July 3, 1928. 1,675,380

F. W. PUND

ELECTRIC LIGHT BULB CAP

Filed July 6, 1927

Fig. 1.

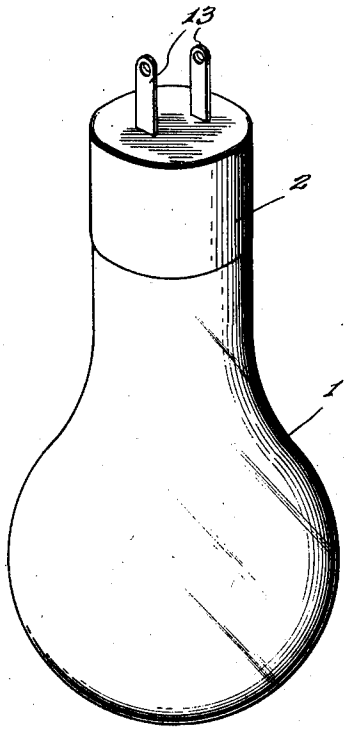


Fig. 2.

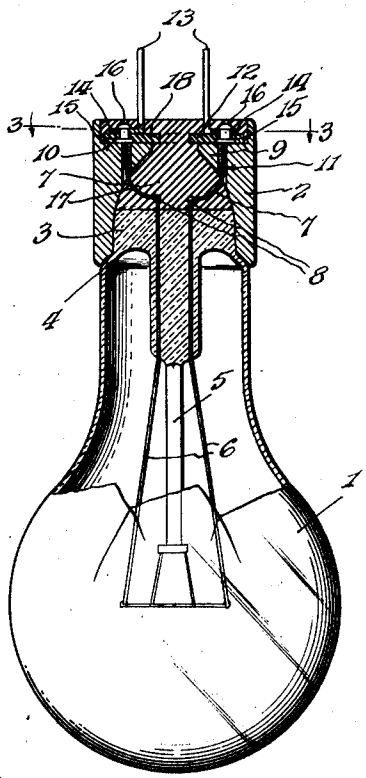
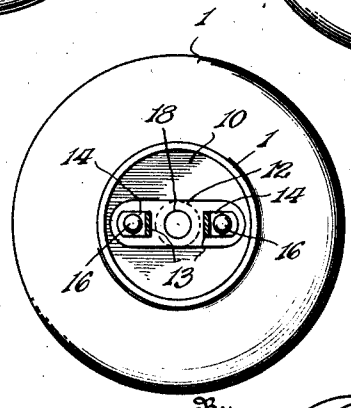


Fig. 3.



Inventor

Fred W. Pund.

By Lacy & Lacy, Attorney.

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UNITED STATES PATENT OFFICE.

FRED W. PUND, OF CINCINNATI, OHIO.

ELECTRIC-LIGHT-BULB CAP.

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This invention relates to illumination and more particularly to an electric light bulb. At the present time it is customary to provide an electric light bulb with a cap open at its inner end and formed with threads so that the cap may be screwed into a light socket. This has been found objectionable as it is often difficult to properly engage the threads of the cap with the threads of the socket, this being particularly true if the bulb is to be disposed within an open-ended globe secured to a chandelier or the like about the socket.

Therefore, one object of the invention is to provide the bulb with a cap carrying terminal blades in spaced insulated relation to each other and intended to be thrust into slots formed in a plug secured into the lamp socket.

Another object of the invention is to so form the cap that it may be firmly applied to the butt end portion of a bulb and the terminal blades firmly held in engagement with the cap.

Another object of the invention is to permit the cap to be filled with a set plastic filler which serves not only as means to retain the cap in engagement with the bulb but also constitutes means to retain the terminal blades in engagement with the cap and prevents them from working loose from the cap or becoming disconnected from the outer end portions of the lighting filament of the bulb.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a perspective view of the improved bulb;

Fig. 2 is a view showing the improved bulb partially in longitudinal section and partially in side elevation, and

Fig. 3 is a plan view looking at the butt end of the bulb.

The bulb 1 to which the improved cap 2 is applied is of a conventional construction and includes a thickened butt end portion 3 reduced in diameter to provide an annular abutment shoulder 4. The usual post 5 is provided within the bulb and carries a filament to which current is conducted by wires 6 which extend through the butt end of the bulb. The outer end portions 7 of the conductor wires 6 may constitute extensions of the wires 6 or may be formed separate therefrom and suitably secured to them, as shown at 8 in Fig. 2.

The cap 2 may be formed of porcelain or any other desired material and is hollow, as shown in Fig. 2, so that it may fit snugly upon the reduced and thickened end portion 3 of the bulb in abutting engagement with the shoulder 4. The walls of the cap are internally thickened to form an annular abutment shoulder 9 and also define a recess 10 in the outer end portion of the cap and this abutment shoulder is formed with small openings 11 through which the outer end portions 7 of the wires 6 are passed. A strip 12 which may be formed of hard rubber or any other desired insulating material is disposed in the recess 10 and this strip carries terminal blades 13, the inner end portions of which are bent to form feet 14 through which hollow rivets 15 are passed to firmly secure the blades to the insulating strip. The wires 7 pass through the hollow rivets and are firmly secured thereto by solder 16 or in any other desired manner. After the wires 7 have been secured to the rivets a plastic filling 17 which may be plaster of Paris or any other suitable substance is poured into the cap so that the cap is completely filled, as shown in Fig. 2, with a portion of the plaster filling the opening 18 formed in the strip between the terminal blades. From an inspection of Fig. 2, it will be readily seen that when the plastic filling has set, it will serve to retain the cap upon the butt end portion of the bulb and since the strip 12 and inner end portions of the blades 13 are embedded in the filler they will be firmly held in place and prevented from working loose. This prevents danger of the blades and strip having movement which might cause the wires 7 to be broken when removing a bulb from a light socket.

When the bulb is in use, a plug of a conventional construction and formed with slots to receive the terminal blades is screwed into a light socket in the usual manner. It is then merely necessary to engage free ends of the blades in the slots of the plug and apply pressure to the bulb which will force the blades into the slots of the plug until they contact with the terminals provided therein. It is, therefore, not necessary to thread a bulb into engagement with a socket when substituting a new bulb for a burnt-

out bulb or changing a good bulb from one socket to another. It should also be noted that when it is desired to connect the supply wire of an electric iron or the like with a socket it is merely necessary to remove a bulb from the plug into which its terminal blades are fitted and engage the terminal plug of the conductor wires of the iron with the plug screwed into the light socket. This eliminates the necessity and inconvenience of screwing a terminal plug into a socket whenever it is desired to remove a lamp bulb and attach the feed wires of an electrically operated apparatus.

Having thus described the invention, I claim:

1. An electric lamp comprising a bulb, a filament in said bulb having end portions projecting from the butt end of the bulb, a hollow cap carried by and projecting from the butt end of the bulb and provided with an internal annular shoulder between its outer end and the butt end of the bulb, terminal blades connected with the end portions of said filament and seated in the outer end portion of said cap and projecting from the cap, and a set plastic filler for said cap overlying the inner end portions of said blades.

2. An electric lamp comprising a bulb, a filament in said bulb having end portions projecting from the butt end of the bulb, a hollow cap carried by and projecting from the butt end of the bulb and provided with an internal annular shoulder between its outer end and the butt end of the bulb, an insulating strip disposed in the outer end portion of said cap against said shoulder, terminal blades carried by said strip and projecting from said cap, the ends of said filament being secured to the inner ends of said blades, and a set plastic filler for said cap having the strip and inner end portions of said blades embedded therein.

3. An electric lamp comprising a bulb, a filament in said bulb having end portions projecting from the butt end of the bulb, a hollow cap carried by and projecting from the butt end of the bulb and provided with an internal annular shoulder between its outer end and the butt end of the bulb, an insulating strip disposed in the outer end portion of said cap against said shoulder and having an opening intermediate its length, terminal blades carried by the end portions of said strip and projecting from said cap, the ends of said filament being passed through alined openings formed in said shoulder and strip and secured to the inner ends of said blades, and a set plastic filler for said cap covering said strip and the inner ends of said blades and having a portion passing through the opening in the strip.

4. An electric lamp comprising a bulb, a filament in said bulb having end portions projecting from the butt end of the bulb, a hollow cap carried by and projecting from the butt end of the bulb and provided with an internal abutment, terminal blades projecting from the outer end of said cap, a carrier of insulating material for said blades disposed in the outer end portion of said cap against said abutment, the ends of said filament being connected with the inner ends of said blades, and a filler for said cap having said carrier and the inner portions of said blades embedded therein.

In testimony whereof I affix my signature.

FRED W. PUND. [L. S.]