Aug. 23, 1955 G. O. McCUBBIN 2,716,225

COVER PLATE AND SAFETY-ATTACHED PLUG

Filed June 19, 1953

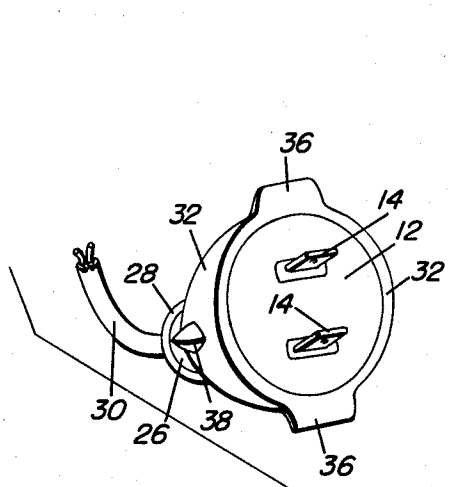


Fig. 2

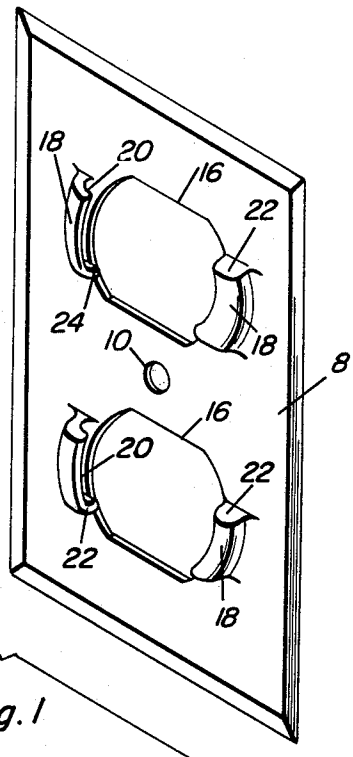
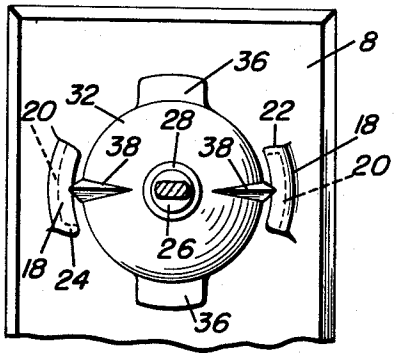


Fig. 1



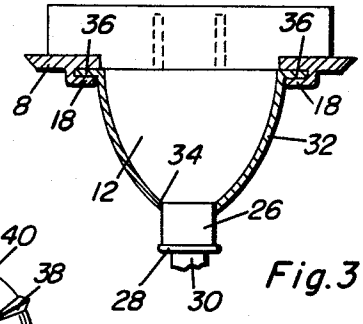


Fig. 3

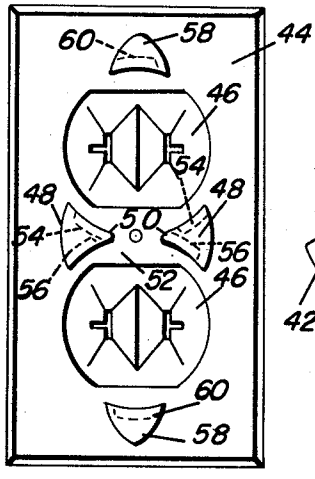


Fig. 4

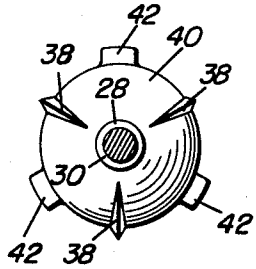


Fig. 5

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COVER PLATE AND SAFETY-ATTACHED PLUG

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1 Claim. (Cl. 339—75)

The present invention relates to an extension cord plug, receptacle cover plate, and readily engageable and releasable means for effectively coupling the plug with the plate to thus prevent the plug from becoming accidentally detached from the usual receptacle means.

It is a matter of common knowledge that the electrical connection between the plug and receptacle or outlet means is often accidentally or otherwise broken. This is the result of someone tripping over the wire, or when a strong lengthwise pull is exerted on the electrical appliance cord. Therefore, in using irons, sweepers, electric drills and extension cords, generally speaking, there exists a definite reason for preventing accidental disconnection of the plug from the current supply outlet means. Many others working in this field have evolved and produced all sorts of so-called safety locking and retaining devices. It is the purpose of the present endeavor to structurally, functionally and otherwise improve upon similarly constructed and performing prior art safety retainers. In so doing a positive locking device is provided which may be relied upon for safe use anywhere. It will save time and inconvenience.

One of the advantages of the improved construction is that any conventional plug will work in the receptacle after the new type of cover, one of the features, is installed. Then, too, the improved plug which is hereinafter to be revealed, will work in any conventional outlet with a regular plate but will not, of course, lock.

In carrying out the principles of the instant invention one aspect thereof has to do with a conductor having a prong-equipped plug, an adapter cap fitted conformingly over and fully encasing the body portion of said plug, said cap being essentially imperforate and rigid, being exteriorly provided with marginal outstanding keeper lugs and further provided with surface embossments shaped and arranged to function as finger-grips, whereby said cap is permanently swivelled on and attached for rotation to said plug.

The novelty in addition is predicated on the structure stated, wherein said plug is substantially semi-spherical and provided on the crown portion with an axially extending neck having an endless outstanding bead, said neck being cylindrical in cross-section, and the crown portion of said cap having a centered opening snugly encircling said neck, said cap being otherwise imperforate and preformed to accurately and intimately fit over the body portion of the plug.

Then, too, novelty is predicated on the structure stated and the combination therewith of an outlet cover plate having at least one plug accommodating hole and a pair of marginally located outstanding keeper sockets into which said lugs are turnably and releasably fitted.

In addition to the above it is also an object to provide a novel cover plate in and of itself and especially one which is adapted to accommodate two prong-equipped plugs having safety adapter caps constructed in accordance with the present invention and wherein a simple arrangement of four properly paired and grooved bosses

on the surface of said plate provide equidistant keepers for both adapter caps.

Other objects, features and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is an exploded view showing the cover plate at the right and the improved prong-equipped appliance cord plug at the left;

Figure 2 is a fragmentary elevational view showing the manner in which the parts cooperate and wherein the adapter cap is in its released position;

Figure 3 is a sectional and elevational view showing the manner in which the lugs releasably engage the keepers on the stated plates.

Figure 4 is a face or elevational view of a modified form of plate; and

Figure 5 is a plan view of the adapter cap used in conjunction therewith.

Reference is had to Figures 1 to 3 inclusive, wherein the rectangular cover plate is denoted by the numeral **8**. This is a plate which is adapted to be substituted for or to take the place of the customary receptacle or outlet box plate. It has a single hole **10** at center to accommodate a fastening screw or the like whereby it is secured in place. It is provided with either one or more openings to accommodate the plug **12**, the plug being provided with the usual prongs **14**. Each opening is denoted by the numeral **16** and on diametrically opposite sides are moulded or otherwise formed bosses or raised members **18—18**. These are provided around the marginal edge portion and have keeper seats or grooves **20** therein. The thus provided keepers are closed at opposite ends as at **22** and **24** respectively for an obvious keeper receiver and retaining results. The plug **12**, as best shown in Figure 3, is substantially semi-spherical in form and has an outstanding axial neck **26** with an endless bead **28**. The conductor or extension cord is denoted at **30**. The adapter cap or shield is a metal or equivalent stock and is denoted at **32** and it is precision made. That is to say, it is precisely and especially constructed to conformingly encase the body portion of the plug. There is a single hole or opening **34** in its crown portion through and beyond which the beaded neck **26** projects. At the base are outstanding, diametrically opposite keeper lugs **36—36** which releasably engage in the keepers **18—18**. The other feature is that the adapter cap is rigid and therefore not expansible or contractible and not in any manner yieldable. It is provided on its surface with appropriately arranged embossments **38—38** which provide finger grips and which assist in turning the cap. The cap is therefore permanently and swivelly mounted on the neck-equipped plug. It operates in an obvious manner. In Figure 2 it is shown in the released position and in Figure 3 in the locked or latched position and in Figure 1 the part separated so that all of the structural details and their association and arrangement and cooperation is consequently clear.

In the modification shown in Figure 4 a plate is provided to accommodate the adapter cap **40** which appears in Figure 5 and which is the same as the one already constructed except that it has three equidistant or circumferentially spaced keeper lugs **42** at 120 degree spaced points.

The plate **44** has suitably shaped and slotted areas or portions **46—46** to accommodate the adapter cap **40**. There are three keeper bosses around each area **46**. Actually, however, this is accomplished by using dual bosses at the center and single grooved bosses at the ends of the plate. The first bosses are in a pair and these are denoted by the numerals **48—48** and they have

their apex ends 50 directed toward each other and in alignment and located in the space 52 between the areas 46—46. The converging grooves are denoted by the numerals 54—54 and 56—56 in selectively usable pairs. The complemental pair of bosses are at the respective end portions of the plate and these are denoted by the numerals 58—58 and they have their inner basal edge portions grooved to provide keeper grooves 60—60. It follows that four bosses arranged in two pairs serve consequently to provide the sets of three keepers each for the swivelled cap 40 seen in Figure 5.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claim.

What is claimed as new is as follows:

As a new article of manufacture, an outlet box special purpose cover plate to take the place of the usual cover plate and having two plug accommodating and seating areas in spaced parallelism, a pair of V-shaped bosses aligned with each other in the space between said areas and having their apices directed toward each other and in alignment, the converging edge portion of said lugs having grooves defining keeper seats for complemental keeper lugs, and a second pair of similar bosses on said plate situated outwardly of the respective marginal portions of said plug seating areas and opposed to each other circumferentially spaced at equidistant points and having keeper grooves, whereby four bosses thus arranged provide six keeper grooves in all, specifically, two sets of three grooves each with said respective sets of three grooves at 120 degrees apart.

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