

(No Model.)

J. INGMANSON & R. LORANG.  
CLAMP FOR ELECTRIC CONDUCTORS.

No. 479,216.

Patented July 19, 1892.

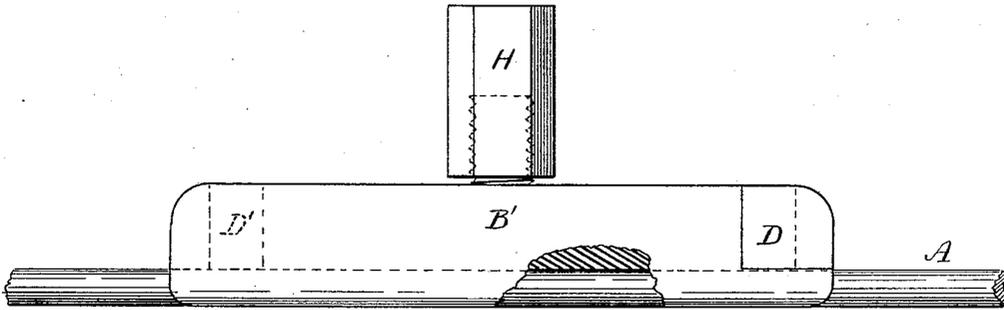


FIG. 1.

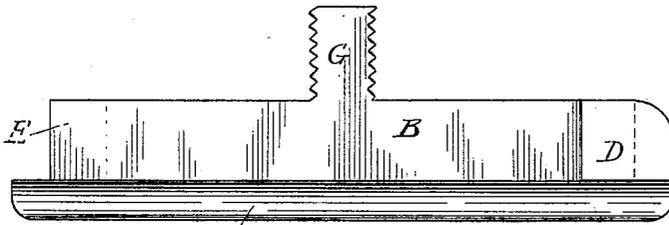


FIG. 2.

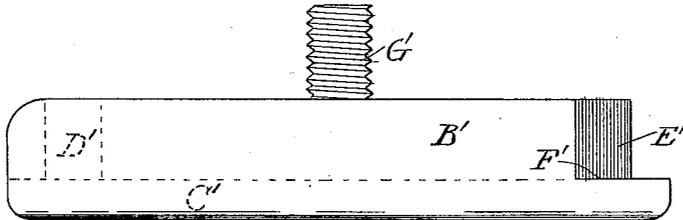


FIG. 3.

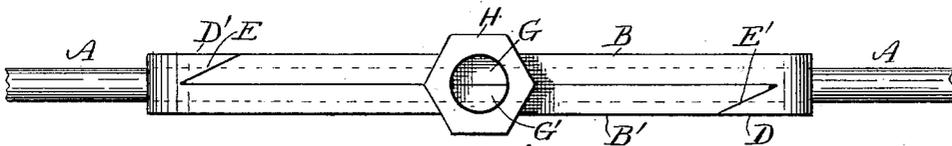


FIG. 4.

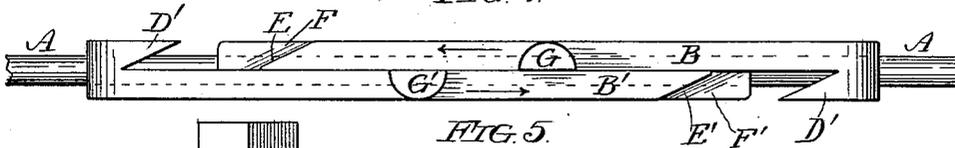


FIG. 5.



FIG. 6.

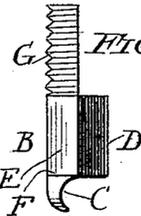


FIG. 7.

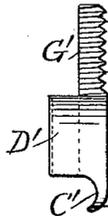


FIG. 8.

Witnesses:

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Their Attorneys

# UNITED STATES PATENT OFFICE.

JOHN INGMANSON AND RUDOLPH LORANG, OF CHICAGO, ILLINOIS, ASSIGNORS TO SAID LORANG, JOHN A. INGMANSON, AND EMIL N. INGMANSON, ALL OF SAME PLACE.

## CLAMP FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 479,216, dated July 19, 1892.

Application filed July 13, 1891. Serial No. 399,340. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN INGMANSON and RUDOLPH LORANG, citizens of the United States; residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Clamps for Electrical Conductors, of which the following is a specification, reference being had to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a side elevation of the improved clamp and a fragment of the conductor in place therein, a portion of the near jaw being broken away. Fig. 2 is an elevation of the inner face of one, and Fig. 3 is an elevation of the outer face of the other, of the two similar jaws of which the clamp consists. Fig. 4 is a plan view of the improved clamp and a fragment of the conductor in place therein. Fig. 5 is a plan view of the conductor and of the two jaws in place thereon, but before they are locked together. Fig. 6 is an end elevation of the improved clamp and a section of the conductor in place therein. Figs. 7 and 8 are end elevations of the two jaws, respectively.

The object of the present invention is to provide a simple, cheap, and effective clamp for holding and supporting electrical conductors, and particularly for the bare conductors used on electrical railways; and to this end it consists in certain features of novelty that are particularly pointed out in the claims hereinafter.

Referring to the drawings, A represents the conductor, and B and B' the two jaws of which the improved clamp consists. As these jaws are similar in all respects, a description of but one will suffice, similar parts of both being indicated by similar reference-letters, with the prime-mark (') added to the parts used on one of the jaws. The inner face of the jaw is flat, save for a rounded groove C, which extends along one of its edges, and above this groove at one end, preferably, a tongue D projects toward the opposite end of the jaw, the side of the tongue adjacent the inner face of the jaw being so inclined as to leave a V-shaped space between them. The end of the jaw remote from this tongue has

its outer face beveled off (above the groove C) to a plane parallel with the inner face of the tongue D, as shown at E, forming a shoulder F.

G is one-half of a cylindrical stem, which projects from the jaw at about its middle and has screw-threads on its curved side, its flat side being flush with the inner face of the jaw.

To clamp the conductor, the two jaws are placed with their inner faces together and the conductor in the grooves C C', as shown by Fig. 5. The jaws are then slipped endwise on each other, as indicated by the arrows, until the tongues D and D' engage the beveled ends E and E', respectively, the inclined faces of the tongues acting as cams for forcing the jaws tightly together. This clamps the conductor and at the same time locks the jaws together so far as lateral movement is concerned, bringing the flat sides of the two parts of the stem together. An internally-screw-threaded nut or sleeve H is then turned onto the stem and securely binds its two parts together, locking the jaws against relative longitudinal movement, or, in fact, relative movement in any direction. This sleeve also serves as a means for coupling the clamp to its support.

We desire to have it understood that our invention is not limited to the particular means herein described, and shown in the drawings, for locking the jaws against relative longitudinal movement; nor is it limited to the particular arrangement of the tongues D and D' for locking them against relative lateral movement. Both of said tongues may, if desired, be formed on one of the jaws, the other jaw being of complementary shape.

We do not claim to be the first inventors of a clamp consisting of a pair of jaws, a tongue projecting laterally from one or each of said jaws and engaging the other for holding them against relative lateral displacement, and means for holding them against relative longitudinal displacement; nor do we claim to be the first inventors of such a pair of jaws each having one part of a two-part stem formed on it and a nut for holding the two parts of the stem together.

Having thus described our invention, the

following is what we claim as new therein and desire to secure by Letters Patent:

1. In a clamp for electrical conductors, the combination of a pair of jaws, a tongue projecting laterally from one of said jaws and having a cam-face for engaging the other, and means for locking the jaws against relative longitudinal movement, substantially as set forth.
2. In a clamp for electrical conductors, the combination of a pair of jaws, a tongue projecting laterally from each, said tongues being presented in opposite directions, and means for locking the jaws against relative longitudinal movement, substantially as set forth.
3. In a clamp for conductors, the combination of a pair of jaws, a tongue projecting laterally from each, said tongues being presented in opposite directions and having cam-faces, and means for locking the jaws against relative longitudinal movement, substantially as set forth.
4. In a clamp for electrical conductors, the combination of a pair of jaws, a tongue projecting laterally from one and engaging the

other, a shoulder engaging said tongue, and means for locking the jaws against relative longitudinal movement, substantially as set forth.

5. In a clamp for electrical conductors, the combination, with the jaw B, having at one end the cam-faced tongue D and having its other end beveled, as at E, of the jaw B', similar and complementary to the jaw B, and means for locking the jaws against relative longitudinal movement, substantially as set forth.

6. In a clamp for electrical conductors, the combination, with the jaw B, having at one end the cam-faced tongue D and having its other end beveled off at E, forming shoulder F, of the jaw B', similar and complementary to the jaw B, and means for holding the jaws against relative longitudinal movement, substantially as set forth.

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