Oct. 18, 1927. 1,646,255

H. J. MUEHLEMAN

CLAMP

Filed July 23, 1926

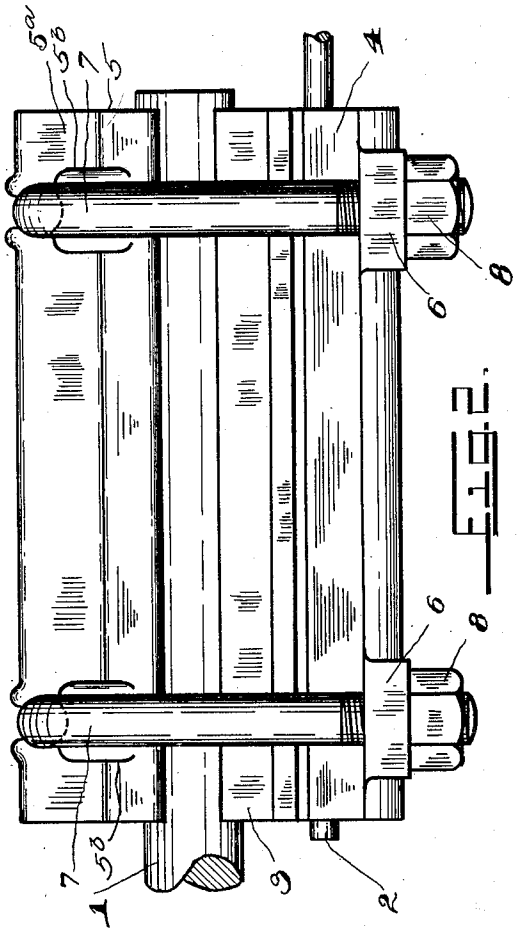


Fig. 2.

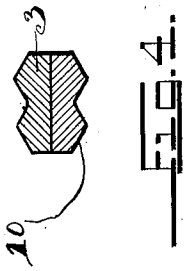


Fig. 4.

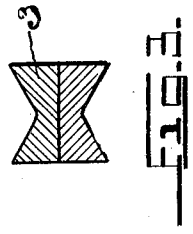


Fig. 3.

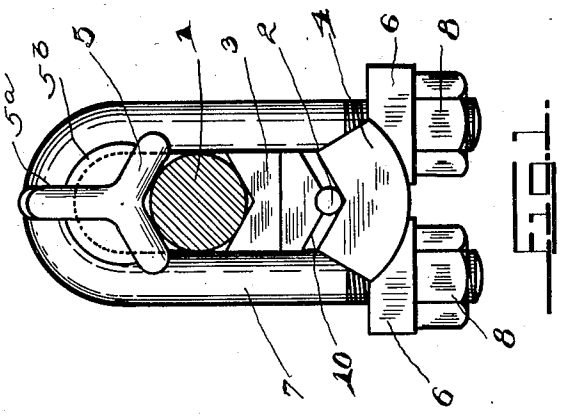


Fig. 1.

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UNITED STATES PATENT OFFICE.

HENRY J. MUEHLEMAN, OF HAMILTON, ONTARIO, CANADA.

CLAMP.

Application filed July 23, 1926. Serial No. 124,427.

This invention relates to clamps for connecting the ends of electrical conductors or for securing the ends of conductors to supports, and the object of the present invention is to devise a construction in which there will be the greatest measure of conductivity between the two conductors and in which the connection between the conductors will be of great security, and which at the same time will be simple to manufacture and easy to place in position.

I attain my object by forming my clamp of a pair of clamping members between which the ends of the conductors are secured, and usually, though not necessarily, a spacing member which is positioned between the conductors. In cases where the conductors are formed of different metals, for instance, one of aluminum, and the other of copper, one half of the spacing member and one of the clamping members will be formed of or lined with metal similar to one conductor and the other half of the spacing member and the other clamping member will be formed of or lined with metal similar to the other conductor.

For clamping the parts together, I find that the tightest joint is obtained by forming lugs on one clamping member and passing U-bolts around the back of the other clamping member, the legs of the U-bolts passing through holes formed in the lugs on the other member and having nuts screwed thereon.

The construction is hereinafter more specifically described and illustrated in the accompanying drawings in which

Fig. 1 is an end elevation of my improved clamp;

Fig. 2 a side elevation of the same;

Fig. 3 an end elevation of a modified form of spacing member; and

Fig. 4 an end elevation of a further modified form of spacing member.

In the drawings like numerals of reference indicate corresponding parts in the different figures.

1 and 2 are the conductors to be connected, the conductor 1 being formed, for example, of copper, and the conductor 2 of aluminum. These conductors are placed one at each side of a spacing bar 3, which is formed with opposite faces grooved for receiving the conductors. At the other side of each of the conductors are placed grooved members 4 and 5.

In order that I may have a good electrical contact between the conductors and the spacing bar and grooved members, I preferably form the grooves of V-form so that there will be a two-line contact between each conductor and the adjacent parts of the clamps as shown in Fig. 1, instead of a single line contact as would be the case if the conductor touched the bottom of the groove and the groove slightly larger than the conductor as is often the case.

In order to clamp the parts together to form a secure and effective joint, I form on the grooved member 4 lugs 6 having holes formed therein for the passage of legs of U-bolts 7. The back of the grooved member 5 is preferably formed with a longitudinal strengthening rib 5^a provided with indentations or grooves forming saddles to receive the U-bolts, thus preventing slipping of the latter. Transverse ribs 5^b are formed in alinement with the saddles to strengthen the member 5 and support the U-bolts. By screwing up nuts 8 on the legs of the U-bolts tightly against the lugs 6, a very tight connection may be obtained.

It will be understood, of course, that the parts of the clamp may be of any desired length and also that any desired number of U-bolts may be employed.

The spacing member shown in Fig. 1 is intended for one heavy and one light cable.

In Fig. 3 I show a modification of the spacing member which is adapted for use with two heavy cables, while in Fig. 4 I show a modification of the spacing member which is adapted for use with two light cables. It will be noted, however, that where a light cable is employed, the spacing member is bevelled off to each side as at 10 to enable the spacing member to be received in the grooved member 4 or 5 as the case may be.

What I claim is:

In a clamp for connecting electrical conductors, the combination of an upper grooved

member having a longitudinal rib on its back provided with indentations therein forming a saddle; a U-bolt adapted to pass around the said member and to sit in the saddle; transverse ribs in alinement with the indentations, a lower grooved member, the groove whereof faces the groove of said upper member, said lower member having lugs thereon provided with holes through which the legs of the U-bolt are adapted to pass.

Signed at Hamilton, Ontario, Canada, this 8th day of July, 1926.

HENRY J. MUEHLEMAN.