Aug. 17, 1937. J. R. NEILL 2,090,501

WEATHERPROOF SOCKET

Original Filed Aug. 31, 1934

Fig. 1.

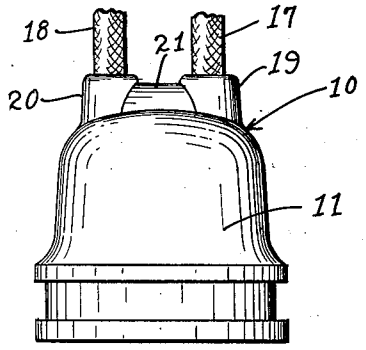


Fig. 2.

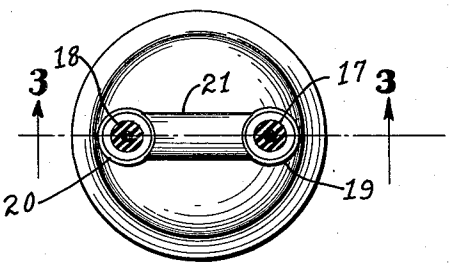
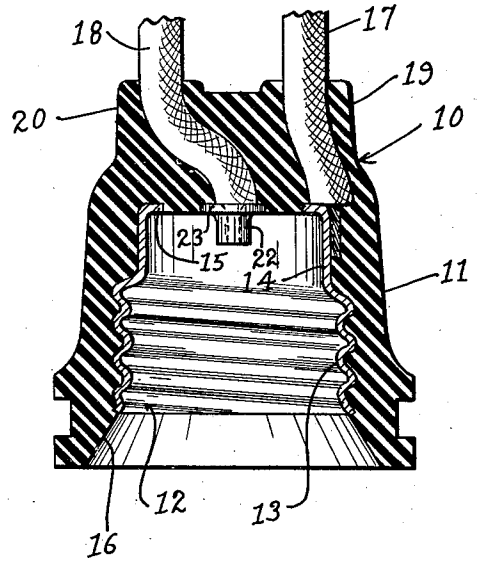


Fig. 3.



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WEATHERPROOF SOCKET

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Original application August 31, 1934, Serial No. 742,263, now Patent No. 2,033,643, dated March 10, 1936. Divided and this application December 26, 1935, Serial No. 56,182

1 Claim. (Cl. 173—358)

This invention relates to electric sockets, and more particularly to an improved weather-proof socket.

One object of this invention is to provide a weather-proof socket of molded insulation in which the electrical lead wires are hermetically embedded within the insulating material during the molding thereof.

A further object is to provide a socket of the above nature in which one of the electrical lead wires is bent inwardly at its end to serve as the center socket terminal, and is held rigidly in position by the molded insulation in which it is embedded.

A further object is to provide an electric socket of the above nature which will be simple in construction, inexpensive to manufacture, easy to manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view there has been illustrated on the accompanying drawing one form in which the invention may be conveniently embodied in practice.

In the drawing:

Fig. 1 represents an elevation view of the molded socket.

Fig. 2 is a top plan view of the same.

Fig. 3 is a vertical sectional view through the same on a somewhat larger scale, and taken along the line 3—3 of Fig. 2.

This application is a division of a prior application filed August 31, 1934, Serial No. 742,263 for a "Method of making electric sockets", and which issued as Letters Patent No. 2,033,643 on March 10, 1936.

In the previous manufacture of weather-proof sockets, it has been customary to attach inserts of porcelain, etc., to the base of each screw shell to insulate the center spring contact from said shell. It has been found, however, that with a socket so constructed, the flux used for soldering the conductor to the exterior of the screw shell would often creep over the surface or penetrate the porous material of the porcelain insert, permitting current leakage or short circuiting.

By means of the present invention, the above and other disadvantages have been avoided. Thus, no inserts whatever are used, and the center terminal is held in position and insulated from the outer shell by the impervious material of the molded casing.

Referring now to the drawing in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 generally indicates the weather-proof socket comprising a cup-shaped body portion 11 of molded insulation, within which is disposed a socket shell 12 consisting of a threaded section 13, and an unthreaded reduced section 14 terminating in an inturned annular shoulder or base 15 (see Fig. 3). The protruding exterior helical rib of the threaded section 13 is permanently embedded within the surrounding insulation material of the socket 12, whereby the shell 12 is prevented from sliding or twisting relative to said socket body 11. The open end of the socket body portion 11 extends slightly beyond the metal shell 12, and is beveled at 16 to facilitate the insertion of an electric-connecting plug or electric light bulb, not shown.

Electric current is adapted to be supplied to the socket 10 through a pair of insulated conductors 17 and 18 which are surrounded in the completed socket by a pair of upstanding bosses 19 and 20 forming an integral part of the molded insulating casing. As clearly shown in Figs. 1 and 2, a raised cross-rib 21, substantially semi-cylindrical in shape, is integrally formed at the top of the body 11 and is joined integrally with the upstanding bosses 19 and 20 to reinforce the same, and incidentally enhance the ornamental appearance of the socket.

Before the molding of the socket 10 the bared end of the insulated conductor 17 will be electrically connected to the unthreaded reduced section 14 of the socket screw shell 12, as by soldering. The bared end of the other insulated conductor 18 is reinforced by a bell-mouthed eyelet 22 fitted tightly thereupon, said eyelet having an outstanding flange 23. The bell-mouthed eyelet 22 serves as the center terminal of the weather-proof socket 10.

It is to be noted that the annular space included between the inturned annular shoulder 15, and the flanged end 23 of the eyelet 22 is completely filled in with the molded insulating composition of the body portion 11, whereby a smooth flush base will be produced with only the central tubular portion of the eyelet 22 projecting into the socket cavity.

It is to be understood, however, that the eyelet 22 may be omitted if desired, in which case the bare end of the conductor wire 18, stripped of its insulation will serve as the center terminal of the weather-proof socket.

It is also to be understood that in place of the terminal eyelet 22, any other suitable form of center contact terminal may be employed, such as a spring clip, an eyelet clip, a coil spring, etc., within the spirit and scope of this invention.

While there has been disclosed in this specifica-

tion one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claim.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

In a weather-proof socket, a rigid cup-shaped body of hard molded insulation, a metallic screw shell imbedded therein and having an apertured base, a pair of insulated wire conductors passing into said body and also imbedded therein, said conductors having stripped ends, the stripped end of one of said conductors being imbedded in said body and soldered to said shell, the stripped end of the other conductor extending through said aperture and being held centrally in the body by the surrounding molded insulation, a tubular flanged eyelet fitted over said central stripped end, the flange of said eyelet being flat and lying flush with the base of said socket, the tubular portion of said eyelet and said central stripped conductor forming the center contact of said weather-proof socket.

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