ATTACHING PLUG FOR MAKING ELECTRICAL CONNECTIONS.

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To all whom it may concern:

Be it known that I, HERMAN J. JOHN, a citizen of the United States, and a resident of La Grange, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attaching Plugs for Making Electrical Connections, of which the following is a full, clear, and exact description.

The invention relates to attachment plugs for making electrical connections and its principal object is to provide an improved attachment plug which contains a fuse-cartridge to dispense with the necessity of separate fuse-plugs in the circuits.

A further object of the invention is to provide an improved attachment plug which is composed of separable sections so that the screw-threaded section may be screwed into a socket separately from the other.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is a side elevation of a plug embodying the invention. Fig. 2 is a central section, the members of the plug being separated for illustrative purposes. Fig. 3 is a section of the screw-threaded members of the plug with the fuse cartridge separated therefrom. Fig. 4 is an end view of the plug. Fig. 5 is a detail of the fuse cartridge.

The invention exemplifies a plug comprised of separable sections 6 and 7. Section 6 comprises a body 8 of suitable insulating material and conductor strips 9 and 10 which are respectively connected to the leading-in wires 11 and 12 in manner well understood in the art. Strips 9 and 10 project from one end of member 6 and are adapted for insertion into the member 7 of the plug, so that the latter member may be screwed into a socket before the member 6 is connected thereto and so that the leading-in wires 11 and 12 will not be twisted in attaching the plug. The plug-member 7 comprises a body 13 of insulating material and a screw-threaded conductor jacket 14 fixed on its outer periphery and adapted to make contact with the screw-thread of the usual socket (not shown). A spring contact comprising strips 15 and 16 is disposed in a pocket 17 formed at one side of body 13. These strips are riveted together, at 18, and one of the strips 15 is extended under an inner end of jacket 14 to make electrical connection with said jacket. The contact strip 9 on member 6 is adapted to slip between the resilient ends of contact strips 15 and 16 to complete the connection between one of the conductor wires and the screw-jacket 14. A pair of similar contact strips 19 and 20 are disposed in a longitudinally extending pocket 21 in body 13, are riveted together, as at 22, and are provided with resilient terminals adapted to receive and clamp the contact strip 10 carried by the member 6, to form a connection between the other conductor wire and the tip contact which is formed by the fuse cartridge 23. The terminal of contact strip 20 is extended to abut against a central shoulder 24 formed on the plug and is suitably fixed in the body 13. The end of the body 13 is provided with a cylindrical recess 25 in which the fuse-cartridge 23 fits snugly so that it will be frictionally held therein.

The fuse cartridge comprises ends 27 and 28, a connecting strip of fuse wire 29 between ends 27 and 28 and a fibre or insulating hollow cylindrical body 30 which may be of pressed fibre or other suitable material. When the fuse cartridge is held in socket 25, one of its ends will project beyond the inner end of body 13 to engage the central contact in a socket, so a circuit will be completed from said contact to end 29 of the fuse cartridge, fuse-wire 29, end 27 of the cartridge, contact strips 19, 20, and strip 10 carried by member 6 and to which one of the conductor wires is connected.

The invention exemplifies a combined attaching plug and fuse which dispenses with the necessity of separate fuses; causes the electric appliance connected to the plug to be cut out of the circuit when the fuse wire melts, so that nothing more than the appliance connected to the plug will be cut off the line; which permits the ready replacement of a fuse plug cartridge when it burns out; which is simple in construction and which is particularly adapted for plugs composed of separable sections, one of which is threaded for separate connection to a socket.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention,
what I claim as new and desire to secure by Letters Patent, is:

1. In an attachment plug, the combination of a plug-body provided with a screw-threaded jacket and a contact strip secured in the body and disposed adjacent one end thereof, electrical conductors leading into the body, one of which is connected to said jacket and the other to said strip, the inner end of the plug having an open ended recess therein and a fuse-cartridge replaceably held in said socket and having a terminal engaging said strip and a terminal forming a tip-contact to engage a contact in a socket adapted to receive the plug.

2. In an attachment plug, the combination of a plug body provided with a screw-threaded jacket and a pair of contact strips secured in the body and disposed adjacent one end thereof, one of said strips being connected to said jacket, electrical conductors leading into the body and connected to said strips respectively, the inner end of the plug having an open ended recess therein and a fuse-cartridge replaceably held in said recess and having a terminal engaging the other strip and a terminal forming a tip-contact to engage a contact in a socket adapted to receive the plug.

3. In an attachment plug, the combination of a plug-body of insulating material composed of separable sections, one section being provided with a screw-threaded jacket and resilient contact-strips, one of which is connected to said jacket, contacts fixed in the other section, adapted for connection to electrical conductors and for contact with the contact-strips in the jacketed section, an open-ended pocket at the inner end of the jacketed member, and a fuse-cartridge removable held in said pocket, having a terminal to engage one of the strips in the jacketed member and a terminal forming a tip-contact to engage a contact in the socket adapted to receive the plug.

4. In an attachment plug, the combination of a plug body composed of separable sections, one section being provided with pockets therein, a screw-threaded jacket, and resilient contacts in said pockets, one of which is connected to said jacket, contacts fixed to the other section, adapted for connection to electrical conductors, and having members to extend into said pockets and engage said resilient contacts in the jacketed member, an open-ended pocket at the inner end of said jacketed member with a fuse-cartridge removable held in said inner pocket having a terminal connected to the other resilient contact in the jacketed member and a terminal forming a tip-contact for a contact adapted to receive the plug.

Signed at Chicago, Illinois, this 21st day of July, 1923.

HERMAN J. JOHN.