June 26, 1934. C. L. GROVER 1,964,511

CONNECTER CLAMP

Filed Aug. 22, 1929

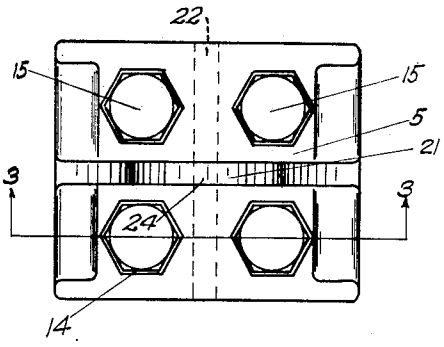


FIG. 1

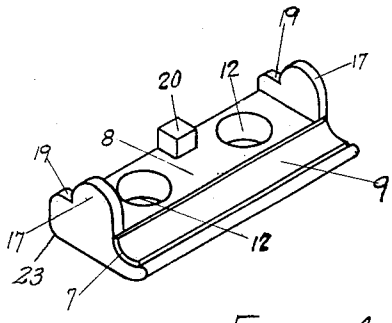


FIG. 4

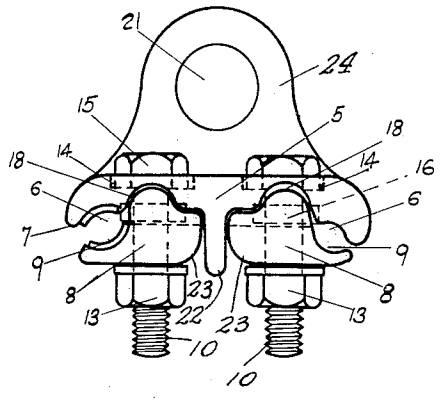


FIG. 2

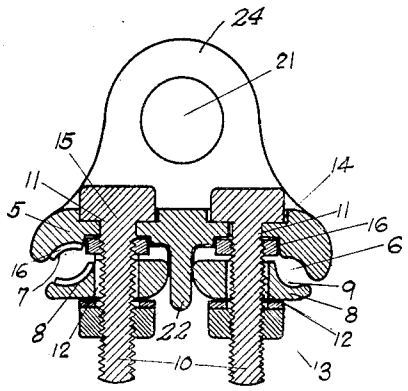


FIG. 3

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CONNECTER CLAMP

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1 Claim. (Cl. 173—273)

This invention relates to improvements in connecter clamps for transmission lines and the like.

The device herein shown and described is particularly applicable for making tap connections with live lines a practice necessary in avoiding interruption of service. The prevailing type of line connecter is unsatisfactory for live wire installations, owing to a lack of means enabling the branch circuit wire and line wire to be clamped independently of each other. A further objection to the line connecters heretofore used, is the fact that such devices are not provided with means which enable them to be readily handled by insulated line tools.

An object of my invention is that of providing an improved line connecter clamp by which branch or other circuit connections can easily and safely be made with energized lines.

Another object is that of providing, in connection with a clamp adapted for making tap connections with energized lines, improved means enabling the clamp to be readily held and manipulated by insulated line tools.

A further object is that of providing a device having the characteristics above noted, and which is suitable for connecting wires of different metal, such as aluminum and copper, and for wires of different cross sectional area.

Further objects and advantages will appear from the following detailed description of a single preferred embodiment of my invention.

In the drawing, Fig. 1 is a plan view of my device; Fig. 2 is a side elevation; Fig. 3 is a sectional elevation taken along the line 3—3 in Fig. 1, and Fig. 4 is a perspective view of one of the jaws or clamping members.

Referring now by numerals to various portions of my device, 5 indicates a body portion, preferably rectangular in plan, and formed of a good conducting material, such as brass or aluminum. Grooves, or wire seats 6, extending across the body, are preferably disposed adjacent opposite margins, and are adapted for positioning line wires, not shown. If the device is formed of aluminum, and is to be used with a copper wire, one or more of the grooves may be provided with a copper liner 7, to provide a better electrical connection between the connecter and copper lines. The connecter illustrated is intended for joining a copper and aluminum cable, hence one of the grooves is shown without a liner. The grooved face of the body member is provided with a projection, preferably in the nature of a rib 22, which extends across the face of the body, preferably equidistant from, and parallel to each groove.

Wires or cables are adapted to be securely clamped in the recited grooves by means of a pair of jaws or clamping members 8, having grooves or wire seats 9, adapted to correspond with the seats 6 in the body portion 5. The sides of the jaws which lie adjacent the rib 22, are preferably arcuate as indicated at 23. Clamping is attained by means of bolts 10, which extend through apertures 11 in the body 5, and through apertures 12 in the jaw members 8. The diameter of the apertures is preferably slightly larger than that of the bolts, which allows a slight amount of play between the jaw and body portions, and assures good seating of the line and branch wires in the grooves.

To prevent turning of the bolts when their associated nuts 13 are turned, I provide recesses 14, in the clamp body, in which the bolt heads 15 are seated, the apertures and bolt heads being similar in contour. Also, I prefer to establish the bolts 10 in the apertures 11, in a manner which will prevent their accidental or unintentional separation from the body, and therefore provide threaded washers 16 which are positioned on the bolts so as to allow a slight amount of play and yet prevent the heads 15 from backing out of the recesses 14. Lugs 17, extending from the ends of the jaw members, are adapted for movement into recesses 18, in the ends of the clamp body. These lugs are preferably arcuate, as shown, for the purpose of directing the line wire into the groove as the jaw member is drawn toward the body. The recited lugs also prevent excessive endwise movement of the jaw members and also facilitate positioning the clamp upon a line wire. The jaws are adapted for an appreciable amount of pivotal movement, portions 19 of the lugs 17, and an intermediate stud 20, bearing against the body when a line wire is clamped in the groove.

To facilitate the handling of the connecter by means of a "hot stick" or other line tool, I provide an ear 24 having an eye 21 preferably centrally disposed, perpendicularly to the wire seats.

In making a tap connection, the branch wire is firmly clamped between one of the jaws and the body, the remaining jaw being kept open to enable ready engagement with the line wire. By means of suitable insulated tools the connecter is positioned upon the line wire and then clamped thereto. Thus, the adaptability of my device for making circuit connections with either live or dead lines, and with lines of various sizes, is readily obvious.

While the device herein shown and described is a preferred executional embodiment of my invention, it is understood that the structure may be modified and its uses extended without departure from the full spirit and scope of my invention.

What I claim is:

A wire connecter including an apertured body portion, jaw members coacting with one side of said body portion for clamping a plurality of wires near opposite margins thereof, recesses in the end faces of said body portion, end flanges on the jaw members journaled in said recesses, screws extending through said apertures, washers disposed on said screws between said jaws and body portion for maintaining said screws in said body apertures, and a projection on the opposite side of said body portion, adapted for engagement by a line tool.

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