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ELECTRIC RECEPTACLE GUARD

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Fig. 1.

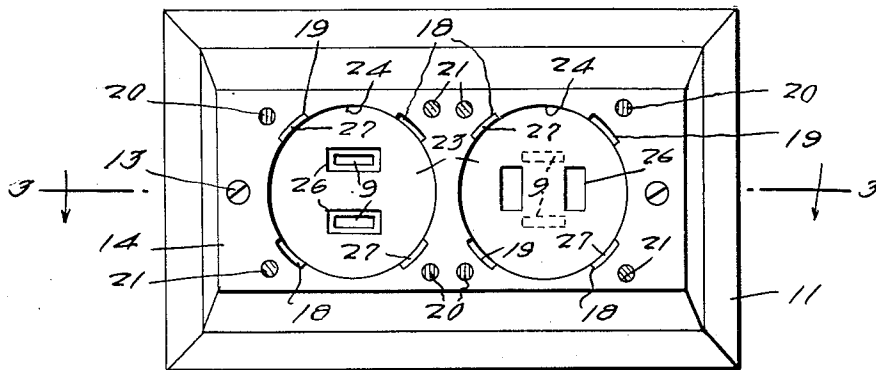


Fig. 2.

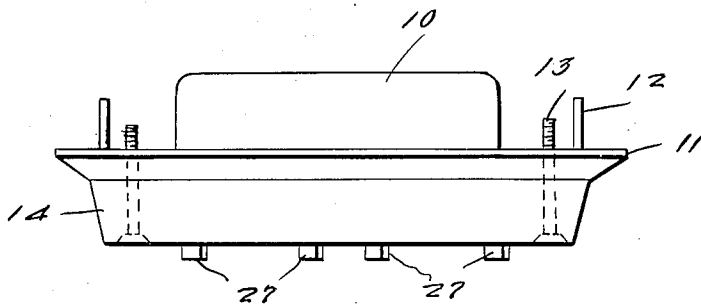
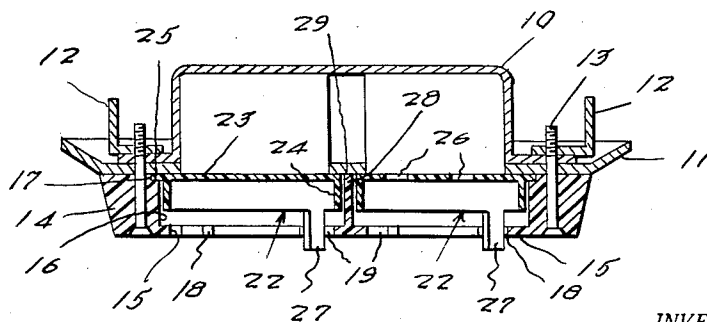


Fig. 3.



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ELECTRIC RECEPTACLE GUARD

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3 Claims. (Cl. 173—330)

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My invention relates to guards for electrical outlet receptacles of the type wherein a guard is rotatable or movable relative to the receptacle whereby to selectively position slots in said guard in alignment and offset relation to the slots of the receptacle. Devices of this type are known and have the safety factor which comprises a blocking of the receptacle slots when the receptacle is not in use. On the other hand, such guards provide no protection when an electric plug is plugged in enough for a contact, but not sufficiently to completely cover the exposed portions of the prongs of the plug.

With the foregoing in view, it is an object of my invention to provide an improved guard for electric outlet receptacles.

A further object is to provide an improved guard for electric outlet receptacles, wherein means are provided to enclose the prongs of an electric plug even when the plug is but partially seated in the receptacle.

A further object is to provide in an improved guard such as that last described means wherein the guard is movable relative to the receptacle to and from operative and inoperative positions wherein the receptacle slots are respectively exposed and blocked.

A further object is to provide an improved guard which is readily applicable to standard electric fixtures, which is readily and economically manufactured with a minimum of parts, and which is strong and sturdy in use.

Other objects and advantages reside in the particular structure of the invention, combination and arrangement of the several parts thereof, and will be readily apparent to those skilled in the art upon reference to the attached drawings in connection with the following specification, wherein the invention is shown, described and claimed.

In the drawings:

Figure 1 is a front view of a guard according to the invention showing the same applied to an electric outlet receptacle;

Figure 2 is a top plan view thereof;

Figure 3 is a horizontal section taken substantially on the plane of the line 3—3 of Figure 1.

Referring specifically to the drawing, wherein like reference characters designate like parts throughout the several views, 9 designates the usual electric plug prong-receiving slots in a conventional dual electric outlet receptacle 10. The receptacle 10 is provided with the usual cover plate 11 and the cover plate and receptacle are mounted on brackets 12 in a wall, not shown, by screws 13. With the exception of the screws 13,

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which may be slightly longer than normal, the structure just described is conventional and forms no part of my invention. While the receptacle 10 shown is a dual receptacle, it is to be understood that the invention is equally applicable to single receptacles and receptacles having more than the conventional pair of outlet sockets.

The guard according to the invention comprises a cover 14 which is provided with a pair of laterally-spaced bores 15 extending therethrough, which bores are counter-bored, as at 16, to provide, with the bores 15, inwardly-directed annular flanges. A further counter-bore 17 is provided adjacent the rear surface of the cover 14 for a purpose to become apparent. The flanges defined by the counter-bore 16 and bore 15 are each formed with opposed pairs of notches 18 and 19 therein, with the pairs of notches 18 being offset 90° relative to the notches 19. The notches 18 are identified by green discs 21 formed or inset in the outer surface of the cover 14 adjacent each notch 18, while the notches 19 are similarly identified by red markers 20. The purpose of such notches and identifying indicia will become apparent later.

A cup-shaped guard member 22 of insulating material is rotatably mounted within the counter-bore 16 in each instance. The guards 22 each comprise a floor 23 and a cylindrical side wall 24, together with a bottom flange 25 comprising an annular extension of the bottom wall 23. The flanges 25 seat on the annular shoulders formed by the counter-bores 16 and 17, whereby to retain the floors 23 in juxtaposition relative to the forward faces of the receptacle 10. The floors 23 are also formed with a pair of diametrically opposite slots 26 which, in one position, Figure 1, are adapted to be aligned with the receptacle slots 9, and in another position, the right hand side of Figure 1, are adapted to be offset relative to such slots 9, whereby to block the same. The cylindrical side wall 24 of each guard is formed with a pair of diametrically oppositely-disposed and axially-extending extensions 27, which extensions comprise finger grips and are selectively extended through an opposed pair of notches 19 or notches 18. As is readily apparent from Figure 1, when the finger grips 27 are positioned in the notches 19, the slots 26 and 9 are in alignment and the finger grips are positioned adjacent the red markers 20. In like manner, when the finger grips 27 are positioned in the notches 18, they are juxtaposed to the green markers 21 and the slots 26 and 9 are offset, whereby to block the latter slots.

The flanges 25 of the guards 22 are preferably

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annular where conditions permit the same. However, when space does not permit continuous flanges, as is illustrated in Figure 3, where the proximity of the twin sockets requires that the partition 28 separating the same be relatively narrow, portions of the flanges 25 are cut away, as indicated at 29 in Figure 3. Such cut-away portions may comprise 160° each, whereby to permit partial rotation of the guards 22 in opposite directions without interference of the flanges.

In manufacturing the device according to the invention, the guards 22 of necessity must be of insulating material and the cover 14 is preferably of insulating material, as shown. It should be noted, also, that the cover 14 is of relatively great thickness, whereby to cooperate with the guards 22 to provide a space between the front surface of the cover 14 and the floors 23 of the guards which substantially equals the length of the prongs of a standard electric plug, not shown.

The operation of the device contemplates that the guards 22 will normally be positioned as shown in Figure 1 and Figure 3, at the right hand thereof, when the receptacle 13 is not in use. In this position, the finger grips 27 are seated in the notches 18, whereby the slots 25 and 9 are offset and the latter slots are blocked. In this position, children are unable to gain access to the slots 9, and the latter are also protected against the entrance of dust or dirt, as well as moisture to a certain extent. However, when it is desired to use one or more of the sockets of the receptacle, the finger grips 27 are gripped and compressed inwardly, whereby to free them from the slots 18 and the guard 22 is rotated 90° so as to position the finger grips 27 opposite the slots 19, whereupon release of the finger grips permits them to spring radially outwardly into the notches 19 to lock the guard 22 in a position with the slots 25 and 9 aligned. Thereafter, the conventional electric plug is inserted in the usual manner. By providing a cover 14 and receptacle 22 of substantial thickness and depth, the prongs of the electric plug need not be fully inserted to be protected, as they are enclosed either by the guard's side wall or by the confining thickness of the cover as defined by the counter-bore 16.

Thus, while I have shown and described what is now thought to be the preferred embodiment of the invention, it is to be understood that the same is susceptible of other forms and expressions. Consequently, I do not limit myself to the precise structure shown and described, except as hereinafter claimed.

I claim:

1. A guard, comprising a separate unit adapted to be mounted over an electric outlet receptacle of the type including spaced slots for the prongs of an electric plug, said unit comprising a relatively thick cover, means mounting said cover over said receptacle, said cover being formed with a cylindrical bore therethrough over said receptacle slots, said cover including an inner surface formed with a counter-bore providing an annular flange with said bore, said flange being formed with at least a pair of circumferentially-spaced notches therein, an outwardly-directed cylindrical cup-shaped guard of insulating material rotatably seated in said counter-bore inwardly of said flange, said guard including a floor, a cylindrical side wall, said side wall having at least one axially outwardly-directed resilient extension selectively extensible through said

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notches outwardly of said cover to lock said guard against rotation relative to said cover, said floor being formed with a pair of diametrically-spaced slots therethrough, said slots being adapted to be aligned with said receptacle slots with said extension seated in one of said notches, said slots being adapted to be offset with said extension seated in said other notch, and said side walls of said guard and said cover cooperating to prevent access to the prongs of a partially-inserted electric plug.

2. A guard for an electric outlet receptacle of the type including spaced slots for the reception of the prongs of an electric plug, comprising a relatively thick cover, means mounting said cover over said receptacle, said cover being formed with a cylindrical bore therethrough over said receptacle slots, said cover including an inner surface formed with a counter-bore providing an annular flange with said bore, said flange being formed with at least a pair of circumferentially-spaced notches therein, a circular guard of insulating material rotatable in said counter-bore, at least one finger grip integral with said guard and extending axially outwardly of said cover through a selected one of said notches, said guard being formed with a pair of spaced slots therein, and said last-named slots being aligned with said receptacle slots with said finger grip seated in one notch and being offset with said finger grip seated in the other notch.

3. A guard for an electric outlet receptacle of the type including spaced slots for the reception of the prongs of an electric plug, comprising a relatively thick cover, means mounting said cover over said receptacle, said cover being formed with a cylindrical bore therethrough over said receptacle slots, an outwardly-directed cylindrical cup-shaped guard of insulating material rotatably seated in said bore, said guard including a floor and a cylindrical side wall, said side wall having at least one extension extending axially outwardly of said cover to provide a finger grip, said floor being formed with a pair of diametrically-spaced slots therethrough, means mounting said guard on said receptacle for rotation relative thereto to and from operative and inoperative positions wherein said slots of said receptacle and guard are respectively aligned and offset, means for locking said guard in both of said positions, and said side wall of said guard being adapted to receive and encircle said plug and rear portions of said prongs thereof with said guard in said operative position and said prongs partially inserted in said aligned slots.

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