Feb. 18, 1941. C. T. VON HOLTZ 2,231,976

ELECTRICAL RECEPTACLE

Filed Oct. 4, 1938

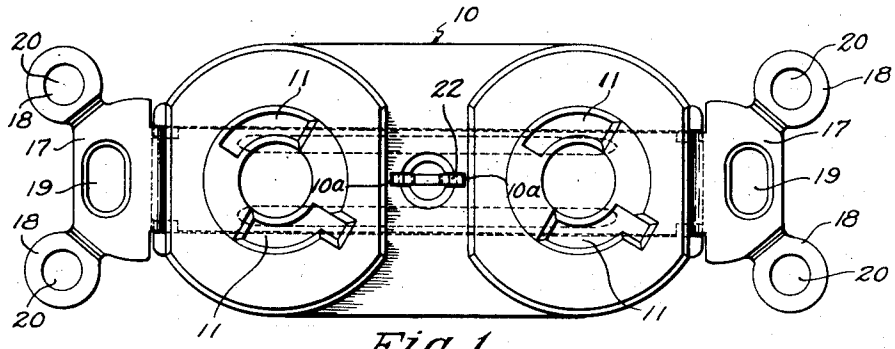


Fig. 1

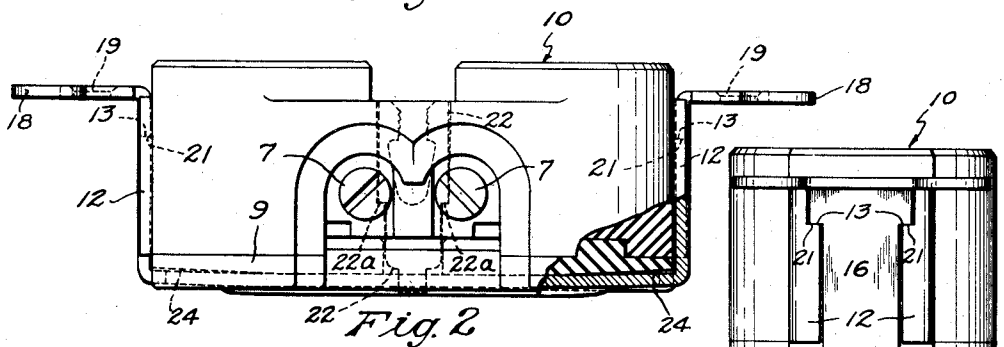


Fig. 2

Fig. 3

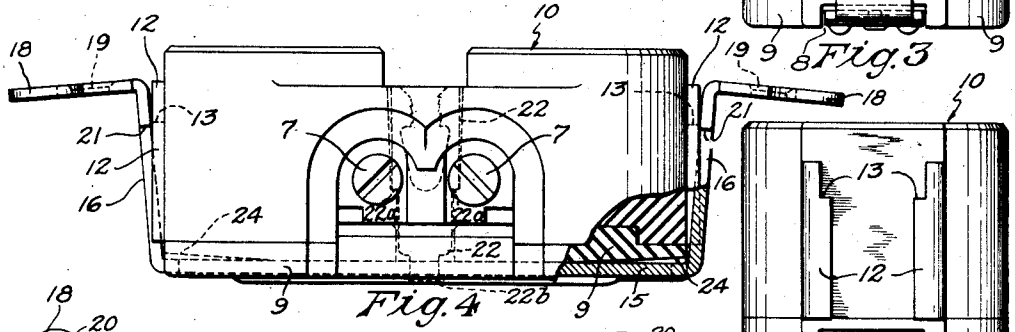


Fig. 4

Fig. 5

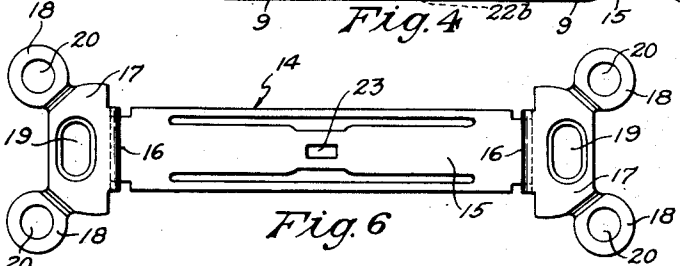


Fig. 6

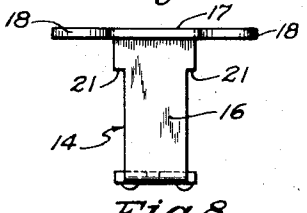


Fig. 8

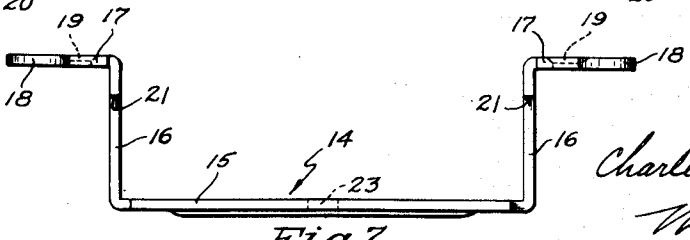


Fig. 7

INVENTOR

Charles Theodore Von Holtz

BY

Wooster & Davis

ATTORNEYS.

Patented Feb. 18, 1941

2,231,976

UNITED STATES PATENT OFFICE

2,231,976

ELECTRICAL RECEPTACLE

Charles Theodore Von Holtz, Bridgeport, Conn., assignor to Harvey Hubbell, Incorporated, Bridgeport, Conn., a corporation of Connecticut

Application October 4, 1938, Serial No. 233,262

2 Claims. (Cl. 173—330)

This invention relates to new and useful improvements in electrical devices and has particular relation to wall outlet receptacles and other devices adapted to be mounted in openings in walls, baseboards and the like.

An object of the invention is to provide an electrical device of the class indicated with cooperating shoulders on its body and mounting yoke or bridge whereby the said body may not be pulled out of the bridge or yoke when the device is in place in a wall or the like.

Other objects and advantages will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it is to be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the scope of the invention and of the appended claims.

In the drawing:

Fig. 1 is a top plan or face view showing a wall outlet receptacle made in accordance with the invention;

Fig. 2 is a side elevational view of the receptacle with a portion broken away;

Fig. 3 is an end elevational view of the receptacle;

Fig. 4 is a view similar to Fig. 2 but showing the mounting yoke or bridge of the receptacle prior to being snapped into its final position;

Fig. 5 is an end elevational view of the body of the receptacle, the yoke being omitted;

Fig. 6 is a top plan view of the yoke alone;

Fig. 7 is a side elevational view of the yoke; and

Fig. 8 is an end elevational view of the yoke.

In this type of device it is common to secure the mounting yoke or bridge to the body of the device by a rivet extending through the central part of the yoke. With this arrangement, however, pull on the attachment plug caps inserted in the receptacle to remove them by pulling outwardly on the body may tend to bend the yoke or bridge backwardly so the device becomes out of place. This is prevented with the present construction.

Referring in detail to the drawing the receptacle shown includes a body 10 of suitable insulating material as "Bakelite" or other suitable material. Body 10 has entrance slots 11 in its front wall for insertion of the contact blades of attachment plug caps and which slots lead to suitable contact elements (not shown) mounted in the body of the receptacle. Binding screws for connecting lead wires to these contacts are shown at 7. On its end walls the body 10 is provided with spaced projections or ribs 12 offset toward their forward ends to provide shoulders 13 facing forwardly of the body. The rear of the body includes the cover plate 9, also of insulating material closing the contact recesses in the body.

A yoke or bridge 14 is used for mounting the body 10 in a wall outlet box (not shown), and such yoke is generally U-shaped and includes an intermediate or connecting portion 15, end arms 16 and projecting end portions 17 which may or may not have the removable ears 18 as desired. Portions 17 as usual have elongated openings 19 for the passage of mounting screws, and when provided the ears 18 are perforated providing openings 20 so when the ears are broken off they may be used as spacing washers on the mounting screws.

The arms 16 of the yoke are of a width to enter between the ribs 12 on the ends of the body 10, and each such arm toward its upper or outer end is widened whereby to provide it with inwardly facing shoulders 21 located one at each edge of the arm. In assembling the receptacle the body 10 is inserted into the yoke 14 to locate the rear wall of the body against the connecting portion 15 of the yoke. Then the body and yoke are connected by a suitable fastener 22 mounted in an opening 10*a* in the body and at its inner end through an opening 23 in the yoke. The securing element has shoulders 22*a* resting on shoulders on the sides of opening 10*a*, and the inner end of the element 22 is passed through the opening 23 and riveted over as shown at 22*b* to secure the yoke 15.

When the parts are initially secured together they are related as shown in Fig. 4. It will be noted that the yoke is in the longitudinal groove or channel 8 in the back of the body cover 9 but that the arms 16 of the yoke are not extending parallel with the ends of the body but are inclined with respect thereto. The rear or inner surface of the body or cover plate 9 adjacent each end of the channel 8 is inclined as at 24 permitting the portions 17 of the yoke to be forced forwardly and inwardly toward the ends of the body 10 whereby to snap the shoulders 21 of the yoke over the shoulders 13 provided by the ribs 12.

The inclines 24 at the ends of the inner wall of the body permit of the springing of the yoke to snap the shoulders 21 thereof into place behind the shoulders 13. With the shoulders 21

in engagement with the shoulders 13 it will be apparent that the body 10 may not be pulled out of the yoke and that the end portions of the yoke may not be pulled away from the ends of the body. Any pull on a cord or an appliance connected with the contacts of the body 10 by a cord will only result in the shoulders 13 of the body being forced against the shoulders 21 of the yoke, but cannot result in the body being pulled outwardly of the yoke in a manner to spring or bend the connecting portion 15 thereof at opposite sides of the fastening means 22. Yoke portion 15 may be strengthened by longitudinal ribs 25 pressed therefrom.

Since the end portions of the yoke are sprung to snap the shoulders 21 behind the shoulders 13 it will be apparent that the yoke is tensioned when on the body 10 and that there is a constant pressing of the shoulders 21 of the yoke against the shoulders 13 of the body. The arrangement whereby the yoke is sprung to snap the shoulders 21 into place is also of advantage in that it permits of manufacturing tolerance. That is, with the described construction the shoulders 13 on the ends of the body 10 need not in each device be the exact same distance from the front or rear of the body. Any little differences due to variations in the amount of shrinkage or other causes may be compensated for by more or less springing of the end portions of the yoke.

Having thus set forth the nature of my invention, what I claim is:

1. An outlet receptacle including a body of insulating material, a mounting yoke extending along the rear of said body and having forwardly extending arms at the ends of the body, forwardly facing shoulders on the ends of said body and rearwardly facing shoulders on said arms, and said body having forwardly inclined portions on its rear side adjacent its ends whereby said yoke may be sprung forwardly to snap the shoulders on said arms into positions behind the shoulders on the body to prevent the latter being pulled out of the yoke.

2. An outlet receptacle including a body of insulating material, a mounting yoke extending along the rear of the body and having forwardly extending arms at the ends of the body, said body having forwardly extending grooves in the opposite ends thereof wider at their forward portions providing forwardly facing shoulders, said arms of the yoke being seated in said grooves and being wider at their forward end portions providing rearwardly facing shoulders engaging the shoulders on the body to retain the body in the yoke, and the rear surface of the body including forwardly inclined portions adjacent the ends of the body to permit the yoke to be flexed forwardly relative to the body to snap the shoulders on the arms over the shoulders on the body.

CHARLES THEODORE VON HOLTZ.