July 16, 1929. R. H. CUNNINGHAM 1,721,207

ATTACHMENT PLUG CAP SNUBBER

Filed Feb. 3, 1928

Fig. 1.

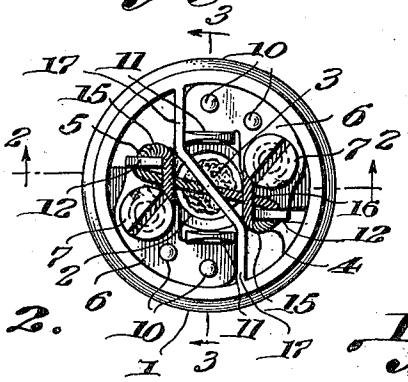


Fig. 2.

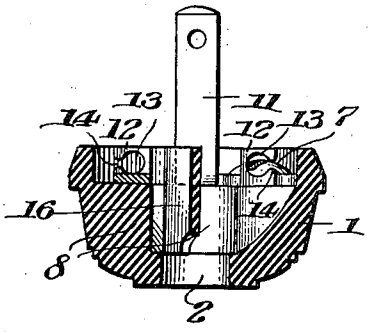


Fig. 3.

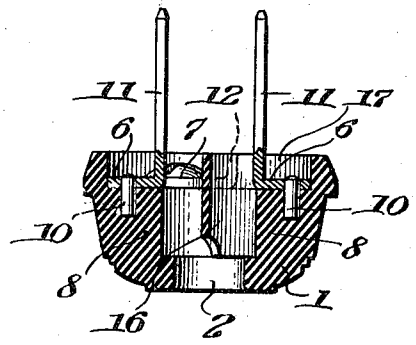
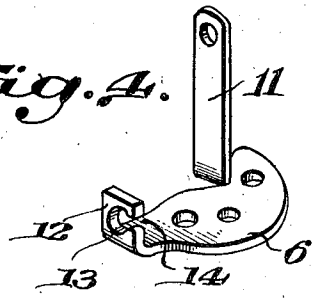


Fig. 4.



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UNITED STATES PATENT OFFICE.

ROY HERBERT CUNNINGHAM, OF JACKSON, MICHIGAN, ASSIGNOR TO THE REYNOLDS SPRING COMPANY, OF JACKSON, MICHIGAN.

ATTACHMENT-PLUG-CAP SNUBBER.

Application filed February 3, 1928. Serial No. 251,635.

The invention relates to an attachment plug cap snubber.

The object of the present invention is to improve the construction of removable caps for attachment plugs and to provide a simple, practical and efficient attachment plug cap equipped with snubbing means adapted to receive and have coiled around them the bared ends of the wires and capable of retaining the coiled wires in position and of cooperating with the binding screws or posts for securing the bared terminals to the contact plates and of relieving the binding screws or posts of strain.

With these and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion and minor details of construction, within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—

Figure 1 is a plan view of a removable attachment plug cap constructed in accordance with this invention, showing the interior thereof.

Fig. 2 is a vertical sectional view of the same.

Fig. 3 is a similar view taken at right angles to Fig. 2.

Fig. 4 is a detail perspective view of one of the contact plates.

In the accompanying drawings in which is illustrated the preferred embodiment of the invention, 1 designates a removable attachment plug cap consisting of a shell of the usual formation and constructed of molded bakelite or other suitable material and provided with a central opening 2 through which extends a cord 3 comprising two wires 4 and 5 having bared terminals secured to the contact plates 6 by binding screws 7 in the usual manner. The contact plates are arranged within the cap 1 which is provided at opposite sides with integral enlargements 8 forming shoulders or seats 9 to receive the contact plates 6. The contact plates 6 which are curved as shown, fit against the inner faces of the walls of the cap and are secured to the enlargements 8 by suitable fastening devices 10 which may be of any desired construction as will be readily understood. The contact plates which are spaced apart are provided with integral blades or fingers 11 which extend into the attachment plug (not shown) in the usual manner. The terminal portions of the bared ends of the wires 4 and 5 are bent around the binding screws 7 and are clamped by the heads of the same. In order to relieve the clamped portions of the bared ends of the wires of strain to prevent them from becoming accidentally disengaged from the binding screws, the contact plates are provided with snubber lugs 12 located adjacent to the binding screws and cooperating therewith to maintain the bared ends of the wires in engagement with the binding screws and provided with slots 13. Each of the snubber lugs has an approximately circular slot extending inwardly from one side edge of the snubber lug and terminating short of the opposite side edge and forming a constricted entrance 14. The bared portion of the wire adjacent to the terminal thereof is coiled around the snubber lug, a portion of the coils 15 being received within the slot 13. The bared portion of the wire is coiled tightly around the snubbing lug and in the slot thereof and the end of the wire after such coiling is bent around the binding screw and clamped in place by the latter. The coils 15 of the bared portions of the wire expand within the circular slot 13 and bind against each other and the walls of the slot sufficiently to assist in retaining the coils in the slot and the wires by being coiled around the snubbing lugs have their clamped terminals relieved of strain and a pull on the cord will be snubbed by the lugs and will not be transmitted to the clamped terminals of the wires which will not be liable to become loosened or disconnected from the clamping screws by the pulls and strains to which the cord is usually subjected in the use of the device.

In order to prevent any possibility of short-circuiting in the cap, the latter is provided with a partition 16 molded with the cap and extending across the same and having its longitudinal edge arranged in flush relation with the peripheral edge of the cap. The partition, which is interposed between the contact plates, is of a width equal to the depth of the cavity of the cap, and it is

united with the same at the bottom and side walls of the cavity. The central portion of the partition is diametrically disposed and the end portions 17 are arranged at an angle to the central portion and are located at the adjacent ends of the seats for the contact plates. The angularly related end portions of the partition, which extend in opposite directions, project outwardly beyond the faces of the said seats and form abutments for the adjacent ends of the contact plates. The partition effectually separates the contact plates and is adapted to prevent accidental short-circuiting within the cavity of the attachent plug cap. One side edge of each blade or finger 11 is located in the adjacent angle formed by the central and terminal portions of the transverse insulating partition.

What is claimed is:

1. An attachment plug cap having spaced contact plates having binding screws and provided with integral snubbing lugs, each lug being located adjacent a binding screw and thereby adapted to have a bared terminal of a wire coiled around it and provided with a slot receiving a portion of the coil, and having a constricted entrance.

2. An attachment plug cap having spaced contact plates provided with integral snubbing lugs at one end and blades at the other end, each lug being adapted to have a bared terminal of a wire coiled around it and provided with a slot receiving a portion of the coil, and having a constricted entrance, and a binding screw for each of the contact plates arranged between the lug and the blade adjacent to the snubber lug for clamping the end of the wire, the snubber lug co-operating with the binding screw to confine the wire beneath the head of the screw.

3. An attachment plug cap consisting of a shell of insulating material forming a cavity for contact plates and provided at opposite sides thereof with seats for the contact plates, said shell being also provided with an insulating partition interposed between the contact plates and extending across the cavity and having terminal angularly related portions located at the said seats.

4. An attachment plug cap consisting of a shell of insulating material forming a cavity for contact plates and provided at opposite sides thereof with seats for the contact plates, said shell being also provided with an insulating partition interposed between the contact plates and extending across the cavity and having terminal angularly related portions located at the said seats and projecting outwardly beyond the seats and forming abutments for the adjacent ends of the contact plates.

In testimony whereof I have hereunto set my hand.

ROY HERBERT CUNNINGHAM.