Sept. 15, 1931. S. M. KENERSON 1,823,049

LAMP ATTACHMENT

Filed Sept. 13, 1928

Fig. 1

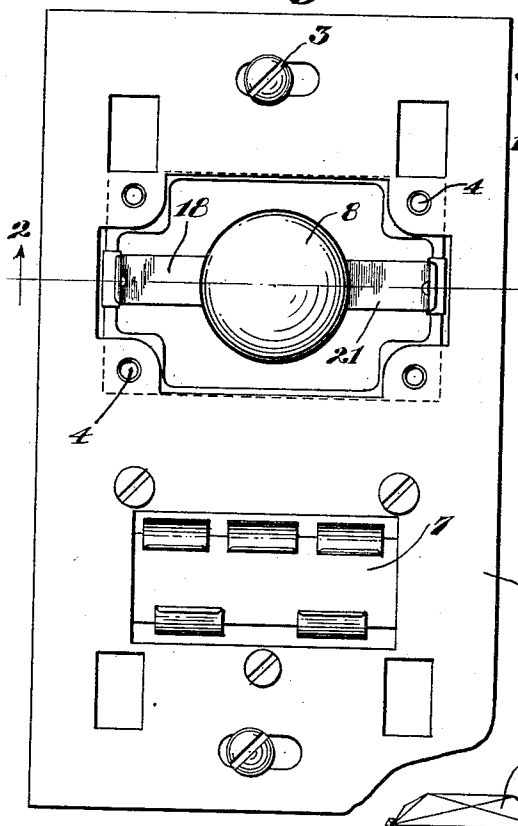


Fig. 4

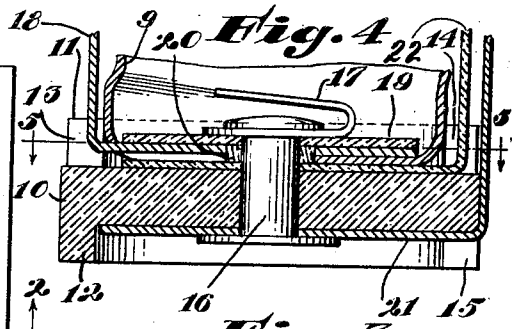


Fig. 3

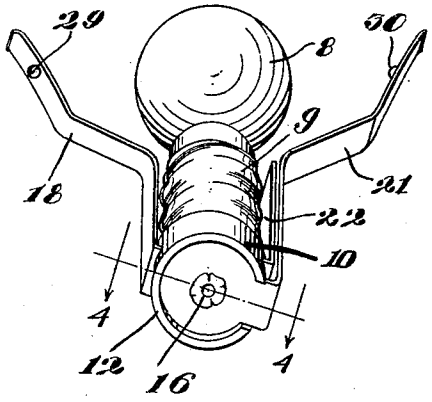


Fig. 2

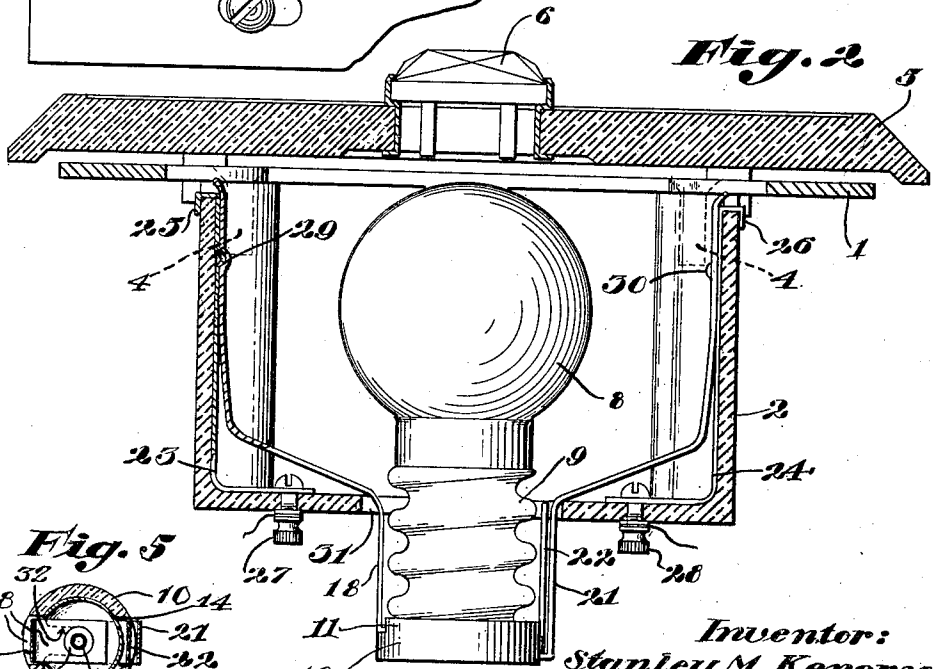


Fig. 5

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UNITED STATES PATENT OFFICE

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LAMP ATTACHMENT

Application filed September 13, 1928. Serial No. 305,811.

In many electrical devices having a small lamp for illuminating a bull's-eye, or the like, the space in which the incandescent lamp bulb is mounted is so restricted that it is very difficult to grip the bulb tight enough to screw it into and out of its socket. Objects of this invention are to overcome this difficulty and to provide simple and effective means whereby the lamp, together with its socket, may be withdrawn from the casing in which it is mounted, after which the bulb may be readily screwed out of the socket.

For the purpose of illustration, one embodiment of the invention is shown in the accompanying drawings, in which:

Fig. 1 is a face view of a wall receptacle, with the cover plate removed;

Fig. 2 is a section on line 2—2 of Fig. 1 showing the cover plate in position;

Fig. 3 is a perspective view of the lamp and socket removed from the casing; and

Figs. 4 and 5 are sections on lines 4—4 and 5—5 of Figs. 3 and 4 respectively.

The particular embodiment of the invention chosen for the purpose of illustration is shown as applied to a wall receptacle, such as used in hospitals and the like, comprising a face plate 1, secured to an outlet box (not shown) by means of screws 3, a receptacle 2 attached to the face plate at 4, the cover plate 5 having a bull's-eye 6, and a jack 7 to receive a plug connected by a cord to a switch operable by the patient to summon a nurse, the bull's-eye 6 being illuminated when the signal is transmitted. The jack 7 is described and claimed in a copending application filed on even date herewith.

The present invention has to do particularly with the lamp 8 behind the bull's-eye 6, the lamp socket 9, and the mounting therefor, which are preferably arranged as follows: At the base of the socket is a disk 10 of tile or refractory or insulating material which has cylindrical extensions 11 and 12 on its upper and lower faces, respectively, the extensions 11 having notches 13 and 14 at diametrically opposite locations, and the extension 12 having a notch 15 opposite the notch 14. The lamp socket 9 is mounted within the extension 11 by means of a rivet or other fastener 16 under the head of which is secured a spring finger 17 for engagement with the end contact of the lamp. Current is supplied to the lamp socket through spring finger 18 which extends through the notch 13 in the extension 11 and thence through an opening cut in the side of the socket near the bottom, the end of the strap contacting with the inner surface of the bottom of the socket on the side opposite the rivet and on each side of opening 32 in the bottom of the socket which constitutes a continuation of the aforesaid side opening. The terminal 18 and the socket 9 are insulated from the contact spring 17 by means of a disk of insulation 19. The strap 18 has an opening to accommodate the rivet 16, this opening as well as the corresponding opening in the socket 9 being somewhat larger than the rivet to avoid contact therewith and this clearance space may, if desired, be filled with an insulation washer 20 to assist in centering the parts with respect to each other and to insure against accidental short circuit. The other side of the circuit is connected to the contact spring 17 through rivet 16 and the spring finger 21 which enters through notch 15 in extension 12 and is held in place by the head of the rivet. As shown in Fig. 2 the strap 21 extends upwardly along the side of socket 9 and in order to prevent the possibility of short circuit through accidental contact of the strap 21 with the socket, a strap 22 of insulation material of width equal to that of the terminal strap 21 or slightly wider is mounted between the strap 21 and the socket with the lower end thereof extending through the notch 14 in extension 11 and thence extending transversely between the disk 10 and the socket 9.

The receptacle is provided with two contact straps 23 and 24 which hook over the edges of the housing 2 as shown at 25 and 26, and are secured in position by means of binding posts 27 and 28, which are connected to the lamp circuit. As shown in Fig. 2, the spring fingers 18 and 21 have indentations 29 and 30 which interengage with corresponding protuberances or shoulders on the straps 23 and 24, frictionally to hold the lamp socket assembly in position in the receptacle, the free

ends of the straps 18 and 21 extending slightly beyond the edges of the receptacle 2 so that they may be gripped by the fingers to disengage the assembly from the receptacle, whereupon the entire assembly may be lifted from the receptacle. Any suitable means may be employed to hold the assembly against rotation about the indentations 29 and 30; as shown in Fig. 2 for example, the opening 31 in the receptacle 2 (which is formed of refractory or insulation material, such as tile) is sufficiently small to serve this purpose. The opening 31 also serves to ventilate the housing and prevent overheating.

I claim:

1. A lamp receptacle comprising a housing containing an electrical terminal, a lamp socket to receive a lamp base, and means for detachably mounting said socket in said housing so that the socket may be withdrawn or inserted through the mouth of the housing with a lamp in the socket, said means including an electrically conductive spring finger on the socket frictionally engaging said terminal, and projecting at the mouth of the housing for releasing said frictional engagement.

2. A lamp receptacle comprising a housing containing electrical terminals secured to its opposite walls, and a lamp socket having opposite electrically conductive spring fingers for frictional engagement with said terminals so that the socket may be withdrawn from the housing while a lamp is mounted therein, said fingers electrically connecting with the peripheral and end contacts of the lamp socket respectively and the fingers extending outwardly toward the mouth of the housing along opposite sides of the socket.

3. A lamp receptacle comprising a housing containing electrical terminals on opposite walls, and a lamp socket having opposite spring fingers for frictional engagement with said terminals so that the socket may be withdrawn from the housing while a lamp is mounted therein, said fingers electrically connecting with the peripheral and end contacts of the lamp socket respectively, and projecting at the mouth of the housing for releasing said frictional engagement.

4. A lamp receptacle comprising a housing containing electrical terminals on opposite walls, and a lamp socket having opposite spring fingers for frictional engagement with said terminals so that the socket may be withdrawn from the housing while a lamp is mounted therein, said fingers electrically connecting with the peripheral and end contacts of the lamp socket respectively, and extending forwardly on opposite sides of the region occupied by a lamp bulb mounted in the socket.

5. A lamp receptacle comprising a hollow housing having an opening for the insertion and removal of a lamp, a terminal strap mounted in the housing and hooking over an edge thereof, and a lamp socket having a spring finger frictionally engaging said strap.

6. A lamp receptacle comprising a hollow housing of insulating material having a front opening for the insertion and removal of a lamp, a smaller opening in the rear wall, a lamp socket projecting to the rear through the latter opening, and electrically conductive spring fingers extending forwardly from said socket through the smaller opening and thence to the side walls of the housing and frictionally engaging terminal conductors thereon.

7. A lamp receptacle comprising a hollow housing of insulating material having a front opening for the insertion and removal of a lamp, a smaller opening in the rear wall, a lamp socket projecting to the rear through the latter opening, spring fingers extending forwardly from said socket through the smaller opening and thence to the side walls of the housing for frictional engagement therewith, said fingers electrically connecting with the peripheral and end contacts of the lamp respectively, said fingers being electrically conductive and having frictional engagement with terminal conductors on the housing, and a strip of insulation between the outer periphery of the socket and the finger connected to the end contact.

8. A lamp receptacle comprising a lamp socket, a disk of insulation on the bottom of the socket, a fastener extending through said disk and bottom in insulated relation to the socket, a spring finger contacting with the socket and another spring finger contacting with said fastener, said fingers extending along the socket away from its bottom in spaced relation to opposite sides of the socket for detachably mounting the socket with a housing, and said fingers being electrically conductive and adapted to engage terminal conductors of the housing.

9. A lamp receptacle comprising a lamp socket, a disk of insulation on the bottom of the socket, a fastener extending through said disk and bottom in insulated relation to the socket, a spring finger fast against said bottom and another spring finger secured to said fastener on the side of the disk opposite to the socket, said fingers extending along the socket away from its bottom in spaced relation to opposite sides of the socket for detachably mounting the socket with a housing, and said fingers being electrically conductive and adapted to engage terminal conductors of the housing.

Signed by me at Boston, Massachusetts, this fifth day of September, 1928.

STANLEY M. KENERSON.