Jan. 2, 1962 F. S. CAMPBELL ET AL 3,015,408

OUTLET BOX COVER

Filed April 29, 1960

FIG. 1

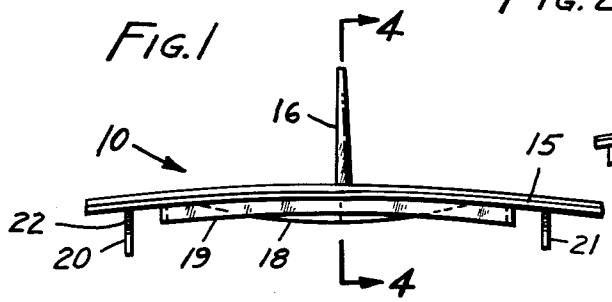


FIG. 2

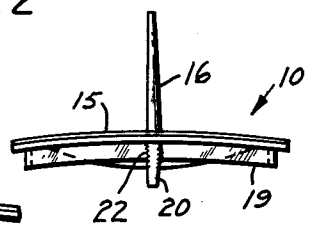


FIG. 3

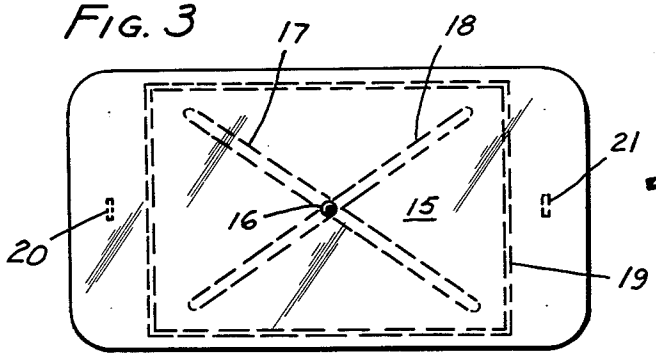


FIG. 4

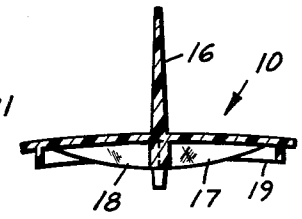


FIG. 5

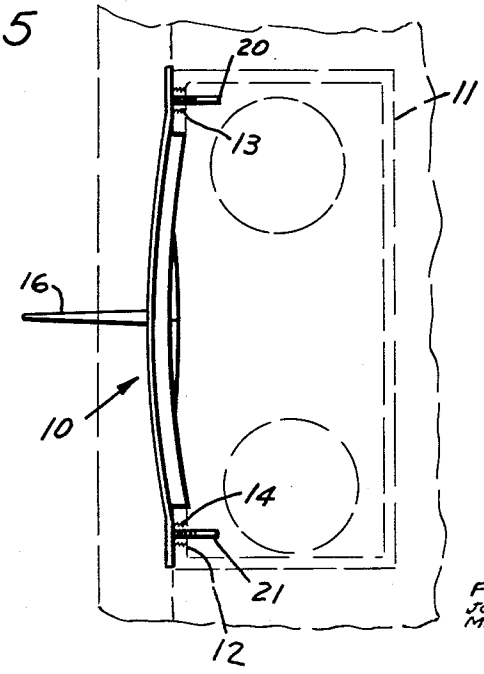
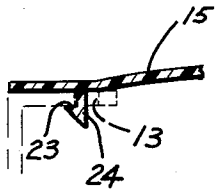


FIG. 6



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3,015,408

OUTLET BOX COVER

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12 Claims. (Cl. 220—3.4)

This invention relates to a cover for an outlet box of the type which has a threaded opening therein, the cover having means for attaching it to the outlet box and locating means which are able to be plastered over, thereafter protruding through the plaster to provide means for locating and removing the cover so that it can be removed to leave the outlet box clean and free of plaster.

Outlet box covers which can be plastered over and then removed are known in the art. However, each of the conventional covers suffers from some disadvantage which lessens its utility. For example, some types of covers rely for their retention on making a frictional fit with the outlet box. This frictional fit is not reliable, because it depends on the relative dimensions of the cover and the box, and it is possible for the dimensions of the cover to be changed, such as by bending of its flanges. Furthermore, if the fit is made tight enough to be reliable, the cover is difficult to remove, and violent forces used to remove it may result in removing or cracking plaster which ought to remain undisturbed on the wall. Other covers entirely lack, or have inadequate provisions for locating the cover after it is plastered over. All known devices lack means for cracking the plaster immediately adjacent to the outlet box, so that it can be easily removed along with the cover.

It is an object of this invention to provide an outlet box cover which is positively engaged to the outlet box, but which is easily removed therefrom. It is a further object of the invention to provide a flexible structure which may readily be flexed to crack the plaster covering it for facilitating the removal of both the cover and the excess plaster.

It is still a further object of the invention to provide a convenient means for finding the cover after it is plastered over.

It is still a further object of the invention to provide a cover with all the above advantages, all of which are provided in a simple and inexpensive device which may readily be cast from inexpensive plastic.

An outlet box cover according to this invention comprises a base sheet having on one of its surfaces a flexible rod-like locator member which is capable of being bent in all lateral directions, but which is made of material springy enough that it will return to its upright position, even through a layer of wet plaster. On the other side of the base sheet, there is a plurality of prongs, each of which is adapted to enter into a screw hole in the outlet box. These prongs are preferably tapered, and do not make frictional engagement with the threads. Instead, their sides are provided with notches adapted to snap into and engage with the threads in the screw holes.

According to a preferred but optional feature of the invention, the base sheet is domed convexly in the direction of the flexible rod-like member so that it may be pressed in the direction of the outlet box thereby to flex and crack the soft plaster which coats the cover.

According to still another preferred but optional feature of the invention, the side of the base sheet opposite from the flexible rod-like member is ribbed to provide for greater structural rigidity, to aid in maintaining the domed shape of the base sheet.

The above and other features of this invention will be

fully understood from the following detailed description and the accompanying drawings, in which:

FIG. 1 is a side elevation of the presently-preferred embodiment of the invention;

FIG. 2 is a side view of FIG. 1;

FIG. 3 is a top view of FIG. 1;

FIG. 4 is a cross-section taken at line 4—4 of FIG. 1;

FIG. 5 is a side elevation, partly in cutaway cross-section, showing the cover installed; and

FIG. 6 is a fragmentary cross-section of an alternate embodiment of the invention.

The presently-preferred embodiment of the invention is shown in FIG. 1, wherein there is shown a cover **10** adapted to be temporarily fitted to an electrical outlet box **11** (FIG. 5). Boxes of this type have flanges **12** with threaded openings **13, 14** to receive and engage with screws that hold permanent cover plates to the box in the final installation.

Cover **10** includes a base sheet **15**, from the center of one side of which there projects a flexible rod-like locator member **16**. This member is cast integral with the base sheet. It has a relatively thick base which tapers out to a thinner end. It is flexible in all lateral directions, so that when struck by a trowel, it yields to permit plaster to be spread atop it. The material of the member is sufficiently springy that it will return to an upright position, passing through the wet plaster to do so. The member is made preferably about 1" in length, and it will easily lift itself through a layer of plaster ¾" thick when the base of the member is approximately 5/32" in diameter, tapering down to 1/32" diameter over the 1" length.

The base sheet is domed convexly toward member **16**. Preferably, it is domed in all lateral directions. The domed shape is maintained by cross-ribs **17, 18** which are on and integral with the side of the base sheet opposite from member **16**. Additional rigidity is provided by a rectangular rib **19** which surrounds the cross-ribs.

Spaced apart from each other by a distance equal to the standard spacing between openings **13, 14** in electrical outlet boxes, there are two prongs **20, 21**, prong **20** being shown in full detail in FIGS. 1 and 2. The other prongs are identical. Each of the prongs is flat and integral with the base sheet. Each has a tapered free end to aid in guiding the prongs into openings and a somewhat more rectangular section closer to the base. The thin dimension of the prong is less than the diameter of the hole. The thin edges of the prong bear a plurality of notches **22** which are staggered from side to side to form ridges that fit the pitch of the threads in openings **13, 14**.

When the device is placed over the outlet box, the tapered shape of the prongs guides the prongs into the openings. The material used to make this cover plate is sufficiently resilient that the ridges can snap over the crests of the threads in the holes of the outlet box and spring into and make a firm engagement with the threads. This engagement is different from a mere frictional engagement. These prongs do not make a frictional surface engagement with any portion of the box; instead portions of the prongs snap into the threads so that the threads and prongs interengage and make an abutting engagement, which is strong and reliable.

After the cover has been plastered over and is to be removed, it is located by finding member **16**, which will protrude through the plaster. Before the member is pulled, the plaster is pressed immediately adjacent to the locator member. This flexes the cover. This flexure causes the plaster to crack around the edge of the cover. This frees the plaster which coats the cover so that the plaster is easily removable with the cover by a sharp pull on the locator member.

This device may conveniently be made of any desired

flexible plastic, the presently-preferred material being polyethylene. It may also be made of any other suitable material resistant to plaster, such as pressed paper, or even of an inflexible material. Flexibility renders the device more suitable, but is not essential.

FIG. 4 illustrates an alternate embodiment of the invention wherein the catch engagement of a hook **23** on the end of a prong **24** is substituted for the tapered notched prongs **20, 21.**

It will be observed that this inexpensive device, which is rigid enough to act as a cover, and flexible enough to permit the plaster to be cracked, makes either a firm thread-type engagement in the screw openings on the outlet box, or a hook-type engagement, and is thus firmly engaged by structure, and does not rely on friction to hold it in place. Because friction is not necessary to hold it in place, the device need not be made of metal or excessively rigid materials. Instead, a unitary cast plastic product can be made, which is much less expensive.

This invention thereby provides an inexpensive, expendable and reliable outlet box cover, which is more convenient and reliable to use than the conventional devices known in the art.

This invention is not to be limited by the embodiments shown in the drawings and described in the description which are given by way of example and not of limitation, but only in accordance with the scope of the appended claims.

We claim:

1. An outlet box cover adapted to be affixed to an outlet box having a pair of threaded openings therein, comprising: a flexible base sheet; a flexible rod-like locator member projecting from a medial position on said base sheet, said locator member being flexible in all lateral directions and sufficiently springy to return to an upright position through wet plaster relative to the base sheet, said base sheet being convexly domed in all directions toward said locator member; a pair of prongs integral with and extending from the base sheet on the opposite side of said base sheet from the locator member, and so disposed and arranged as to enter into individual ones of the threaded openings in the outlet box; a pair of cross-ribs integral with the base sheet and on the same side thereof as the prongs; notches on said prongs spaced apart to conform to the pitch of the threads in said openings, said notches forming ridges adapted to enter and engage in the said threads, the material of the ridges being sufficiently resilient to enable the ridges to spring over the crests of the threads and spring into said threads, whereby the cover may be attached to the outlet box by forcing the prongs into the openings in the outlet box until the notches engage with the threads therein, and the cover may thereafter be plastered over, whereupon the locator member returns upright and protrudes through the plaster to serve as a locator means, and whereby the plaster adjacent the locator member may be pressed inwardly to flex the dome structure and crack the plaster around the cover, the cover and the plaster which coats it being thereby removable by a pull on the locator member.

2. An outlet box cover according to claim 1 in which the prongs have a non-circular lateral cross-section.

3. An outlet cover according to claim 1 in which the outlet cover is entirely made of a flexible plastic.

4. An outlet cover according to claim 3 in which the outlet cover is made of polyethylene.

5. An outlet box cover adapted to be affixed to an outlet box having a pair of threaded openings therein, comprising: a flexible base sheet; a flexible rod-like locator member projecting from a medial point on said base sheet, said locator member being flexible in all lateral directions and sufficiently springy to return to an upright position through wet plaster relative to the base sheet, said base sheet being convexly domed in all directions toward said locator member; a pair of prongs integral with and extending from the base sheet on the opposite side thereof from the locator member, and so disposed and arranged as to enter into individual ones of the threaded openings in the outlet box, said prongs being flexible and having a hook on their ends for engaging the outlet box; a pair of ribs integral with the base sheet and on the same side thereof as the prongs, whereby the cover may be attached to the outlet box by forcing the prongs into the openings in the outlet box until the hooks snap over the back thereof, and the cover may thereafter be plastered over, whereupon the locator member returns upright and protrudes through the plaster to serve as a locator means, and whereby the plaster adjacent the locator member may be pressed inwardly to flex the dome structure and crack the plaster around the cover, the cover and the plaster which coats it being thereby removable by a pull on the locator member.

6. An outlet box cover adapted to be affixed to an outlet box comprising: a flexible base sheet; a flexible rod-like locator member projecting from a medial point on said base sheet, said locator member being flexible in all lateral directions and sufficiently springy to return to an upright position through wet plaster, said base sheet being convexly domed in all directions toward said locator member; a pair of prongs integral with and extending from the base sheet on the opposite side thereof from the locator member and so disposed and arranged so as to be engageable with portions of the outlet box, said prongs being flexible and having a hook on their ends for engaging the outlet box; a pair of ribs integral with the base sheet and on the same side thereof as the prongs, whereby the cover may be attached to the outlet box by snapping the prongs over a portion thereof, and the cover may thereafter be plastered over, whereupon the locator member returns upright and protrudes through the plaster to serve as a locator means, and whereby the plaster adjacent to the locator member may be pressed inwardly to flex the domed structure and crack the plaster around the cover, the cover and the plaster which coats it being thereby removable by a pull on the locator member.

7. A cover for outlet boxes of the type having thread-tapped openings comprising: a base sheet; a flexible rod-like locator member extending outwardly from a medial location on said base sheet, and which is flexible in all lateral directions and sufficiently springy to return to an upright position through wet plaster relative to the base sheet; a plurality of tapered prongs integral with and on the other side of said base sheet from the locator member, notches on said prongs spaced apart to conform to the pitch of the threads in said openings, said notches forming ridges adapted to enter and engage in the said threads, the material of the ridges being sufficiently resilient to enable the ridges to snap over the crests of the threads and spring into said threads for engagement therewith; the base sheet being domed convexly toward the locator member; and a plurality of ribs formed integral with and on the opposite side of the cover from the locator member for maintaining the domed shape of the base sheet.

8. An outlet box cover according to claim 7 in which the prongs are flat, tapered prongs, the notches being provided in the edges of the prongs.

9. An outlet box cover adapted to be affixed to an outlet box having a pair of threaded openings therein, comprising: a flexible base sheet; a flexible rod-like locator member projecting from a medial position on said base sheet, said locator member being flexible in all lateral directions and sufficiently springy to return to an upright position through wet plaster relative to the base sheet; a pair of prongs integral with and extending from the base sheet on the opposite side of said base sheet from the locator member, and so disposed and arranged as to enter into individual ones of the threaded openings of the outlet box; a pair of ribs integral with the base sheet and on the same side thereof as the prongs; notches on said prongs spaced apart to conform to the pitch of the threads in said openings, said notches forming ridges adapted to enter

into and engage in said threads, the material of the ridges being sufficiently resilient to enable the ridges to spring over the crest of the threads and spring into said threads; whereby the cover may be attached to the outlet box by forcing the prongs into the openings in the outlet box until the notches engage with the threads therein, and the cover may thereafter be plastered over, the ribs supporting the base sheet against collapse during the plastering operation, whereupon the locator member returns upright through the wet plaster and protrudes therefrom to serve as a locator means, and whereby the plaster adjacent to the locator member may be pressed inwardly, the flexibility of the base sheet permitting said flexure so as to crack the plaster around the cover, the cover and the plaster which coats it being thereby removable by pull on the locator member, the base sheet, locator member and prongs all being integral and made of a single integral piece of material.

10. An outlet box cover according to claim 9 in which the outlet cover is entirely made of flexible plastic.

11. An outlet box cover according to claim 9 in which the outlet cover is entirely made of polyethylene.

12. An outlet box cover according to claim 9 in which the prongs have a non-circular lateral cross-section.

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