March 24, 1936. W. WEICH 2,034,966

ELECTRIC PLUG

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Fig. 1.

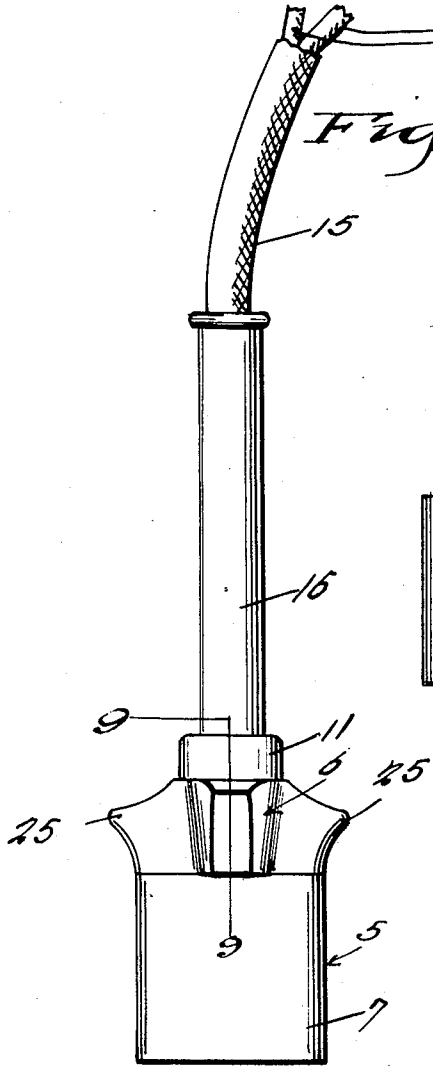



Fig. 2.

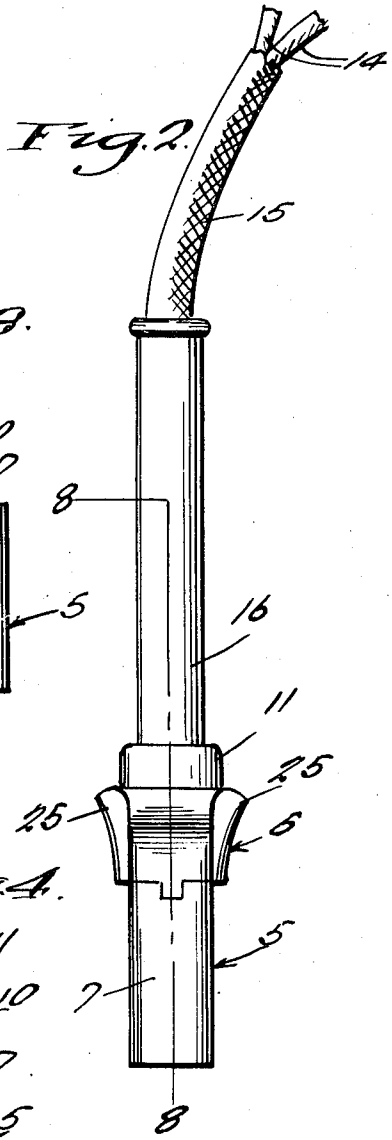



Fig. 3.

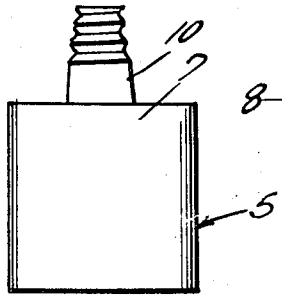



Fig. 4.

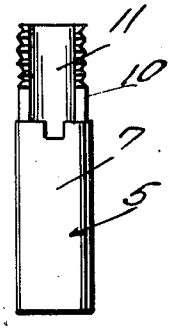



Fig. 6.




Fig. 5.

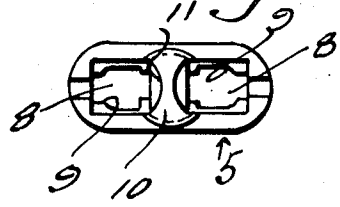
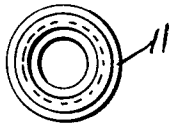



Fig. 7.




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Fig. 8.

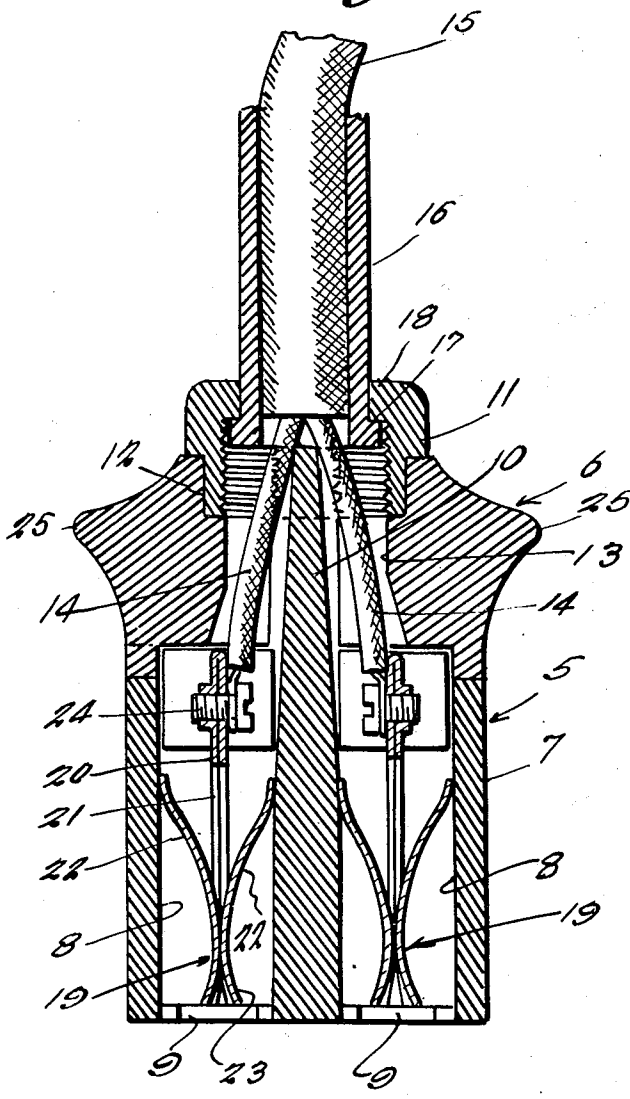



Fig. 9.

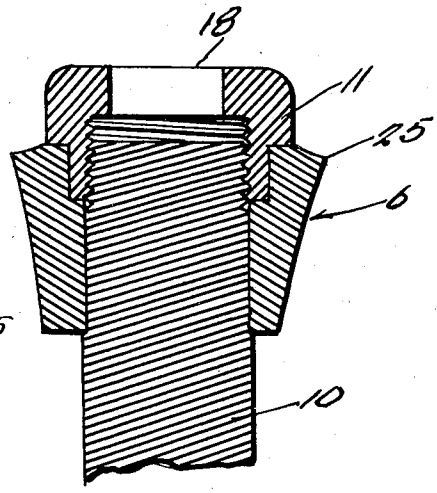



Fig. 11.

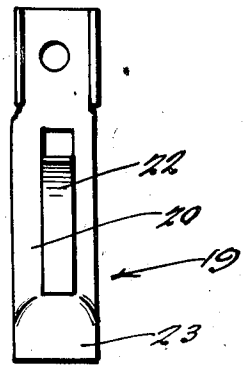
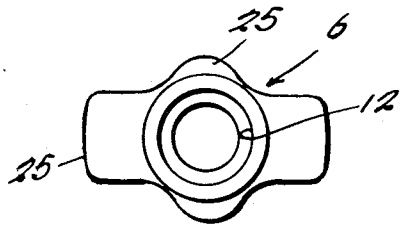



Fig. 10.




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# UNITED STATES PATENT OFFICE

2,034,966

## ELECTRIC PLUG

Wilhelm Weich, New York, N. Y.

Application February 7, 1935, Serial No. 5,450

3 Claims. (Cl. 173—332)

This invention appertains to new and useful improvements in electrical connectors and more particularly to a novel electric plug such as are customarily employed on conductor cords used with electric sadirons and toasters as well as other electrical appliances.

The principal object of the present invention is to provide an electric plug constructed in such a manner as to be more durable and defect-proof than the conventional types of plugs now in general use.

Another important object of the invention is to provide an electric plug of the character stated wherein the parts are secured together in a unique manner at only one point in contradistinction to the employment of two or more bolts and screws on the conventional types of plugs.

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 top plan view of the plug.

Figure 2 represents an edge elevational view of the plug.

Figure 3 represents a plan view of the outer section of the plug.

Figure 4 represents an edge elevational view of the outer section of the plug.

Figure 5 represents an end elevational view showing the inner end of the outer section of the plug.

Figure 6 is a side elevational view of the bushing.

Figure 7 represents a bottom plan view of the bushing.

Figure 8 represents a longitudinal sectional view through the plug taken substantially on line 8—8 of Figure 2.

Figure 9 represents an enlarged fragmentary longitudinal sectional view taken substantially on line 9—9 of Figure 1.

Figure 10 represents an end elevational view of the inner section of the plug, showing its inner end.

Figure 11 represents a side elevational view of one of the spring contacts.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the plug is made up of the sections generally referred to by numerals 5—6. The section 5 is the outer section of the plug and consists of the block 7 of dielectric material provided with a pair of sockets 8—8 extending into the same from its outer end and extending entirely through the section. The block 7 is provided with small ledges or cleats 9 at the outer end thereof, just inside of the sockets 8—8. The central portion of the block is provided with a longitudinally extending and threaded member 10 grooved at a pair of opposite points as at 11. These grooves extend longitudinally of the screw 10. The screw 10 is shown in Figure 8 but its greater width is shown in Figure 9, the threads thereof being engaged with the internal threads of the bushing 11 which engages into the counterbore 12 of the inner section 6, this section 6 having the bore 13 with which the counterbore 12 merges. It can thus be seen, that the screw member 10 extends entirely through the bore 13 and into the internally threaded bushing 11 and obviously as the bushing 11 is threaded inwardly on the screw member 10, the sections 5—6 of the plugs are firmly secured together and besides this, the screw member 10 acts as a separator for the conductor wire 14. Numeral 15 represents the conductor cord which is protected and stiffened adjacent the plug by a flexible rubber sleeve 16, this sleeve being provided with an outturned circumferentially extending rib 17 at its inner end which engages behind the inturned circumferentially extending flange 18 of the bushing 11.

Numeral 19 generally refers to the spring contacts, each of which consists of an elongated strip of spring metal 20 bent at its mid point to provide half portions bearing against each other, these half portions having their free ends resting against the ledges 9 and struck out as at 21 to provide spring tongues 22 which bear against opposite walls of the pocket 8. The free end portions of this strip 20 are curved outwardly as at 23 to facilitate insertion between the side portions of the contact pins of the electrical appliance with which the plug is to be engaged.

Binding screws 24 are threadedly disposed through the side portions of the strip 20 adjacent its bight portion and these serve to clamp the conductor 14 snugly against the strip.

It will be observed that the inner section 6 is provided with lateral projections 25 which recede in prominence toward the section 5, these projections serving as abutments against which the person's hand can bear in extracting the plug from the socket of an electrical appliance.

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 described the invention, what is claimed as new is:

1. An electric plug comprising an end section, a grip section, said end section being provided with sockets therein, electrical contacts in the said sockets, said grip section being provided with a bore therethrough, said end section being provided with a threaded extension disposed through the bore of the grip section, said extension having conductor passageways therethrough an internally threaded bushing engaged into the bore of the grip sections and fed inwardly on the threaded extension of the end section to hold said sections together.

2. An electric plug comprising an end section, a grip section, said end section being provided with sockets therein, electrical contacts in the said sockets, said grip section being provided with a bore therethrough, said end section being provided with a threaded extension disposed through the bore of the grip section, an internally threaded bushing engaged into the bore of the grip section and fed inwardly on the threaded extension of the end section to hold said sections together, said threaded extension being provided with a pair of longitudinally extending grooveways to accommodate conductors connecting with the said contacts.

3. An electric plug comprising an end section, a grip section, said end section being provided with sockets therein, electrical contacts in the said sockets, said grip section being provided with a bore therethrough, said end section being provided with a threaded extension disposed through the bore of the grip section, an internally threaded bushing engaged into the bore of the grip section and fed inwardly on the threaded extension of the end section to hold said sections together, said threaded extensions dividing the interior of the said bore into two passageways for the reception of conductors leading to the contact in the socket.

WILHELM WEICH.