Feb. 23, 1932. R. A. MILLERMASTER 1,846,447

ELECTRIC LAMP RECEPTACLE

Filed Feb. 10, 1930

Fig. 1

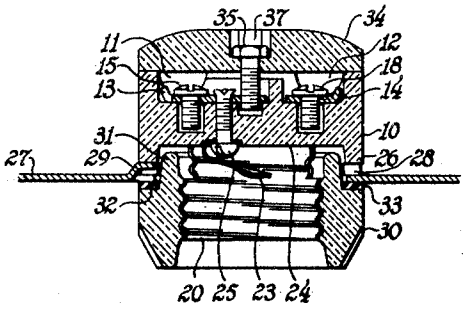


Fig. 2

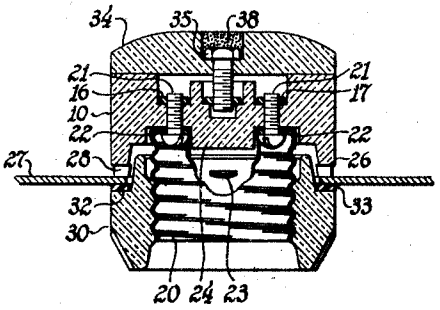


Fig. 3

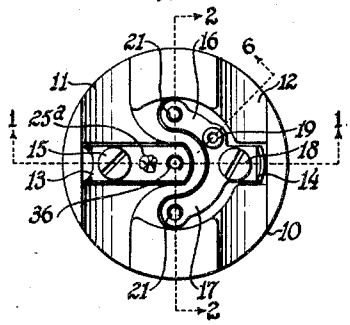


Fig. 4

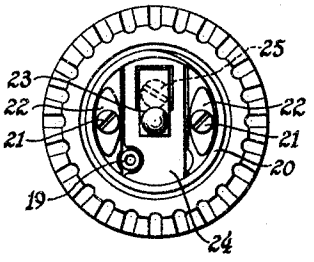


Fig. 5

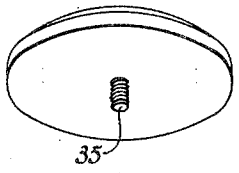
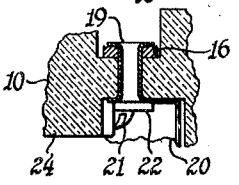


Fig. 6



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UNITED STATES PATENT OFFICE

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ELECTRIC LAMP RECEPTACLE

Application filed February 10, 1930. Serial No. 427,247.

This invention relates to improvements in electric lamp receptacles, such as are attached to metal signs or the like.

In many instances it is desirable to enclose the rear face of the individual lamp receptacles by means of separate insulating cover members whereby the terminals and wiring connections are insulated and protected from the corrosive action of weathering, while at the same time giving a more finished appearance to the receptacle.

It has been proposed to provide a center contact securing screw sufficiently long to project beyond the rear face of the insulating base to take into a nut embedded in or carried by a suitable cover member. However, if it is desired to use the receptacle without the cover member, it is extremely objectionable to have such a live part project beyond the surface of the receptacle. On the other hand the substitution of a short screw for the long screw requires additional manufacturing operations, and also involves the production of two different types of receptacles.

An object of my invention is to overcome the aforementioned difficulties by embedding a securing or attaching screw within a cover member, said securing screw being adapted for cooperation with a tapped opening in one of the terminal members associated with the receptacle.

Another object is to provide novel and improved fastening means facilitating assembly and disassembly of the screw shell contact with respect to its terminal yoke.

Various other objects and advantages of the invention will hereinafter appear.

The accompanying drawings illustrate an embodiment of my invention, which will now be described, it being understood that the embodiment illustrated is susceptible of modification without departing from the scope of the appended claims.

In the drawings, Figure 1 is a vertical sectional view, on the line 1—1 of Fig. 3, showing a lamp socket or receptacle embodying my invention.

Fig. 2 is a similar view on the line 2—2 of Fig. 3.

Figs. 3 and 4 are, respectively, bottom and top plan views of the receptacle.

Fig. 5 is a perspective view of the cover member shown in Figs. 1 and 2, and

Fig. 6 is a fragmentary sectional view on the line 6 of Fig. 3.

In the drawings, the numeral 10 designates a molded insulating base which is provided on the rear face thereof with two parallel grooves 11 and 12 for the accommodation of line wires, said base also having two slightly deeper depressions to receive with a rather snug fit the terminal members 13 and 14. The terminal member 13 is of substantially rectangular shape, and is provided with the usual binding screw 15 adjacent to one end thereof. The terminal member 14 is preferably of yoke-shape, the two arms 16 and 17 of which are disposed on opposite sides of one end of terminal member 13,— member 14 being also provided with a binding screw 18. Suitable recesses are provided in base 10 to accommodate or provide clearance for the shanks of binding screws 15 and 18.

As best shown in Figs. 3 and 6 an eyelet 19 is employed to rigidly and permanently secure terminal member 14 to base 10, said eyelet having a head engaging the front face of said base, and a shank portion penetrating registering openings in said base and arm 16 of terminal member 14, the end of said shank being spun or riveted over said arm. It is of advantage to permanently secure terminal member 14 in this manner, thus at all times insuring alinement of the tapped openings in the ends of arms 16 and 17 with the registering openings in base 10 to facilitate assembly of screw shell 20 with said base. Moreover, if it is desired to remove the screw shell this operation may be effected without disturbing the proper positioning of member 14, as will be obvious.

The base flange of screw shell 20 is cut away, as shown in Fig. 4, to provide clearance for the head of eyelet 19, whereby said head may be located in the plane of said base flange. Said screw shell is seated in a recess in the front face of base 10, and is secured to said base by a pair of screws 21

which penetrate registering openings in the base flange of said screw shell and said base and take into tapped openings in the ends of arms 16 and 17, respectively, of terminal member 14, thus mechanically and electrically connecting said screw shell to said terminal member. Elliptical washers 22 are preferably interposed between the base flange of screw shell 20 and the heads of screws 21 to afford a greater clamping surface than is afforded by the heads of said screws alone and insuring a good electrical connection between said screw shell and said screws.

A relatively wide rib 24 integral with base 10 extends diametrically across the recess or well in the front face of said base. Screw shell 20 is diametrically slotted to straddle said rib. The reflexed end of a resilient center lamp contact 23 is seated within a shallow depression formed in the face of rib 24, said contact being secured by a screw 25 which penetrates registering openings in said reflexed end and base 10, and takes into a tapped opening in the terminal member 13, thus providing an electrical connection between said center lamp contact and said terminal member. Screw 25 is preferably staked, as indicated at 25[a] (Fig. 3) to permanently secure the center contact 23 and its terminal member 13 to each other and to the base 10,—it being noted that screw 25 is located eccentrically of the longitudinal center line of the receptacle.

A circumferential rim or wall 26 is provided on the front face of base 10, and is adapted to enter into clamping engagement with the rear surface of a sheet metal sign plate or panel 27 or the like. Notches 28, spaced equidistantly along the circumference of rim 26, are adapted to cooperate with one or more outwardly struck lugs 29, to prevent turning of the receptacle in the opening in the panel.

A mounting or clamping ring 30 of insulating material is internally threaded to cooperate with the external thread on screw shell contact 20. An inner portion 31, of reduced diameter, provides a shoulder 32 which is adapted for clamping engagement with the front surface of the metal sign plate 27. A gasket 33 of rubber or other resilient or flexible material is preferably interposed between shoulder 32 and said metal sign plate.

In Figs. 1, 2 and 5 is shown a circular molded cover member of insulating material, said member having a central opening to accommodate the shank of an attaching screw or bolt 35. Concentric with said opening on the rear face of cover member 34 is a polygonal depression or counterbore 37, corresponding to the contour of the polygonal head of mounting screw 35. Said screw is adapted to take into a tapped opening 36 (Fig. 3) in terminal member 13, said tapped opening being located substantially centrally of the contour of base 10.

As will be apparent the shouldered engagement of the walls of depression 37 with the bolt head provides for utilization of the cover member as a wrench to facilitate assembly of the latter with respect to the receptacle. As shown in Fig. 2, the depression 37 is preferably filled with wax 38, or the like, to retain the screw in assembled relation to the cover member.

By reason of the arrangement aforedescribed I may employ the receptacle as standard either with or without the cover member attached thereto,—it being noted that no live parts project outwardly beyond the bottom face of the base when the cover member is omitted.

While I have illustrated one manner of attaching the screw or bolt to the cover member, it is to be understood that if desired the screw may be rigidly and permanently united with the cover member as an insert during the molding operation.

What I claim as new and desire to secure by Letters Patent is:

1. An electrical sign receptacle comprising an insulating base having a recess in the front face thereof, a screw shell lamp contact seated in said recess, a center lamp contact seated in said recess, a terminal member seated on the rear face of said base in alinement with said center lamp contact, said terminal member having a tapped opening adjacent to each end thereof, one of said openings being adapted to receive a binding screw, the other of said openings being located substantially centrally of the contour of said insulating base, said terminal member also having an opening intermediate said first mentioned tapped openings adapted to receive a securing element common to said center lamp contact and said terminal member, in combination with an insulating cover member, and a securing screw carried by said cover member and having its shank projecting therefrom, said shank being adapted for cooperative engagement with said substantially centrally located tapped opening in said terminal member.

2. An electrical sign receptacle comprising an insulating base having a recess in the front face thereof, a screw shell lamp contact seated in said recess, a center lamp contact seated in said recess, a terminal member seated on the rear face of said base in alinement with said center lamp contact, said terminal member having a tapped opening adjacent to each end thereof, one of said openings being adapted to receive a binding screw, the other of said openings being located substantially centrally of the contour of said insulating base, said terminal member also having an opening intermediate said first mentioned

tapped openings adapted to receive a securing element common to said center lamp contact and said terminal member, in combination with an insulating cover member having a central opening, a depression concentric with said opening, and a securing element having a threaded shank adapted to penetrate said central opening and having a head adapted to seat in said depression, the threaded shank of said securing element being adapted for cooperative engagement with said centrally located tapped opening in the terminal member.

In witness whereof, I have hereunto subscribed my name,

RALPH A. MILLERMASTER.