Oct. 15, 1963 J. W. KERRIGAN 3,107,134

SAFETY ADAPTER KIT FOR ELECTRIC LIGHT SOCKET

Filed Jan. 17, 1961

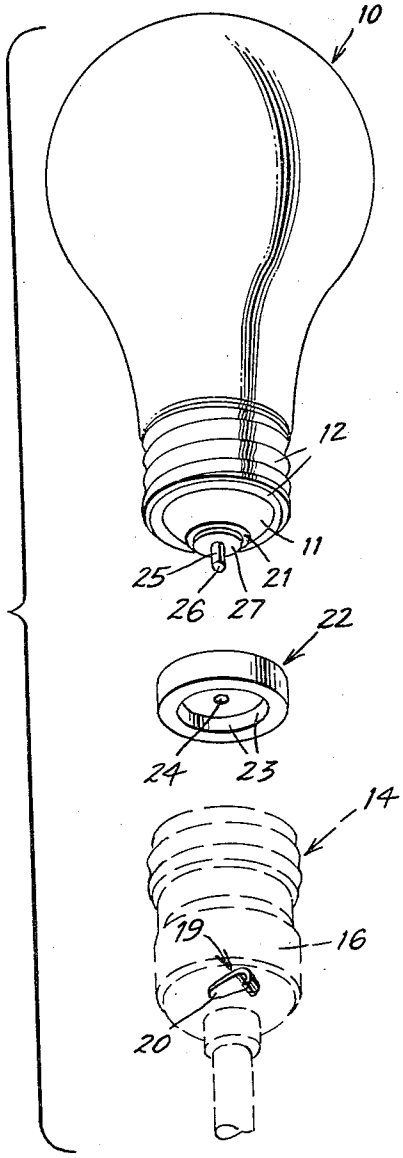


Fig. 1

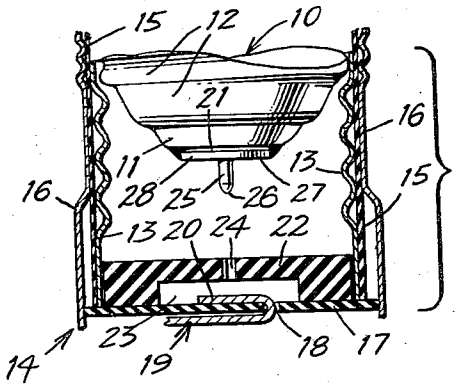


Fig. 2

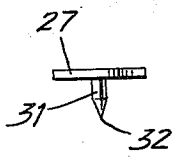


Fig. 3

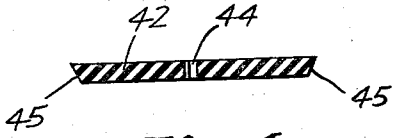


Fig. 4

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SAFETY ADAPTER KIT FOR ELECTRIC LIGHT SOCKET

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1 Claim. (Cl. 339—96)

The present invention relates to a safety adaptor kit for electric light sockets and it consists in the combinations, constructions and arrangements of parts hereinafter described and claimed.

Generally there is provided a tack-shaped electrical contact, the disc portion of which is adapted for being cemented, as by the use of liquid solder or other electrically conductive adhesive material, to the central disc contact on the base of a conventional electric light bulb. The axially extending post or shaft portion of the contact is desirably rounded at its free end to provide a ball-type surface for engagement with the live central contact of a conventional light socket. There is also provided a disc of rubber or other resilient insulating material of a diameter somewhat greater than the inside diameter of the socket threads, whereby said discs may be resiliently squeezed or pressed downwardly into said socket for retention therein by said threads or by its engagement against the threaded liner of the socket below the threaded portion thereof.

The thus positioned safety disc covers the live central contact of the lamp socket to prevent inadvertent touching of the same (especially by children) when the socket is empty.

It is a principal object of this invention to provide a safety kit for quickly and easily rendering a lamp socket safe for handling when the lamp is removed therefrom, even by children.

It is another object to provide a device of the character described which resiliently grips an inserted light bulb in such manner that the same is held against accidental vibration induced displacement from the socket.

It is a further object to provide such a device in which the safety disc is centrally recessed on its lower base to fit over the centrally located socket contact so that said disc may lie flat against the bottom of the lamp socket.

It is yet another object to provide a device of the type herein described in which the disc is imperforate and the tack-like element has a sharp point for providing automatic penetration of the disc as the parts are assembled for the first time.

It is the overall object of the invention to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

FIGURE 1 is an exploded perspective view of a preferred embodiment of the invention,

FIGURE 2 is an enlarged fragmentary elevational view in vertical axial section showing the parts of FIGURE 1 assembled but in open-circuit relative positions,

FIGURE 3 is an elevational view of a modified form of contact, and

FIGURE 4 is an elevational view in axial section of a modified form of the safety disc.

With reference now to FIGURES 1 and 2 of the drawing, the numeral 10 generally designates an electric light bulb of conventional construction. Bulb 10 has the usual cylindrical base 11 formed of insulating material, surrounded by the integrally threaded metallic sleeve 12 for threaded engagement with a mating sleeve 13 lining the socket generally designated 14.

Sleeve 13 of the socket 14 is mounted within an insulating sleeve 15 which electrically isolates the contact sleeve 13 from the outer metallic cylindrical casing 16 of the socket. Socket 14 also includes a base disc 17, which is eccentrically slotted at 18. The slot 18 is wide enough and long enough for accommodating therein the bight portion of the metallic strap 19. The upper portion 20 of the strap 19 constitutes the central or live contact of the socket 14. Contact 20 would normally be engaged by the axially located disc contact 21 of the lamp bulb 10.

However, when the kit embodying the present invention is installed the contact 20 is insulatingly covered by the disc 22 of rubber or other resilient electrically insulating material. Disc 22 is of a diameter somewhat greater than the inside diameter of the threaded sleeve 13 so that the threads thereof will retain the disc 22 in the assembled position shown in FIGURE 2. The diameter of the disc 22 need not be sufficiently great to provide frictional engagement with the non-threaded portion of the sleeve 13 but such an arrangement may be optionally employed for providing a more positive engagement. Disc 22 is desirably upwardly and centrally recessed at 23 to receive in said recess the contact 20, so that the disc will not be held elevated away from the upper surface of the disc 17 by said contact.

Disc 22 is also preferably axially apertured at 24 during manufacture to provide a bore for reception of the contact pin 25, which is snugly received therein for frictional and non-vibrating retention thereof. The lower tip end of the contact pin 25 is desirably rounded at 26 to present a ball-type point for better electrical contact with the space contact 20 of the socket 14 and for preventing damage to the base contact.

The post contact 25 is formed integrally with or is attached to the metallic disc 27 co-axially perpendicular thereto. The disc 27 is of a diameter sufficient to cover a large portion or substantially all of the flat lower face of the bulb contact 21, to which it may be permanently fixed by the use of liquid solder or other electrically conductive adhesive material.

In FIGURE 3 there is shown a modified form of the tack-shaped contact. In this modification of the invention, the contact post 31 is provided with a sharp point 32 which will penetrate the disc (not shown) corresponding to the safety insulating disc 22 above described, but which disc may be made without the centrally located post-receiving aperture 24.

FIGURE 4 discloses a modified form of disc of safety insulating disc 42. Disc 42 is made of rubber or equivalent resilient electrical insulating material and is centrally apertured at 44 to receive the post of the tack-shaped central contact (not shown). Because the disc 42 is somewhat thinner than the disc 22 of the first-described species, the recess 23 of said species is omitted. Another difference lies in the beveling of the edge of the disc 42 and 45 for the purpose of facilitating the insertion of the disc into a conventional lamp socket, during which operation the beveled surfaces at 45 cam past the threads of the lamp socket.

While but certain forms of the invention have been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claim.

What is claimed is:

In an electrical connector comprising a pair of telescopically engaging sleeve contacts and a pair of normally coaxially engaging abutting contacts having mating flat faces substantially perpendicular to the common axis of said sleeves, said abutting contacts each being fixed to one of said sleeves and electrically insulated there-

from, the improvement comprising: a kit consisting of an insulating disc of a size to cover and insulate the contact fixed to the outer sleeve to prevent contact therewith by a finger or like object inserted into the outer sleeve, said insulating disc having a minute opening therethrough, an electrically conductive disc having a post-like coaxial extension on one face thereof, said conductive disc being constructed and arranged for being adhered to the flat face of the contact fixed to the inner sleeve, said post-like extension being constructed and arranged to engage the contact carried by said outer

sleeve through said minute opening in said insulating disc when said sleeves are telescopically moved to circuit completing telescopic interengagement.

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