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G. E. DASHER

2,489,013

WIRE CONNECTOR

Filed May 22, 1947

Fig. 5.

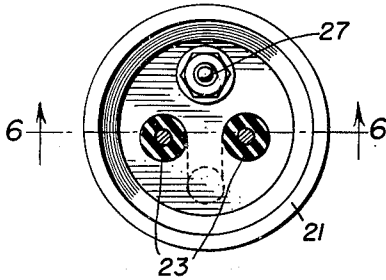


Fig. 1.

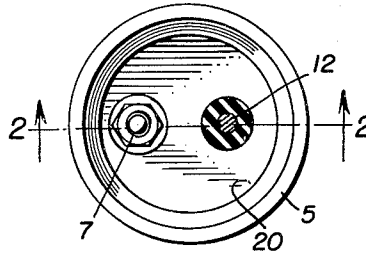


Fig. 2.

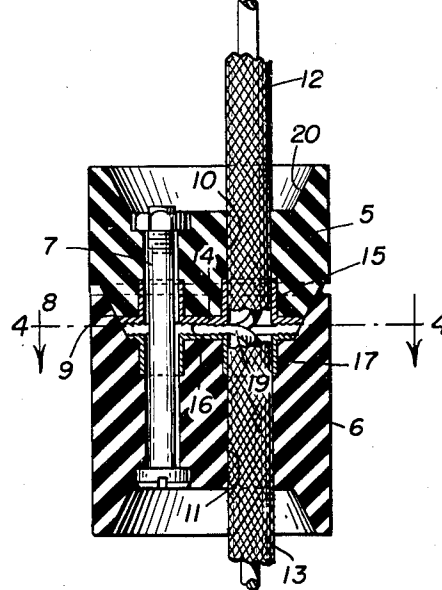


Fig. 6.

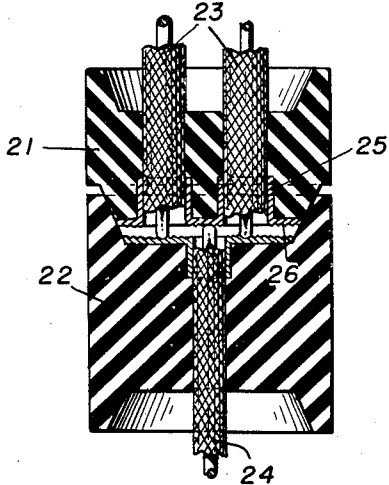


Fig. 3.

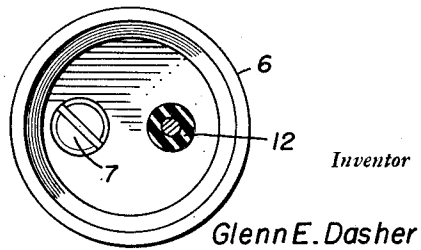
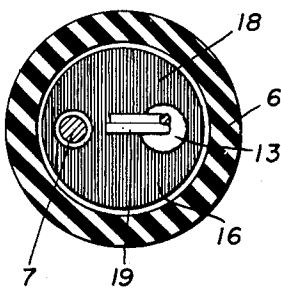


Fig. 4.



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WIRE CONNECTOR

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2 Claims. (Cl. 174-88)

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The present invention relates to new and useful improvements in connectors for electric wires or cables and more particularly to a device of this character for connecting the ends of wires in electric outlet boxes and other fixtures where the wires have been cut too short to properly twist and solder and tape the same.

An important object of the present invention is to provide a connector of this character embodying means for clamping the ends of the wire tightly in a conductor.

A further object of the invention is to provide a connector of this character and including a conductor in which the ends of the wires are clamped and completely enclosed in an insulation body to prevent contact with the conductor or the connected ends of the wires.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in use, relatively inexpensive to manufacture, easy to connect in assembled relation and which otherwise is 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 an end elevational view of one end of the connector;

Figure 2 is a vertical sectional view taken substantially on the line 2-2 of Figure 1;

Figure 3 is an end view of the opposite end of the connector;

Figure 4 is a transverse sectional view taken on the line 4-4 of Figure 2;

Figure 5 is an end view of a modified construction, and

Figure 6 is a longitudinal sectional view taken substantially on the line 6-6 of Figure 5.

Referring now to the drawing in detail and first with respect to the form of the invention illustrated in Figures 1 to 4 inclusive, the numerals 5 and 6 designate a pair of insulation bodies of cylindrical form connected to each other in end to end relation by means of a bolt 7 extending therethrough.

The adjacent ends of the bodies 5 and 6 have interfitted engagement with each other by providing a frusto-conical extension 8 on the inner end of the body 5 for fitting in a complementary shaped recess 9 at the inner end of the body 6.

The bodies 5 and 6 are formed with aligned

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bore 10 and 11 respectively for receiving the ends of electric wires or cables 12 and 13 therein.

A conductor plate 14 is held against the end of the extension 8 of body 5 by means of sleeves 15 recessed in the body, one of the sleeves receiving the bolt 7 and the other of the sleeves receiving the wire 12. A similar conductor plate 16 is held in the recess 9 of the body 6 by means of sleeves 17 in which the bolt 7 and wire 13 are respectively received. The opposing faces of the plates 14 and 16 are serrated or corrugated as shown at 18.

In the operation of the device the bodies 5 and 6 are separated by removing the bolt 7 and the inner ends of the wires 12 and 13 have the insulation removed therefrom to expose the cores of the wires which are then bent at right angles as shown at 19 against the respective plates 14 and 16. The bodies 5 and 6 are then connected to each other in interfitted engagement by placing the bolt 7 therethrough and tightening the bolt to clamp the ends of the wires 19 between the conductor plates 14 and 16 as shown in Figure 2 of the drawing.

The outer ends of the bodies 5 and 6 are cupped or recessed as shown at 20 to protect the ends of the bolt 7 and nut carried thereby from contact with any object which might cause a short circuit in the wires.

In Figures 5 and 6 of the drawing I have illustrated the insulation bodies 21 and 22 arranged to connect two or more wires 23 extending through one of the bodies to one or more wires 24 extending through the other of said bodies by providing a sleeve 25 for each of the wires 23 in the conductor plate 26 and securing the bodies and conductor plate in clamping engagement by means of a bolt 27 extending through the bodies as heretofore described.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having thus described this invention what is claimed is as follows:

1. An electric wire connector comprising a pair of insulation bodies, fastening means connecting

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the bodies to each other, in end to end relation, said bodies having longitudinally extending bores for receiving said fastening means as well as for receiving one or more wires in each body the inner ends of the bodies having interfitting engagement with each other, a conductor plate carried by the confronting face of at least one of said bodies, and having a serrated surface, said wires having inner exposed ends clamped against said plate, and sleeves projecting from the rear face of the plate and recessed in said bores to anchor the plate to its body.

2. An electric wire connector comprising a pair of insulating bodies having interfitting end to end relation with each other, longitudinal bores in the bodies and including at least one pair of aligned bores, a pair of conductor plates at the confronting faces of the bodies, sleeves projecting from the rear surface of the plates and positioned in said bores, electric wires inserted in at least one of the bores of each body with the inner ends

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of the wires clamped between the plates, and fastening means inserted in said pair of aligned bores to secure the bodies in assembled relation to each other.

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