

June 27, 1944.

F. O. READ

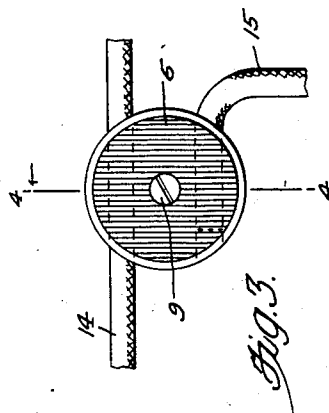
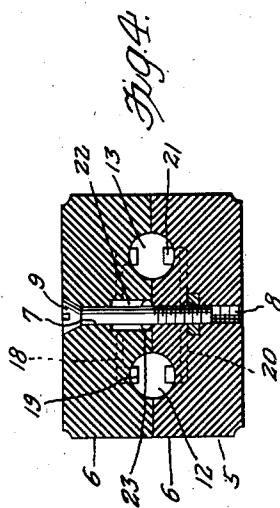
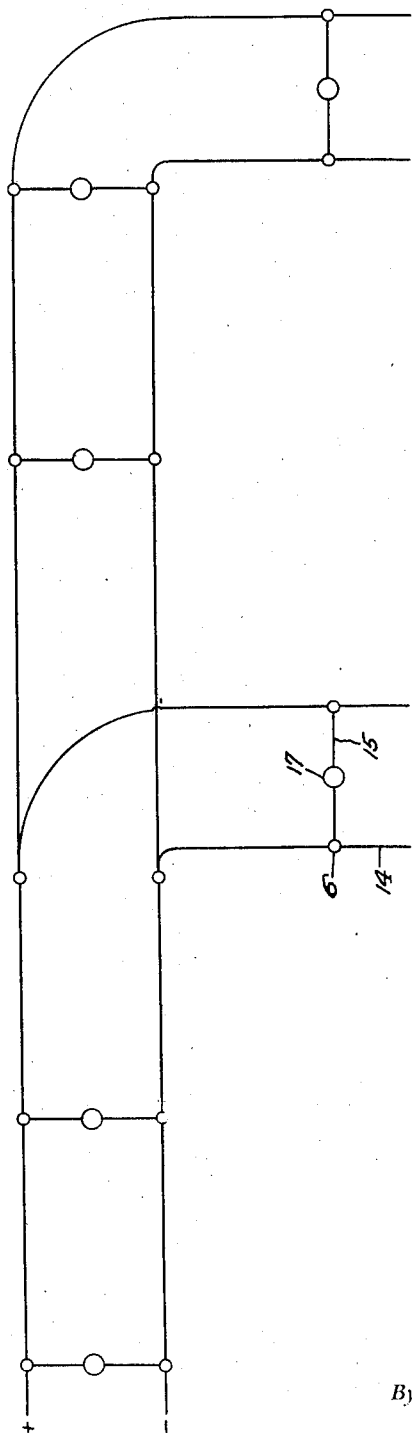
2,352,224

ELECTRICAL CONNECTOR

Filed July 29, 1942

2 Sheets-Sheet 1

Fig. 1.



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2 Sheets-Sheet 2

Fig. 2.

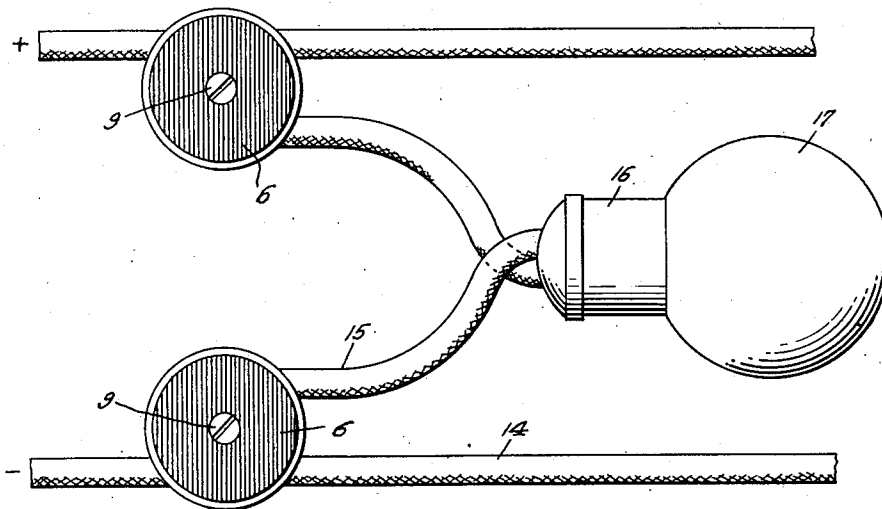


Fig. 5.

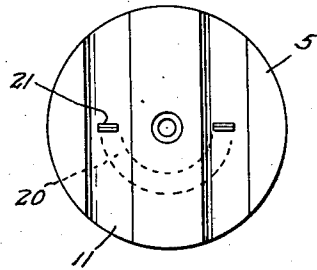
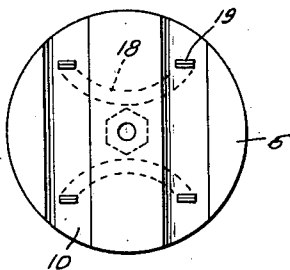


Fig. 6.

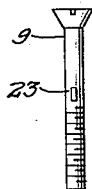


Fig. 7.

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UNITED STATES PATENT OFFICE

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ELECTRICAL CONNECTOR

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Application July 29, 1942, Serial No. 452,770

3 Claims. (Cl. 173-340)

The present invention relates to electrical connectors of a type adapted to connect a lamp or other electrical outlet to a power line without breaking or interrupting the line.

A further object is to provide an electrical connector of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a diagram of a power line showing the present invention used for connecting several lamps therein.

Figure 2 is a plan view showing the pair of connectors provided for the lamp connected in the power line.

Figure 3 is a plan view of one of the connectors.

Figure 4 is a transverse sectional view taken substantially on a line 4-4 of Figure 3.

Figure 5 is a plan view of the inner face of one section of the connector.

Figure 6 is a similar view of the other section of the connector.

Figure 7 is a side elevational view of the screw connecting the sections of the connector.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numerals 5 and 6 designate the pair of complementary shaped sections forming the body of the connector preferably made of insulation material, the sections being illustrated in disk form and provided with aligned bores 7 and 8 for receiving a screw 9 for securing the section flatwise to each other.

The inner face of the section 5 is provided with a pair of spaced parallel channels 10 and the inner face of the section 6 is likewise provided with a pair of spaced parallel channels 11 cooperating to form openings 12 and 13 as shown in Figure 4 of the drawings, the opening 12 being adapted to receive the circuit wire 14 of a power line while the opening 13 is adapted to receive a circuit wire 15 leading to a lamp socket 16 in which the lamp 17 is secured.

In connecting the lamp to the negative and positive wires of the power line a pair of the connectors are employed as shown to advantage in Figures 1 and 2 of the drawings.

Embedded in the section 5 of the connector are a pair of conductors or jumpers 18 having their ends exposed in the channels 10, the conductors being in the form of metallic strips with their ends disposed transversely of the channels and beveled to provide a sharpened edge 19 adapted to bite through the insulation of the wire to provide an effective contact therewith.

The section 6 of the connector is likewise provided with a conductor or jumper 20 embedded therein and having its ends 21 exposed in the channels 11 similar to the section 5.

When the sections 5 and 6 are secured in assembled relation with the wires 14 and 15 positioned in the respective channels the contacting ends 21 of the conductor 20 will be positioned between the contacting ends 19 of the pair of conductors 18 of the section 5 so that contact is made at diametrically opposite sides of the wires at spaced longitudinal intervals thereof.

In order to prevent complete separation of the screw 9 from the sections 5 and 6 the bore 7 is formed with a counter-sink 22 adapted to accommodate lugs 23 formed on the shank of the screw during the turning of the screw for the partial separation of the sections.

It is believed the details of construction, advantages and manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having described the invention, what is claimed as new is:

1. An electrical connector comprising a pair of complementary members of insulation material having a pair of grooves in their opposed faces, and conductors of ribbon construction having contracts at their ends, at least one of said conductors being embedded in each member, said contacts extending angularly at the ends of the conductors and disposed transversely in said grooves, and said contacts having beveled end edges adapted to bite into the insulation of electric wires placed in the grooves.

2. An electrical connector comprising a pair of complementary members of insulation material having a pair of grooves in their opposed faces, a pair of conductors of ribbon construction embedded in one member, each conductor having angularly bent ends provided with sharpened edges to form contacts projecting transversely in each groove to form jumpers, and a single jumper in the other member arranged with its contacts spaced between the contacts of said pair of jumpers when the members are secured

in assembled relation whereby the contacts of one member will bite into and force an electric wire placed in the grooves against the contacts of the other member to produce an effective connection.

3. An electrical connector comprising a pair of complementary members having a pair of grooves in their opposed faces, conductors embedded in the members, prongs on the conductors exposed

in the respective grooves, and means for securing the members together in clamping engagement with circuit wires positioned in the grooves, said means embodying a screw connecting said members a counterbore in one of the members at its inner face and a lug on the screw slidably and rotatably received in the counterbore limiting axial movement of the screw therein.

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