July 19, 1949. H. L. JOHNSON 2,476,735

ELECTRIC PLUG LOOSENER

Filed Feb. 16, 1948

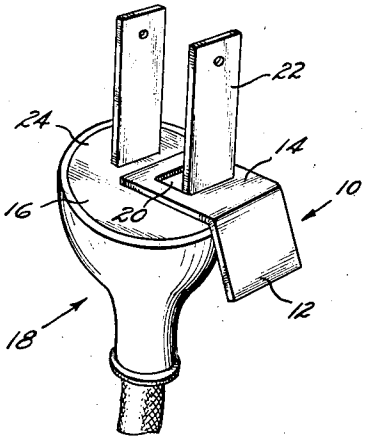


Fig. 1

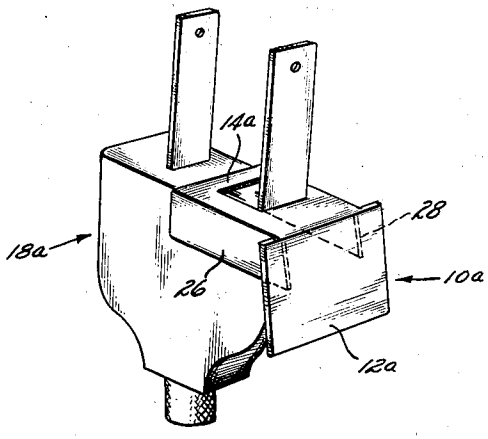


Fig. 3

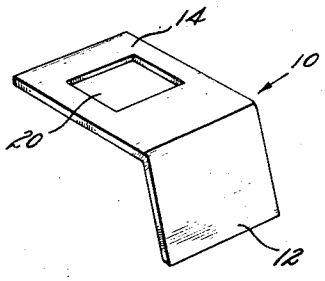
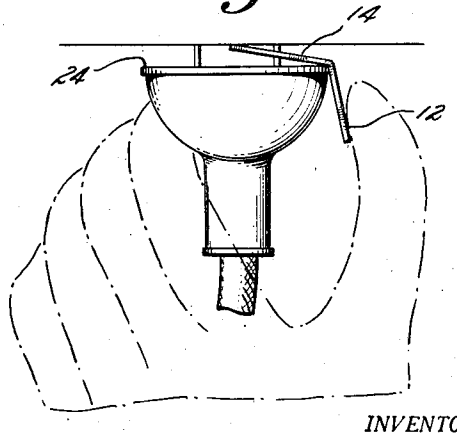


Fig. 2

Fig. 4



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Patented July 19, 1949 2,476,735

UNITED STATES PATENT OFFICE

2,476,735

ELECTRIC PLUG LOOSENER

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Application February 16, 1948, Serial No. 8,661

2 Claims. (Cl. 173—361)

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This invention relates to a device adapted to be detachably mounted on a prong-type electric plug before inserting the plug in a socket so that, when desired, upon merely pressing the device, the plug will be loosened from the socket so that it may be readily removed.

As is well known, such electric plugs depend upon a rather tight, frictional engagement of the bayonet prongs with the socket member in order to insure a good electrical contact, as well as to securely hold the plug in the socket against accidental displacement. However, this construction at the same time prevents the easy removal of the plug from the socket when desired, and such a task is particularly vexing when the tight fitting connection is located in a base board or floor plug, or otherwise difficult to reach. In such event, the user may resort to pulling on the electrical cord in order to withdraw the plug, and such action of course tends rapidly to tear loose the cord from the plug.

Accordingly it is an object of the present invention to provide a loosener of simple construction which may readily be attached to present prong-type electric plugs before insertion in the socket, and which will thus serve to quickly loosen the plug from the socket when pressed by the operator.

Other objects and advantages of the invention will be apparent from the following description and claims, the novelty consisting in the features of construction, combination of parts, the unique relations of the members and the relative proportioning, disposition, and operation thereof, all as more completely outlined herein and particularly pointed out in the appended claims.

In the drawings, which form part of the present specification:

Fig. 1 is a perspective view of an annular electric plug showing my loosener mounted thereon;

Fig. 2 is a corresponding view of the loosener by itself, somewhat enlarged;

Fig. 3 is a perspective view of another shape of electric plug, showing a modified form of my loosener mounted thereon; and

Fig. 4 is a top plan view of a plug inserted in a wall socket and showing the operation of my loosener in withdrawing it therefrom.

As illustrated, my loosener 10 consists essentially of a flat piece of substantially rigid material, transversely bent to form an outwardly projecting tab portion 12 and a base plate 14 adapted to be placed in juxtaposition with the rear face 16 of a bayonet-type electric plug 18, and located thereon by reason of a generally rectangular aperture 20 formed therein of such width as to receive a connector prong 22 therethru.

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With the loosener 10 thus mounted on the plug 18, the latter is inserted in the customary manner in an electric socket (not shown) in a wall or elsewhere. When it is desired to remove the plug from the socket, the tab portion 12 is pressed by the operator's thumb or finger toward the body of the plug 18, as illustrated in Fig. 4, thus causing the base plate 14 to assume an angular position between the plug 16 and the adjacent socket wall and consequently forcing the two apart. While this movement may not be sufficient to eject the contact prongs entirely from the socket, it will move the inner perimeter 24 of the plug sufficiently apart from the socket wall so that it can be readily grasped between the fingers and entirely withdrawn.

A similar loosening of the mounted plug can also be effected by moving the tab 12 toward the socket rather than toward the plug, but the latter is generally preferred since the tab can be pressed by the thumb and the opposite side of the plug held by the finger; and also, the distance from the aperture 20 to the adjacent edge of the tab 12 is generally such as to cause the loosener 10 to fit more-or-less snugly on the plug 18 so that in such event, the tab 12 is more readily pushed toward the plug rather than contrariwise. On the other hand an advantage in moving the tab 12 toward the wall resides in all the force of the plate 14 being applied to the center of the plug being ejected. For the generally oblong shaped electric plug 18*a* of Fig. 3, the same loosener 10 of Figs. 1 and 2 may of course be used. In the alternative, however, there is provided a modified loosener 10*a* provided with longitudinal wings 26, 28 turned-down along opposite sides of the base plate 14*a* so as to engage the adjacent edges of the insulating material of the plug. This construction permits a more permanent attachment of the loosener to the plug as well as allowing the operating tab 12*a* to abut against the ends of the wings 26, 28, thereby producing a reinforced assembly.

The loosener may be made of any insulating material possessing the required rigidity such as that known commercially as "laminated phenolic." Another construction is to employ metal, such as steel, covered with an insulating coating such as rubber, plastic, mastic, ground cork mixed with resin or other bonding agent etc.

While I have shown and described in some detail presently preferred embodiments of my elec-

tric plug loosener it is to be understood that various modifications may be made in the construction and operation thereof within the spirit and scope of the subsequently claimed invention which is to be construed broadly.

I claim:

1. An electric plug loosener of the character described, comprising: a substantially rigid base plate adapted to be juxtaposed between an electric socket and a double prong electric plug, said plate extending from a point between said prongs to an edge of the plug and having an opening for insertion of said prong therethru, which opening extends beyond said prong toward said intermediate point so as to permit relative movement of the prong therealong upon use; and a substantially rigid projecting tab, bent outward from said base plate adjacent said edge so as to apply leverage to the plug upon pressure being exerted against the tab.

2. The plug loosener of claim 1 which has a lateral wing bent down along each side of said base plate alongside the plug so as to center the loosener thereon.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,618,723	Pearson	Feb. 22, 1927
1,677,622	Dreuil	July 17, 1928
1,900,782	Way	Mar. 7, 1933
2,051,425	Schlums	Aug. 18, 1936
2,134,345	Sheeran	Oct. 25, 1938
2,438,143	Brown	Mar. 23, 1948

FOREIGN PATENTS

Number	Country	Date
445,486	Great Britain	Apr. 14, 1936