June 19, 1928. 1,674,098

H. A. DOUGLAS

INCANDESCENT ELECTRIC LAMP AND MOUNTING THEREFOR

Filed July 2, 1927

Fig. 1.

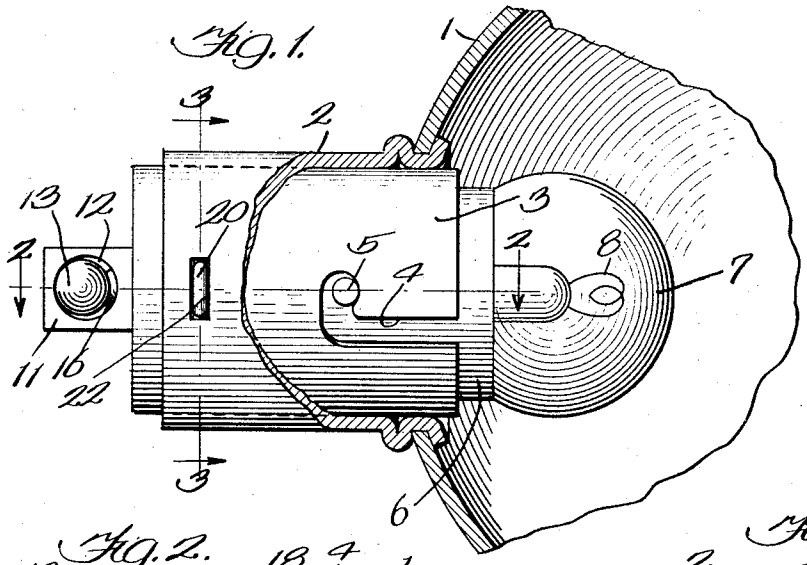


Fig. 2.

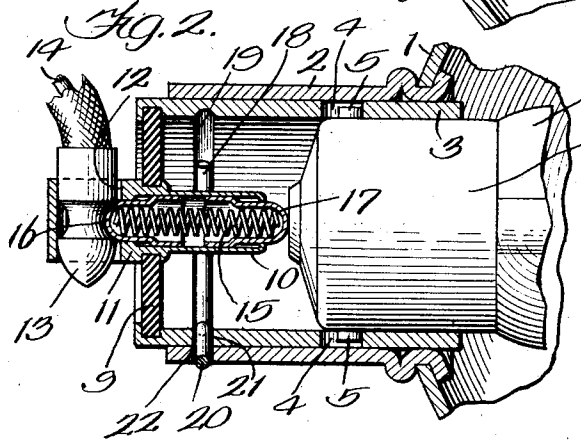


Fig. 3.

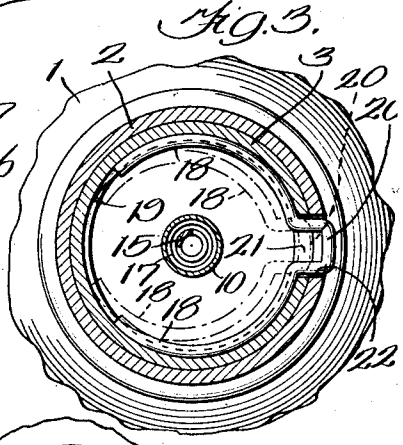
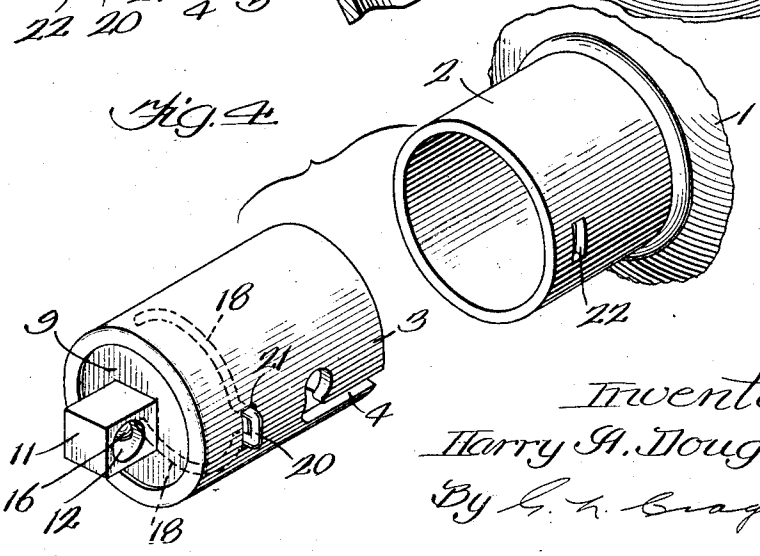


Fig. 4



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UNITED STATES PATENT OFFICE.

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INCANDESCENT ELECTRIC LAMP AND MOUNTING THEREFOR.

Application filed July 2, 1927. Serial No. 203,225.

My invention relates to contact carriers and mountings therefor and is of particular utility in connection with reflecting lamps employing convex back members which have rearwardly extending tubular continuations and incandescent lamp bulb holding sockets that are assembled with said continuations, though the invention is not to be thus restricted.

Such a tubular continuation, in accordance with my invention, constitutes a holding member for a lamp socket which is telescopically received in said member, the lamp socket being formed at its forward end for the reception of an incandescent lamp and being elsewhere provided with an assembling member for assembling it with the socket receiving tubular member. This assembling member is carried by the socket and has a portion received in registering openings formed in the socket and tubular member whereby these two elements are locked together, this assembling member portion being depressible toward the socket and out of the opening in the tubular member to permit said socket and tubular member to be separated.

In the preferred embodiment of the invention, the assembling member is made of spring material, such as wire, and has opposing arcuate portions within the socket and received in a groove formed in the tubular wall of the socket, the locking portion of the assembling member being between the arcuate portions thereof.

I will explain my invention more fully by reference to the accompanying drawing in which Fig. 1 is a view in elevation, partially in section, illustrating the preferred embodiment of the invention; Fig. 2 is a sectional view on line 2—2 of Fig. 1; Fig. 3 is a sectional view on line 3—3 of Fig. 1; and Fig. 4 is a perspective view showing the lamp socket and the assembling member in separated relation with the socket receiving tubular member.

The lamp structure illustrated includes a back member 1 which is concave and whose interior is preferably brightened to constitute a reflector. This back member has a rearward tubular continuation 2 which constitutes a lamp socket receiving member. The tubular lamp socket 3 is telescopically received within the tubular member 2 and is formed at its forward end with bayonet slots 4 which receive the bayonet pins 5 formed upon the base 6 of an incandescent lamp 7, the lamp base being inserted into the forward end of the socket 3 and thereafter turned to hold the lamp in assembly. The lamp bulb, or at least the filament 8 of the lamp, is located within the back member 1 of the lamp structure, the lamp being desirably of such a size that it may be passed through the bore of the tubular member 2 after it has been assembled with the lamp socket 3. A disc 9, of insulation, is assembled with and closes the rear end of the socket. This disc constitutes a contact carrier, the contact structure illustrated including a metallic sleeve 10 having an enlarged base portion 11 which is formed with an annular groove that receives the disc 9, said base portion 11 being provided with a transverse passage 12 for receiving the contact plug 13 connected with the end of a circuit wire 14 to include the lamp in circuit, as will more fully appear.

The sleeve 10 contains a coiled spring 15 which presses oppositely upon metallic contacts 16 and 17 that are projected respectively through the front end of the sleeve 10 and into the passage 12. When the incandescent lamp is in place, the spring 15 and contacts 16 and 17 serve to hold the bayonet pins 5 in their seats in addition to connecting one terminal of the filament 8 with the plug 13 and wire 14. The contact 16 is projected into the passage 12 into the path of the plug 13 and enters the groove in said plug when the plug has been inserted to the proper extent so that the plug is mechanically assembled with the device as well as being electrically connected with one terminal of the filament. The lamp structure illustrated is a single pole structure in which event the other terminal is suitably connected with the bayonet pins 5 and through these pins with the metallic socket 3 and metallic tubular member 2, this member being suitably grounded.

The lamp socket 3 which is telescopically received with the tubular member 2 is maintained or locked in assembly therewith by means of an assembling member in the form of a split resilient ring which is preferably formed of spring wire and has two opposed arcuate portions 18 within the socket and received in an annular groove 19 formed in the tubular wall of the socket and disposed in a plane transverse to the axis of the socket. This assembling member carries a

portion 20 which is located between the arcuate portions 18 and is preferably an integral portion of the wire out of which the assembling member is formed. The portions 18 are spring pressed into engagement with the lamp socket and the portion 20 is outwardly spring pressed or projected into openings 21 and 22 formed in the socket and tubular member that are brought into register and communication with each other and with the groove 19 into which the opening 21 extends, when the socket has been inserted to the proper extent. When the socket is to be rearwardly withdrawn, the assembling member portion 20 is depressed sufficiently to clear the opening 22 as indicated by dotted lines in Fig. 3, whereafter the socket may be moved rearwardly, the lamp bulb 7 being desirably sufficiently small to permit it to be carried with the socket through the tubular member 2.

The lamp base 6 constitutes one form of contact carrier that is assembled with and within a socket by means of my invention. The invention is not to be limited, however, to the use of the contact carrier to which the invention is adapted.

Changes may be made without departing from the invention.

Having thus described my invention, I claim:

The combination with a tubular socket formed for the reception of a contact carrier and having an internal annular groove therein and disposed in a plane transverse to the axis of said socket; of a tubular member telescopically receiving said socket, said socket having an opening extending therethrough into communication with said groove, said tubular member having an opening adapted to be brought into register and communication with the first aforesaid opening and the aforesaid groove; and an assembling member in the form of a split resilient ring which has opposed arcuate end portions received in said groove and an intermediate portion which projects through the aforesaid opening in the socket into the opening in the tubular member to maintain said socket and tubular member in assembly.

In witness whereof, I hereunto subscribe my name.

HARRY A. DOUGLAS.