June 12, 1928. 1,673,738

A. B. DIBNER

ELECTRICAL CABLE CONNECTER

Filed June 17, 1925

Fig. 1.

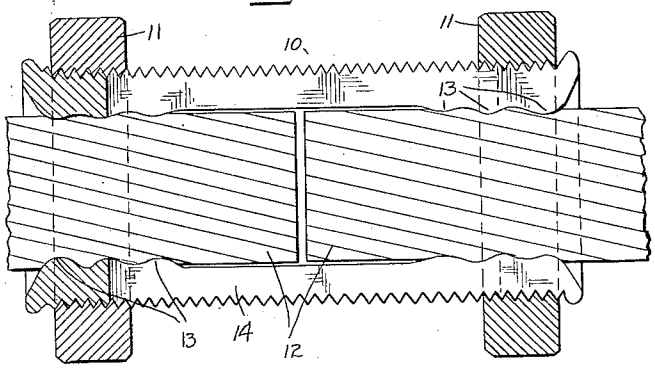



Fig. 2.

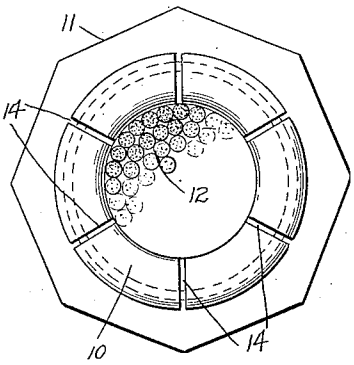



Fig. 3.

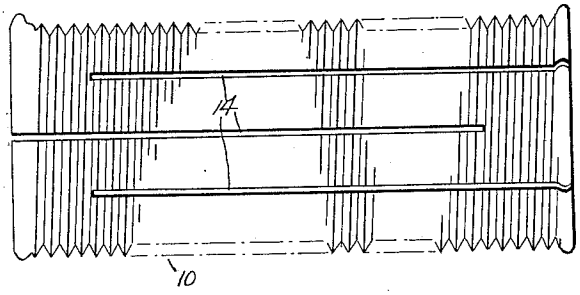



Fig. 4.

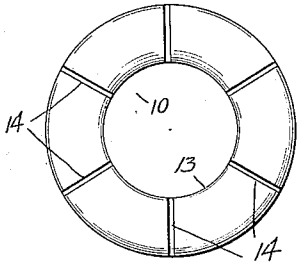
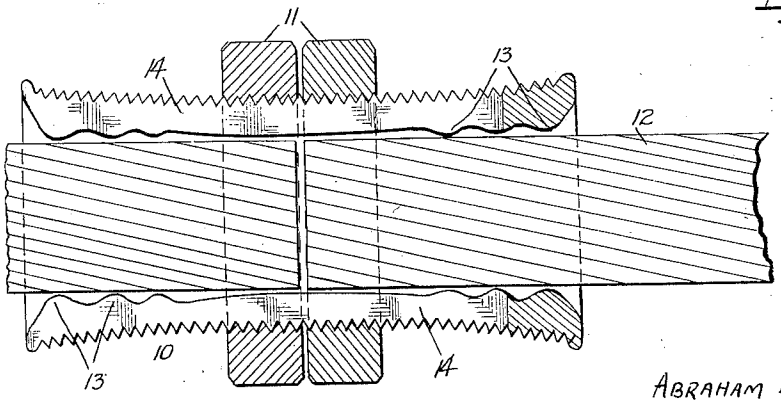



Fig. 5.




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# UNITED STATES PATENT OFFICE.

ABRAHAM BERNARD DIBNER, OF BROOKLYN, NEW YORK.

## ELECTRICAL CABLE CONNECTER.

Application filed June 17, 1925. Serial No. 37,755.

My invention relates to improvements in cable connecters adapted especially for high electric currents and has for its principal object to provide a connecter of this character which is efficient in application and which is extremely simple in construction.

Another object of the invention is to provide the connecter with a plurality of gripping jaws which are adjusted to bite into the surface of the cable and thereby insure perfect contact.

A still further object of the invention is the provision of an electrical connecter comprising a complete unit from which no parts are removable for installation, thereby avoiding all possibility of losing or necessity of inserting parts.

A preferred embodiment of my invention is illustratively exemplified in the accompanying drawings, in which Figure 1 is a longitudinal sectional view of my improved cable connecter showing the parts in operative position; Figure 2 is an end view of the same; Figure 3 is an elevational view of the connecting sleeve; Figure 4 is an end view of the same; and Figure 5 is a longitudinal sectional view of the connecter showing the position of the parts before the jaws are clamped.

Referring to the drawings, 10 denotes the connecter comprising an exteriorly threaded sleeve having its ends upset to prevent two nuts, 11, adjustable over the threads, from being removed. The bore of the sleeve is uniform throughout its midportion and is of a diameter slightly greater than that of the cable ends 12, the midportion being of a length measured by one half the length of the entire sleeve. From the midportion of the sleeve the bore is provided with a series of annular ridges 13 adjacent each end, the ridges increasing in amplitude and whose diameter at the apex is increasingly smaller than the cable diameter after the ends of the sleeve are contracted by the nuts until the last ridge which flares out to meet the outer surfaces forming the upset ends of the threads. In order to make the ridges 13 effective the sleeve 10 is split longitudinally at a plurality of radial points and for a distance of substantially seven-eighths of the tube length. The cuts, denoted 14, are disposed alternately from opposite ends of the sleeve.

To place the connecter in position, the nuts 11 are arranged in the center of the sleeve 10, as illustrated in Figure 5. The opposite ends of the sleeve are flared to a degree whereby the annular ridges 13 on the bore of the sleeve, are smaller in diameter than the cable 12 when the ends of said sleeve are contracted. This flaring enables each cable to be projected halfway into the tube without obstruction. Furthermore, this flaring gradually increases the diameter of the threaded outer surface as it approaches each end.

The cable ends 12 are inserted halfway into the connecter and the nuts 11 turned in opposite directions over the threads, an operation which forces the latter to assume their original diameter or position and which forces the annular ridges into the cable.

The present connecter has the advantage of being an integral unit when adjusted and having its parts inseparable. In one operation, both ends of the cable are clamped and firmly held and since the force of application is the same at both ends, both cable ends are retained with equal forces, thereby allowing no weaker side. It will be clear that the line of pressure of the nuts is directly opposed by and in line of reaction, so that no component force is introduced, tending to move the nuts along the threads to loosen the connection.

An important feature of alternately splitting the sleeve is the long leverage obtained for the jaw sections therebetween, all of which facilitates installation, since the force expended on rotating the nuts will be almost equal to the resistance of the cable material. The long leverage of the jaws also increases the life and use of the connecter preventing breaking at the points of leverage. It is to be noted that the long leverage of the jaws permits a sleeve of large cross section and ample current carrying capacity.

What I claim is:

1. An electrical connecter, comprising a tubular body portion split longitudinally at a plurality of radial points and flared to increase the cross sectional thickness and strength at opposite ends, said splits being disposed alternately from either end of the body, the bore of the body portion being provided with a series of annular ridges adjacent each end, the exterior of the body being threaded and upset at the ends, and a pair of nuts adjustable over said threads to contract the portion between the slits.

2. An electrical connecter comprising a tubular body portion split longitudinally at a plurality of radial points and flared to increase the cross sectional thickness and strength at opposite ends, said splits being disposed alternately from either end of the body, and means adjustable over the latter to contract both ends at said flared portion, the mid portion of the bore of the body being straight and the wall being provided adjacent the ends with a series of annular ridges, each thereof increasing in amplitude and having a diameter of apex increasingly smaller than the diameter of the cable to be connected when the ends of said sleeve are contracted.

In testimony whereof, I have signed my name to this specification, this 15 day of June, 1925.

ABRAHAM BERNARD DIBNER.