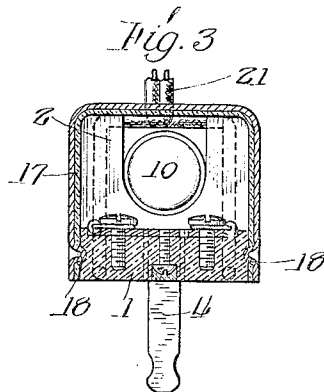
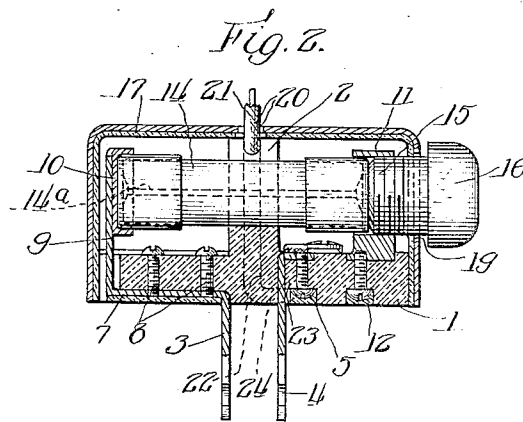
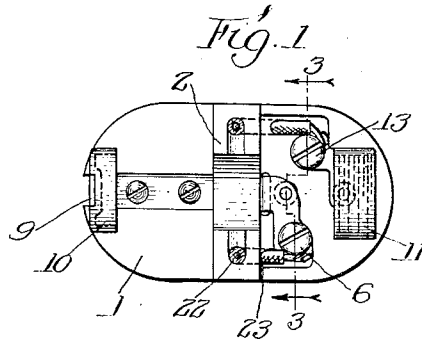


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L. KELLNER
ELECTRICAL ATTACHMENT PLUG

Filed Aug. 22, 1925



Inventor:
Louis Kellner;
By Chas. E. Parker, Attorney,
Attys.

UNITED STATES PATENT OFFICE.

LOUIS KELLNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHICAGO FUSE MFG. CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ELECTRICAL ATTACHMENT PLUG.

Application filed August 22, 1925. Serial No. 51,757.

My invention relates to electrical attachment plugs and more particularly to a fused attachment plug.

The general object of my invention is to provide an attachment plug of new and improved construction adapted to enclose a fuse and permit insertion or removal of the fuse without disassembling the plug.

Another object of my invention is to provide an attachment plug from which the fuse may be removed without removing the cover.

Another object is to provide an attachment plug in which the fuse is clamped endwise and is capable of being withdrawn endwise.

In the pursuance of the foregoing objects, I aim to provide an attachment plug having internal contacts adapted to secure a fuse therebetween and provided with a cover having a normally closed opening through which the fuse may be readily inserted or withdrawn.

Further objects and advantages of my invention will be understood the following detailed description taken in connection with the accompanying drawings which form a part of this specification in which:

Figure 1 is a plan view of one form of the invention with the cover removed.

Fig. 2 is a view in longitudinal central section.

Fig. 3 is a section taken along the line 3—3 of Fig. 1 looking in the direction of the arrows.

While my invention is susceptible of embodiment in various forms, I have shown in the drawings and will herein describe in detail an embodiment adapted to incorporate a cartridge fuse with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiment illustrated. The scope of the invention will be pointed out in the appended claims.

Referring now to the drawings, my invention in the exemplary form illustrated comprises an insulating block or base 1 having a U-shaped upright portion 2 transversely thereof. Two contact blades 3 and 4 are secured to and project downwardly from the base, the contact blade 4 extending through the base and being secured thereto as by a screw 5. The upper end of this blade 4 is provided with a connection

terminal 6. The contact blade 3 also extends through the base, this contact blade having a portion 7 embedded in the under side of the base and secured thereto as by means of screws 8 and an upright portion 9 extending above the base at one end thereof, said upright portion being provided with a contact socket 10. Upon the opposite end of the base is mounted a screw-threaded ring 11 secured thereto in axial alinement with the socket 10 by means of a screw 12. The ring 11 is connected with a second connection terminal 13.

In the embodiment illustrated, as shown in Fig. 2, the ring 11 is adapted to admit a cartridge fuse 14, having the usual fuse element 14^a, into contact with the socket 10 so that when the fuse is in place a metal plug 15 screw-threaded to correspond with the screw-threads of the ring 11 and having an insulating handle 16 may be screwed into the ring to clamp the fuse in contact with the socket 10 and the plug 15. It will be apparent however, that an ordinary plug fuse might readily be substituted for the fuse and separate plug shown.

A casing or cover 17 is adapted to fit over the base 1 and the U-shaped portion 2 thereof to enclose the parts above the base and is releasably secured thereto as by means of projections 18 on the cover engaging corresponding indentations in the base. The cover has an aperture 19 adjacent the ring 11 to permit the insertion or withdrawal of the plug 15 and fuse 14 and has also a central hole 20 for the entrance of a conducting cable 21. The base is preferably provided with holes 22 and 23 therethrough and grooves 24 in the underside thereof through which the conducting cable may pass to the terminals 6 and 13. In this way the conducting cable is protected and securely anchored in the plug.

From the above it will be apparent that I have provided a fused attachment plug of improved construction wherein a fuse may be readily inserted or removed without disassembling the plug.

I claim as my invention:

1. An electrical attachment plug having, in combination, an insulating base, a pair of contact blades projecting downwardly therefrom, one of said blades terminating in a socket above the base, a screw-threaded metal ring mounted on the base opposite

said socket, a cartridge fuse mounted with one ferrule in endwise contact with said socket and the other ferrule within said ring, a casing adapted to enclose the parts
 5 above the base, said casing having a hole therein adjacent said ring, and a screw-threaded metal plug adapted to enter said hole in said casing to engage said ring and thereby secure said fuse in electrical contact
 10 with said socket and ring, the portion of said plug extending beyond the casing being of insulating material.

2. An attachment plug having, in combination, an insulating base with contact means thereon, a casing associated therewith, two opposed contacts on the base within said casing, an enclosed fuse mounted between said contacts, one of said contacts pressing on one end of said fuse, the other
 20 of said contacts surrounding the other end of said fuse, and an electrically conducting plug detachably secured to said last mentioned contact and adapted to press endwise on said fuse, said casing having an opening
 25 therein adjacent said plug adapted to permit endwise insertion of the plug and fuse.

3. An attachment plug having, in combination, a pair of contact blades, a pair of terminal connectors, one of said contact
 30 blades being connected to a terminal connector, means interposed between said other contact blade and terminal connector to releasably clamp a cartridge fuse, and a casing enclosing said means, said casing and
 35 said means being adapted to permit endwise removal of the fuse.

4. An attachment plug having, in combination, an insulating base with contact means thereon, a fuse mounted between a pair of
 40 opposed sockets, said sockets being adapted to clamp said fuse therebetween, a casing having an aperture adjacent one of said sockets, means associated with said last mentioned socket adapted to release said fuse for
 45 endwise removal through said aperture without disassembling the plug.

5. An attachment plug having, in combination, a base with contact means thereon, an enclosed fuse, a socket mounted on said
 50 base, means to releasably clamp said fuse with one terminal of the fuse in said socket, a casing having an aperture therein adapted to permit removal of the fuse endwise there-through, said clamping means being oper-
 55 able from without the casing through said aperture.

6. An attachment plug having, in combination, an insulating base having contact means thereon, an enclosed fuse, means con-

nected to said contact means adapted to en- 60
 gage one terminal of said fuse, a terminal connector having a ring portion adapted to admit the other terminal of said fuse, means
 65 to engage said ring portion to retain said fuse in contact with said terminal connector, and a casing having an aperture therein through which said fuse may be removed, said aperture being normally closed by said retaining means.

7. An attachment plug having, in combination, an insulating base, a pair of knife blade contacts depending therefrom, the other end of one of said blades terminating in a socket above the base, a metallic ring secured to said base opposite said socket, an
 75 enclosed fuse mounted with one terminal in engagement with said socket and the other terminal within said ring, a metal plug adapted to engage said ring to clamp said fuse in contact with said socket, and a casing enclosing said parts above the base, said
 80 casing having an aperture therein to permit withdrawal of said plug and fuse endwise.

8. An electrical attachment plug comprising an enclosing casing having two attaching contact means, and a pair of opposed
 85 fuse mounting terminals connected one to each of said means, said casing having an aperture aligned with said terminals to permit of the introduction of a fuse there-
 90 through into association with said terminals.

9. An electrical attachment plug comprising an enclosing casing having a pair of opposed fuse mounting terminals and hav-
 95 ing an aperture aligned with said terminals to permit of the introduction of a fuse there-through into association with said terminals, one of said terminals being annular and interiorly threaded to receive a fuse clamping
 100 means.

10. An electrical attachment plug comprising an enclosing casing having a pair of opposed fuse mounting terminals and hav-
 105 ing an aperture aligned with said terminals to permit of the introduction of a fuse there-through into association with said terminals, one of said terminals being annular and interiorly threaded and a fuse-carrying and clamping device adapted to be inserted
 110 axially through said aperture with one end in contact with one of said terminals, said device including a threaded part to enter and coact with said annular terminal to clamp the fuse.

In testimony whereof, I have hereunto af- 115
 fixed my signature.

LOUIS KELLNER.