Oct. 19, 1937. A. H. RONKA 2,096,382

ELECTRIC PLUG

Filed April 24, 1936

Fig. 1.

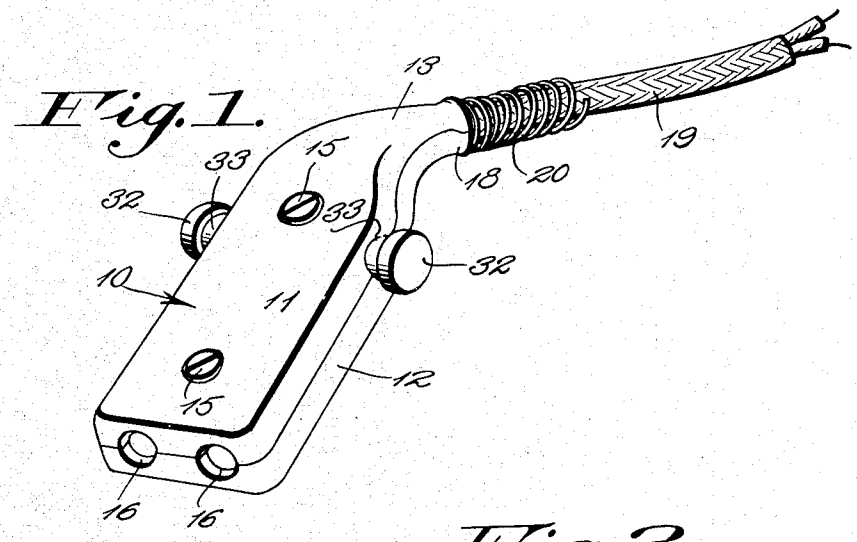


Fig. 2.

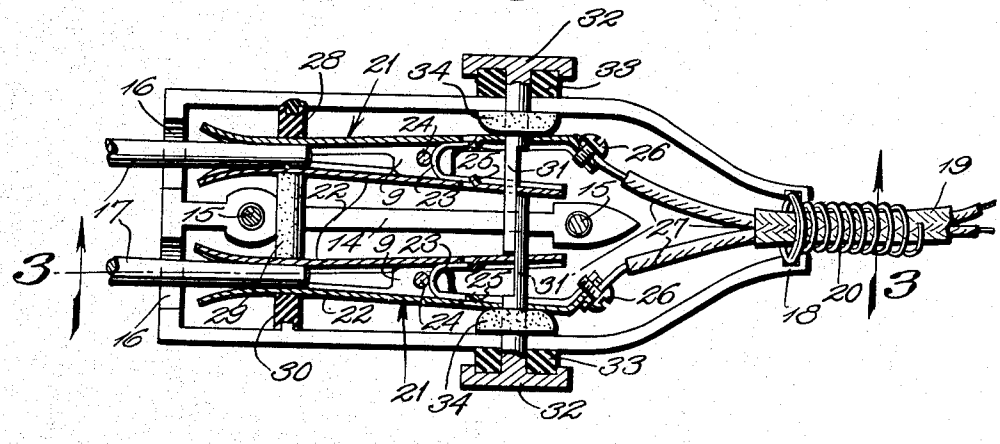
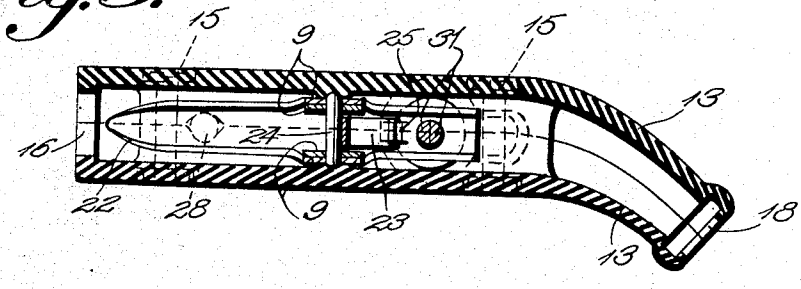


Fig. 3.



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Patented Oct. 19, 1937

2,096,382

UNITED STATES PATENT OFFICE

2,096,382

ELECTRIC PLUG

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Application April 24, 1936, Serial No. 76,211

3 Claims. (Cl. 173—332)

This invention relates to electric plugs and has for an object to provide a device of this character more especially adapted for attaching circuit wires to electric utensils such as flat irons and the like, that will promote ease of application to and removal from the appliance and that will eliminate all binding at the terminals.

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 perspective view of an electric plug connector constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view through the plug connector.

Figure 3 is a longitudinal sectional view taken on the line 3—3 of Figure 2.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, the body 10 of the plug is preferably formed of two substantially rectangular molded "Bakelite" sections 11 and 12 of hollow construction to form a chamber therebetween, both sections having curved neck sections 13 integral therewith and disposed at an angle of about 45 degrees to the median plane of the plug body.

Partitions 14 are formed longitudinally of the sections to receive screw pins 15 for assembling the sections. The body is provided with openings 16 to receive the terminal posts 17 of the electric utensil such as a flat iron, and the neck is provided with an opening 18 to receive the current supply cable 19 and the usual spring 20 which reinforces the cable against breakage due to flexing.

A pair of contact members 21 are mounted in the hollow body 10, each comprising a pair of sheet metal prongs 22 which are mounted for relative movement into position to grip the binding posts 17 or to position to release the binding posts. The contact prongs are normally held in gripping position by a U-shaped spring 23, the bight of which engages against a pivot pin 24 passed through the hinge ears 9 of the prongs and the legs of which abut stamped out lugs 25 on the prongs. One prong is provided with a screw 26 by means of which the associated conductor wire 27 of the cable is attached to the prong. The contact members 21 are held centered with relation to the post receiving openings 16 by means of three rubber lugs 28, 29, and 30 which are disposed in alignment transversely across the body as best shown in Figure 2.

A pair of similar push rods 31 extend through openings formed in opposite sides of the plug body and are provided at their outer ends with heads 32. One push rod contacts with one of the prongs of each pair of prongs constituting a contact member, while the other push rod contacts with the other prong of each pair of prongs constituting a contact member, as best shown in Figure 2 so that when the push rods are moved inwardly they swing the prongs of the contact members to release the binding posts 17. Compressible rubber washers 33 are interposed between the sides of the body 10 and the heads 32 of the push rods and similar washers 34 are interposed between the sides of the body and the adjacent prongs of the contact members.

In operation when the push rod heads 32 are pressed in the operation of apply or removing the device to the terminal posts 17 of an electric utensil, the inner washers 34 form abutments against which the outermost prongs of each contact member are supported while the innermost prongs of each contact member are being forced in a direction away from each other to swing open the front ends of the prongs of each contact member in the act of applying the device to the terminal posts 17 or removing the device from the terminal posts 17. The rubber washers 33 assist the springs 23 in returning the push rods 31 to inactive position after each actuation.

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 hollow body, a pair of contact members mounted in the hollow body, each contact member comprising a pair of sheet metal prongs mounted for relative movement into position to grip terminal posts or into position to release the terminal posts, springs between each pair of prongs normally holding the prongs in gripping position, and push rods extending through the body having their inner ends overlapped and each engaged against one of the

prongs of each pair of contact members for opening the gripping ends of the contact members when the pushrods are moved longitudinally of each other.

2. An electric plug comprising a hollow body, pairs of sheet metal prongs in the body, the prongs of each pair being pivotally connected together intermediate their ends, a spring between each pair of prongs holding the prongs rocked to terminal gripping position, and push rods for moving the prongs against the tension of said spring to terminal releasing position, the push rods being slidably extended through the sides of the hollow body and having their inner ends overlapped and engaging respective ones of the prongs of each pair of prongs.

3. A plug connector comprising a hollow body, pairs of metal prongs mounted for relative swinging movement in the body to grip terminal posts of an electric appliance or to release said terminal posts, springs normally holding the prongs in gripping position, there being terminal post receiving openings in said hollow body, resilient members disposed transversely of the body and bearing against the prongs to normally hold the prongs centered with relation to the post receiving openings, and push rods extending through opposite sides of the plugs and having overlapped inner ends contacting with a prong of each pair of prongs whereby when the push rods are moved inwardly the prongs of each pair of prongs are moved to released position.

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