Sept. 10, 1929. H. E. SLADE ET AL 1,728,013

CONVENIENCE OUTLET RECEPTACLE

Filed May 4, 1925

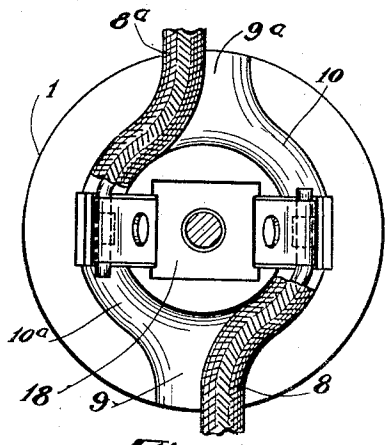


Fig. 3

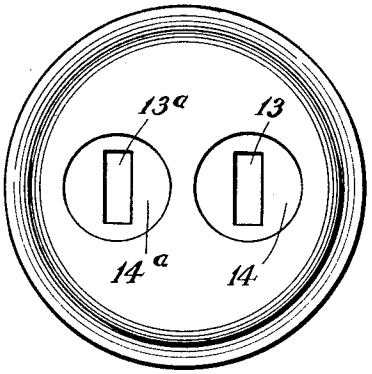


Fig. 4

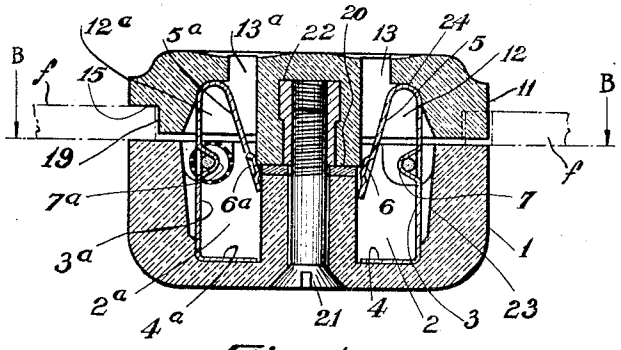


Fig. 1

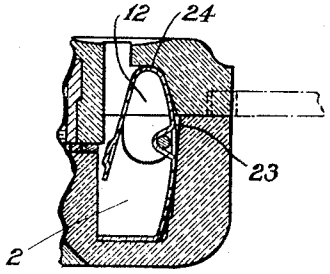


Fig. 5

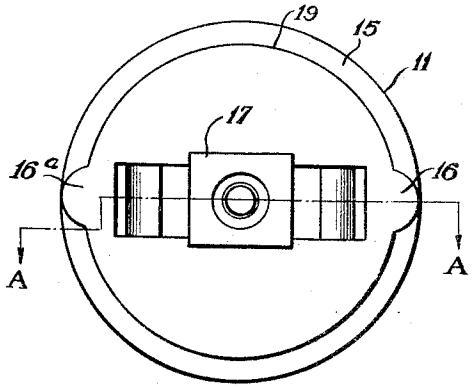


Fig. 2

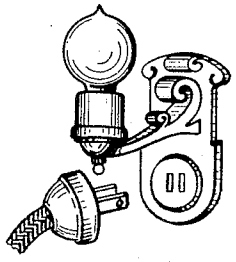


Fig. 6

WITNESSES

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UNITED STATES PATENT OFFICE.

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CONVENIENCE OUTLET RECEPTACLE.

Application filed May 4, 1925. Serial No. 27,880.

Our invention relates to improvements in the design of receptacles which may be used in wall fixtures for electric lighting.

The object of our invention is to provide a receptacle which is small in size, of rugged construction and economical to manufacture.

A further object is to provide a device which can be installed with a minimum amount of labor and also be safe from accident and fire hazards.

The device is particularly suited to the requirements of bathroom outlets, as the most convenient, economical and safe place for the outlet is above the wainscot line.

A further use to which our invention may be put is in connection with standard outlet boxes. When used for this purpose the mode of installing is reversed from the standard practice. Instead of the receptacle being fastened to the box, it is fastened to the wall plate, which in turn is fastened to the outlet box. This saves the expense of placing the receptacle in the box after the plastering has been done, and then putting on the wall plate after the interior trimming has been finished, as is now the usual practice.

We attain our object by the use of parts illustrated in the accompanying drawings, in which:

Figure 1 is a section thru the device taken along line "A—A" Figure 2.

Figure 2 is a plan view of the under side of the cap member.

Figure 3 is a plan view of the body member viewed in the direction of the arrows B—B Figure 1.

Figure 4 is a plan view of the top side of the cap member.

Figure 5 is a section thru the pocket and contact showing the formation assumed when the cap and body members are tight together.

Figure 6 illustrates the receptacle mounted for use in a lighting fixture bracket.

In carrying out our invention, we employ a body member 1, made from any suitable form of moulded insulating material having pockets 2—2ª, into which contacts are housed. These contacts are comprised of central or vertical members 3—3ª, foot members 4—4ª and resilient members 5—5ª, which are turned back substantially parallel to the vertical members, adjacent the free ends of the resilient members, bosses 6—6ª, are raised. These bosses co-act with holes in attachment plug cap blades (not shown) to resist any tendency of the attachment plug and the receptacle to separate unless force is applied to cause such separation.

Midway or approximately so, between the foot ends and the resilient ends, provision is made in the vertical member to attach lead wires, which carry the current supply to the device, by slitting and forming loops as shown at 7—7ª. These lead wires, shown in part at 8—8ª, having the insulation removed from the ends, enter the body 1 of the device thru openings 9—9ª, pass around the annular grooves 10—10ª, to the loops 7—7ª, where the final connection is made, preferably by soldering.

A cap member 11 made from any suitable form of moulded insulating materials is also employed, into which pockets 12—12ª, are formed. Connecting these pockets and the upper or outer face of the cap member are passages 13—13ª, thru which the blades of an attachment plug cap enter. To afford ease of entrance of these blades, convex depressions 14—14ª are formed about the centers of the passages 13—13ª, on the outer face of the cap member.

It is desirable that the entire device, when mounted on a lighting fixed bracket, be prevented from rotating. To this end the under face of the cap member 11 is formed with a flange 15, having keys or bosses 16—16ª, which co-act with an opening of the same conformation cut in the bracket, which is indicated by the dotted lines "FF."

To facilitate the alignment of the contacts within the pockets 2—2ª of the body and 12—12ª of the cap, a central boss 17, having a square contour is formed on the cap member. This boss projects beyond the face of the cap and enters a co-operating cavity 18 in the body.

In order that the cap and body may be rigidly fastened to the bracket, the height

of the shoulder 19 adjacent the flange 15 on the cap is made slightly less than the thickness of the fixture bracket. As the body member rests against the back of the fixture bracket a gap will ocur between the faces of the boss 17 and the cavity 18. To fill this gap and thereby prevent any possibility of short circuiting between the contacts, an elastic washer 20 is placed between the two members.

The fastening of the cap and body is made by passing the screw 21 thru the body member and screwing it into a threaded insert 22 which is moulded into the cap member.

It will be seen that the fixture bracket is effectually clamped between the flange 15, of the cap member 11, and the upper face of the body member 1.

To provide for variations in thickness of the metal of the fixture bracket and at the same time have the contacts held stationary between the body 1 and the cap 11, the flexibility of the vertical member 3 of the contact is taken advantage of, by providing angular sides 23 in the pocket 2. These angular faces form clearances into which vertical members 3 may be sprung when compressed at the foot members 4 and the radius 24, by pressure on the bottoms of the pockets 2 and 12. This springing is illustrated very clearly in Figure 5.

Having described our invention what we claim is:—

1. In an outlet receptacle, a body, a cap therefor, said body and cap having depressions therein, resilient blade gripping contacts housed in said depressions, a shoulder on said cap member for entrance through an aperture of a wall plate or lighting fixture, a central clamping screw common to said cap and body, a threaded housing which the end of said screw engages for holding said body and cap to their support, said contacts each comprising a foot portion, a vertical portion, and a reversely inclined portion, said vertical portion having loops formed therein for the reception of lead wires.

2. In an outlet receptacle, a body, a cap therefor, said body and cap having depressions therein, resilient blade gripping contacts housed in said depressions, a shoulder on said cap member for entrance through an aperture of a wall plate or lighting fixture, a central clamping screw common to said cap and body, a threaded bushing which the end of said screw engages for holding said body and cap together and to their support, the outer wall of the depression in said cap being inclined and diverging towards said body, said contacts each comprising a foot, and a vertical portion having a reversely turned terminal, loops for the reception of lead wires formed in the vertical portions of said contacts, and an elastic washer interposed between the juxtaposed central portions of said cap and body.

3. In an outlet receptacle, a body, a cap therefor, said body and cap having depressions therein, resilient blade gripping contacts housed in said depressions, a shoulder on said cap member for entrance through an aperture of a wall plate or lighting fixture, a central clamping screw common to said cap and body, and a threaded bushing with which the end of said screw engages for holding said body and cap together and to their support, the outer walls of said depressions being arranged in said cap and body and being inclined and diverging outwardly so as to form clearances into which portions of said contacts spring when said screw is tightened.

4. In an outlet receptacle, a body, a cap therefor, said body and cap having depressions therein, resilient blade gripping contacts housed in said depressions and having means formed therein for engaging lead wires, a shoulder on said cap member for entrance through an aperture of a wall plate, a central clamping screw common to said cap and body, and a threaded bushing which the end of said screw engages for holding said body and cap together and to their support, the outer walls of said depressions being arranged in said body and cap and being angular and diverged outwardly, whereby clearances are formed for a portion of said resilient contacts to be sprung into.

Signed by us this 30th day of April, 1925, at Newark, N. J.

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