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D. G. STODDARD

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ELECTRIC LIGHT SOCKET

Filed June 13, 1925

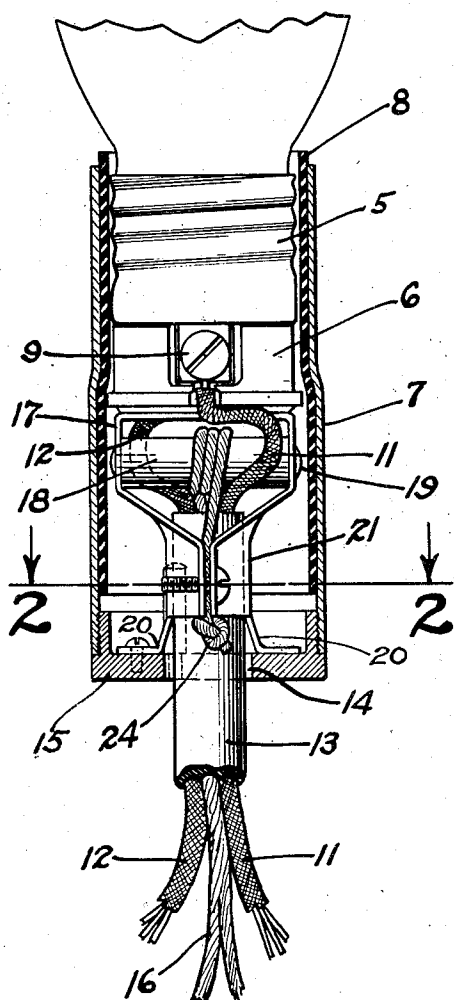


FIG. 1

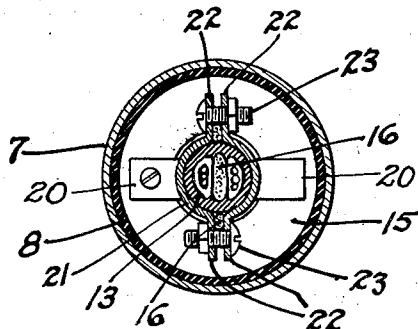


FIG. 2

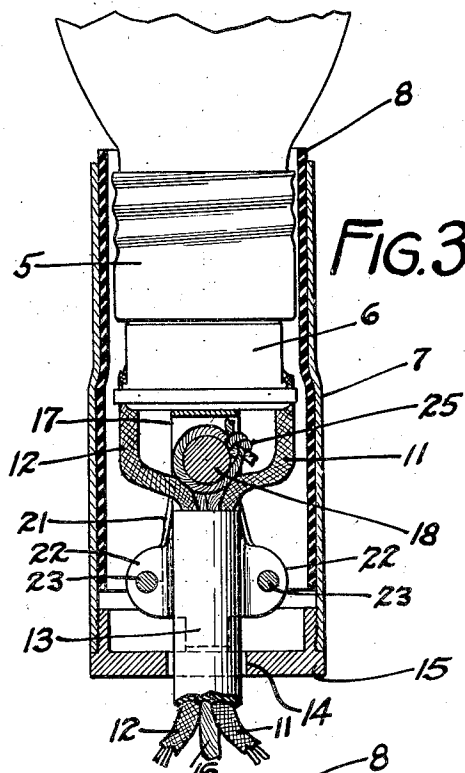


FIG. 3

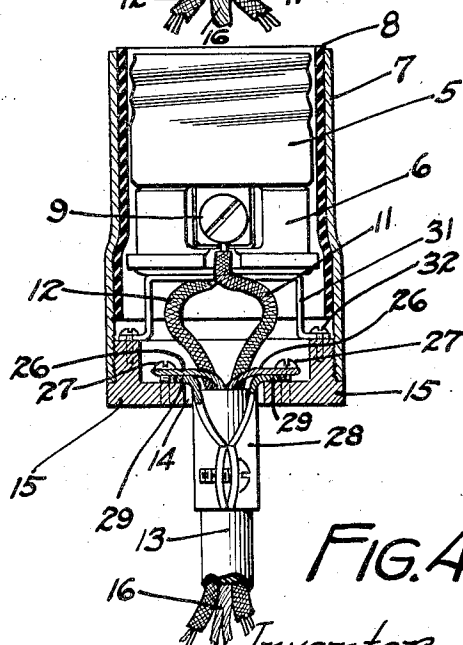


FIG. 4

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ELECTRIC-LIGHT SOCKET.

Application filed June 13, 1925. Serial No. 36,934.

This invention relates to new and useful improvements in electric light sockets and more particularly relates to improvements in such sockets of the type adapted to be secured to the end of an electric light cord such for instance, as the portable lights commonly employed in automobile repair shops, and the like; or to such lights of the type adapted to be suspended from the end of an electric light cord depending from a ceiling or other supporting means.

An object of the invention is to provide an electric light socket having a fastening means mounted therein to which the reinforcing strand of the light cord may be secured, thereby relieving the conductors in the cord of unnecessary strains.

The particular object of the invention therefore is to provide an improved electric light socket.

Other objects of the invention will appear from the following description and the accompanying drawings and will be pointed out in the annexed claims.

In the accompanying drawings there has been disclosed a structure designed to carry out the various objects of the invention but it is to be understood that the invention is not confined to the exact features shown as various changes may be made within the scope of the claims which follow.

In the drawings:

Figure 1 is a sectional view of a common form of socket showing the invention applied thereto;

Figure 2 is a cross-sectional view on the line 2-2 of Figure 1;

Figure 3 is a right angle view of the structure shown in Figure 1, but showing the reinforcing strand secured in a slightly different manner; and

Figure 4 is a similar view showing a modified construction.

In the selected embodiment of the invention here shown there is illustrated a socket of ordinary construction such as a candle socket comprising the usual inner shell 5 suitably mounted upon a base 6, preferably of a suitable non-conductive material such as porcelain. The inner shell 5 and base 6 are mounted within an outer shell 7 which is insulated therefrom by means of an insulating sleeve 8 of ordinary construction.

The inner shell 5 is provided on one side with a terminal 9 adapted to have the cable conductor 11 secured thereto as shown in Figure 1. The other conductor 12 is electrically connected to the central contact of the socket which is mounted within the inner shell 5, and is of ordinary construction and well known in devices of this type and it is therefore thought unnecessary to show same in detail.

An important feature of this invention resides in the novel means provided for relieving the conductors 11 and 12 of unnecessary strain when a pull is exerted on the sockets.

Referring to the drawing it will be noted that the cable conductors 11 and 12 are mounted within a flexible casing 13 of ordinary construction, which passes through an aperture 14 in the cap 15 mounted in threaded engagement upon the outer casing 7, as shown. A reinforcing strand or cable 16 is also mounted within the casing 13 and is adapted to have its end secured in such a manner that, when the electric light cord, comprising the cables 11 and 12, is accidentally pulled, the reinforcing strand 16 will take up the strain and thereby relieve the conductors of such unnecessary strain.

The means provided within the socket for securing thereto one end of the reinforcing strand, preferably consists in mounting a bracket 17 upon the porcelain base 6 and securing it thereto by suitable means, not necessary to be shown.

An insulating bar 18 is mounted in the bracket 17 and secured thereto by a rivet 19. The bracket 17 also preferably has a hub 21 formed thereon adapted to receive the end of the casing 13 to secure the latter to the socket. The hub 21 is preferably provided with oppositely extending ears 22 which are apertured to receive the small bolts 23 shown in Figures 1 and 2. When these bolts are tightened the split portions of the hub 21 will be securely clamped against the casing 13 thereby securely holding it in place therein. The hub 21 is also preferably provided with feet 20 for securing it to the cap 15, thereby preventing the bracket and shell 5 from relatively rotating within the outer shell 7 and also from longitudinally moving therein.

When securing the electric light cord to

the socket, the cables 11 and 12 are connected with the inner shell, as above described, after which the end of the reinforcing strand 16 is wrapped about the bar 18 and its end inserted between the ears 22 of the hub 21, after which the bolts 23 may be tightened, thereby securely clamping the end of the reinforcing strand therebetween. A knot 24 may be tied in the end of the strand 16 to prevent it from accidentally slipping through between the ears 22 when the cord and socket are in use. The conductors 11 and 12 are preferably provided with sufficient slack within the socket, as shown, so that when a pull is exerted upon the cord or conductors it will be taken up by the reinforcing strand.

Figure 3 shows a construction similar to that shown in Figure 1, but showing the reinforcing strand tied to the bar 18 in a slightly different manner. As here shown the split ends of the reinforcing strands are wrapped about the bar 18, and are securely tied together to form a knot 25 as shown.

Figure 4 illustrates a modified construction wherein the split ends 26 of the reinforcing strand 16 are secured to a pair of screws 27 mounted within the cap 15 as shown. In the structure here shown the casing 13 is secured to a clamp 28 having a projecting flange 29 mounted within the cap 15, and which functions to prevent the clamp and therefore the case 13 from becoming separated from the socket. In the structure here shown the base 6 may be supported upon a bracket 31 secured to the cap 15 by such means as the screws 32.

By the employment of the novel means provided within the socket for securing the reinforcing strand 16 thereto, it will be readily be seen and understood that when thus connected any strain exerted on the electric cord, within which the reinforcing strand 16 is mounted, will be substantially taken up by the reinforcing strand thereby relieving the conductors 11 and 12 of any such strain, and also substantially eliminating all danger of the conductors becoming accidentally disconnected from the socket, which is a common occurrence, especially with portable lights such as are used in repair shops, and the like, and also in drop lights of the type suspended from the end of a light cord.

I claim as my invention:

1. An electric light socket comprising a shell adapted to receive a light bulb, a base for the shell, a pair of electric conductors mounted within a casing and having their ends electrically connected to said shell, a reinforcing strand also mounted within the casing, a bracket secured to the base, a bar mounted in the bracket adapted to have the end of the reinforcing strand coiled thereabout, and a clamping means on said bracket

adapted to receive the end of said casing and to secure the free end of said reinforcing strand, whereby when a pull is exerted upon said conductors the strain will be taken up by the reinforcing strand.

2. An electric light socket comprising a shell adapted to receive a light bulb, a base for the shell, a pair of electric conductors mounted within a casing and having their ends electrically connected to said shell, a reinforcing strand also mounted within the casing, a bracket secured to the base, a bar mounted in the bracket adapted to have the end of the reinforcing strand coiled thereabout, and a clamping means on said bracket adapted to receive the end of said casing and to secure the free end of said reinforcing strand, whereby when a pull is exerted upon said conductor the strain will be taken up by the reinforcing strand, said means comprising a split hub adapted to receive and securely clamp the casing and the end of the reinforcing means therein.

3. A device of the class described comprising a shell, an electric socket within said shell having a bracket attached thereto, said bracket providing a tubular element, and a cross member secured within the bracket between the tubular element and the socket, and substantially diametrically related to said tubular element.

4. A device of the class described comprising a shell, an electric socket within said shell having a bracket attached thereto, said bracket providing a tubular portion substantially axially parallel with the axis of the socket, and a cross member secured within the frame between the tubular element and the socket in substantially diametric relation to said element, said element being split, and means for drawing the separated portions of said tubular element together to change its calibre.

5. An electric socket having a bracket attached thereto, said bracket providing an open portion, and further providing a tubular element extending outwardly beyond said open portion, and a bar crossing said open space and secured to said frame, the axis of the bar being substantially perpendicular to the axis of the tubular element, said tubular element being split, and clamping screws for drawing the split portions together.

6. An electric socket having a bracket attached to its outer end face, said bracket providing an open portion adjacent the socket, and further providing a tubular element outwardly beyond the open portion, the said tubular element having its axis substantially aligned with that of the axis of the socket and a bar crossing said open portion and secured to said frame, the axes having substantially a diametric relation to the tubular element.

7. A device of the class described comprising

prising a shell, and a closure cap therefor, an electric socket within the shell having a bracket attached thereto and to the closure cap and a member secured within the bracket
5 between the socket and cap, said member arranged to have a reinforcing strand secured thereto.

8. A device of the class described comprising an outer shell, a removable closure
10 cap for the shell, and an electric light socket, a frame supported by and removable with the cap, and lying between the cap and said

socket, and having an insulating bar for the purpose set forth.

9. A device of the class described com- 15
prising a shell, an electric socket within the shell and a removable closure cap for the shell, a bracket arranged within the shell and held against movement in opposite directions by the socket and cap, and having 20
a cross bar for the purpose set forth.

In witness whereof, I have hereunto set my hand this 10th day of June, 1925.

DANIEL G. STODDARD.