

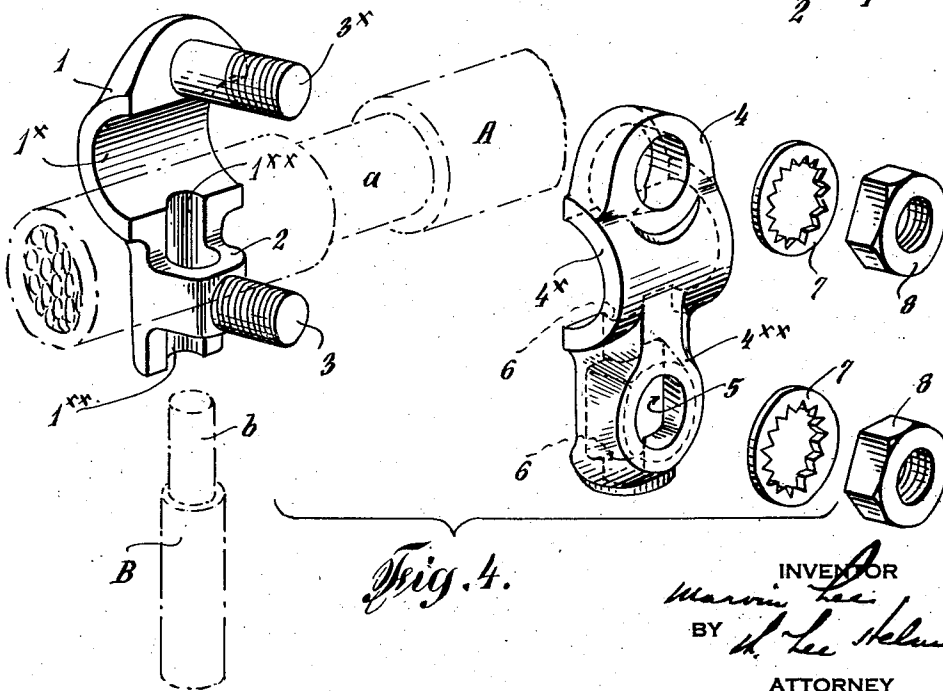
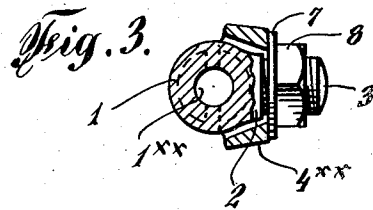
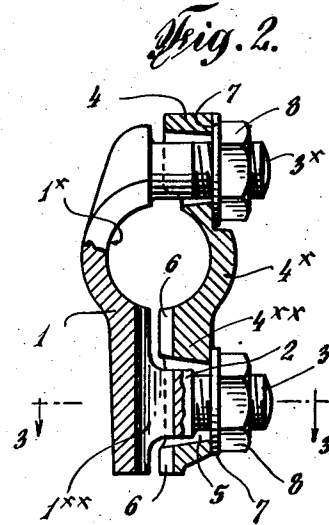
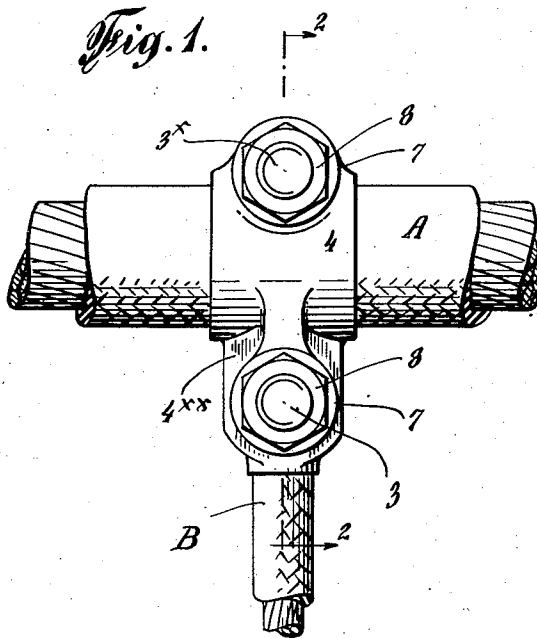
March 12, 1935.

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1,993,968

BRANCH ELECTRICAL CABLE CONNECTER

Filed Feb. 19, 1934



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1,993,968

BRANCH ELECTRICAL CABLE CONNECTER

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Application February 19, 1934, Serial No. 711,897

2 Claims. (Cl. 173—273)

The object of the present invention is to provide a plural-way connector or cable terminal for connecting a branch cable to a main cable or feeder, which eliminates the necessity of contracting sleeves or soldering, the construction being such that clamping of both cables is effected simultaneously by turning two nuts through the use of an ordinary wrench or pliers, irrespective of the relative diameters of the cables.

A characteristic of the invention is that the planes of operation of the nuts are parallel to the plane passing through the center line of the two cables, which greatly simplifies the clamping operation, particularly where the installation is required between closely spaced adjacent cables.

A further characteristic of the invention is that the device provides a very short and direct path for the flow of current from one conductor to the other, avoiding a multiplicity of parts for the current to flow through. This is important in that where a multiplicity of parts are provided for the current to flow through, a marked decrease of efficiency results.

A further characteristic of the invention is that the greater the turning effort applied to the nuts, the greater the pressure between the two primary connector elements.

Another advantage of the device described in this invention is the fact that the hole or socket receiving the tap conductor is made considerably larger than the diameter of the tap conductor, so that even in cases where the tap conductor has not been carefully cut, allowing the strands to fray, it is a simple matter to insert the end of the tap cable into the receiving hole or socket. In other types of solderless T-connectors or cable taps, the corresponding hole has a diameter that is so close to the diameter of the tap conductor that it becomes a difficult matter to slip the tap conductor into place when the ends of the strands are burred or frayed.

The invention will be described with reference to the accompanying drawing, in which:—

Fig. 1 is a plan view of an embodiment of the invention applied to a feed cable.

Fig. 2 is a longitudinal section on the line 2—2, Fig. 1, looking in the direction of the arrows.

Fig. 3 is a transverse section on the line 3—3, Fig. 2.

Fig. 4 is a perspective view of the elements separated, showing in dotted lines a cable and tap conductor in position for application to the device.

Referring to the drawing, 1 indicates the main body portion of the device which is formed with a transversely extending arched saddle 1x and a

longitudinally extending saddle 1xx, the saddles providing contact faces, each adapted to extend longitudinally of a cable. Integral with saddle member 1xx is formed an overlying eye member 2 carrying threaded stem 3. At the opposite end of body member 1 is disposed a second threaded stem 3x.

For co-operation with the main body member 1, there is provided a cap member 4 having a transversely extending arched clamping area 4x and a longitudinal extension 4xx formed with a chambered area at 5 adapted to receive the eye 2 of member 1, the chambered area also being apertured to receive threaded stem 3. A second aperture is formed in member 4 to receive threaded stem 3x. At opposite ends of chambered area 5, member 4 is provided with longitudinally extending arched clamping faces 6.

In use, the stripped area *a* of cable A is placed upon saddle 1x and the stripped end *b* of the branch conductor B is slipped through eye member 2. Thereupon cap member 4 is placed in position, the threaded stems 3 and 3x entering the appropriate apertures, and eye 2 being accommodated by the chambered area 5. Lock washers 7 are placed on the stems and the nuts 8 are engaged with the threaded stems and turned down to force heavy pressure on member 4x, and in turn on the two cables. The greater the turning effort applied to the nuts, the greater the pressure between the clamping elements and the conductors. It will be noted that the saddle-like faces 1x and 1xx merge into each other, providing a very short path for the flow of current from one conductor to the other. Furthermore, the device as a whole is of minimum area relatively to the relative sizes of the connected cables, enabling the adjacent cables to be closely spaced, the threaded stems and nuts being placed as they are in a plane passing through the center line of the two clamping faces and greatly simplifying the operation of making the tap connection, and enables uniform distribution of the clamping stresses.

Referring to the embodiment of the invention illustrated in the drawing, it will be noted that although the device affords relatively large contacting and clamping areas, it is exceedingly compact which facilitates taping of the device after it has been assembled and clamped in position upon a plurality of cables and/or taps. It will be understood that various modifications may be made in the form of the device illustrated in the drawing without departing from the spirit of the invention. For example, plural tap connecting

members may be employed in lieu of the single tap connecting elements illustrated in the drawing and the saddle 1x and eye 2 may be formed parallel with the saddle 1x, if desired.

5 Having described my invention, what I claim and desire to secure by Letters Patent, is as follows:

10 1. An electric cable connector comprising two cable engaging members each having a saddle-like contact face adapted to extend longitudinally of a cable, and a second saddle-like contact face extending angularly of the first-named face, one of said members having an eye intermediate the ends of said second saddle-like contact face, said
15 eye having a projected stem, and said member also having a projected stem adjacent the first named saddle-like contact face, the second cable engaging member being formed with an internal chamber adapted to receive said eye and with
20 spaced apertures through which the stems pass, the chamber being disposed centrally of the underlying contact face of said second member, the

stems being threaded to receive nuts by which the two members are moved together in clamping relation to two angularly extending cables received between them and abutting said contact faces.

5 2. In a device of the character described, a main body member having a cable-saddle and a cable-socket disposed at an angle to the saddle for making a branch connection for a tap cable, threaded stems integral with the body member, 10 a clamping cap having a saddle similarly disposed to the saddle of the main body member and saddle sections held spaced by an arched portion of the clamping cap and thereby adapted to embrace the cable-socket and also openings adapted 15 to receive the threaded stems in such manner that when suitable nuts are threaded down over the stems, pressure is applied against the cap, and, in turn, is transmitted through the cap to main and tap cables, thus permitting current to 20 flow from one conductor to the other.

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