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F. C. KOLLATH

1,743,821

ELECTRIC CONNECTER

Filed Sept. 27. 1927

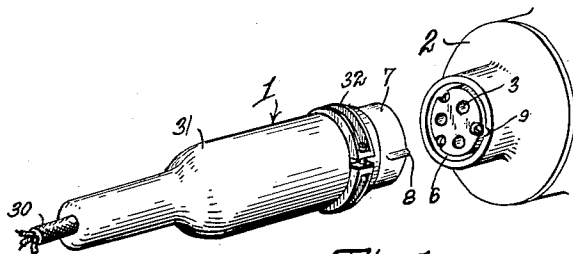


Fig. 1.

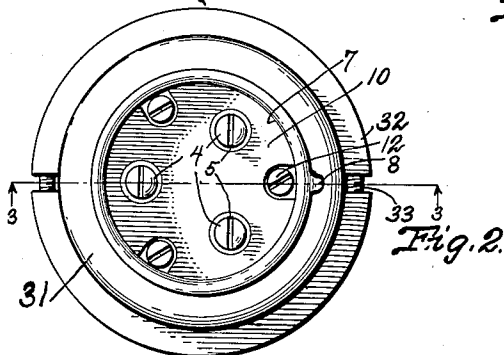


Fig. 2.

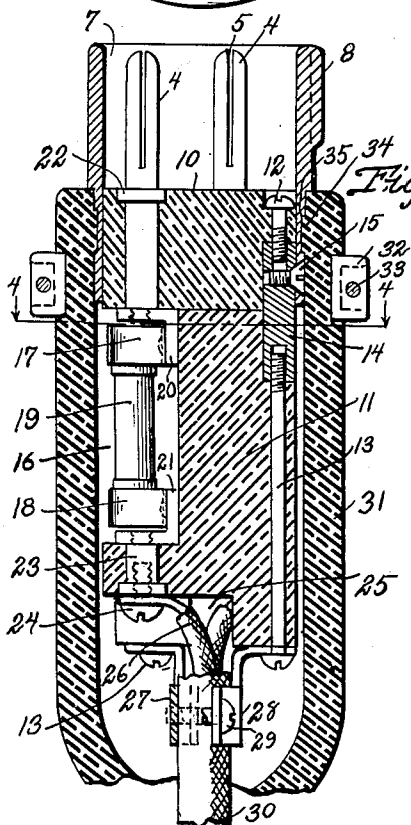


Fig. 3.

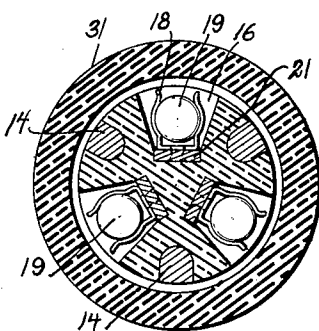


Fig. 4.

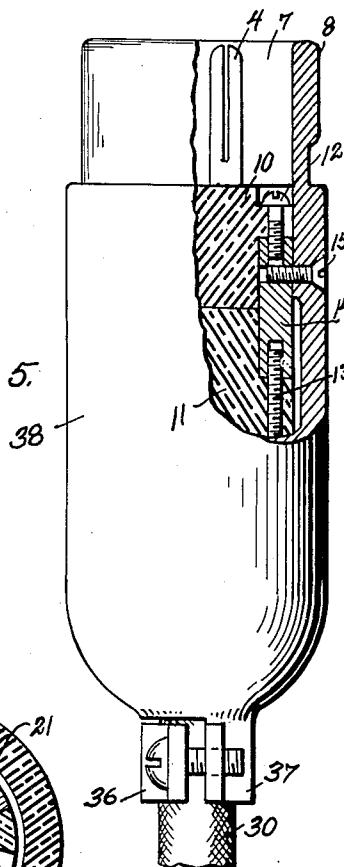


Fig. 5.

Inj. I.
 Inventor:
 Francis C. Kollath.
 By:
 Chester E. Warner.
 Atty.

UNITED STATES PATENT OFFICE

FRANCIS C. KOLLATH, OF CHICAGO, ILLINOIS

ELECTRIC CONNECTER

Application filed September 27, 1927. Serial No. 222,229.

REISSUED

My invention relates to electric connectors, and more especially to that class of heavy duty connectors, or so called attachment plugs used on extension cords in connection with portable machine tools. The electrical connection is usually made to the power line by inserting the plug in a wall receptacle provided for the purpose, and is accomplished by a straight-in push of the plug and disconnected by a straight-out pull.

One of the objects of my invention is to provide a connector for a plurality of conductors and in which one or all of the connectors may be fused, and in which the fuses are supported in the connector and are readily accessible or insertion and removal without disassembling the connector.

Another object is to provide a device which is cheap to manufacture, easy to assemble, and of few parts.

Further objects will appear from the following specifications and drawings.

Realizing that my invention may be varied in its physical embodiment without departing from the spirit of the invention, I desire it to be understood that the specific construction and form herein shown is to be taken as illustrative and not in a limited sense.

In the accompanying drawings like portions of the device are designated by like characters thruout the several figures.

Fig. 1 is a perspective view of my invention in combination with a suitable receptacle.

Fig. 2 is an end view of the plug.

Fig. 3 is a detail sectional elevation taken on a line corresponding to line 3—3 of Figure 2.

Fig. 4 is a transverse sectional view taken on line 4—4 of Figure 3, and is shown rotated anti-clockwise thirty degrees from the position shown in Figure 3.

Fig. 5 shows a modified form of combined housing and casing.

Referring now to the drawings in detail, the plug or connector 1 is adapted to be inserted in the receptacle 2 which is provided with sockets 3 to receive the connector pins 4, and in which the pins make suitable electrical connection with the power line, the pins being split as shown at 5 to provide frictional contact. The receptacle is also provided with an annular groove 6 to receive the cylindrical housing 7 in which the pins are supported and which protects the pins from damage when the connector is not in the receptacle, this housing also assists in supporting the connector in the receptacle, and a lug 8 on the housing cooperates with the notch 9 in the receptacle to maintain the alignment of the pins with their respective sockets.

In the present instance I have illustrated a three pole plug but it is evident that any number desired may be used.

The plug or connector proper comprises two insulating bases 10 and 11, these are secured together by means of the screws 12 and 13 and the members 14 into which the screws are threaded. The housing 7 is also supported on the members 14 by the screws 15.

The base 11 is provided with radial slots or depressions 16 which contain the fuse clips 17 and 18 for supporting the fuses 19, these clips are secured to the angle members 20 and 21. The angle members 20 are secured rigidly on the base 10 by means of the pins 4 which are threaded into them, the pins being provided with a shoulder 22 for clamping against the base 10. The angle members 21 are secured in a similar manner to the base 11 by means of the clamping members 23 which are internally threaded to receive the binding screws 24. The binding screws are in depressions 25 in the rear of the base 11 and are to receive the conductors 26.

The parts 27 and 28 are clamped together by means of the screws 29 and are supported on the base by means of the screws 13, thereby providing an efficient cord grip for the cable 30.

A flexible and resilient combined handle and casing 31 encloses the connector and is clamped on the housing 7 by means of the clamping ring 32 secured by the screws 33. The casing and handle is preferably made of molded rubber and is provided with an internal ring 34 cooperating with the external groove 35 in the housing, to lock the handle in place.

It will be noted that when the casing 31

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is removed the fuses are readily accessible and may be easily inserted and removed.

While the device as illustrated in the drawings shows a two part insulating base, it will be understood that it may be made in a single piece if desired.

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

10 1. An insulating base having electrical conductors therethru, one end of said conductors terminating in electrical connectors, removable fuses in said base and forming a part of said conductors, a forwardly extending shield around said connectors and mounted
15 on said base, a flexible and resilient rubberlike casing around said base and extending over said shield, and means for removably securing said casing to said shield.

20 2. An electrical connector comprising an upper insulating base, and a lower insulating base, a plurality of radially spaced conductors extending thru said bases and terminating in connectors, means radially spaced
25 between said conductors for securing said bases together, a cord grip supported on said securing means, a forwardly extending connector shield also supported on said securing means, and a flexible rubber like casing
30 around said bases and removably secured to said shield.

3. An electrical connector comprising an upper insulating base, and a lower insulating base, a plurality of radially spaced conductors extending thru said bases and terminating
35 at one end in connectors, fuses in said conductors and removable from the side of one of said bases, means radially spaced between said conductors for securing said bases together, a cord grip supported on said securing
40 means, and a flexible and resilient rubberlike casing around said bases and removably secured to said shield.

4. An electrical connector comprising an upper insulating base, and a lower insulating base, a plurality of radially spaced conductors extending thru said bases and terminating at
45 one end in electrical connectors and at the other end in binding terminals, radially spaced securing members between said bases, means securing said upper base to said securing member, means securing said lower
50 base to said securing member, a cord grip supported on said last named means, a connector shield around said connectors and secured to said securing members, and a casing around said bases.
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In witness whereof, I have hereunto subscribed my name.

60 FRANCIS C. KOLLATH.