Dec. 7, 1937. J. J. JOLLIFFE 2,101,713

ELECTRIC CONNECTER OR TERMINAL

Filed April 25, 1936

Fig. 1.

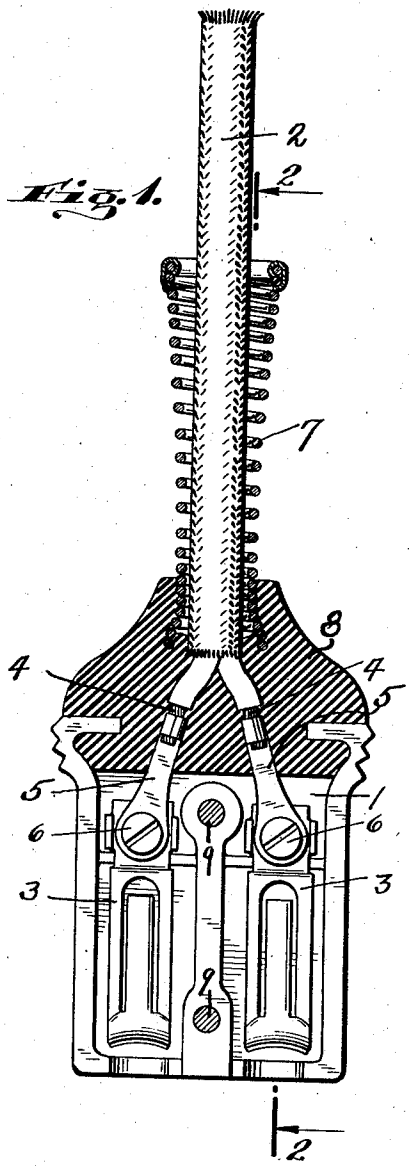
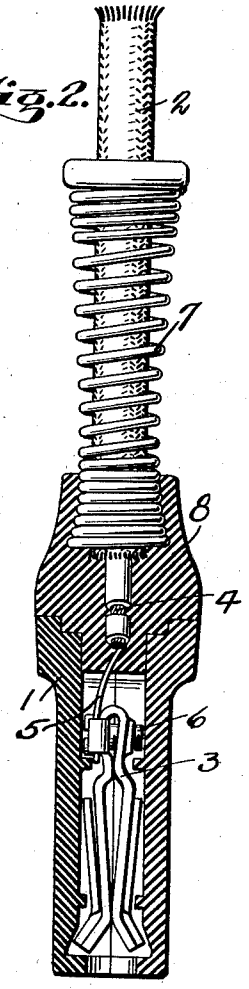


Fig. 2.



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ELECTRIC CONNECTER OR TERMINAL

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2 Claims. (Cl. 173—322)

This invention relates to an improvement in electric connecters or terminals, and is particularly directed to connecters or terminals for the ends of heater cords which are to be attached to electrical devices such as irons, toasters and the like.

More specifically, the present invention is directed to connecters or terminals for heater cords of the type in which it is customary to lead the end of the cord into a sectional insulating block containing the metal female terminals to which the conductors of the cord are connected and by which the connecter is electrically connected to the electric device to which current is to be supplied.

A great deal of trouble is experienced with these prior connecters or plugs, such as a burning and charring of the insulation of the conductors at the terminals. Then again constant high temperature weakens the strands of the copper conductors resulting in eventual failure usually an open circuit or the possibility of a short circuit with the attendant annoyance of blown fuses. Also, loose ends of the copper strands of the conductors result from the flexing and high temperatures to which the conductors at the point of attachment to the plug terminals are subjected, causing successive shorts which may burn clear for a time, but finally result in cord failure.

In addition to the above there is liability to electric shock and the liability of burns from handling cord which is in poor condition.

In the invention of the present application I have provided a construction in which these troubles are eliminated, the wire of the conductors of the cord terminating some distance short of the points of attachment of the cord conductors to the terminals, the terminal end of the cord being moulded in a material which is mechanically strong and also a very good heat insulator, so that all twisting of the cord adjacent the terminals of the plug or connecter is eliminated and heating of the insulation of the cord conductors and of the cord conductors themselves reduced to a minimum.

In the accompanying drawing:

Fig. 1 is a sectional elevational view of my improved electric connecter; and

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Referring to the drawing in detail, 1 designates a sectional connecter or plug of moulded insulating material, the plug or connecter being equipped internally with female metal terminals 3.

2 designates a heater cord, the conductors 4 of which are to be electrically connected to the female terminals 3. To the terminal ends of the cord conductors 4 I permanently attach metal connecters 5. These metal connecters 5 are adapted to be attached to the female terminals 3 of the connecter by screws 6.

The cord 2 is provided with a coil spring 7, this spring surrounding the insulation of the cord, the end of the spring terminating short of the terminal ends of the cord conductors 4.

The terminal ends of the conductors 4, the connecters 5 and the adjacent end of the spring 7 are embedded or moulded in a block 8 of material such as "Bakelite" or other suitable material which is mechanically strong and a fairly good heat insulator, the outer ends of the connecters 5 projecting therefrom. The moulded block 8 is constructed so as to be received by the two sections of the sectional body 1 of the connecter, these two sections being held by screws or bolts 9 so as to clamp the moulded block 8 between them.

It will be appreciated from all of the foregoing that this arrangement provides a construction in which by embedding the terminal ends of the conductors 4 of the cord 2 in the block 8 these ends and their insulation are no longer exposed to the heat generated within the body of the connecter.

It will be apparent also that by embedding the terminal ends of the conductors of the cord in the block 8 and clamping the block between the sections of the member 1 twisting of the cord adjacent the point of attachment to the terminal members 3 is eliminated with elimination of rupture of the cord and the other drawbacks above mentioned which are present in prior devices.

Inasmuch as the coiled spring 7 is also embedded in the block 8, it is apparent that the same will always be retained in place so as to perform its function of preventing sharp bends in the cord 2 over the edge of the top of the block 8.

It is to be understood that changes may be made in the details of construction and arrangement of parts above described within the purview of my invention.

What I claim is:—

1. In combination an electric utensil attachment plug comprising a block divided longitudinally into two sections, contacts within said block, an electric cord, rigid metal terminals attached to the ends of the conductors of said cord, a block of insulating material moulded about the terminal end of said cord and the ends of said rigid metal terminals which are attached to said con-

ductors to entirely enclose the joint between the conductors and terminals, leaving the free ends of said rigid terminals exposed, means for rigidly attaching the exposed free ends of said rigid terminals to said contacts within said sectional block, said moulded block being clamped between the sections of said sectional block against movement relative thereto, and said moulded block preventing twisting of said conductors relative to said rigid terminals.

2. In combination an electric utensil attachment plug comprising a block of insulating material divided longitudinally into two sections, connecter terminals within said block, an electric cord, rigid metal terminals attached to the ends of the conductors of said cord, a spring coiled about the cord, a block of insulating material moulded about the end of said spring, the terminal end of said cord and the ends of said rigid metal terminals which are attached to said conductors to entirely enclose the end of said spring and the joint between the conductors and terminals leaving the free ends of said rigid terminals exposed, means for rigidly attaching the exposed free ends of said rigid terminals to said contacts within said sectional block, said moulded block being clamped between the sections of said sectional block against movement relative thereto, and said moulded block preventing twisting of said spring and twisting of said conductors relative to said rigid terminals.

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