

Oct. 8, 1940.

S. T. SIMPSON

2,217,138

ELECTRIC PLUG

Filed March 18, 1939

Fig. 1.

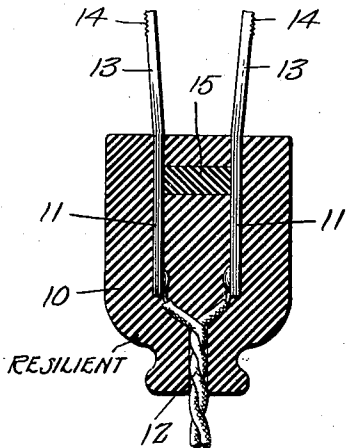


Fig. 2.

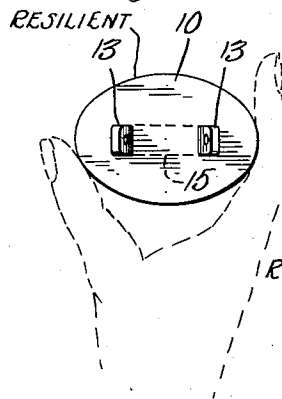


Fig. 3.

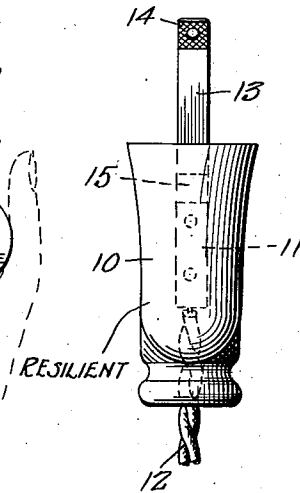


Fig. 4.

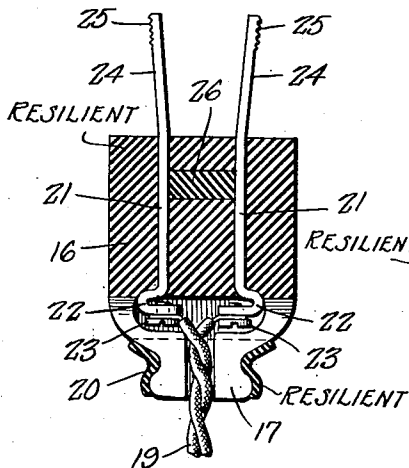


Fig. 5.

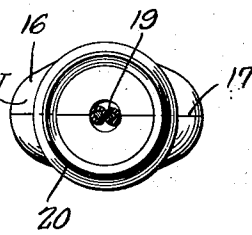
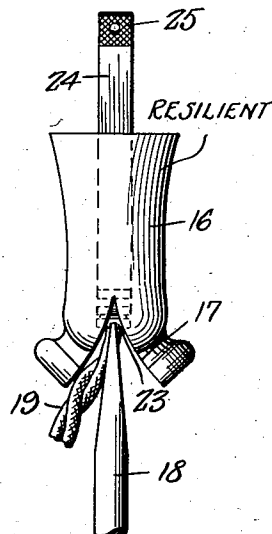


Fig. 6.



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WITNESS

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2,217,138

ELECTRIC PLUG

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Application March 18, 1939, Serial No. 262,685

2 Claims. (Cl. 173—361)

This invention relates to electric plugs and has for an object to provide a plug in which the prongs exert a steady outward pressure against the contacts of a wall or floor outlet, whereby to prevent loosening of the plug and poor electrical contact.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive 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 an electric plug constructed in accordance with the invention.

Figure 2 is a plan view of the plug showing diagrammatically how the plug is squeezed transversely at the base end of the prongs to apply the plug.

Figure 3 is an end elevation of the plug shown in Figure 1.

Figure 4 is a longitudinal sectional view of a modified form of the plug.

Figure 5 is a plan view of the plug shown in Figure 4.

Figure 6 is an end elevation of the plug shown in Figure 4 with the resilient end open to receive a screw driver for applying or removing the lamp cord.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates the body of the plug, the same being formed of resilient rubber and being of oval cross section as shown in Figure 2. Imbedded in the body are pronged terminals 11 to which circuit wires 12 are permanently attached in any preferred manner and led out of one end of the plug opposite the prongs. The outer portions 13 of the prongs are disposed in slightly divergent relation and the contact sides thereof are provided with small ridge teeth 14.

A spacer 15 of hard rubber is imbedded in the body between the imbedded portions of the prongs 11 and extend transversely of the body on the long axis of the oval wall of the body. The

spacer is disposed near the forward end of the body and acts as a fulcrum for the prongs when their projecting portions 13 are moved toward each other by pressure of the operator's hand against opposite ends of the long axis of the oval wall of the body between the spacer and forward end of the body, as shown in Figure 2, when the plug is to be applied to a socket.

A modified form of the invention is shown in Figures 4 to 6 inclusive. In this form of the invention the plug body 16 is also formed of resilient rubber and the rear end of the plug is split longitudinally as shown at 17 in Figure 6, to admit a screw driver 18 for applying or removing the lamp cord 19. Ordinarily the split is closed through the medium of a rubber band 20, best shown in Figure 4.

The prongs 21 are imbedded in the rubber body 16 and at the rear ends project beyond the body and are provided with hooked terminals 22 which receive screws 23 for attaching the wires of the lamp cord. The forward ends 24 of the prongs are arranged in slightly divergent relation and the contact sides of the prongs are provided with small ridge teeth 25.

A spacer 26 is imbedded in the rubber body between the imbedded ends of the prongs. The spacer is located near the forward end of the body and acts as a fulcrum for the prongs when their outer portions are moved into substantially parallel relation by pressure of the operator's hand, as previously described, preparatory to applying the plug to a socket.

In operation the projecting ends of the prongs, in both forms of the invention, exert a steady outward pressure against the contacts of a wall or floor outlet and eliminate loosening of the plug and poor electrical contact.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. An electric plug comprising a resilient body of substantially oval cross section to provide an oval wall, contact prongs projecting in divergent relation from the forward end of the body, a rigid spacer between the prongs and extending transversely in the body on the long axis of the oval wall of the body, the spacer being disposed near the forward end of the body and functioning as a fulcrum for the prongs when their projecting portions are moved toward each other by pressure of an operator's fingers against opposite ends of the long axis of the oval wall of the body between

the spacer and forward end of the body, said projecting portions of the prongs tending to move outwardly constantly away from each other when pressure of the operator's fingers is released from the body and make good electrical contact when applied to a socket.

5 2. An electrical plug comprising a resilient body of substantially oval cross section to provide an oval wall, contact prongs projecting from the forward end of the body, means carried by the ends of the prongs at the rear end of the body adapted to receive conductor wires, the last named end of the body being slit longitudinally to permit insertion of a screw driver for prying the slit

portions away from each other to expose said means, means holding the slit portions normally closed, the projecting ends of the prongs being disposed in divergent relation, and a rigid spacer forming a fulcrum imbedded in the body near the forward end of the body and extending longitudinally of the long axis of the oval wall of the body for permitting the divergent ends of the prongs being moved toward each other by manual pressure of an operator's fingers against the body at the ends of the long axis of the oval wall of the body.

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