

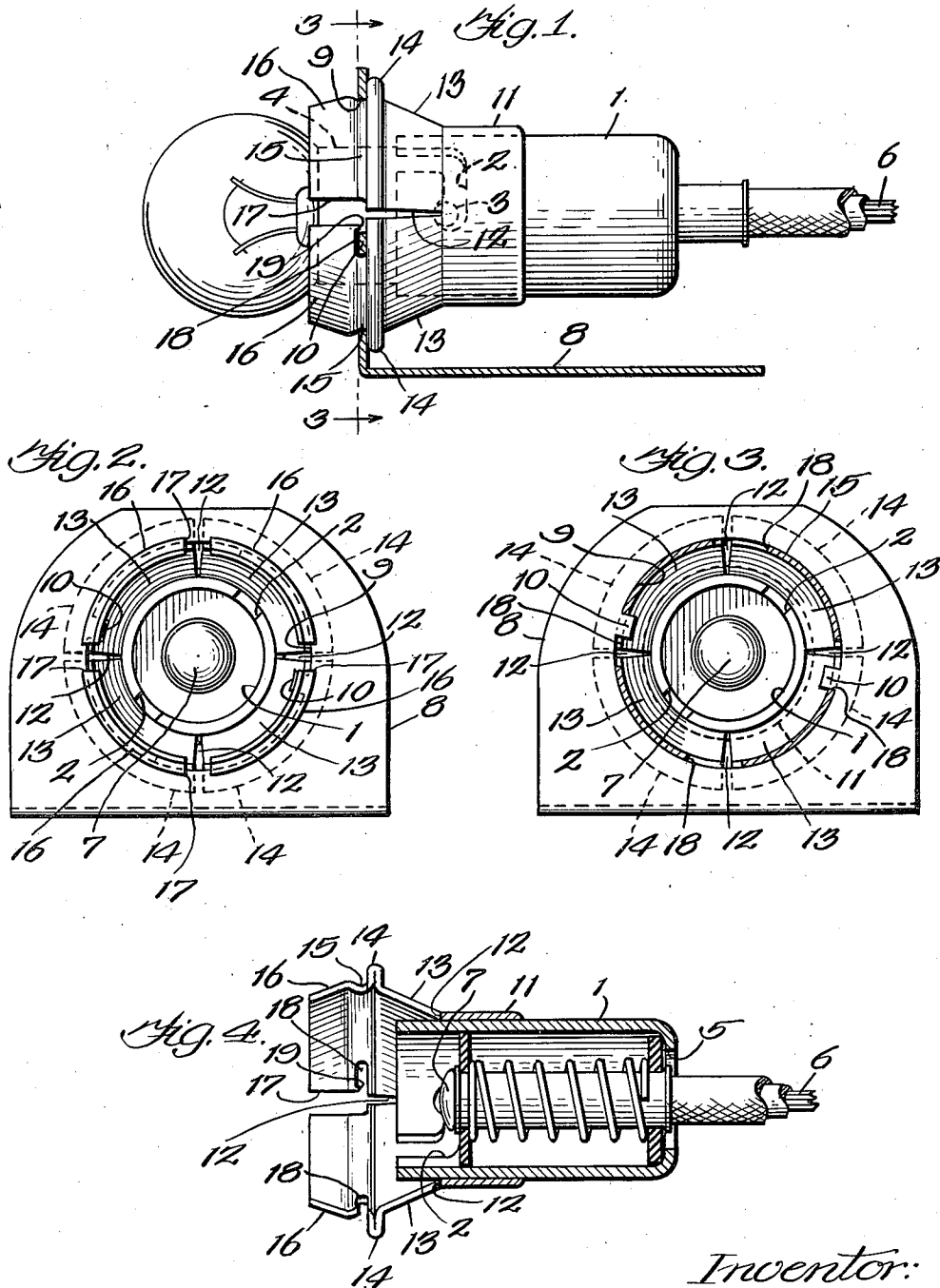
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ELECTRIC LAMP SOCKET

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ELECTRIC LAMP SOCKET

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4 Claims. (Cl. 173—339)

This invention relates to improvements in electric lamp sockets and more particularly to a socket for ready and easy attachment to a support as well as for ready and easy removal therefrom.

A socket constructed in accordance with this invention is of particular advantage for use in the present day automobile wherein miniature electric lamps are employed for lighting the instrument panel, stop signal lights, rear license plate lights, tail lights, and for lights in other places. This socket is so constructed that the socket with the lamp seated therein may be inserted through the support and be snapped into engagement and, if desired, be more firmly attached by a slight rotation of the socket. The support may be a bracket at the rear of the instrument board or the casing of a clock or a casing surrounding a signal or other lamp. When a lamp has burned out or been broken the socket and lamp together may be easily removed by a reverse action.

With these and other objects in view reference is made to the accompanying sheet of drawing which illustrates a preferred form of this invention with the understanding that detail changes may be made without departing from the scope thereof.

In the drawing:

Figure 1 is a view in side elevation of a preferred form of lamp socket and lamp mounted on a support in the form of a bracket, shown in section.

Figure 2 is a view in front elevation of Figure 1 with the lamp removed.

Figure 3 is a view in section taken on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a view in central longitudinal vertical section of the socket shown in Figure 1.

The embodiment of this invention as shown includes a cylindrical lamp receiving member 1, open at the front and with bayonet slots 2 for receiving the usual pins 3 of a lamp base 4 and provided with a restricted opening 5 at the opposite end for the passage of the insulated conductor wire 6. It is preferable to provide a spring-pressed terminal 7 on the end of the conductor for engagement with the lamp terminal, as shown.

The support to which the socket is to be attached is preferably in the form of a thin metal bracket 8 having a circular opening 9 of slightly greater diameter than the lamp receiving member number 1 and the body of the support is preferably provided with two diametrically op-

posite radial projections 10 for engagement with the socket when desired.

The cylindrical lamp receiving member 1 is provided with an exterior sleeve 11 secured to the member about one end and having the free end of the sleeve extending beyond the bayonet slotted open end of the lamp receiving member. The open free end of the sleeve 11 is provided with four oppositely disposed slits 12 extending parallel to the axis into the body of the sleeve to a point adjacent the portion secured to the member 1 dividing the sleeve into four segments. The side walls of the free end of the sleeve 11 are expanded to form portions 13 extending angularly away from the adjacent cylindrical surface of the lamp supporting member 1, then crimped back upon each other to form a collar 14 concentric with the axis of the member 1 with the forward portion of the wall adjacent the collar indented to form an annular groove 15 of a size to receive and engage the body of the support about the opening 9, and the walls are then retracted at the free end to form a portion 16 adapted to compress the expanded segments between the slits 12 to enter the opening 9 in the support.

The slits 12 are each increased in width between the free end and the collar 14 to provide openings 17 adapted to receive the radial projections 10 of the support 9. Each segment of the sleeve is cut away on the left of each wider portion 16 upon the annular groove 15 adjacent the collar 14 to form a slot 18 of slightly greater dimensions than the radial projections 10, with the forward corner of the cut away portion provided with a lip 19 adapted to ride over the projections 10 when the lamp socket has been rotated in the support and given a slight twist to the right.

It is preferable to construct the sleeve 11 of material of sufficient resiliency so that when the body of the support about the opening 9 is seated in the annular groove 15 with the body of the support in engagement with the collar 14 the socket will be held in rigid engagement with the support and can be easily detached therefrom and removed by a lateral pressure on the rear end of the member 1 therefore making the socket adaptable to supports which omit the radial projections 10. When the radial projections 10 are present, as in cases where the support may be subjected to excessive vibration, the socket is more firmly attached to the support by imparting a sufficient rotation to the socket to cause the projections 10 to enter the slots 18 and

ride over the lips 19. In this case, it is necessary to first impart a reverse rotation to the socket before applying the lateral pressure to remove it from the support.

While it is preferable to add the lip 19 to each of the corners of the slots 18, it is not essential. The end of the lip is spaced apart from the collar 14 a sufficient distance so that the projections 10 will enter the slot 18 freely but in the event that vibration tends to loosen the engagement between the collar 14 and the bracket 8 the projections 10 will immediately be engaged by the lip 19 and thereby prevent an accidental detachment of the socket from the bracket.

What I claim is:

1. An electric lamp socket for ready attachment and removal from a lamp support having a circular opening for receiving the socket, said socket including a lamp receiving member, an expanded slit resilient sleeve secured at one end to the said member, said sleeve extending beyond the lamp receiving end of said member and having a collar formed thereon with a portion extending therebeyond to enter the support opening and depress the socket walls to allow the collar to engage the support and be held in engagement therewith by the resilient walls of the sleeve, and wherein the circular opening in the support is provided with a radial projection and the slit in the sleeve is adapted to receive said projection, and wherein the body of the sleeve is provided with a slot extending at one side of the slit in the sleeve adjacent the collar to receive the said radial projection.

2. An electric lamp socket for ready attachment and removal from a lamp support having a circular opening for receiving the socket, said socket including a lamp receiving member, a

resilient sleeve secured at one end to the lamp receiving member, the free end extending beyond the lamp receiving end of said member and provided with a plurality of slits parallel to the axis of the sleeve dividing the sleeve into equal segments, each segment expanded from the fixed end and having a portion bent back upon itself to form a collar concentric with the axis and spaced back from the free end, whereby the insertion of the free end of the resilient sleeve into the opening in the support depresses the segments to allow the collar to engage the body of the support and maintain the collar in engagement therewith, and wherein the said circular opening is provided with an internal radial projection, wherein each slit in the sleeve between the free end and the collar is adapted to receive such projection, and wherein each slit is provided with a cut away portion adjacent the collar adapted to receive said projection when in engagement with the collar and upon a rotation of the lamp receiving member.

3. The structure of claim 2 and wherein the body of the free end of each segment adjacent the collar is depressed to form an annular groove concentric to the axis of the sleeve to receive the body of the support about the opening.

4. The structure of claim 2 and wherein the corner of each cut away portion is provided with a depending lip adapted to allow the projection to wipe thereunder when the lamp receiving member is rotated and to engage the side of the projection to prevent its counterrotation in the event the engagement of the collar with the body of the bracket becomes accidentally disengaged.

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