Aug. 8, 1933. L. BARNETT 1,921,447

ACCESSORIES FOR ELECTRIC FITTINGS

Filed April 28, 1928

Fig. 1.

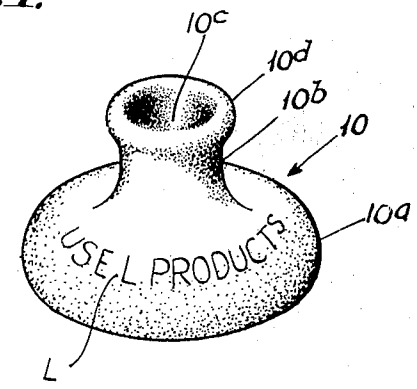


Fig. 2.

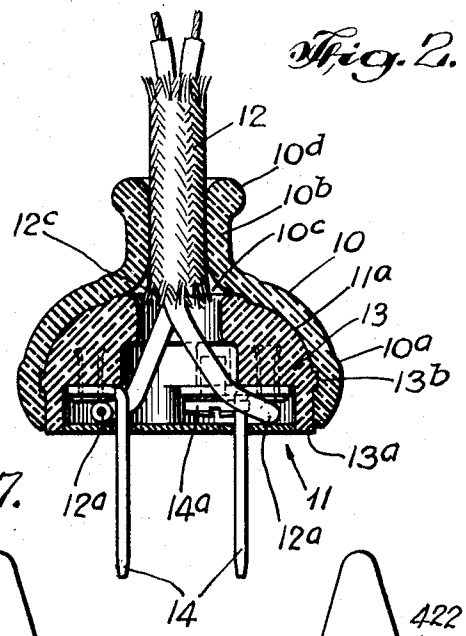


Fig. 3.

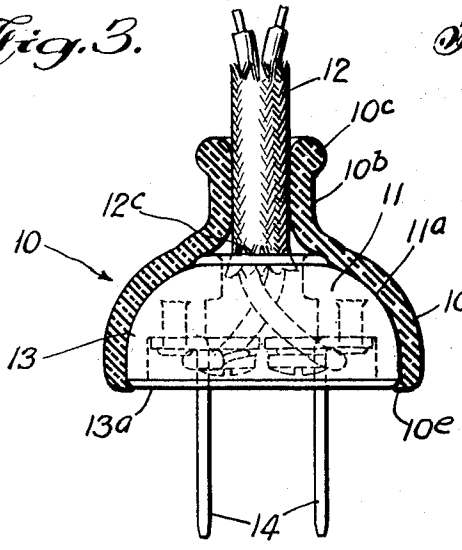


Fig. 7.

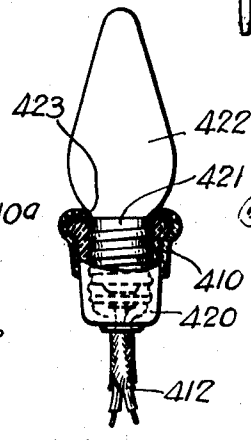


Fig. 8.

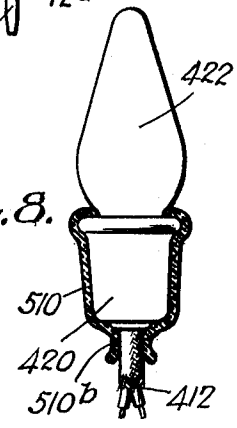


Fig. 6.

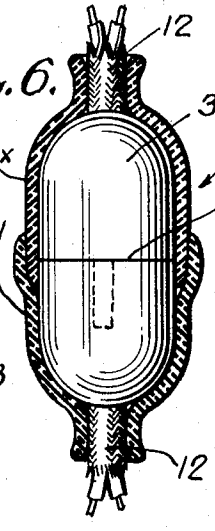


Fig. 4.

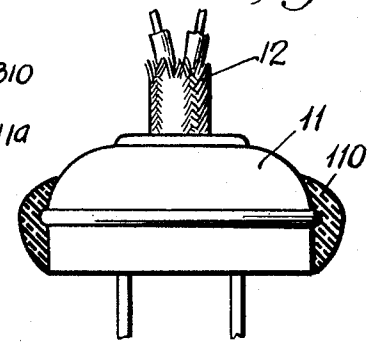
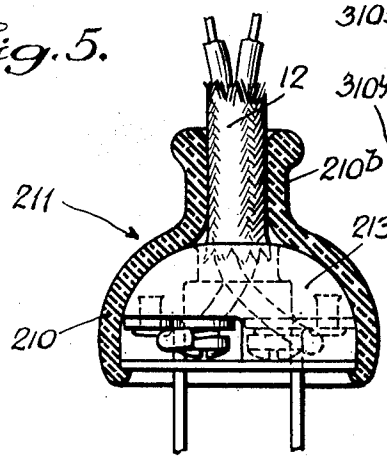


Fig. 5.



Inventor
Louis Barnett.

Patented Aug. 8, 1933 1,921,447

UNITED STATES PATENT OFFICE

1,921,447

ACCESSORIES FOR ELECTRIC FITTINGS

Louis Barnett, Brooklyn, N. Y.

Application April 28, 1928. Serial No. 273,493

2 Claims. (Cl. 173—361)

This invention relates to devices for electric portable circuit fittings such as attachment plugs, connector fittings and socket receptacles. More particularly the invention is directed to an improved resilient jacket or buffer for applying to such fittings.

One object of the invention is the provision of an auxiliary jacket or buffer of improved construction for fitting on standard types of attachment plug caps which shall absorb shocks due to accidental rough or careless handling to which such caps are subjected in use preventing and eliminating breaking thereof and scarring of surrounding finished surfaces.

Another object of the invention is the provision of an improved jacket or buffer for connector fittings and attachment plug caps which form a strain relief means for the terminal connection thereof whereby the body of the cap is secured to the portions of conductor wires extending beyond the cap, said means also serving to conceal the trimmed end of the insulation covering said wires adjacent the terminal connections whereby the neat appearance of the electric wiring is greatly improved.

A further object of the invention is to provide an improved resilient jacket or buffer of the character described which shall be readily fitted on standard types of connector fittings and attachment plug caps. Said jackets may either form an advertisement specialty or an ornamental trimming made in various colors and adapted to be inexpensively replaced and interchanged to suit the requirements of any interior decorative color scheme.

Another object of the invention is to provide an improved resilient jacket or buffer of the character described which is adapted to be applied over attachment connector and socket receptacle fittings of portable circuits and shall form a moisture and weather proof seal for said fittings.

Still another object of the invention is the provision of an improved jacket or buffer of the character described comprising a simple, inexpensive structure, which shall be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the constructions hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown various possible illustrative embodiments of this invention.

Fig. 1 is a perspective view of an auxiliary resilient jacket or buffer embodying the invention adapted to be applied to fit over the normally exposed surface of a cap portion of an attachment plug of standard construction terminating portable conductor wires.

Figs. 2, 3 and 4 are front elevational views of three types of the improved jacket or buffer embodying the invention shown applied on attachment plug caps, part of the structures being broken away to show the interior constructions.

Fig. 5 is a front elevational view in section showing an improved attachment plug cap portion construction embodying the invention.

Fig. 6 is a front elevational view of a connector fitting for portable conductor wires showing the invention applied thereto, partly in sections, and

Figs. 7 and 8 are elevational views of lamp socket receptacles fitted with improved devices embodying the invention, partly in sections.

Referring in detail to the drawing 10 denotes an auxiliary buffer or jacket embodying the invention adapted to be removably applied to fit over the normally exposed surfaces of an attachment plug cap 11 of standard construction terminating the portable conductor wires 12.

Said plug cap 11 is seen to comprise a rigid bulbous body 13 made of molded insulation, such as pheno-condensate products or the like materials, having a relatively flat side 13*a* from which spaced current carrying terminal blades 14 extend. Said blades 14, each is provided with a binding post 14*a* connecting with an end 12*a* of the conductor wire 12, the latter extending through the body 13 in a direction opposite to said flat side 13*a* in the well understood manner.

The jacket 10 may be made of a suitable elastic material such as rubber, and has a bulbous body portion 10*a* shaped to conform to the contour of the normally exposed surface 11*a* of the cap 11. Said jacket is preferably made smaller in size than the cap so that it is stretched and clampingly fitted to embrace the cap as shown in Fig. 2. Projecting from the body portion 10*a* is an integrally formed elastic extension 10*b* formed with a passage 10*c* through which the conductor wires 12 extend. Said passage 10*c* is preferably made smaller in diameter than the cross-section of the conductor wires 12 so that the passage wall must be expanded when applied over said conductor wires and forms a tight frictional engagement with the latter. Said extension 10*b* may terminate in a finger gripping flange 10*d*.

The practical application of the invention will now be apparent. The conductor wires 12 are threaded through the pasage 10*c* and the ends 12*a* of said wires connected to the plug cap

11 in the well understood manner. The jacket 10 is now applied to cover the normally exposed surface of the plug cap as shown in Fig. 2. Where a circumferentially projecting ridge 13*b* is provided on the cap body portion 13 it aids in retaining the jacket secured to the cap. Where such a ridge is not provided in the plug cap structure, a lip flange 10*e* may be formed about the rim opening in the body portion 10*a* of the jacket for constricting same and thereby serve as means for retaining the cap in the jacket as is clearly shown in Fig. 3.

The body portion 10*a* and its extension 10*b* of the jacket 10 interconnect the plug cap body 13 with the portion of the conductor wires 12 extending beyond said plug cap body 13, said jacket 10 therefore serves as a strain relief means for the terminal joints of said wires with the binding posts. Thus when the finger grip flange 10*d* is pulled for withdrawing the plug cap from circuit in the well understood manner, the straining forces are transmitted through the jacket 10 directly to said body 13 instead of being exerted on the binding post connections. It is obvious that the extension 10*b* and its finger gripping flange 10*d* provides a more convenient and safer means for attaching and detaching the plug cap from circuit than does the standard plug cap, without the jacket 10.

It should be noted that the "skinned" portions 12*c* of the conductor wires which are visible in many wiring installations are entirely concealed by the extension 10*b* thus improving the neat appearance of the electric wiring.

The jacket 10 may be made in a large variety of colors which are not readily obtainable in molded insulation from which the plug caps are made and serve as an inexpensive ornamental trimming adapted to suit the requirements of any interior decorative color scheme. Said jacket may also carry a legend L on its exterior surface and thus provide a cheap advertisement specialty.

The jacket 10 serves as a buffer absorbing shocks and protecting the insulating body 13 against breakage should the plug cap be carelessly or accidentally dropped on the floor or other hard surface. Said jacket 10 also prevents marring or scratching of any surface with which the plug cap comes in contact.

Fig. 4 shows a modified form of the jacket embodying the invention which comprises merely a buffer band 110 covering the portion of the plug cap body of largest cross section. This band 110 although forming a relatively simple structure obviously serves to protect the most prominent part of the plug cap body 13 against injury and prevents accidental marring and scratching, the same as the jacket 10 described above.

In Fig. 5 a complete attachment plug cap 211 is shown embodying the invention. Here the inner structure portion of the body 213 is made identical with that of a standard attachment plug cap with the exception of the portion thereof normally carrying the outer surface is replaced by an elastic jacket 210. Said jacket 210 includes the extension 210*b* which cooperates with the conductor wires 12 in the identical manner as extension 10*b* of the jacket 10 described above.

Fig. 6 shows an application of the invention to a detachable connector fitting 311 as is used for making extensions or branches to portable circuits with flexible conductor wires 12. Here the elastic jacket 310 comprises two parts 310*x* and 310*y*. Each of said parts preferably has an integral extension for clampingly engaging the conductor wires 12 as shown. At least one of said jacket parts 310*x* may be made sufficiently long to extend beyond the joint 311*a* of said fitting 311. The other jacket part 310*y* is preferably made to overlap said part 310*x* so that an efficient means for sealing the fitting 311 against moisture is provided.

In Figs. 7 and 8, modified forms of the invention are shown as applied to lamp socket receptacles such as used for outdoor lighting display. In Fig. 7 the elastic jacket 410 is fitted over the receiving end of lamp socket receptacles 420 and is adapted to seal the base 421 of the lamp 422 in the receptacle. The sealing joint 423 serves also as a retaining means for the prevention of the lamp base 421 from being accidentally unscrewed and loosened in the receptacle 420 due to vibration. The elastic jacket construction 510 shown in Fig. 8 is like that described above for the jacket 410 shown in Fig. 7 with the exception that an integral elastic extension 510*b* is provided for clampingly embracing the lead-in wires 412 to the receptacle 420. Said jacket 510 forms a removable covering for completely sealing the receptacle 420 and live parts of the lamp.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination with a standard completely constructed detachable plug cap terminating portable conductor wires, a removable resilient armoring member of soft rubber or the like covering substantially the entire normally exposed surface of the plug cap, an extension of said member clampingly embracing a substantial length of the portions of the conductor wires extending from the plug cap, said extension terminating in a finger gripping end, said armoring member having a lip engaging said plug whereby said member serves as a strain relief means for said cord.

2. In combination with a standard completely constructed detachable plug cap having a substantial rigid insulating bulbous body formed with a relatively flat side, current carrying blades extending from said side, portable conductor wires extending through the body in a direction opposite to said side for connecting in circuit with the blades, a removable elastic covering of soft rubber or the like snugly fitted to extend over the exterior of said body, said covering having an annular inturned lip engaging said flat side, said covering also having an extension provided with a passage wherethrough the conductor wires extend, said extension clampingly embracing a substantial length of said wires to serve as a strain relief means for said circuit connection.

LOUIS BARNETT.