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HEAVY DUTY ELECTRICAL DROP CORD CONNECTION

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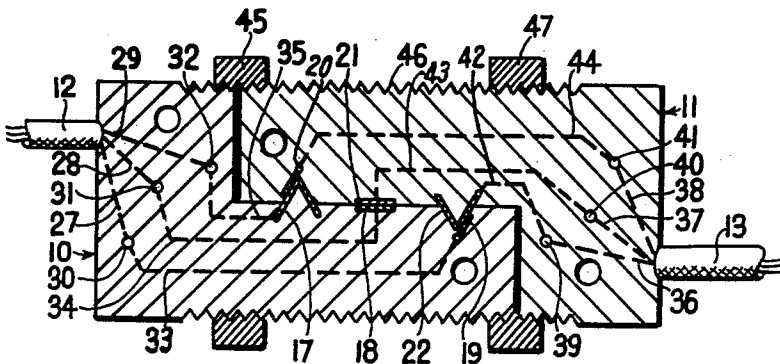


Fig. 1

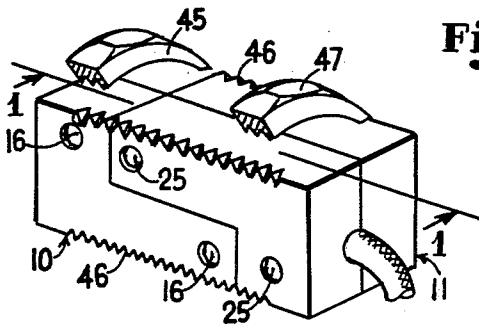


Fig. 2

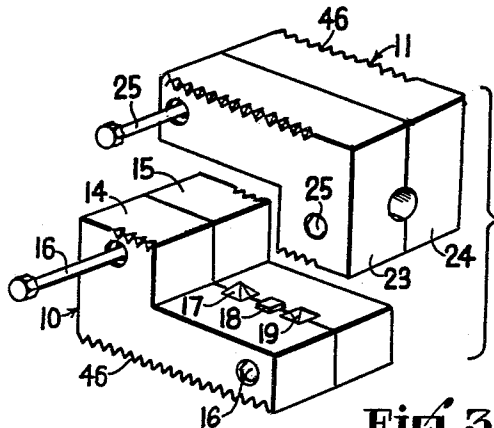


Fig. 3

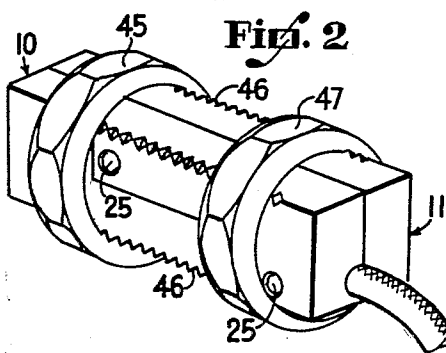


Fig. 4

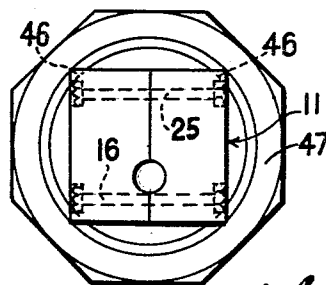


Fig. 5

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HEAVY DUTY ELECTRICAL DROP CORD CONNECTION

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3 Claims. (Cl. 339—89)

This invention relates to a heavy duty cable connector. It is the principal object of the present invention to provide a cable connector in which the sections cannot pull apart with normal use of pulling, lifting, lowering or moving the cable cord.

It is another object of the invention to provide a cable cord connector that will not readily come apart and to which the cable wires are attached and clamped about their casings so that they may not readily be pulled from their terminals.

Other objects of the invention are to provide a cable connector, having the above objects in mind, which is of simple construction, inexpensive to manufacture, has a minimum number of parts, easy to assemble, adapted to be disconnected from one another of the cable connector parts with one of the parts being on one cable and the other parts being on the other cable, of pleasing appearance, compact, light in weight, efficient and effective in use.

For a better understanding of the invention reference may be had to the following detailed description taken in connection with the accompanying drawings in which

Figure 1 is an enlarged vertical sectional view of the cable connector taken generally on line 1—1 of Figure 2.

Figure 2 is a perspective view of the assembled connector with portions of the retaining rings broken away.

Figure 3 is a collective and perspective view of the connector parts separated from one another to show the contact terminals of one of the parts.

Figure 4 is a full perspective view similar to Figure 3 of the assembled parts with the full retaining rings shown.

Figure 5 is an end elevational view.

Referring now to the figures 10 and 11 represent respectively connector assemblies which are respectively attached to three-wire cables 12 and 13. The connector part 10 is formed of two L-shaped blocks 14 and 15 that are joined together and retained by fastening bolts 16 and 17 at the opposite ends thereof and at their juncture there is retained terminals 17, 18 and 19 for respectively receiving cooperating terminal contacts 20, 21 and 22 in the separable connector part 11 similarly constructed of two parts 23 and 24 and retained together by fastening bolts 25 extending through appropriate holes in the opposite ends of the connector part 11. The cable 12 is secured to the connector part 10 by the clamping together of the parts 14 and 15 thereof and its wires 27, 28 and 29 are respectively secured by screws in appropriate holes in the connector parts, the holes being indicated at 30, 31 and 32 with respective imbedded wires 33, 34 and 35 that are connected to respective terminals 17, 18 and 19 lying in the connector part 10.

The connector part 11 is similarly wired so that wires 36, 37 and 38 of the cable are connected by screws in respective holes 39, 40 and 41 with imbedded wires 42, 43 and 44 that are connected respectively with contacts 22, 21 and 20.

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With the connector parts 10 and 11 so assembled with the cables 12 and 13 tightly gripped between them with the holes provided in the engaging faces of the two parts of which the connector part is made, the connecting parts can be made to overlie one another so that their contact terminals are in engagement. The one part 11 is dropped over the part 10.

On the part 10 is a retaining ring 45 that can be threaded upon the same with series of threads 46 lying along the corner edges of the parts and may during the assembly be carried on the part 10 but with the parts assembled can be threaded so as to overlie both parts as best shown in Figure 2 and also in Figure 1. This ring will at that location couple the parts together and remove the strain from the contact terminals.

A second ring 47 is carried on the connector part 11 and can be threaded to overlie the connector part 10 as best shown in Figures 1 and 4. With the connector parts so assembled they are rigidly and positively retained by the retaining rings 45 and 47 against longitudinal displacement from one another.

Upon turning the retaining rings toward the connector parts on which they are carried the connector parts can be readily released from one another and the one part lifted radially outwardly from the other part.

It should be now apparent that there has been provided a cable connector for heavy duty cables in which the cables will be rigidly and safely held by the connector parts.

While various changes may be made in the detailed construction it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

I claim:

1. A cable connector comprising separable parts formed of L-shaped blocks, said blocks further formed of smaller L-shaped blocks joined together along their vertical surfaces by means extending horizontally through the smaller blocks, terminals disposed in a horizontal plane and extending along inside faces of the L-shaped blocks at the joined surfaces of said smaller blocks, said terminals being oriented to provide a locking relationship upon assembly against longitudinal displacement, means for connecting cable wires to the respective terminals, and means for holding the connector parts against longitudinal displacement from one another.

2. A cable connector according to claim 1 wherein at least one of the terminals on each block is disposed inwardly of the inside face of the L-shaped block and wherein at least one further terminal projects outwardly of the said face.

3. A cable connector as defined in claim 1 and said means for holding the connector parts against longitudinal displacement from one another comprising retaining rings internally threaded and said connecting parts having their corners threaded for the operation of the retaining internally threaded rings thereover, said rings normally carried on the respective connector parts but turnable to join the ends of the parts together and over the contact bearing portions of the connector parts.

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