L. W. FRIEDEL.

ELECTRIC LIGHT SOCKET.

APPLICATION FILED APR. 5, 1917.

1,259,612.

Patented Mar. 19, 1918.

Fig. 1.

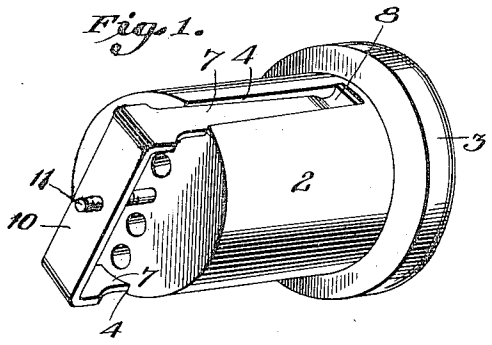


Fig. 2.

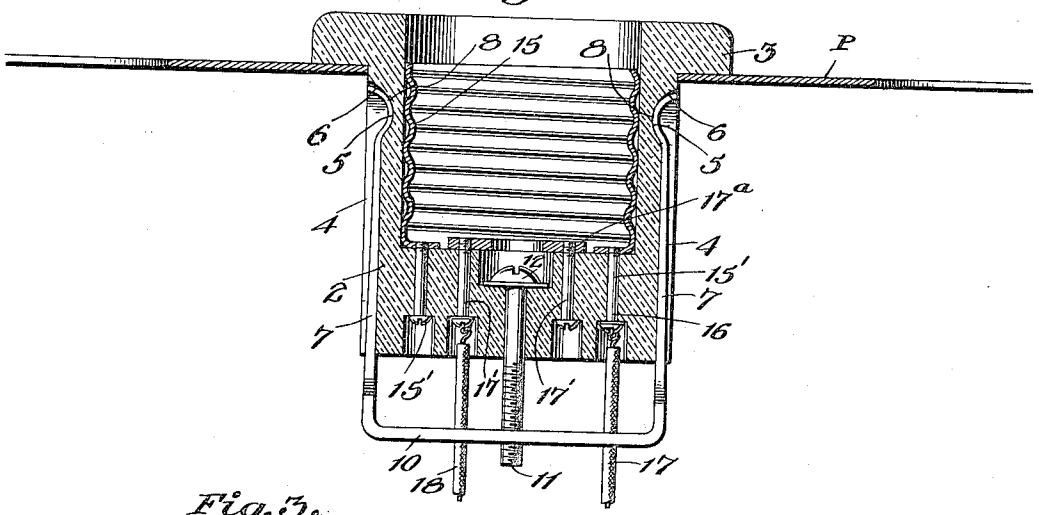
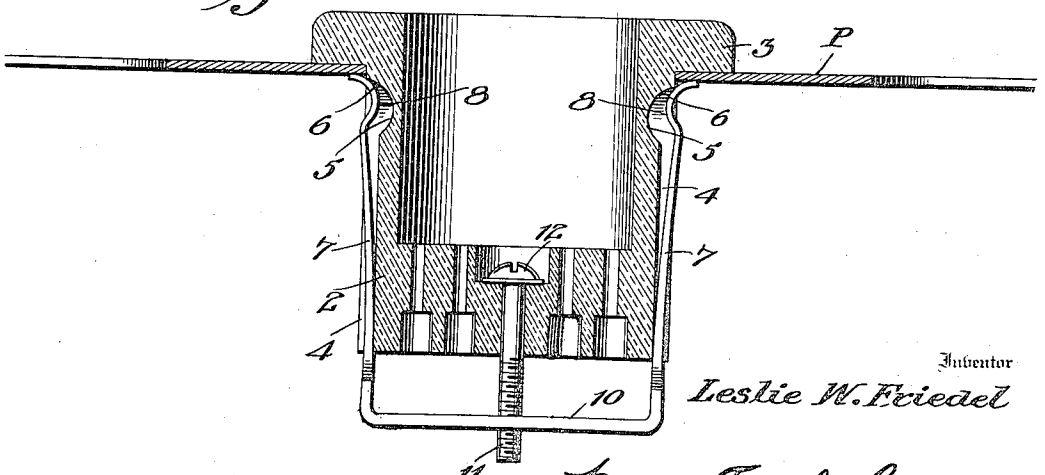


Fig. 3.



Inventor

Leslie W. Friedel

By Mason Fenwick & Lawrence,

Attorneys

UNITED STATES PATENT OFFICE.

LESLIE WILLIAM FRIEDEL, OF BURLINGTON, IOWA, ASSIGNOR TO EDWARD T. FENWICK OF WASHINGTON, DISTRICT OF COLUMBIA.

ELECTRIC-LIGHT SOCKET.

1,259,612. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed April 5, 1917. Serial No. 160,044.

To all whom it may concern:

Be it known that I, LESLIE WILLIAM FRIEDEL, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Electric-Light Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to electric apparatus, and more particularly to an electric light bulb socket adaptable for attachment to panel members of various types, such, for instance, as for use in connection with the lamp receiving boxes or structures of electric signs.

It is one of the objects of the present invention to provide an electric lamp socket which may be readily attached to and dismounted from the front and side members of electric signs without requiring the dismantling of the sign structure, and which socket may be applied to and secured upon the panel member of the sign by application through the front of the member into the usual aperture provided therein to receive the socket and thus eliminates the requirement for the operator during the mounting of the lamp socket to reach in behind or have access to the rear of the panel member upon which the socket or sockets are to be arranged.

Another object of the invention is to provide a simple, practicable and inexpensive device whereby the lamp receptacle may be rested in suitable position upon the front face of a sign bearing structure or support, and to provide means whereby the rear surface of the support may be engaged, said means being operable from a position in front of the receptacle and support to be caused to engage and disengage the latter.

With these and other objects in view the present invention consists of a lamp receptacle having means adapted to engage an apertured support or panel upon which the lamp receptacle may be mounted by insertion through the front of the support.

In the following specification there is described, and in the accompanying drawings there is illustrated, one form of the invention, in which drawing:

Figure 1 is a perspective view of the improved receptacle and its fastening device.

Fig. 2 shows the receptacle as mounted upon a portion of a panel or support with the parts ready to be interlocked, showing the receptacle in section and the locking device in elevation.

Fig. 3 is a similar sectional view showing the receptacle as in locked position upon the support and omitting the wiring and interior contact members of the receptacle.

In the embodiment of the invention herein shown 2 represents a receptacle of porcelain or other suitable non-conducting material which is shown as in the form of a cylinder of suitable proportions having at its front or outer end an annular flange 3 adapted to seat upon the outer surface of any suitable panel or support P which may, for instance, form a portion of an electric sign.

It is one of the particular features of the present invention to provide a receptacle which may be mounted upon the outside of a sign or panel member without requiring access to the rear side of the sign and without necessitating the removal of the sign member in order to provide for the mounting of the receptacle. To that end the receptacle 2 is shown as provided on opposite sides with channels 4 which are countersunk at their front ends, as at 5, and provided with outwardly inclined cam-like surfaces 6 adjacent to the rear surface of the flange 3. Seated in these opposite longitudinally extending grooves 4 is a flexible arm 7, the front end of which is shown as provided with an inwardly bent toe portion 8, the ends of which flare or are directed outwardly and rest normally in contracted position within the countersunk portion 5 and within the cam surfaces 6. In the present form of the invention the locking arms 7 are shown as integrally connected to the form of a U member having a transverse tie portion 10 extending across the rear or inner end of the receptacle at a suitable distance therefrom, and the transverse portion 10 is threaded to receive a screw 11 which passes through a suitable aperture provided therefor in the base of the receptacle 2, the head 12 of the screw resting on a depressed seat in the base of the receptacle.

In the normal contracted position of the locking arms 7 they lie substantially flush in the channels 4 of the receptacle 2, and the latter may be passed freely inwardly through an aperture in the panel or sign member P from the front of the latter. As soon as the flange 3 seats upon the panel

or support P the operator may then turn the screw 11 so as to draw the U-shaped locking device forwardly along the body of the receptacle, the cam surfaces 6 thereof reacting on the toes 5 of the spring arms and causing these latter to be deflected outwardly into locking engagement with the rear surface of the panel or supporting member P. When it is desired to remove the receptacle it is only necessary to again turn the screw 11 in the reverse direction so as to cause the rear shifting or sliding movement of the fastening device along the receptacle so as to permit the locking toes to again contact in concealed or withdrawn position into the countersunk portions 8 at the ends of the slots 4 of the receptacle to bring the ends of the toes 5 within the circle of the cylinder so that the latter can be withdrawn through the aperture from the panel P.

The wiring of the socket may be accomplished in any suitable manner and electrical contact made with an inserted bulb as desired. In this embodiment of the invention the chamber of the receptacle 2 is provided with a threaded shell 15, the base of which is secured upon the base of the receptacle 2 by suitable screws 15′, one of which is shown as secured to a contact screw 16 for binding the conducting wire 17 to the shell 15. The base of the receptacle is also provided with an interior washer or contact plate 17ª which is held in place by respective screws 17′, one of which is adapted to bind a return wire 18 in suitable connection so as to provide for a complete circuit through an inserted electric bulb. In installing one of the receptacles in place upon the panel member P the various feed wires 17 and 18 may be "fished" up through the sign box and out of the aperture at which it is designed to mount the receptacle, and the wires respectively connected to their contact members on the receptacle. Thereafter the wires are drawn or pushed into the receptacle and the flange 3 thereof seated upon the front of the panel P, and the fastening screw 11 operated to secure the locking of the receptacle in place through means of the locking arms 7.

What I claim is:

1. A lamp socket adapted to seat against the face of an apertured support, laterally expansible means arranged on the socket to secure it on the support, and a device operable from the front of the socket to shift said means rearwardly without disconnecting it from the socket to disengage the support.

2. A lamp socket attachable to the face of an apertured support, and yieldable means expansible by relative movement of the socket for securing the socket in position thereon and which is operable from the front of the socket to be engaged with or disengaged from the rear surface of the support.

3. A lamp socket having a receptacle insertible into an aperture therefor by application to the front of an apertured support, longitudinal, laterally expansible means on the receptacle for locking engagement with the rear surface of the support, and means operative from the front of the receptacle for adjusting the locking means.

4. A lamp socket having a receptacle insertible into an aperture therefor by application to the front of an apertured support, expansive means slidably mounted on the receptacle for locking engagement with the rear surface of the support, and means operative from the front of the receptacle for adjusting the locking means.

5. A lamp socket having a receptacle insertible into an aperture therefor by application to the front of an apertured support, slidable, expansive, resilient means on the receptacle for locking engagement with the rear surface of the support, means operative from the front of the receptacle for adjusting the locking means, and means for expanding said means.

6. A lamp socket adapted to be mounted upon a support by application to the front thereof, and a spring slidably connected to the socket and engageable with the rear of the support and operable, from the front of the support, to engaging or disengaging position with the back of the support.

7. A lamp socket for application to an apertured support, including a receptacle adapted to enter the support aperture from the front and having a front flange to seat upon the support, means slidably mounted on the exterior of the receptacle and adapted to be expanded by relative sliding movement of the parts into locking engagement with the back of the support.

8. A lamp socket for application to an apertured support, including a receptacle adapted to enter the support aperture from the front and having a front flange to seat upon the support, a spring slidably mounted on the exterior of the receptacle and adapted to be expanded into locking engagement with the back of the support, and means, operable from the front of the inserted receptacle, to actuate the sliding part.

9. An electric lamp socket adapted to be applied and locked to an apertured support by manipulation at the front thereof, comprising a flanged receptacle, a pair of yieldingly connected arms slidably mounted on the exterior of the body of the receptacle, and means on the receptacle for expanding the arms into locking engagement with the rear of the support upon relative movement of one as to the other.

10. An electric lamp socket adapted to be

applied and locked to an apertured support by manipulation at the front thereof, comprising a flanged receptacle, a pair of yieldingly connected arms slidably mounted on the exterior of the body of the receptacle, means on the receptacle for expanding the arms into locking engagement with the rear of the support upon relative movement of one as to the other, and a device engageable from the front of the applied receptacle for relatively longitudinally moving the arms and receptacle.

In testimony whereof I affix my signature.

LESLIE WILLIAM FRIEDEL.