March 20, 1956 C. FRANKEL 2,739,291

ELECTRIC LAMP SOCKET HAVING INSULATION PIERCING MEANS FOR CONTACTING CONDUCTORS

Filed June 1, 1955

Fig. 1

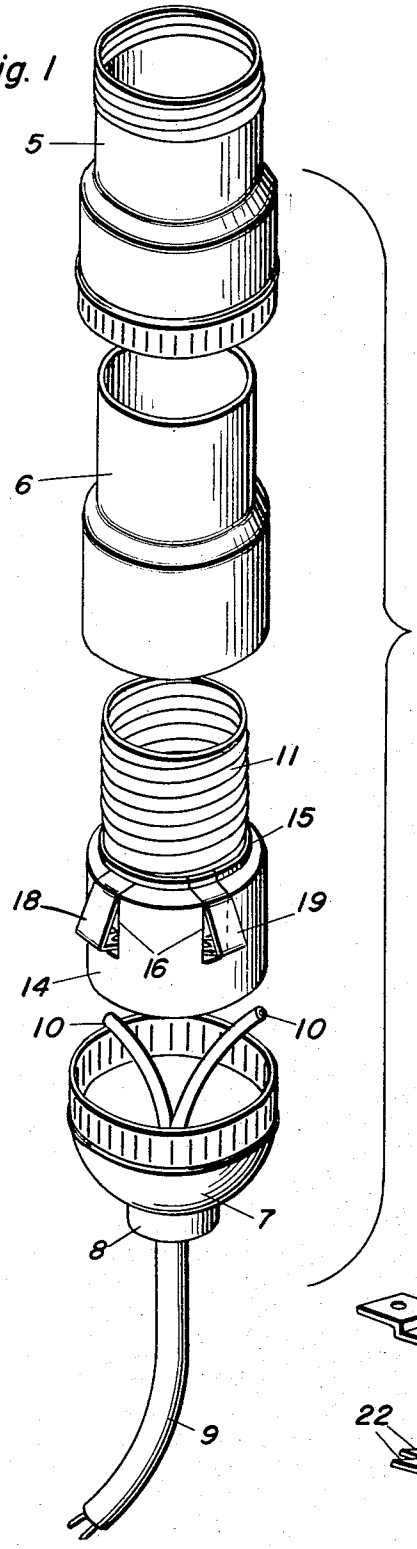


Fig. 2

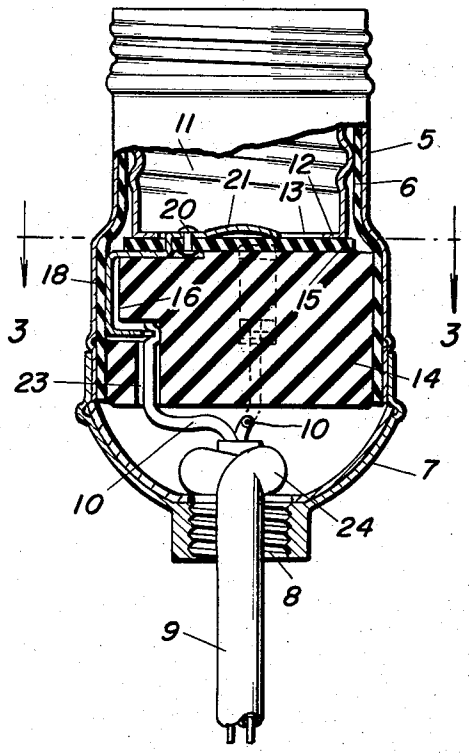


Fig. 3

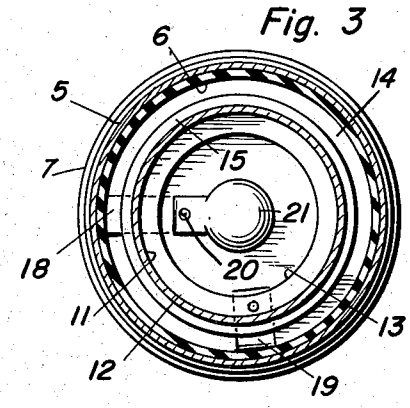
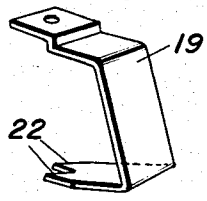


Fig. 4



Carl Frankel

INVENTOR.

BY Clarence O'Brien and Harvey B. Jacobson

Attorneys

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ELECTRIC LAMP SOCKET HAVING INSULATION PIERCING MEANS FOR CONTACTING CONDUCTORS

Carl Frankel, New York, N. Y.

Application June 1, 1955, Serial No. 512,419

1 Claim. (Cl. 339—99)

The present invention relates to new and useful improvements in electric lamp sockets and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character comprising novel means for firmly anchoring the conductor wires therein without the usual screws.

Another very important object of the invention is to provide a lamp socket of the aforementioned character which obviates the necessity of skinning or stripping the conductor wires, thereby expediting the wiring operation.

Other objects of the invention are to provide an electric lamp socket of the character described which will be comparatively simple in construction, strong, durable, compact and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is an exploded perspective view of an electric lamp socket constructed in accordance with the present invention;

Figure 2 is a view principally in vertical section through the assembled socket;

Figure 3 is a view in horizontal section, taken substantially on the line 3—3 of Figure 2; and,

Figure 4 is a detail view in perspective of one of the resilient jaws.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a shell 5 of suitable metal having mounted therein an insulating lining 6. Mounted on one end of the shell 5 is a removable cap 7 having the usual threaded opening 8 therein accommodating a conventional conductor cord 9 comprising conductor wires 10.

Mounted in the other end portion of the shell 5 is a screw socket 12 of suitable metal for the reception of the usual base of an electric lamp. The bottom 12 of the socket 11 is provided with an opening 13.

Removably mounted in the shell 5, below the socket 11, is a substantially cylindrical block or body 14 of suitable insulating material. A disk 15 of insulating material is interposed between the socket 11 and the body 14. The upper portion of the body 14 is recessed, as at 16, to accommodate resilient, substantially U-shaped jaws 18 and 19 of suitable metal. As illustrated to advantage in Figure 2 of the drawing, the resilient jaw 18 is mounted on the disk 15, said jaw passing therethrough and being secured thereto as indicated at 20 and terminating in a contact 21 for engagement by the usual central or positive contact of the electric lamp when it is screwed into the socket 11, the opening 13 in said socket accommodating said contact 21. The resilient jaw 19 is electrically secured at one end to the socket 11. At the other ends thereof, the resilient jaws 18 and 19 terminate in penetrating prongs or teeth 22. The lower portion of the body 14 has formed therein vertical or longitudinal openings or bores 23 which communicate with the lower end portions of the recesses 16 and which are for the reception of the free end portions of the unstripped conductor wires 10.

It is thought that the operation or use of the socket will be readily apparent from a consideration of the foregoing. Briefly, to wire the socket, the cap 7 is removed and the shell 5 is slipped off the body 14. When the shell 5 is thus removed the jaws 18 and 19 are released and spring outwardly to retracted or inoperative position substantially as shown in Figure 1 of the drawing. The unstripped conductor wires 10 are then inserted in the openings 23 and projected into the lower end portions of the recesses 16. Using the thumb and fingers, the resilient jaws 18 and 19 are then pressed inwardly for causing the teeth or prongs 22 thereof to penetrate the insulation of the conductors 10 and engage the wires thereof thereby establishing good electrical contacts in addition to firmly anchoring said wires in the body 14. The shell 5 is then slipped on the body 14 over the bight portions of the resilient jaws 18 and 19 for positively securing said jaws in operative position, after which the cap 7 is replaced. The cord 9 is knotted in the usual manner as indicated at 24 for anchoring said cord in the cap 7.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

An electric lamp socket comprising a shell, a substantially cylindrical body of insulating material mounted in one end portion of the shell, said body having spaced recesses in one end portion of its periphery and further having longitudinal openings in its other end for the reception of conductor wires and communicating with the recesses, a metallic screw socket, for the reception of a lamp, mounted in the other end portion of the shell and including a bottom having an opening therein, an insulating disk mounted in the shell between said screw socket and said body, a pair of substantially U-shaped, resilient metallic jaws mounted in the recesses, one end portion of one of said jaws passing through the disk and being affixed thereto, a contact, for engagement by the lamp, integral with said one end of said one jaw and resting on the disk within the opening, the other of said jaws having one end affixed to the screw socket, and teeth on the free ends of the jaws engageable with the conductor wires for anchoring same in the openings, said jaws being engageable by the shell for retention thereby in operative position.

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