Oct. 11, 1932. H. C. MEAD 1,881,811

LAMP SOCKET

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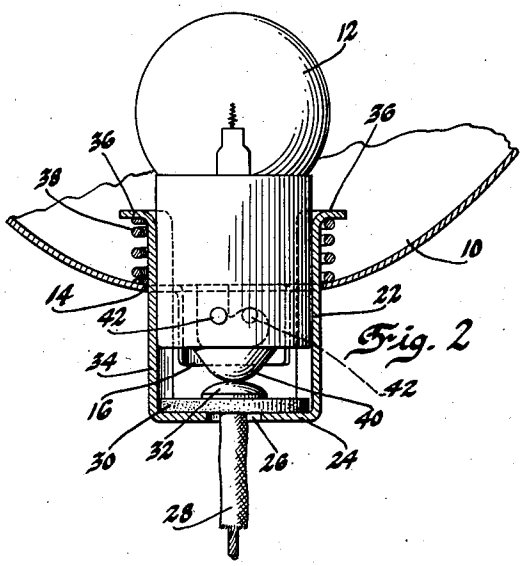


Fig. 2

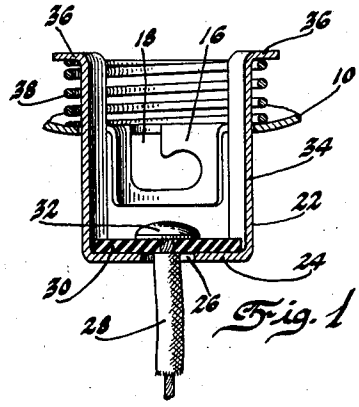


Fig. 1

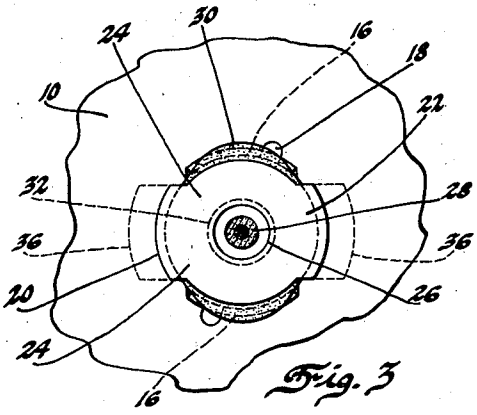


Fig. 3

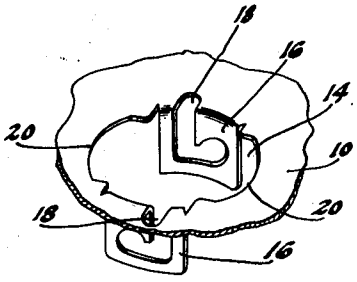


Fig. 5

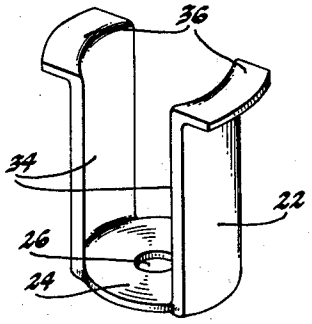


Fig. 4

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LAMP SOCKET

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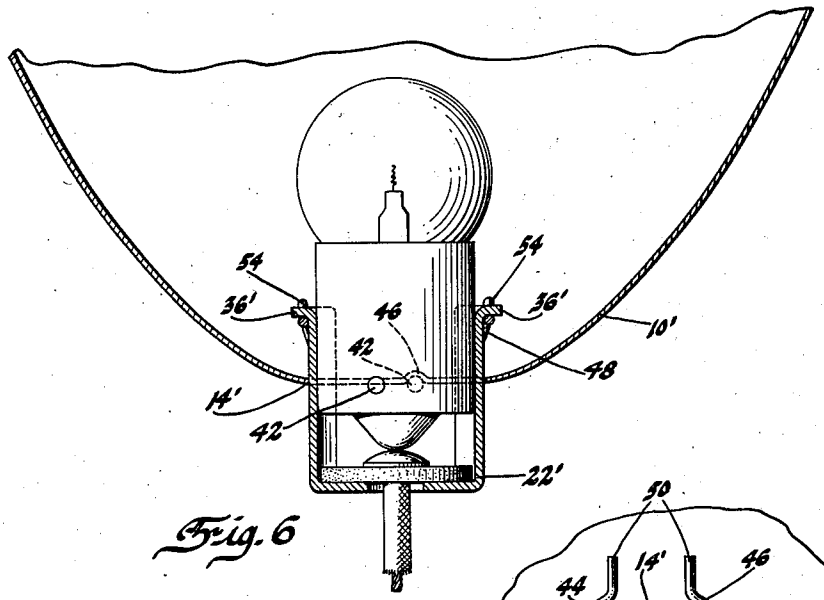


Fig. 6

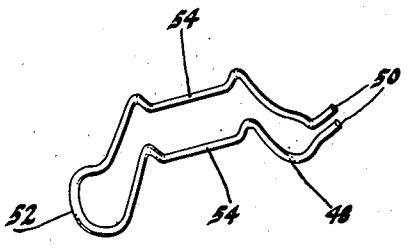


Fig. 8

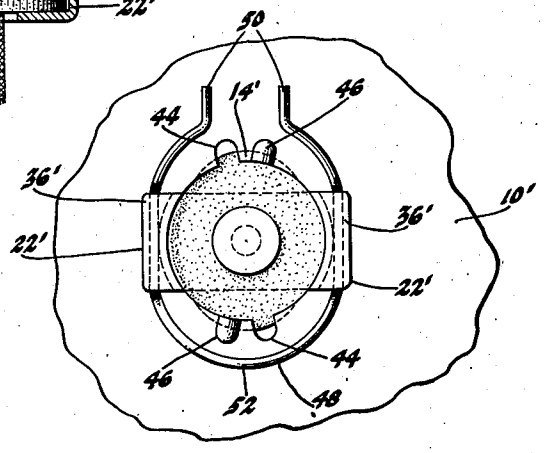


Fig. 7

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Patented Oct. 11, 1932

1,881,811

UNITED STATES PATENT OFFICE

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LAMP SOCKET

Application filed September 17, 1930. Serial No. 482,431.

This invention has to do with the mounting of incandescent bulbs in lamps. The construction provides a secure mounting at a minimum of expense. The usual tubular socket is dispensed with and its functions are performed by a more or less complete bayonet slot provided on the reflector or other support and by a clip that holds an electrical contact in engagement with a contact on the base of the bulb, and holds the bulb engaged with the bayonet slot. The clip may be economically formed from strip sheet metal. I have referred to the clip at times as a socket since it does receive and guide the bulb and to this extent takes the place of the conventional tubular socket.

In the drawings

Figure 1 is a vertical section through my improved bulb mounting.

Figure 2 is the same view but with the bulb in place.

Figure 3 is a bottom plan view of the construction of Figure 1.

Figure 4 is a perspective view of the bulb-receiving clip.

Figure 5 is a perspective view of the opening in the support.

Figure 6 is a section of a modified form of bulb mounting.

Figure 7 is a top plan view of the form shown in Figure 6 with the bulb removed.

Figure 8 is a perspective view of the form of spring used in Figures 6 and 7.

10 represents the support in which the bulb 12 is to be mounted. This support may be the usual reflector as shown, or it may be a supporting bar or housing. The support is apertured at 14. The metal at opposite sides of the aperture is bent over to form arcuate flanges 16. The flanges are pierced to provide bayonet slots 18. The aperture 14 may be regarded as originally of circular form provided at its ends with opposed arcuate notches 20, although actually it is pierced out at one operation.

22 indicates the clip or socket formed from a strip of sheet metal to provide a base 24 apertured at 26 to receive lead wire 28 which passes through the insulating washer 30 and is provided at the other side with contact 32. Washer 30 may be elliptical, as shown, to prevent its rotation in the socket. Clip 22 also comprises oppositely extending arms 34 outwardly flanged at their ends as at 36. Coil spring 38 encircles the arms 34, bearing at one end against the flanges 36 and at the other end against the support 10.

The bulb 12 is provided with the usual contact or contacts at 40, and with opposite pins 42 for engagement in the bayonet slots 18. With the bulb assembled as shown in Figure 2 it is apparent that the spring 38 pushes the clip 22 and with it the contact 32 and bulb 12 outwardly, thereby holding the pins 42 engaged in the bayonet slots. The yielding engagement of the parts provides good contact at 32, 40.

In the modification shown in Figures 6 to 8, the construction is further simplified. Here the aperture 14′ in the reflector or support 10′ is of the same shape as before except that the bayonet slot is of skeleton form, consisting merely of opposed notches 44 and opposed depressions 46 displaced radially from the notches, and adapted to receive the pins 42 on the bulb. In place of the spring 38 I have employed a spring 48 formed of resilient wire. When in position as shown in Figures 6 and 7 the ends 50 and the loop portion 52 engage the support 10′. The flanges 36′ on the clip 22′ are received in the notches 54, formed in the spring. When the bulb is assembled in the socket, the spring 48 is slightly compressed, and tends to resiliently hold the parts assembled. Other modifications will occur to those skilled in the art.

I claim:

1. The combination of a support in the form of a sheet of metal having an aperture therein, portions of the metal normally within the confines of the aperture being bent at substantially right angles to the plane of the sheet to form spaced guides, said guides having bayonet slots formed therein, and a U-shaped strap in said aperture, said guides being angularly spaced from the legs of the strap, said strap having outturned ends, and a spring interposed between said support and the outturned ends of said strap and urging the base of said

strap toward said guides, and an electrical contact carried in said base, said strap being adapted to receive a lamp bulb with its pins in said bayonet slots and the contact yieldingly pressed against its base by said spring.

2. The combination of a support in the form of a sheet of metal having an aperture therein provided with arc-shaped notches at its ends, portions of the metal normally within the confines of the aperture being bent at substantially right angles to the plane of the sheet to form spaced guides, said guides being arc-shaped in cross-section and lying at opposite sides of the aperture, said guides being provided with bayonet slots, a U-shaped strap having legs, arc-shaped in cross-section, fitting the notches in the aperture, said legs being provided with outturned flanges at their ends, a spring interposed between the flanges and the support urging the base of the strap toward said guides, a contact carried by the strap, said strap being adapted to receive a lamp bulb with its pins in said bayonet slots and the contact yieldingly pressed against its base by said spring.

3. The combination of a support in the form of a sheet of metal having an aperture therein, portions of the metal normally within the confines of the aperture being bent outwardly at substantially right angles to the plane of the sheet to form spaced guides, said guides having bayonet slots formed therein, a U-shaped strap fitted in said aperture with the base of the U extending outwardly of the support, said strap having outturned ends, said guides being angularly spaced from the legs of the strap, a spring interposed between said support and the outturned ends of said strap and urging the base of said strap toward said guides, and an electrical contact carried in said base, said strap being adapted to receive a lamp bulb with its pins in said bayonet slots and the contact yieldingly pressed against its base by said spring.

In testimony whereof I affix my signature.

HOWARD C. MEAD.