July 14, 1936. S. E. FELTS 2,047,623

ATTACHMENT PLUG WITH LOCKING DEVICE

Filed July 1, 1935

Fig. 1.

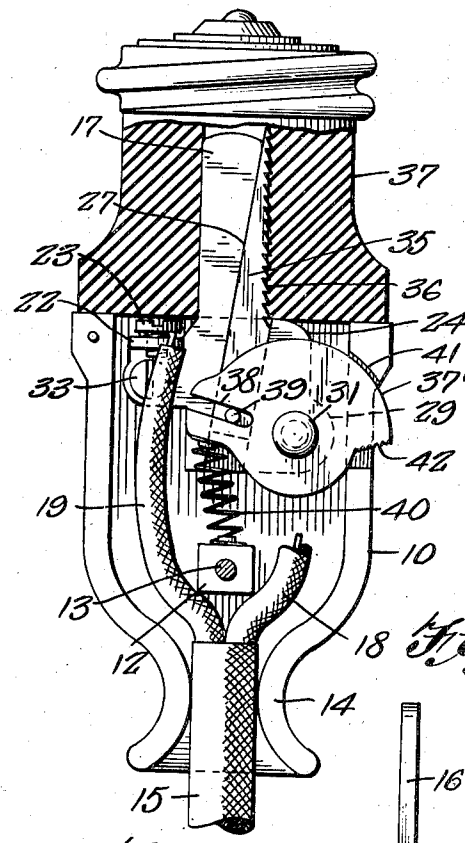


Fig. 2.

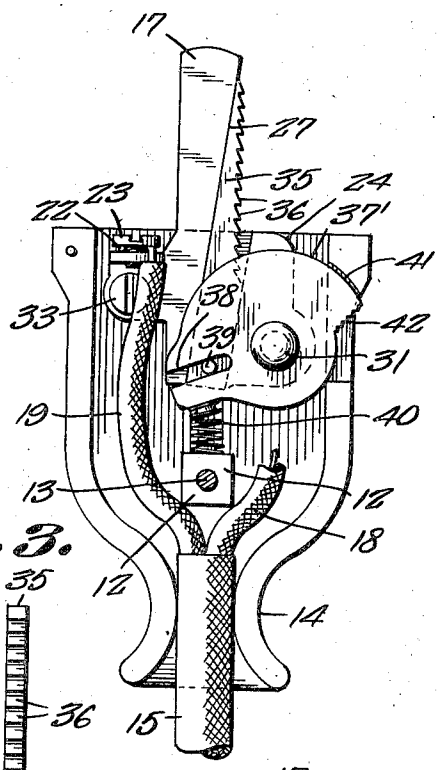


Fig. 3.

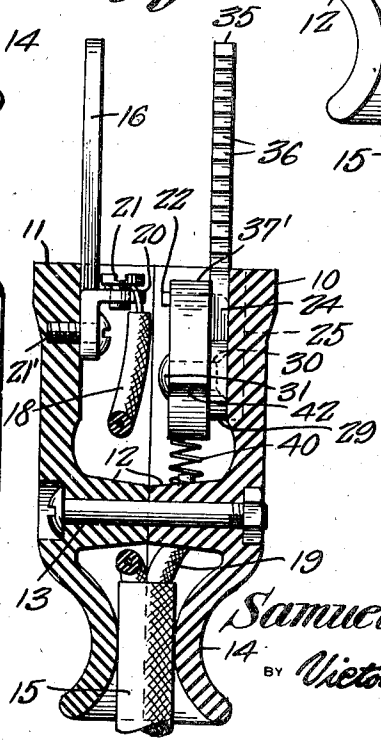


Fig. 4.

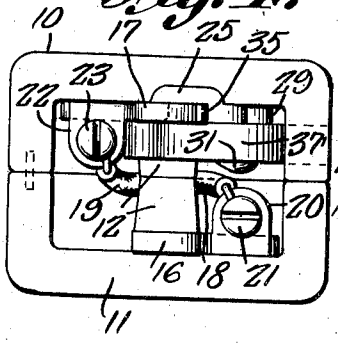
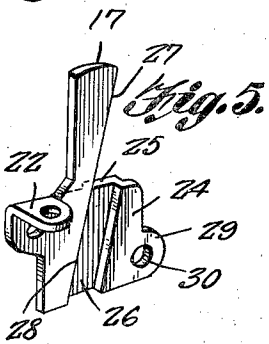


Fig. 5.



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ATTACHMENT PLUG WITH LOCKING DEVICE

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Application July 1, 1935, Serial No. 29,413

2 Claims. (Cl. 173—361)

This invention relates to electrical plug caps of the type used with plugs that screw into sockets or used with floor or wall outlets direct. In plug caps of this type, as ordinarily used, the plug cap frequently becomes loosened causing considerable annoyance on the part of the person using an electrical circuit which is completed through the plug cap.

It is a primary object therefore of this invention to produce a plug cap which may be positively locked to or detached from standard floor or wall outlets, or any conventional type of attachment plug.

A further object is to provide a locking member which is slidably supported on one of the contact prongs and is provided with backwardly turned teeth adapted to penetrate either metal or composition materials and positively prevent inadvertent disengagement.

A further object is to provide releasing means which are associated with the locking member and may be easily operated to release the locking member and permit removal of the plug cap from the plug or outlet.

A further object is to provide a plug cap formed of a few, simple, strong, durable and inexpensive parts which are easy to manufacture and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a longitudinal sectional view of a plug cap constructed in accordance with my invention and showing the parts of the plug cap in locked position.

Figure 2 is a view similar to Figure 1 but showing the parts of the plug cap in unlocked position.

Figure 3 is a cross sectional view through the plug cap.

Figure 4 is a top plan view of the parts shown in Figure 3.

Figure 5 is a detail perspective view of one of the prongs showing a flange thereon having an obliquely disposed guide slot.

Referring now to the drawing in which like characters of reference designate similar parts if the various views, the plug cap is shown to comprise similar sections 10 and 11 forming a hollow body, there being lugs 12 formed on the inner faces of the sections and counterbored to receive a bolt 13 for securing the sections together. The sections are provided with the usual flared nipple 14 for receiving the electric cord 15.

A pair of contact prongs 16 and 17 are secured to the body and receive the exposed ends 18 and 19 of the conductor cord 15 through which the electric circuit completed by the plug cap is adapted to flow. The contact prong 16 is provided with a lug 20 to which the exposed end 18 of the conductor cord is attached by a screw 21. A screw 21' is passed through the prong and into the body to rigidly anchor the prong to the body. The contact prong 17, as best shown in Figure 5, is provided with a lug 22 through which a screw 23 is passed to secure the exposed end 19 of the conductor cord to the contact prong. Moreover this contact prong is provided with a flange 24 at the bottom which is provided with an offset 25 which forms a guideway or groove 26 which extends obliquely with respect to the axis of the body. The edge 27 of the contact prong is a continuation of the obliquely disposed inner wall 28 of the groove and coacts therewith in forming a guide surface which extends obliquely to the axis of the body. The flange 24 is provided with a lug 29 having an opening 30 therein to receive a pivot pin 31. The flange is also provided with an opening which receives a screw 33 for attaching the contact prong to the body. The offset 25 is engaged in a similar shaped recess in the body, as best shown in Figure 4, and coacts with the screw 33 in rigidly securing the prong to the body.

A locking member 35 of wedge shape, is slidably mounted on the guide surface 27 of the contact prong 17 and is slidably received in the guide groove 26 formed in the flange of the contact prong. The outer edge of the locking member is provided with rearwardly extending serrations or teeth 36 adapted to penetrate the composition material of for instance the prong receiving slot in a conventional plug 37 when the locking member is slid outwardly to the locked position shown in Figure 1, and prevent accidental or inadvertent disengagement of the locking member. The teeth moreover will penetrate the metal lining sometimes found in floor and wall outlets and prevent dislodgment of the locking member.

A button 37' is mounted on the above mentioned pivot pin 31 and is provided with a radial slot 38 which receives a pin 39 that projects laterally from the lower end of the locking member 35

and constitutes a lever assembly to impart movement to the locking member 35. A coil spring 40 is seated on the securing lugs 12 of the body sections and exerts pressure on the button in a direction to urge the locking member 35 outwardly to locked position. The button 37' is accessible from the exterior of the body through a slot 41 and is provided with a knurled shoulder 42 diametrically opposite the slot 38 which is exposed through the slot 41 in the body and permits of the button being rocked counterclockwise to move the locking member 35 against the tension of the spring 40 and disengage the member from locked position.

From the above description it will be noted that the contact prongs 16 and 17 and locking member 35 forming a component part of the prong 17, may be universally used with all conventional types of plugs and outlets and require no special fittings whatsoever.

What is claimed is:

1. An electrical plug cap comprising a hollow body formed of sections provided with bolt receiving lugs for assembling the sections, contact prongs on the body, a locking member slidable longitudinally of one of the prongs, a spring seated on said lugs and urging the locking member outwardly, a projection on the locking member, and a button accessible externally of the body and having a radial slot receiving the projection for moving the locking member against the tension of the spring.

2. An electrical plug cap comprising a body, contact prongs on the body, a locking member slidable longitudinally of one of the prongs, a projection on the locking member, and a spring pressed button movable relatively to the locking member and accessible externally of the body and having means engaging the projection for imparting movement to the locking member.

SAMUEL E. FELTS.