Aug. 14, 1934. F. C. KOLLATH 1,970,144

FUSED ELECTRIC CONNECTER

Filed June 8, 1931

FIG. 1.

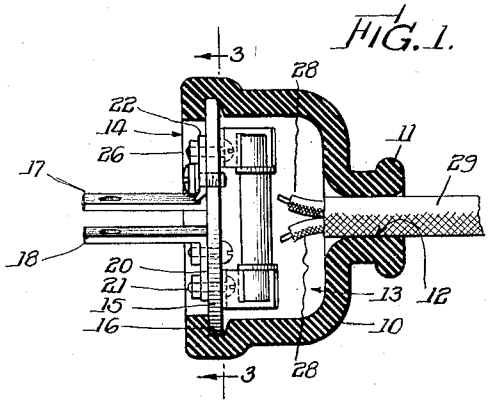


FIG. 2.

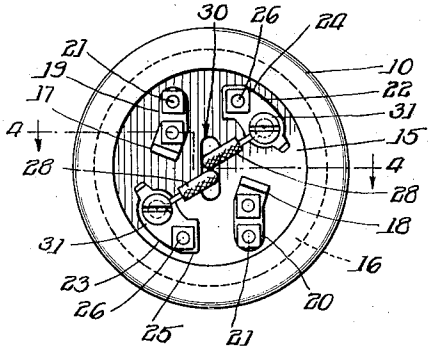


FIG. 3.

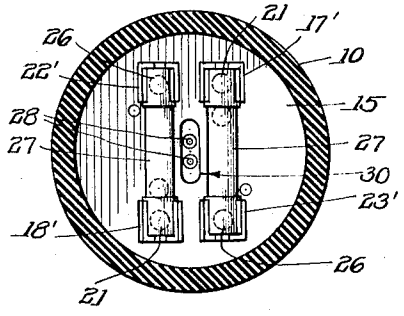


FIG. 4.

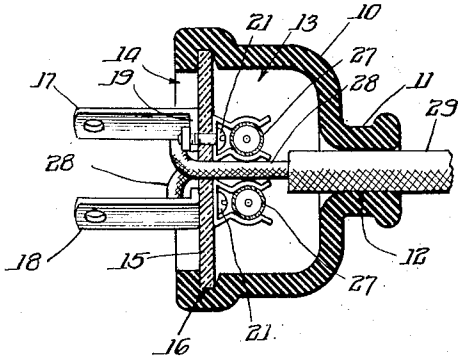
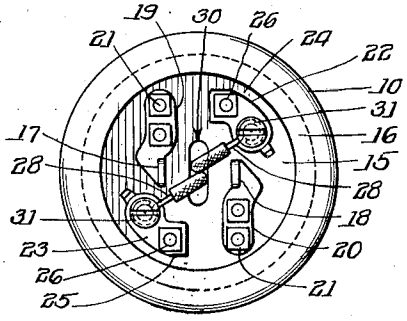


FIG. 5.



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FUSED ELECTRIC CONNECTER

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8 Claims. (Cl. 200—115.5)

This invention relates to electric connecters and particularly to electrical connecters having fuses arranged between the contact prongs and the conductors.

The primary object of the invention is to provide a new and improved electric connecter upon which contact prongs are connected to a thin circular disk which is held in position in a flexible soft rubber casing by complementary means, fuses being attached to the underside of the circular disk and to which the conductors are electrically connected.

A further object is to provide an electric terminal device which has a flexible rubber casing supporting a relatively thin circular disk, there being a complementary means for holding the disk in the rubber casing; which has contact prongs and electrical contacts mounted on one face of the disk, and fuse supporting clips mounted on the other side of the disk; which has means connecting the contact members and prongs to the fuse supporting clips whereby a fuse arranged in a pair of clips completes the electrical contact or circuit between a contact and prongs; and which has electrical conductors passing through the casing and through an opening in the disk and electrically connected to the contacts.

Numerous other objects and advantages will be apparent throughout the progress of the following specification.

The accompanying drawing illustrates a selected embodiment of the invention and the views therein are as follows:

Fig. 1 is a detail sectional end improved electric connecter.

Fig. 2 is a front elevation thereof.

Fig. 3 is a detail sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a detail sectional view on the line 4—4 of Fig. 2.

Fig. 5 is a front elevation of a modified form of fused electric connecter.

The connecter comprises a casing 10 which is made of soft flexible material, such as soft rubber, and has an integral neck 11 provided thereon which neck has a passage 12 which communicates with a chamber 13 provided in the interior of the casing. The front of the casing has a relatively large front opening 14 which is closed by a relatively thin circular disk 15 which fits into an annular groove 16 provided in the interior of the casing.

Contact prongs 17 and 18 are provided with integral bases or extensions 19 and 20 respectively through which fastening means 21 extend for holding the prongs on the face of the disk 15. Contacts or terminals 22 and 23 are also mounted on the front face of the disk and have extensions or tail-pieces 24 and 25 respectively through which fastening means 26 extend for fastening the terminals to the disk.

A fuse supporting clip 17' is arranged on the rear side of the disk directly behind the prong 17 and is fastened in position by means of the fastening member 21 which passes through the extension 19 on the prong 17, the disk 15 and the body or web of the clip. A fuse supporting clip 23' is mounted on the rear side of the disk directly behind the contact or terminal 23 and is held in place by the fastening means 26 which passes through the tail-piece 25 on the terminal 23, the disk and the body of the clip. The clip 17' and the clip 23' are arranged in alinement to receive a fuse 27.

Fuse supporting clips 22' and 18' are also arranged on the rearward side of the disk and are arranged behind the terminal 22 and the prong 18 respectively, being connected by means of the fastening members 26 and 21. The clips 22' and 18' are arranged in alinement and parallel to the clips 17' and 23'. These clips also receive a fuse 27 completing the electrical connection between the terminal 22 and the prong 18. The prong 17 and the terminal 23 are arranged opposite to each other so that the clips 17' and 23' will be in alinement with each other, while the prong 18 and the terminal 22 are opposite each other so that the clips 22' and 18' will be arranged in alinement. Thus, when a fuse is arranged in the clips 18' and 22', electrical connection is made between the prong 18 and the terminal 22. Also, when a fuse is arranged in the clips 17' and 23', electrical connection is made between the prong 17 and the terminal 23.

Conductors 28 encased in a cable 29 pass through the opening or passage 12 in the casing and through an opening 30 in the disk and are electrically connected to the terminals 22 and 23 by means of a terminal post or screw 31 which threadedly engages the tail-pieces of these terminals.

In Figs. 1 to 4 the prongs 17 and 18 are arranged in alinement, that is, the edges of the prongs aline, while in Fig. 5 the prongs 17 and 18 are positioned opposite each other, that is, the flat sides of the prongs are opposite to each other. It is immaterial how the prongs are set in relation to each other just so that a prong and its cooperation terminal is positioned in such a manner so

that a fuse may complete the electrical connection between these two members.

The invention provides a simple and efficient connecter comprising comparatively few parts which are arranged in juxtaposition so that a fuse is arranged between the terminal and the prong so that if there is a short circuit in an appliance or device to which the connecter is attached, a fuse in the casing will blow out and not blow out the fuses in the primary lines. Thus, the device or appliance is merely rendered inactive instead of rendering the entire power lines inactive. This construction is particularly advantageous in cases where a plurality of devices or appliances are connected to the same primary circuit, for if the primary fuse should blow out, all the devices electrically connected to the primary lines would become inactive. In the present case, however, only the defective device would be rendered inoperative or inactive.

The present terminal device is relatively small and compact, can be quickly and readily assembled, and economically manufactured.

Changes may be made in the form, construction, and arrangement of the parts without departing from the spirit of the invention or sacrificing any of its advantages, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

The invention is hereby claimed as follows:

1. A connecter comprising a casing, a disk supported by said casing, prongs carried by said disk, terminals carried by said disk, conductors electrically connected to said terminals, fuse clips arranged behind a prong and terminal and electrically connected therewith, and a fuse arranged inside of the casing beneath said disk and carried by said clips for completing the circuit between a prong and a terminal.

2. A connecter comprising a casing, a disk supported by said casing, prongs carried by said disk, terminals carried by said disk, conductors electrically connected to said terminals, fuse clips arranged behind a prong and terminal, fastening means passing through said prong and terminal and carrying its cooperating clip, and a fuse inside of said casing and arranged in said clips and completing the electrical circuit between the prong and the terminal.

3. A connecter comprising a casing, a disk supported by said casing, a pair of prongs supported on the outer face of the disk, a pair of terminals also supported on the outer face of the disk, clips fastened to the rear face of the disk and electrically connected to the terminals and prongs, fuses arranged in said clips for completing an electrical connection between the prongs and the terminals, and electrical conductors electrically connected to said terminals.

4. An electric connecter comprising a casing having a chamber therein and a relatively narrow passage communicating with said chamber, a disk supported by said casing enclosing the front end of said chamber, a prong and a terminal arranged on the front face of said disk, a clip arranged in said chamber and fixed to the rear face of said disk and electrically connected to said prong, a second clip in said chamber and fixed to the rear face of said disk and electrically connected to said terminal, said clips alining with each other, a fuse connecting said clips and establishing electrical connection between the prong and the terminal, a conductor electrically connected to said prong, a second prong fixed to the front face of said disk, and a second conductor electrically connected to said second prong.

5. An electric connecter comprising a casing having a chamber therein and a relatively narrow passage communicating with said chamber, a disk supported by said casing enclosing the front end of said chamber, a prong and a terminal arranged on the front face of said disk, a clip arranged in said chamber and fixed to the rear face of said disk and electrically connected to said prong, a second clip in said chamber and fixed to the rear face of said disk and electrically connected to said terminal, said clips alining with each other, a fuse connecting said clips and establishing electrical connection between the prong and the terminal, a second prong fixed to the front face of said disk, a second terminal fixed to the front face of said disk, clips arranged in said chamber behind said second terminal and prong and fastened to the rear face of said disk, a fuse connecting said last named clips and electrically connecting the last named prong and terminal, and conductors electrically connected to said terminal.

6. A connecter comprising a flexible rubber casing having a chamber therein and a relatively large opening at the front thereof, said casing having a passage at its rearward end and communicating with the chamber, a disk for closing the opening at the forward end of the casing, there being complementary means between the casing and the disk for removably holding the disk in position in the casing, contact prongs fixed to said disk and extending outwardly from the front of the casing, a pair of terminals mounted on one side of said disk, fuse clips arranged in said chamber and mounted on the other side of said disk, means passing through the terminals, prongs, disk and clips for holding these members together and electrically connecting the terminals and prongs to the clips, fuses carried by said clips for completing the electric connection between the prongs and terminals, and conductors extending through said passage and through said disk and electrically connected to said terminals.

7. An electric connecter comprising a flexible rubber casing having a large opening at the front thereof and a passage through the back of said casing and communicating with the opening, a disk closing the forward end of said opening and held in position by the elasticity of the material from which the casing is made, contact prongs fixed to the front face of said disk and extending outwardly therefrom a predetermined distance, clips fastened to the back of said disk and arranged in the opening inside of the casing, conductors extending through said passage and electrically connected to said prongs and clips, and a fuse carried by said clips.

8. An electric connecter comprising a flexible rubber casing having a large opening at the front thereof and a passage through the back of said casing and communicating with the opening, a disk closing the forward end of said opening and held in position by the elasticity of the material from which the casing is made, contact prongs mounted on the front face of said disk, clips mounted on the rear face of said disk and arranged in said opening inside of the casing, fastening means passing through said prongs, disk and clips for fastening said prongs and clips to said disk, terminals electrically connected to said prongs, conductor wires passing through said passage and electrically connected to said terminals and clips, and a fuse arranged in a pair of said clips.

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