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CONNECTOR FOR ELECTRIC CABLES AND THE LIKE

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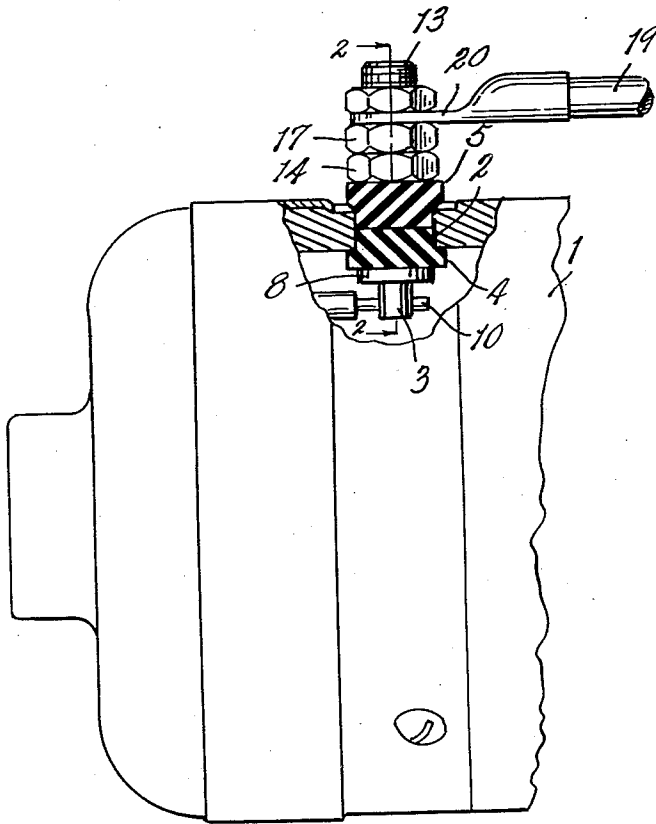


FIG. 1

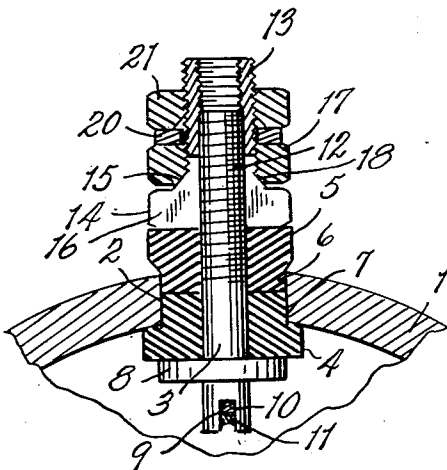


FIG. 2

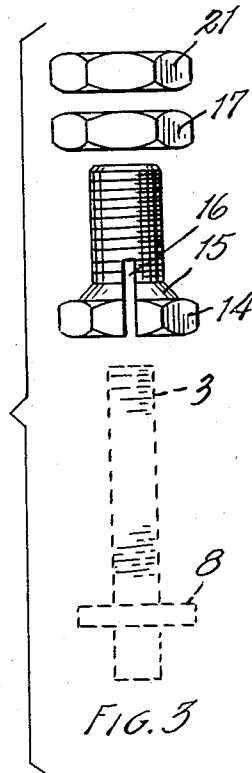


FIG. 3

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CONNECTOR FOR ELECTRIC CABLES AND
THE LIKE

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5 Claims. (Cl. 174—153)

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This invention relates to a connector for electric cables and the like.

The main objects of this invention are:

First, to provide a connector for electric cables such for example as battery cables, which may be readily mounted on a motor housing to provide an effective electrical connection for the cable to a post constituting an element of the connector, and one in which the parts may be quickly assembled in installation and may be later disassembled in the event it is desirable to renew the cable or in the event of corrosion or other deterioration or injury to the parts.

Second, to provide a structure having these advantages which is simple and economical in its parts and one which may be manipulated by a relatively unskilled person.

Objects pertaining to details and economies of the invention will appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of the invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary view of the housing of a motor such as the starting motor of a motor vehicle, with a connector embodying my invention mounted thereon.

Fig. 2 is an enlarged fragmentary view mainly in section on line 2—2 of Fig. 1.

Fig. 3 is a disassembled or exploded view of the parts of my connector, the post element being shown by dotted lines inasmuch as that element as illustrated is of a type in commercial use.

In the accompanying drawing the motor housing 1 is shown mainly conventionally and is provided with a side opening 2 adapted to receive the connector post 3 with the insulating elements 4 and 5 arranged thereon. These insulating elements have reduced portions 6 and 7 respectively fitting within the opening 2. The post 3 is provided with a flange 8 in supporting engagement with the inner insulating member 6, the post projecting beyond the flange and longitudinally slotted at 9 to receive the motor feed circuit wire 10 which is soldered into the slot as indicated at 11.

The post is externally threaded at 12 and the internally threaded sleeve 13 is threaded thereon and provided with a head 14 at its inner end abutting and clampingly engaging the outer insulation element 5. This head 14 is adapted to receive a wrench, being in the form of a hexagon in the structure illustrated. The head has an outwardly facing conical shoulder 15 and the sleeve is longitudinally slotted at 16, the slot

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extending through the head and into the threaded stem portion of the sleeve. The sleeve clamping nut 17 has a conical recess 18 at its inner end coacting with the conical shoulder to clamp the sleeve in its adjusted position on the post.

The battery or supply cable 19 is provided with a terminal 20 having a sleeve engaging hole therein. The second nut 21 is threaded upon the sleeve at the outer side of the terminal, clamping the terminal against the sleeve clamping nut. This nut 21 also constitutes a lock nut for the sleeve clamping nut, which is a feature of considerable importance inasmuch as when these parts are mounted on a starter of a motor vehicle they are frequently subjected to severe vibration. The cable 19 in such an installation is commonly a battery cable and the parts frequently become severely corroded, often requiring replacement.

This invention not only enables quick and secure connection of the cable 19 to the connector post 3 but in the event they become corroded or otherwise damaged they may be readily replaced. The sleeve may be adjusted to effectively engage the post, even after the threads of the post have become considerably damaged. The head of the sleeve is designed to receive a wrench so that it may be clamped against the insulating members and may be held while the sleeve clamping nut is being tightened or loosened, as the case may be.

I have illustrated and described a simple and highly practical embodiment of the invention. I have not illustrated certain other embodiments and adaptations which may be desirable for particular installations as it is believed this disclosure will enable those skilled in the art to embody or adapt the invention as may be desired.

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

1. A connector for electric cables comprising a threaded post provided with a flange at its inner end adapted to engage insulation arranged on the post, an internally threaded sleeve threaded upon the post and having a head at its inner end adapted to engage insulation and adapted to receive a wrench, the outer end of said sleeve being externally threaded, there being a conical shoulder at the inner end of the threads, said sleeve having a longitudinal slot extending from its inner end through the head and into its threaded portion but terminating substantially

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short of the outer end of said sleeve, a sleeve clamping nut threaded upon the sleeve to cover said slot and internally beveled to coact with said conical shoulder, and a second nut threaded upon said sleeve and adapted to clamp a cable terminal against said sleeve clamping nut and to constitute a lock nut therefor.

2. A connector of the class described comprising a threaded post, an internally threaded sleeve threaded upon said post and having a head at its inner end adapted to receive a wrench and an outwardly facing conical shoulder at the outer side of the head, said sleeve having a longitudinal slot extending from its inner end through the head and outwardly beyond its said shoulder, the outer end of said sleeve being externally threaded, a sleeve clamping nut threaded upon the sleeve and internally beveled to coact with the conical shoulder for clamping the sleeve in its adjusted positions on the post, and a second terminal clamping nut threaded upon the sleeve and constituting a lock nut for said sleeve clamping nut.

3. A connector of the class described comprising a threaded post, an internally threaded sleeve threaded upon said post and having a shoulder, said sleeve having a longitudinal slot extending from its inner end through said shoulder, the outer end of said sleeve being externally threaded, a sleeve clamping nut threaded upon the sleeve and recessed to receive said shoulder for clamping the sleeve in its adjusted positions on the post, and a second terminal clamping nut threaded upon the sleeve.

4. A connector for electric cables and the like comprising a threaded post, an internally

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threaded sleeve threaded upon said post and having a longitudinal slot extending from its inner end and provided with an outwardly facing conical shoulder, a sleeve clamping nut threaded upon the sleeve to coact with said shoulder for clamping the sleeve in its adjusted positions on the post, and a second terminal clamping nut threaded upon said sleeve to clamp a terminal against said sleeve clamping nut.

5. A connector for electric cables and the like comprising a threaded post, an internally threaded sleeve threaded upon said post and having a longitudinal slot extending from its inner end and provided with a shoulder, a sleeve clamping nut threaded upon the sleeve to coact with said shoulder for clamping the sleeve in its adjusted positions on the post, and a second terminal clamping nut threaded upon said sleeve to clamp a terminal against said sleeve clamping nut.

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