

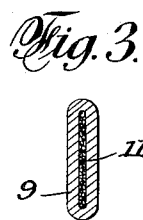
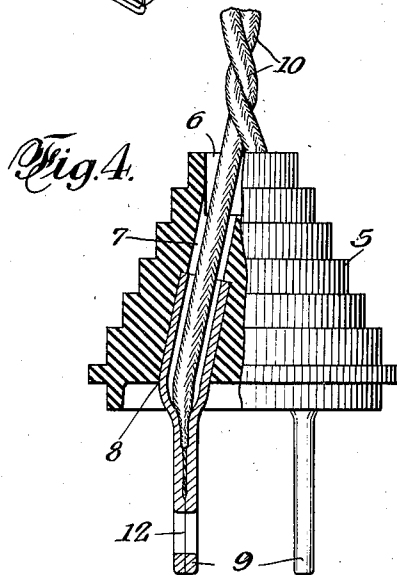
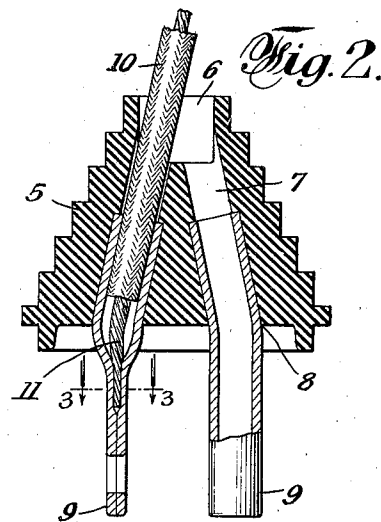
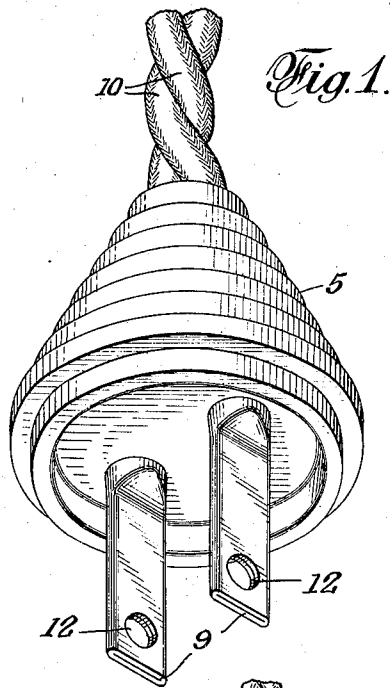
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2,071,164

ELECTRICAL CONNECTER

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ELECTRICAL CONNECTER

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1 Claim. (Cl. 173-361)

My present invention relates to a new type of electric connector and to methods of making the same. It aims to devise a connector of simple construction, which may be economically fabricated and which will efficiently serve as a connector or plug.

The device of my present invention will be found particularly useful in connection with the manufacture and sale of cords utilized with electric irons, toasters, etc.

Heretofore, in the art, it has been found necessary to employ either a screw to join the wires of the cord to the plug, or to use some form of soldering means. The first has been found particularly inefficient in the hands of the laity, inasmuch as it requires a delicate operation properly to connect the wires, frequently resulting in short circuits. The second is necessarily totally impracticable for ordinary home use, and even in a factory, is expensive and inefficient in manufacture.

Further objects of my invention will in part hereinafter be pointed out and will in part be obvious to those skilled in the art to which the present invention relates.

In the drawing, Fig. 1 is a perspective view of my electric connector. Fig. 2 is a vertical section. Fig. 3 is a sectional view on line 3-3 of Fig. 2. Fig. 4 is a half section, half elevation of a modification of the device of my present invention.

Referring to the drawing in further detail, at 5 is shown an insulating base which may be constructed of "bakelite", hard rubber, or similar substances. At one end of the base 5 is a channel 6 which branches off into diverging channels 7. These channels 7 extend through the entire length of the base 5, emerging at the orifices 8. As will be seen, the points 8 are relatively distant one from the other.

At 9 are shown a pair of open ended cylinders of relatively narrow cross sections, constructed preferably of a more or less soft metal, such as brass. These cylinders 9 are inserted in the channels 7 as best shown in Fig. 2 of the drawing.

Through the channel 6 and into the channels 7 are inserted a pair of wires 10, which wires have their ends 11 scraped free of any insulation. In so doing, it is best that the insulation on the wires be continued until the wires are well into the channels 8. This will assure freedom from the possibility of a short circuit. The wire ends 11 are inserted a short distance in the cylinders 9 beyond the base 7 and then the cylinders 9 are pressed together by means of a press or a pair of pliers, until they have assumed the shape

shown in Fig. 1. The holes 12 may then be punched through the squeezed cylinders 9.

I have found that it is possible to combine in one operation the squeezing of the cylinders and the punching therethrough of the holes by means of an ordinary foot press having a cutting means properly placed thereon.

When utilizing very thin wire, I have found that additional strength may be achieved if the insulation is continued well into the cylinders 9, beyond the end of the base 7, as shown in Fig. 4 of the drawing. By so doing, the squeezed portion of the cylinder is able to grip part of the insulation on the wire.

The construction outlined above will be found particularly useful to manufacturers of extension cords for electric irons, toasters, etc. If, however, it is desired to vend the connector of my present invention to the ordinary household consumer, the process of manufacture hereinbefore described, should cease at the point where the cylinders are inserted in the base member. That is, the squeezing of the cylinders and the consequent inserting of the wires should await home operations by the purchaser. If soft metal is used, I have found that an ordinary pair of pliers will suffice to squeeze the cylinders.

For ordinary home use, I have found that the cylinders 9 should be constructed with an outer diameter of about $\frac{1}{8}$ of an inch and that the walls should have a thickness of about $\frac{1}{16}$ of an inch. These figures are given by way of illustration only, and are in no sense to be taken as limiting the scope of my invention.

The foregoing specification of the device and process of construction of my present invention is set forth merely as an illustrative embodiment of the same. Various modifications and changes may be made therein without departing from the spirit of my invention or the scope of the claim.

What I claim my invention is:

As an article of manufacture, a plug comprising a base member having diverging channels with spaced orifices to accommodate a pair of electric wires, and tubular members of conductive material inserted into the spaced orifices of said channels and frictionally held therein, said tubular members being open at the ends which are inserted into the orifices and pinched at the others so as to hold firmly and make electrical contact with the electric wires inserted therein through the diverging channels and to form a pair of contact blades adapted to fit into the conventional light socket.

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