April 5, 1927. 1,623,587

O. A. FREDERICKSON

OUTLET BOX

Filed Feb. 28, 1925

Fig. 1

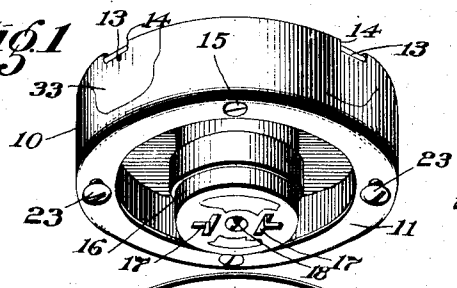


Fig. 2

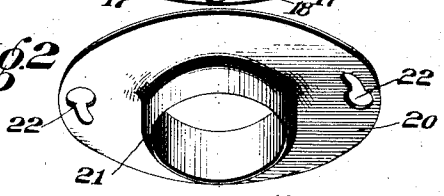


Fig. 3

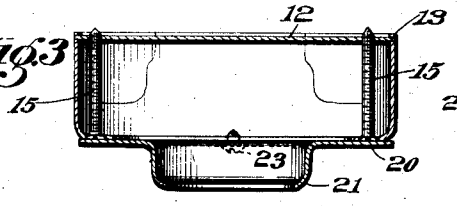


Fig. 4

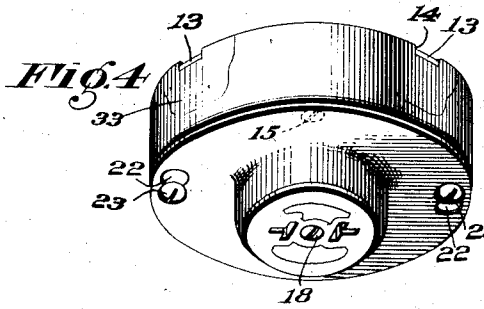


Fig. 5

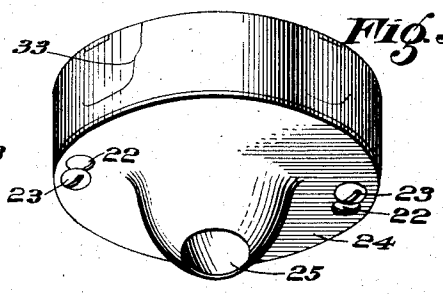


Fig. 6

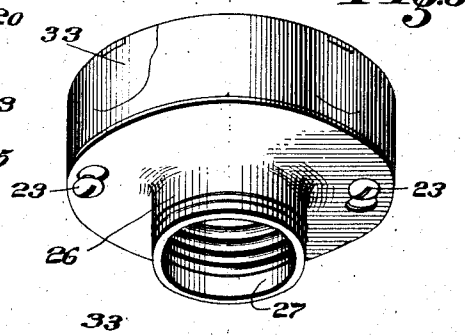


Fig. 7

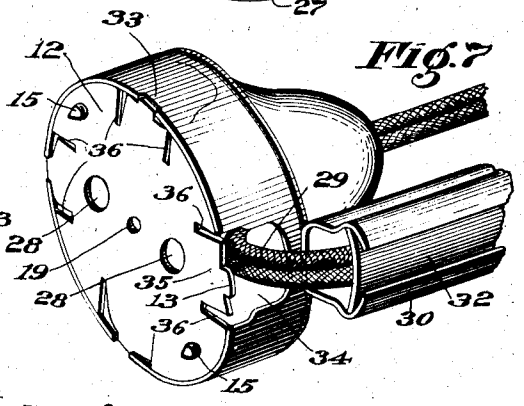


Fig. 9

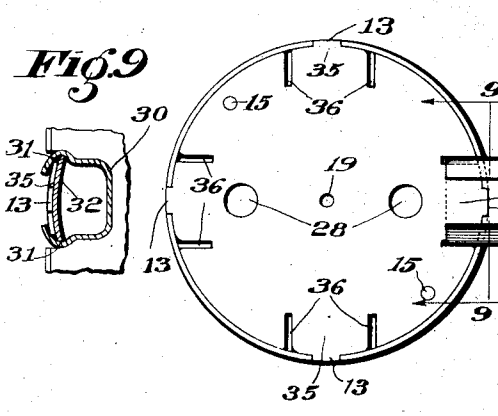
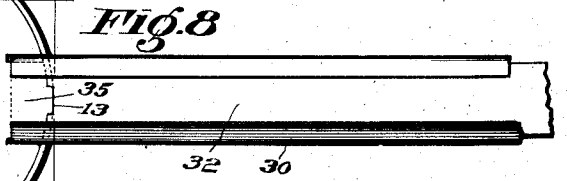


Fig. 8



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UNITED STATES PATENT OFFICE.

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OUTLET BOX.

Application filed February 28, 1925. Serial No. 12,230.

This invention relates to electric outlet boxes of the type which are constructed to be secured against the wall or ceiling of a building.

Outlet boxes of this type are extensively used to enclose and support socket plugs, electric light sockets and other fittings, and are also used to support suspended electric feed wires.

It has been proposed heretofore to provide an outlet box consisting of a substantially cup-shaped casing which is open at its base, and has an integral reduced neck at its upper face constructed to embrace the protruding portion of an electric light socket or other fitting mounted in the casing. The different types of fitting now in common use vary considerably in size and shape, and it has therefore been necessary heretofore to provide a differently shaped casing for each different type of fitting. But it is frequently necessary to install any one of several different types of fittings, in wiring a house or other building, and it has therefore been necessary heretofore to keep on hand a large assortment of fittings and outlet boxes.

In order to reduce the amount of equipment it is necessary to keep in stock, the parts should be standardized as far as practical, and an important feature of the present invention, therefore, resides in the novel construction by which a single standard casing may be used in installing any of the different types of fittings.

In carrying out the present invention, the standard casing is not provided with a reduced neck that is constructed to fit a particular type of fitting as heretofore, but the casing is constructed to receive differently shaped cover plates, the necks of which are constructed to fit the different fittings. In this manner any desired type of fitting may be secured in the standard casing, and then the appropriate cover plate having the properly shaped neck is secured to the casing. Furthermore, by providing the removable cover the screws which hold the casing to the base plate may be entered in the base much more readily than heretofore.

Other features of the invention reside in the shape and construction of the casing and base plate, by which conduits may be readily secured to the casing, and in the construction by which the different cover plates may be readily secured to and removed from the casing.

The various features of the invention and novel combination of parts will be best understood from the following description and accompanying drawings illustrating a good practical form of the invention.

In the drawings—

Fig. 1 is a perspective view of a casing constructed in accordance with the present invention and having one type of fitting mounted therein.

Fig. 2 is a perspective view of a cover plate for the casing and fitting of Fig. 1.

Fig. 3 is a sectional view through the casing of Fig. 1 and cover plate of Fig. 2, with the fitting omitted.

Fig. 4 is a perspective view of the casing and fitting of Fig. 1 with the cover plate in place.

Fig. 5 is a perspective view of the casing of Fig. 1, provided with the "rosette" type of cover plate.

Fig. 6 is a perspective view of the casing of Fig. 1 provided with a third type of cover plate.

Fig. 7 is a different perspective view of Fig. 5 showing a conduit which is designed to be used with the casing.

Fig. 8 is a bottom plan view of the outlet box, showing the conduit secured to the box; and

Fig. 9 is a sectional view taken on the line 9—9 of Fig. 8.

The standard casing 10 which is adapted to receive the different types of fittings is shown as somewhat cup-shaped, and the casing is open at its base and is provided at its upper face with an inwardly extending annular flange 11.

The open base of the casing 10 is closed by the base plate 12 and the base plate is preferably provided with projecting lips 13 which fit notches 14 formed in the base of the casing. The base plate fits within the base of the casing and is positioned therein by the lips 13, while screws 15 extending through the annular flange 11, and having threaded engagement with the base plate secure the latter in place.

The casing 10 and base plate 12 are standard and any one of a number of different types of fittings may be secured in this standard casing. In Fig. 1 the fitting 16

shown is an attachment plug base of well known construction adapted to receive a plug cap (not shown) provided with blades which are inserted in the slots 17. The plug base 16 is secured within the casing 10 by the screw 18 having threaded engagement with the hole 19 in the base plate, and a similar screw serves to secure other types of fitting in the standard casing 10.

The cover plate 20 shown in Figs. 2, 3 and 4, has a neck 21 provided with a central opening which fits the protruding end of the fitting 16. The cover plate 20 rests upon the upper face of the annular flange 11 and is shown as having the key-hole slots 22 adapted to receive the headed screws 23 which are screwed into the flange 11. As a result of this form of securing means, the differently shaped cover plates may be readily secured to and removed from the casing 10.

The cover plate 24 of Fig. 5 is of the "rosette" type and is used when no fitting is mounted in the casing 10, but suspended wires are led out through the opening 25.

The cover plate of Fig. 6 has a relatively long neck 26 to receive the internally threaded type of fitting 27 which is adapted to receive the threaded base of an electric light.

In installing the outlet box of the present invention, the base of the casing 10 is placed against a supporting surface such as a wall or ceiling of a room and is secured to such surface by headed screws extending through the holes 28 of the base plate into the surface.

Current may be supplied to the outlet box by insulated wires 29 enclosed in the metal conduit 30. The conduit 30 is shown as consisting of a U-shaped cover having spaced grooves 31, and a cap 32 the opposite edges of which extend into said grooves. It is desirable to project the end of the conduit 30 into the casing 10 and the casing is therefore provided with the knock-out portions 33 formed in the wall of the casing and removable to form the opening 34. Four knock-out portions 33 are provided to accommodate this number of conduits. As a result of this construction, when a knock-out portion 33 is removed, the supporting notch for the adjacent lip 13 is also removed, thus permitting the base plate 12 to be forced into tight clamping engagement with the conduit 30 upon tightening the thru screws 15.

The opening 34 has a configuration to conform to the shape of the conduit and is positioned so that the base or wall engaging face of the conduit lies approximately flush with the base of the casing 10, and in order to firmly secure the conduit to the casing the base plate 12 is provided with tongues 35, one opposite each knock-out portion 33, and formed by cutting the slots 36 in the base plate. These tongues are shaped to enter the grooves 31 of a conduit as it is inserted in the casing, and since the tongue fits tightly in the grooves against the cap 32, a firm connection is secured.

From the foregoing it will be seen that different types of fittings may be mounted in the casing 10, whereupon the proper cover plate for the fitting used is selected and secured to the casing by engaging the key-hole slots 22 with the screws 23. In this manner a standard casing may be used in installing the various different types of fittings. Furthermore, since the casing 10 has a relatively large opening at its upper face, the screws 15 which secure the casing to the base plate may be guided into the threaded holes of the base much more readily than heretofore.

What is claimed is:—

1. An electric outlet box, comprising, in combination, an open bottom casing for receiving differently shaped fittings and having a wall and an inwardly extending flange at its top face, a knock-out portion formed in the wall of the casing and removable to form a conduit receiving opening, a base plate constructed to fit within the open bottom of the casing and provided with a tongue having means engaging the bottom of the wall when a knock-out portion is in place and engaging a conduit when the latter is inserted in a knock-out opening, and securing means extending from the inwardly extending flange to the base plate and adapted to force the base plate into clamping engagement with the conduit.

2. An electric outlet box, comprising, in combination, an open bottom casing for receiving differently shaped fittings and having a wall and an inwardly extending flange at its top face, knock-out portions formed in the wall of the casing and removable to form conduit receiving openings, a base plate constructed to fit within the open bottom of the casing and provided with tongues each constructed to engage the bottom of a knock-out portion when said portion is in place and adapted to engage a conduit when the conduit is inserted in a knock-out opening, and securing means extending from the inwardly extending flange to the base plate and adapted to force the base plate into clamping engagement with the conduit.

3. A cooperating conduit and outlet box, comprising, in combination, a conduit consisting of an U-shaped cover having spaced grooves and a cap secured in said grooves, an outlet box consisting of an open bottom casing having an enclosing wall, a base plate for closing the bottom opening of the casing, a knock-out portion formed in a wall of the casing and removable to form an opening to receive said conduit, an integral tongue formed upon the base plate and adapted to fit snugly in the grooves of the conduit when the latter is inserted in the

knock-out opening, and means for securing the base plate to the casing by forcing it into firm, clamping engagement with the conduit.

4. A cooperating conduit and outlet box, comprising in combination, a conduit consisting of an U-shaped cover having spaced grooves and a cap secured in said grooves, an outlet box consisting of an open bottom casing having a wall and an inwardly extending flange at its top face, a base plate for closing the bottom opening of the casing, a knock-out portion formed in the wall of the casing and removable to form an opening to receive said conduit, a tongue formed upon the base plate, and adapted to fit snugly in the grooves of the conduit when the latter is inserted in the knock-out opening, and thru bolts extending from said flange to the base plate for securing the latter to the casing in clamping engagement with the conduit.

5. A cooperating conduit and outlet box, comprising, in combination, a conduit formed with opposite spaced grooves adapted to receive a tongue, an electric outlet box consisting of an open bottom casing for receiving differently shaped fittings and having a wall and an inwardly extending flange at its top face, a knock-out portion formed in the wall of the casing and removable to form a conduit receiving opening, a base plate constructed to fit within the open bottom of the casing and provided with a tongue adapted to engage the bottom of the knock-out portion when said portion is in place and constructed to enter the spaced grooves of the conduit when the conduit is inserted in the knock-out opening, and securing means extending from the inwardly extending flange to the base plate and adapted to force the base plate into clamping engagement with the conduit.

In testimony whereof, I have signed my name to this specification.

OTTO A. FREDERICKSON.