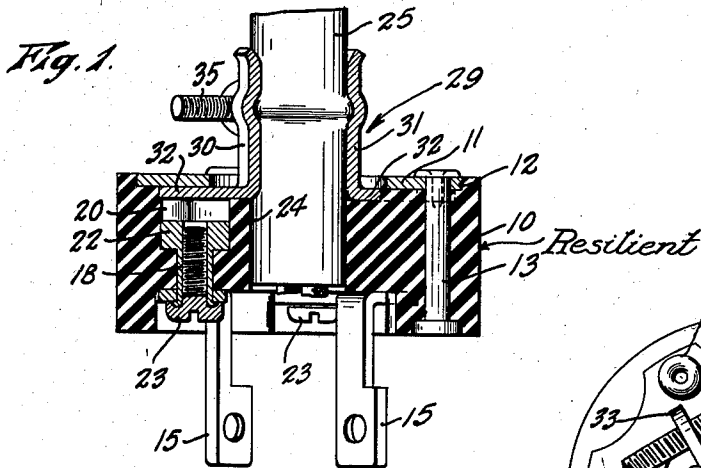
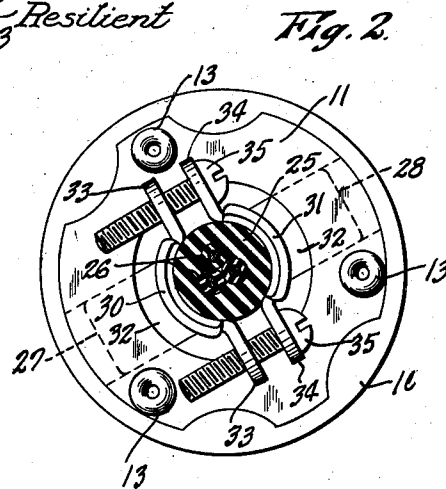
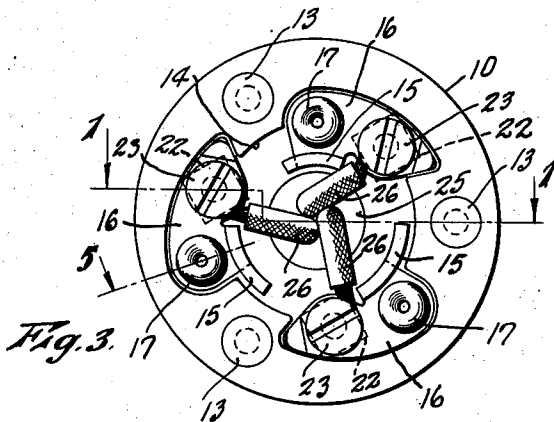
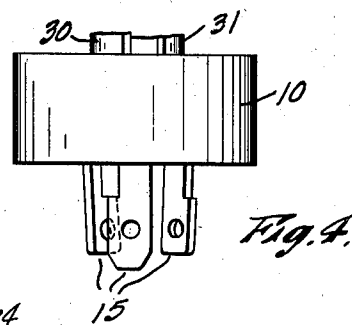
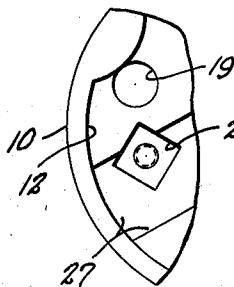
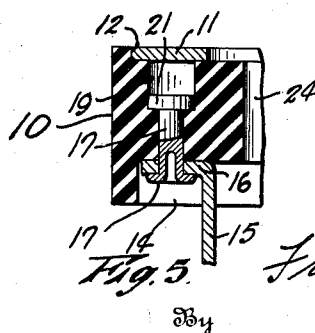


March 17, 1936.

F. J. TIFFANY
ATTACHMENT PLUG CAP
Filed May 21, 1931

2,033,960



Inventor

Frank J. Tiffany
Walter H. Davis
Attorneys.

UNITED STATES PATENT OFFICE

2,033,960

ATTACHMENT PLUG CAP

Frank J. Tiffany, Bridgeport, Conn., assignor to
Harvey Hubbell, Inc., Bridgeport, Conn., a corporation of Connecticut

Application May 21, 1931, Serial No. 538,956

5 Claims. (Cl. 173—361)

This invention relates to new and useful improvements in attachment plug caps and particularly to attachment plug caps adapted to be used in garages, factories or the like where they are liable to be subjected to rough handling, and is equally applicable to attachment plug caps including two, three or more blades.

An object of the invention is to provide an attachment plug cap including a body of unbreakable material such as live rubber whereby the body of the cap will not become cracked or broken when brought into contact with a hard object as when dropped on a floor or the like, and whereby the cap will withstand rough usage.

Another object is to provide an attachment plug cap including a body of resilient rubber and wherein the contact blades are so secured to the body that when the blades are forcibly brought into contact with a hard object the blades will not be bent but the body will yield to protect the blades.

A further object is to provide an attachment plug cap including a body of resilient rubber, a plate secured to the back of the body to stiffen the same and said plate serving also to secure a cable or cord clamp to the body.

An additional object is to provide an attachment plug cap including a resilient rubber body and improved means for securing contact blades to the body whereby lateral stress applied to the blades will be transmitted to and taken up by the body to prevent bending of the blades.

Other objects and advantages will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it will be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims to which claims reference is to be had for a definition of the invention.

In the drawing:

Fig. 1 is a transverse sectional view on the line 1—1 of Fig. 3;

Fig. 2 is a top plan view of the improved attachment plug cap;

Fig. 3 is a bottom plan view thereof;

Fig. 4 is a side elevational view thereof on a reduced scale;

Fig. 5 is a sectional view thereof showing a detail of construction the view being taken along the line 5—5 of Fig. 3; and

Fig. 6 is a plan view of a portion of the body of the new attachment plug cap, the back plate being omitted.

Referring in detail to the drawing the improved attachment plug cap of the present invention is shown as including a body 10 preferably formed

of live rubber and which while herein shown is in the form of a relatively thick disc or cylinder may of course have any desired shape.

At its outer or upper side the body 10 receives or has applied against it a metal stiffening plate 11 which plate may conform generally to the shape of the body. Preferably the body is recessed to receive the plate 11 whereby when the plate is applied to the body the edges of the plate will be protected by the material of the body. This is as shown at 12 in Figs. 1 and 5. While a number of means for securing the plate 11 to the body will readily suggest themselves it is preferred that the plate be secured as by means of rivets 13 which pass entirely through the body and have their heads at the lower side of the body recessed into the body whereby they lie flush with the surface of the body or below such surface.

The lower or inner side of the body is recessed as at 14 to receive the contact blades and the means for attaching these blades. As herein shown, the attachment plug cap includes three contact blades 15 for use with a three wire system, one contact being for the grounded or neutral wire, although it will be obvious that the invention is applicable to a two blade attachment plug cap or for use with any number of blades desired. Each blade 15 includes a relatively large anchoring or attaching portion 16 arranged at right angles to the blade proper and adapted to be secured against the inner side of the body 10 and within the recess 14.

As here shown each contact blade 15 is secured to the body by two rivets indicated respectively at 17 and 18. These rivets of course pass through the portions 16 of the respective blades. Entering the body from the outer or upper side thereof are wells or recesses 19 and 20, there being one well or recess 19 for each rivet 17 and one well or recess 20 for each rivet 18. The heads 21 of the rivets 17 are disposed in the recesses 19 and an inspection of Fig. 5 will show that these heads are disposed a considerable distance below the plate 11 whereby there will be no danger of short circuiting.

Recesses 20 are non-circular in cross section and such recesses are here shown as square. This is to prevent turning of the rivets 18 and in order that the heads 22 of the rivets will properly cooperate with the recesses these heads are preferably square. The rivets 18 are tapped to receive binding screws 23 whereby in addition to functioning in the securing of the contact blades to the body these rivets form an anchoring means for the binding screws. The ends of rivets 17 and 18 are, of course, upset against the outer surface of the portions 16 of the contact blades whereby to secure the blades against the body.

Extending centrally through the body 10 is an opening 24 adapted to receive a cord 25 which

preferably includes a heavy rubber covering encasing conductors 26 one of which in a three wire system provides a grounded or neutral wire. In its upper or outer surface the body 10 has a pair of opposed grooves 27 and 28 which extend radially from the opening 24 to a point spaced from the sides of the body. These grooves are below the stiffening plate 11.

In addition to performing as a stiffening member the plate 11 also serves to secure a cord clamp 29 to the body. This cord clamp includes a pair of similar sections 30 and 31 each of which is substantially L-shaped, including an attaching or foot piece 32 adapted to be received in one or the other of the grooves 27 and 28 under the plate 11. As shown in the accompanying drawing the foot piece 32 of the section 30 is received in the groove 27 while the foot piece 32 of the section 31 is received in the groove 28.

Plate 11 being disposed over the foot pieces 32 of the respective sections will, of course, serve to secure the sections to the body and the sections may be moved toward and from each other and in such movement will be guided by the walls of the grooves 27 and 28 and plate 11. The sections 30 and 31 are adapted to clamp a cord between them, as for example the cord 25, and means are therefore provided for drawing the sections toward one another. As here shown this means includes a pair of laterally extending ears 33 on the section 30 and a pair of laterally extending ears 34 on the section 31. These ears are arranged opposite each other and screws 35 each passing through one ear 34 and one ear 33 have threaded connection with the ears 33 and when tightened serve to draw the sections against the cord.

It will therefore appear that plate 11 performs its two functions and secures the cord clamp to the body in such a manner that its sections may be easily adjusted toward and from each other but are so secured that any pull on the cord will be taken up by the clamp and transmitted to the plate. Thus the pull on the cord is not transmitted to the connections of the leads with the binding screws. Also, attention is directed to the fact that the body 10 being of live rubber will not become cracked or broken when dropped on a floor or struck against a hard object and that the improved attachment plug cap is therefore particularly adapted for use in factories, garages or the like where it will receive harsh treatment.

The mounting for the contact blades is such that these blades are protected in that if the attachment plug cap is dropped on the blades or should the blades in any other manner be brought smartly against a hard object the body will yield permitting the blades to yield and the blades will not be bent. Any reasonable lateral force, or any reasonable force applied laterally to the blades will result in movement of the blades but this movement will be due to a yielding of the body 10 as the force is transmitted to the body through the rivets 17 and 18.

Having thus set forth the nature of my invention, what I claim is:

1. In an attachment plug cap, a body of live rubber, a contact blade secured to said body and extending from one side thereof, said body having an opening therethrough for a cord, said body having a recess in its side opposite that from which the blade extends, a stiffening plate secured in said recess and having an opening align-

ing with the opening in the body, said stiffening plate being of substantially the diameter of said body, a cord clamp comprising a pair of sections each of which is substantially L-shaped, each of said sections having an arm disposed below said stiffening plate whereby the sections are secured to the body, and means to draw said sections toward each other to have them clamp a cord entering the opening through the body.

2. In an attachment plug cap, a body of live rubber, a contact blade secured to said body and extending from one side thereof, said body having an opening therethrough for a cord, said body having a recess in its side opposite that from which the contact extends, a stiffening plate secured in said recess and having an opening aligning with the opening in the body, said stiffening plate being of substantially the diameter of said body, said body having radially extending grooves in its side beneath the stiffening plate, a cord clamp comprising a pair of sections each of which includes a mounting arm disposed in one of said grooves and below the stiffening plate whereby the sections are secured to the body and guided for movement toward and from each other, and means to draw said sections toward each other to have them clamp a cord entering the opening through the body.

3. In an attachment plug cap, a body of live rubber, said body recessed in its opposite sides, a contact blade secured in the recess at one side of the body and extending outwardly therefrom, said body having relatively deep wells entering from the recessed side opposite that to which the blade is attached, means having their heads in said wells and extending through the body and securing the contact blade to the body, one of said wells and the head of one of said means being non-circular whereby to prevent turning of the means, a binding screw threaded to said means, and a stiffening plate secured in the recess at the side of the body opposite the side from which the contact blade extends.

4. In an attachment plug cap, a body of live rubber, said body recessed in its opposite sides, a contact blade secured in the recess at one side of the body and extending outwardly therefrom, said body having a relatively deep well entering from the recessed side of the body opposite that to which the blade is attached, means having its head in the lower portion of said well and extending through the body and securing the contact blade to the body, and a stiffening plate secured in the recess at the side of the body opposite the side from which the contact blade extends.

5. In an attachment plug cap, a body of live rubber, a contact blade secured to said body and extending from one side thereof, a stiffening plate, means securing said plate to the body against the other side thereof, said body and plate having aligned openings for the passage of a cord, a cord clamp comprising a pair of sections each including an arm extending outwardly through the opening in the plate and an arm extending radially of said opening at the body side of the plate whereby the plate secures the sections to the body, and means to move said clamp sections toward each other to have them clamp a cord passing through the opening in the plate.

FRANK J. TIFFANY.