70 of the bolt 68 passes through a central hole 74 in the front wall 48 of the guard 46 and, if desired, a portion 76 of the guard immediately surrounding said aperture may be countersunk, as indicated in Fig. 1, and seated on a conical surface 78 flaring from the outer end of the tapped aperture 62. This construction enables the guard to better engage the post 58 and supplies a firm support for the central part of the front wall 48.

One or more of the lateral walls, e. g. the bottom wall 52 of the guard 46 has a plurality of slots 80 extending from the rear edge of said guard. These slots frictionally receive split grommets 82 of resilient material, such as rubber, the slots being sufficiently long to allow the grommets to be forced in far enough to clear the escutcheon plate 30. This length of slots is

useful where, as here, the guard is designed to engage the escutcheon plate and the plugs since it prevents the supply cords from being severely bent.

It will be noted that the supply cords will not shift easily or accidentally since the grommets 82 are tightly squeezed in said slots.

To use the guard 46, I first attach the grommets 82 on supply cords near the plugs, the grommets thereafter remaining on the cords ready for use at any time in conjunction with the guard. Next, the plugs from the appliances to be connected have their jack blades thrust into the slots of the flush wall outlet from which power is to be derived. Now or earlier the screw which secures the escutcheon plate 30 to the outlet body 22 is undone and the rod 60 of the post 58 screwed into the tapped bore 42 in place thereof, the rod being made up tight, as with a screwdriver, to firmly hold the escutcheon plate in proper position. The guard 46 is then placed over the escutcheon plate with the central aperture 74 in registry with the tapped aperture 62. At the same time the grommets 82 which have been slid along the cords to a position close to the plugs 26 are forced to the end of the slots 80. Finally, the threaded shank 70 of the thumb screw 68 is threaded into the tapped aperture 62 and manually tightened to hold the guard in place with its rear edge resting on the escutcheon plate. When a plug is to be removed, it is only necessary to undo the thumb screw 68, remove the guard and slip the associated grommet out of the guard before pulling out the plug. The post 58 is allowed to remain as long as the guard is to be used.

Means may be provided to facilitate registration of the apertures 74, 62 in the guard and post respectively, such means comprising a boss 90 integrally formed on the inner surface of the front wall 38 and having a bore 92 therein in which the free end of the post 58 is adapted to be freely received. The mouth 94 of the bore, which faces the escutcheon plate, is flared to guide the free end of the post into said bore.

If desired, I may reduce the number of parts made and sold with the guard fixture and make it even more difficult for small children to pull out the plugs, by forming the screw rod 60 and tapped aperture 62 with threads of the same pitch and diameter, as indicated earlier, and omitting the thumb screw 68. In such case the screw 96 (Fig. 5), formerly employed to hold the escutcheon plate to the receptable body, is used to secure the guard to the post 58 as shown in Fig. 5.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. For use with an electric flush wall outlet having an escutcheon plate with an aperture over and in registry with a tapped bore in a member comprising part of the outlet: a guard fixture including a post having a screw rod at one end, which is adapted to be screwed into said bore, means on said post to press against said escutch-

eon plate and secure the same to the outlet when said rod is screwed into said bore, a detachable coupling means, one-half of which is carried by said post, said half being spaced along said post from said screw rod, a guard comprising a hollow boxlike structure with an apertured front wall, a rearwardly directed skirt and an open rear face, the aperture in said front wall being registered with said half of the detachable coupling means, a member separate from said post and carrying the other half of said detachable coupling means, said coupling means having a portion passing through said aperture in the guard and said coupling means being so constructed and arranged that relative rotation of the two halves thereof, during coupling, will cause said other half to approach close to said post to bear against the external surface of the front wall of the guard and press said front wall against the post.

2. A guard fixture as set forth in claim 1, wherein the half of the coupling means carried by the post comprises a tapped aperture in the post at the end thereof remote from the screw rod and wherein the half of the detachable coupling means carried by the member separate from the post comprises a screw, said screw being the portion of the coupling means which passes through the aperture in the guard plate.

3. The combination with a guard fixture, such as set forth in claim 1, of an escutcheon plate whose periphery is large enough to contain the open rear face of the guard.

4. The combination with a guard fixture, as set forth in claim 1, of a plug having jack blades which are adapted to be inserted in an outlet, said plug having a supply cord, the front wall of said guard being spaced a distance from the open rear face of the guard such that when the plug is inserted in an outlet said front wall will press against the supply cord of the plug where it emerges from the plug.

GEORGE C. MONACO.

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