Aug. 30, 1927. 1,640,434

F. H. WESTON

SOCKET ADAPTER

Filed July 5, 1923

Fig. 1.

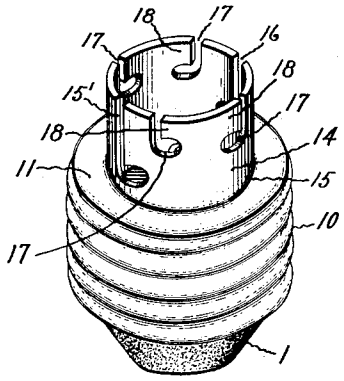


Fig. 2.

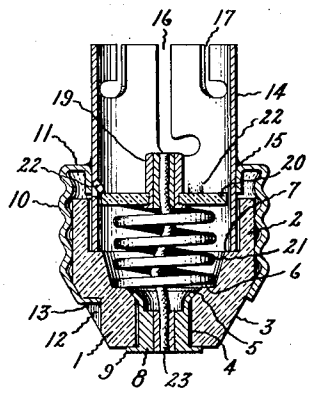
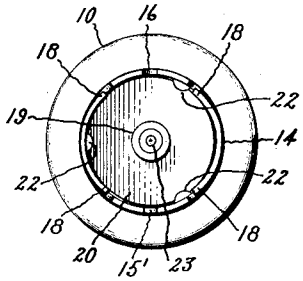


Fig. 3.



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Patented Aug. 30, 1927. 1,640,434

UNITED STATES PATENT OFFICE.

FREDERICK H. WESTON, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

SOCKET ADAPTER.

Application filed July 5, 1923. Serial No. 649,681.

The present invention relates to holders for incandescent electric lamps and more especially to devices for adapting holders designed to receive and function with one type of lamp base to the reception and operation with lamps having a different type of base and commercially known as socket adapters.

The object of my invention is the provision of an improved socket adapter whereby a lamp with an Edi-Swan type of base may be readily connected in operative relation to a standard Edison socket, which shall be strong, compact and of low manufacturing cost and which will insure accurate positioning of the lamp relative to the socket.

One form of adapter for accomplishing the coaction of these differing types of lamps and sockets is shown in the accompanying drawings in which Fig. 1 is a perspective view; Fig. 2 is a vertical section, and Fig. 3 is a top plan view.

The adapter shown in the drawing is designed to be inserted in an Edison socket having the well known screw shell and center contacts and to receive and support the standard automobile lamp having a single end contact and a cylindrical ring contact provided with radial fingers for making connection with the bayonet slots of the supporting device.

The insulating base 1 is made cup-shaped with the upper portion 2 of its exterior surface cylindrical and the lower portion 3 conical. The end wall is provided with a central aperture 4 with a conical shoulder 5 at its inner end. The inner surface is formed with steps or shoulders 6 and 7. An external center contact 8 having a radial flange 9 is inserted in the aperture 4 and its inner end spun over upon the conical shoulder 5. The external screw shell contact 10 having an inturned radial flange at its upper end is mounted over the cylindrical upper portion 2 of the base and its lower end compressed upon the conical surface 3 so as to fixedly embrace said base. In order to prevent relative rotation of the contact 10 and the base 1, the latter is provided with a side notch 12 and the former with an edge lug 13 adapted to fit within the notch.

A cylindrical holder in the form of a metal tube 14 rests upon the shoulder 7 of the base and is held in position by a solder or other form of union 15 with the inturned flange 11 of the screw shell contact. The upper portion of the cylindrical holder 14 is provided with two bayonet slots 15′ and 16 disposed diametrically opposite one another for reception of the bayonet fingers of the Edi-Swan lamp.

The cylindrical walls between the slots 15′ and 16 are provided with oppositely directed L-shaped slots 17 whereby spring arms 18 are formed and these arms are bent slightly inward, as shown in Fig. 3, so as to bear at their free ends upon the cylindrical contact of the lamp and hold it in position coaxially of the adapter.

An inner center contact 19 for engaging the end contact of the lamp consists of a metal cylinder riveted in a central aperture of an insulating disk 20 loosely fitting within the cylindrical contact 14 and yieldingly pressed outwardly by a helical spring 21 seated upon the shoulder 5 of the base. The outward movement of the disk 20 is limited by lugs 22 forced in from the cylindrical contact 14.

The center contacts 8 and 19 are electrically connected by a flexible conductor 23 soldered in axial passages thereof.

My adapter is installed by screwing home into a socket similar to the installing of an Edison type of lamp and then the automobile type of lamp is inserted in the cylindrical contact 14 of the adapter, the center contact 19 being displaced against the resistance of the spring 22 until the radial bayonet fingers of the lamp are opposite the foot portions of the bayonet slots 15 and 16 whereupon it may be rotated and locked in position as is customary with that type of connection.

While I have shown and described the best embodiment of the invention known to me, I do not desire to be restricted thereto.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A socket adapter comprising an insulating base, a threaded shell contact embracing said base and provided with a flange at one end, a metal tube located within and attached to said flange, lamp holding means provided in said tube, an external center contact mounted on said base, and a spring-

pressed contact located within said tube and electrically connected with said center contact.

2. A socket adapter comprising a cup-shaped insulating base, a threaded shell contact fixedly embracing said base and provided with an internal radial flange, a metal tube seated within said base and in fixed contact with said flange, lamp holding means provided in said tube, an external center contact mounted in the end of said base, an internal center contact mounted on an insulating disk movable within the said metal tube, a spring pressing said disk outwardly, and a flexible connection between said center contacts.

3. A holder for incandescent lamps comprising a metal tube provided with diametrically disposed lamp holding slots and T-shaped sections between pairs of L-shaped slots adjacent the entrance end of said tube, the arms of said T-shaped sections being bent inwardly at their ends.

4. A socket adapter comprising an insulating base, an external screw shell surrounding said base and attached thereto, a metal tube held on said base by said shell and provided with lamp retaining slots, an external center contact mounted on said base, an internal center contact mounted on an insulating disk freely movable within said metal tube, a helical spring between said base and said disk tending to move the latter outwardly, and a flexible connector connecting said external and internal center contacts.

In witness whereof I have hereunto set my hand.

FREDERICK H. WESTON.