

Aug. 9, 1938.

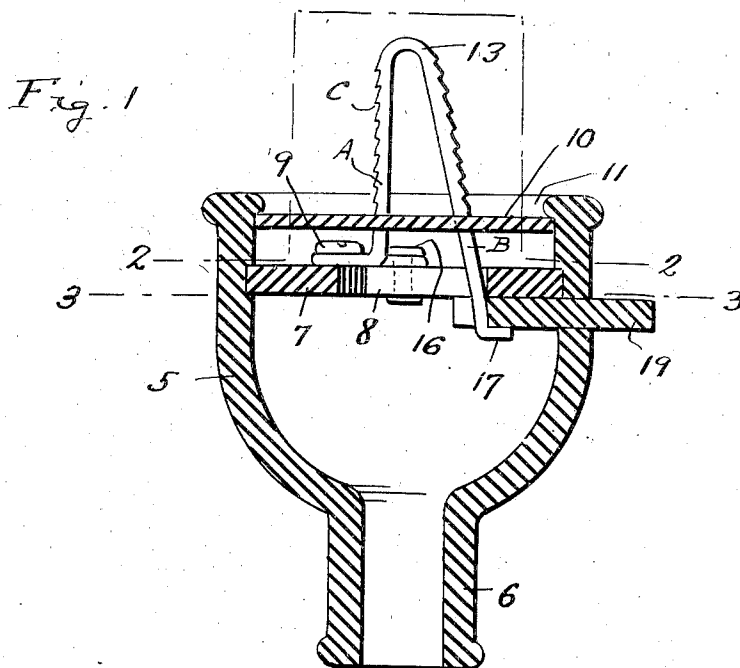
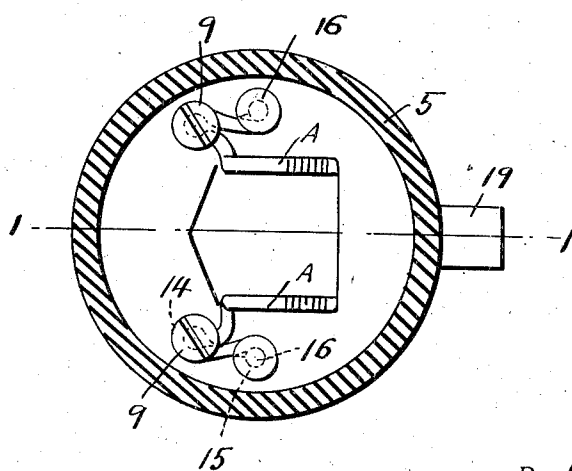
I. L. MEANS

2,126,494

ELECTRIC PLUG

Filed April 16, 1937

2 Sheets-Sheet 1



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Fig. 3

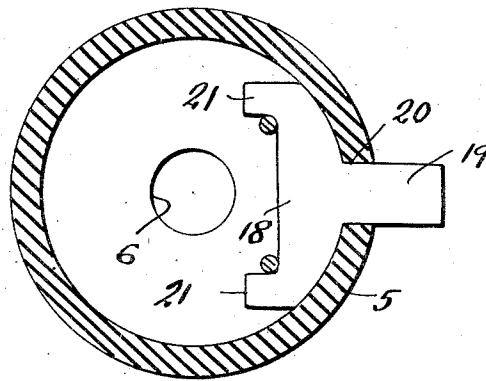


Fig. 5.

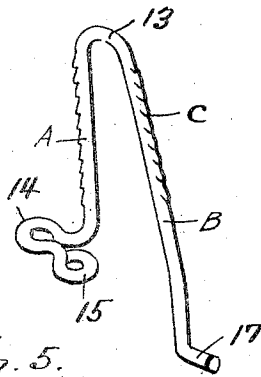


Fig. 4.

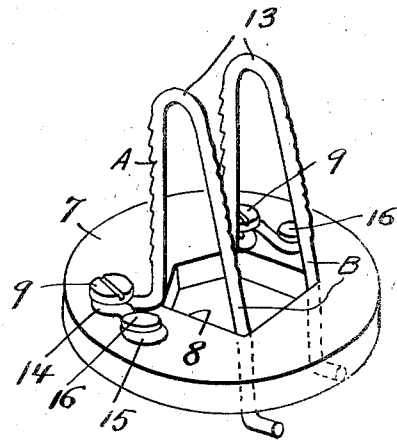
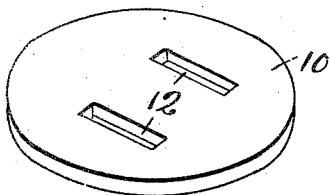


Fig. 6.

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UNITED STATES PATENT OFFICE

2,126,494

ELECTRIC PLUG

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Application April 16, 1937, Serial No. 137,351

2 Claims. (Cl. 173—361)

This invention appertains to new and useful improvements in electrical connectors and more particularly to a plug.

The principal object of the present invention is to provide an electric plug having means whereby the same cannot become readily disconnected from the socket.

Another important object of the invention is to provide an electric plug in combination with detent means whereby the plug can be disconnected when the detent means is manually operated. As a safety measure, the plug is so constructed that it can be disconnected with a hard pull on the cord.

These and various other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a longitudinal sectional view through the plug.

Figure 2 is a section on line 2—2 of Figure 1 with the plate removed.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a perspective view of the prongs assembly.

Figure 5 is a perspective view of one of the prongs.

Figure 6 is a perspective view of the closure.

Referring in the drawings wherein like numerals designate like parts, it can be seen that the plug consists of the hollow shell 5 of insulation having the restricted neck portion 6 which serves as a handle and short conduit for the cord (not shown).

Situated in the shell 5 is the transversely disposed partition 7 having the central opening 8 through which the conductor wires extend to the binding screws 9—9. Numeral 10 denotes a closure plate held in the open end of shell 5 by the internal circumferential rim 11 and this plate 10 is provided with the slots 12 therein through which the prongs 13 extend. These prongs each consist of an elongated spring wire member bent to provide the leg A and the longer leg B, each of which is serrated or otherwise roughened as at C. The leg A has its free end portion bent to form the eye 14 and further formed to define a second eye at 15. A rivet 16 is employed and disposed through each of the eyes 15 for securing the prongs 13 to the partition 7 and binding screws 19 for the conductor wires (not shown) are disposed through the eyes 14 and into the partition 7.

The eyes 14—15 are disposed from the leg A in such a manner as to support the leg A in such

a position as to be substantially at right angles to the plane of the partition 7 while the leg B is diverged inwardly of the leg A and is bent laterally at its free end to provide the lug 17.

The legs B—B extend through the openings 8 of the partition 7 and bear against the cross member 18 of the slider 19, the reduced portion of which slides through an opening 20 in the side of the shell 5. Lugs 21—21 at the ends of the cross member 18 prevent displacement of the legs B—B from the head 18. Furthermore, the tension of the legs B—B serve to normally urge the cross member 18 snugly against the inside of the shell 5.

It can now be seen, that the plug can be connected with a socket by disposing the prongs 13 into the openings of the socket. The legs B will contract under tension toward the legs A and it is practically impossible to remove the plug easily unless the slider 19 is forced inwardly to further press the legs B—B towards the legs A. When this action of the slider is executed the prongs of the plug can readily be removed from the socket.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described the invention, what is claimed as new is:

1. An electric plug comprising a hollow shell, a transversely disposed plate of insulation in the shell, said plate having a centralized opening therein, a pair of U-shaped spring prongs, each of the said prongs having one of its legs longer than the other, the shorter legs of the prongs being secured to the outside of the said plate, the longer legs extending through the centralized opening and provided with lateral short formations at their free ends in close spaced relation to the inner side of said plate, a slider extending through a slot in the wall of the shell, said slider having a broad inner end portion for abutment with the longer leg members of the U-shaped prongs at a point between the inner side of the plate and the lateral formations of the longer legs.

2. An electric plug comprising a hollow shell, a transversely disposed plate of insulation in the shell, said plate having a centralized opening therein, a pair of U-shaped spring prongs, each of the said prongs having one of its legs longer than the other, the shorter legs of the prongs

being secured to the outside of the said plate, the longer legs extending through the centralized opening and provided with lateral short formations at their free ends in close spaced relation to the inner side of said plate, a slider extending through a slot in the wall of the shell, said slider having a broad inner end portion for abutment with the longer leg members of the U-shaped prongs at a point between the inner side of the plate and the lateral formations of the longer legs, the broad end portion of the slider being provided with narrow transversely spaced extensions between which the said prongs abut the slider.

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