No. 609,888. Patented Aug. 30, 1898.

S. S. LEONARD.

CLAMP FOR ELECTRIC WIRES.

(Application filed Jan. 24, 1898.)

(No Model.)

Fig. 1.

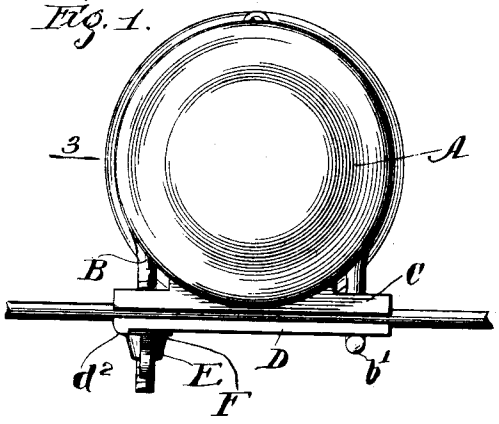


Fig. 2.

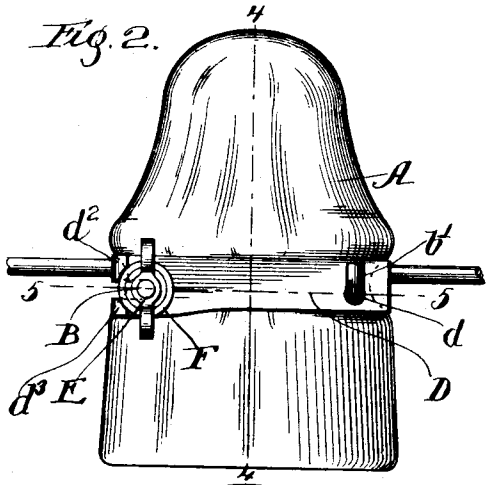


Fig. 3.

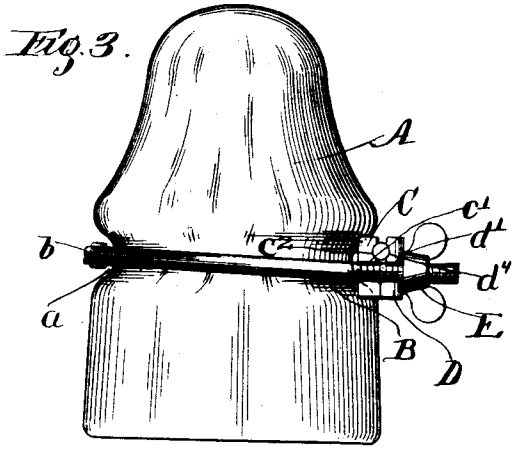


Fig. 4.

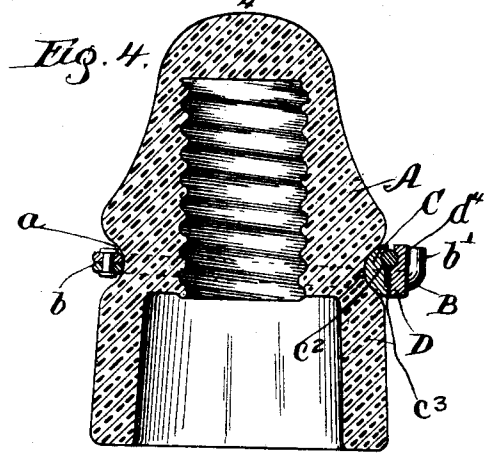
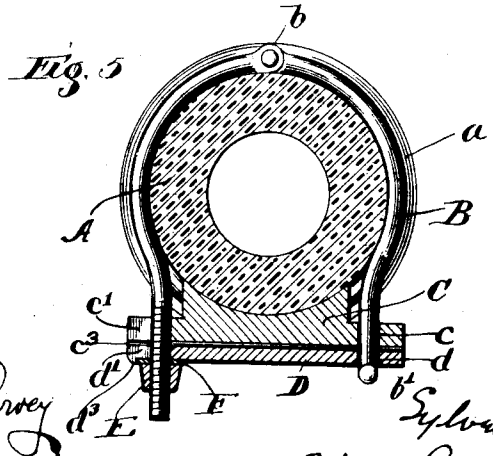


Fig. 5



Witnesses:
Chas. O. Hervey
A. D. Nelson

Inventor:
Sylvester S. Leonard,
by Wells Greene & Bitner,
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SYLVESTER S. LEONARD, OF CHICAGO, ILLINOIS.

CLAMP FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 609,888, dated August 30, 1898.

Application filed January 24, 1898. Serial No. 667,684. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER S. LEONARD, a subject of the Queen of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Clamps for Electric Wires, of which the following is a specification.

My invention relates to a certain improved clamp for securing electric wires or cables to the glass insulators by means of which such wires are supported upon poles or other structures.

The object of the invention is to produce a clamp adapted to take the place of the ordinary tie-wires by means of which it is now customary to secure electric wires to the glass insulators; and to such end the invention consists in certain features of novelty embodied in a clamp designed for this purpose and adapted to make such clamp easy to handle and apply in all positions, as is necessary in a device of this kind, and to give it a firm and substantial grip upon the wire or cable to prevent longitudinal motion of the latter.

The drawings illustrate said invention by means of five figures, of which—

Figure 1 is a plan view of the device in its preferred form. Fig. 2 is a front elevation. Fig. 3 is a side elevation looking in the direction of the arrow 3 in Fig. 1. Fig. 4 is a central vertical section in line 4 4 of Fig. 2, and Fig. 5 is a horizontal section through the line 5 5 of Fig. 2.

In the drawings, A is an ordinary glass insulator having the ordinary circumferential groove *a* for the attachment of the ordinary tie-wire. In the device here shown a wire loop B, approximately **U**-shaped, rests in said groove and has upon its central portion a hinge-joint *b*, which it is desirable to use in heavy wires to avoid the necessity of bending or springing such wires in the direction of the clamp. The ends of the loop extend through two clamping-blocks C D, one end of the wire passing through holes *c d* and being clenched or bent upon the outside of the latter, as seen at *b'*, to prevent the blocks from being pulled away from or falling off of the wire loop. The holes *c d* are large enough, however, to permit the blocks to slip readily back and forth upon the wire. The block C is shaped upon its rear surface to fit the convex glass insulator, so that longitudinal movement of the block thereupon is impossible. The opposite ends of the blocks contain slots *c' d'*, adapted to receive the other end of the wire, which is shown as screw-threaded and as having a thumb-nut E applied thereto and a washer F interposed between said nut and the block D. This end of the block D is shown as provided with lugs d^2 d^3, which prevent the nut and washer from accidentally slipping outward from the block D. Both of the blocks are provided with grooves c^2 d^4, adapted to receive the wire or cable and to bear upon a sufficient surface thereof to give the necessary hold without undue jamming or crushing of the same. Opposite from the grooves one of said blocks is provided with a rib or flange c^3, adapted to serve as a fulcrum to throw the bearing-point between the two blocks as far from the wire or cable as possible to increase the purchase upon the latter.

In the operation of this device the wire loop is placed about the glass insulator, the free end brought into the slots or notches in the blocks, and the wing-nut screwed up sufficiently to prevent the accidental dropping of the clamp from the insulator. The line-wire is then adjusted in position in the grooves in the blocks and the clamp turned up tightly thereupon until the necessary hold is obtained. The line-wire may be adjusted longitudinally immediately before the clamp is so tightened upon it, and after the latter is so tightened cannot move therein.

Great variation in the form of this device and also in the construction and arrangement of the various parts thereof is possible, and I therefore desire not to limit myself to the specific details here shown in any of these parts.

I claim as new and desire to secure by Letters Patent—

1. A clamp of the class described consisting of a flexible loop adapted to embrace the glass insulator and a pair of clamping-blocks loosely secured to the loop at one end and each provided at the other end with a notch adapted to receive the free end of the wire, said free end being provided with means for clamp-

ing it upon said blocks; substantially as described.

2. A clamp of the class described consisting of a pair of clamping-blocks formed upon their adjacent surfaces to receive and hold a wire or cable, the block next to the glass insulator having its rear surface fitted thereto sufficiently to prevent longitudinal movement thereupon and both of said blocks being notched at one end from their edges inward, a flexible loop loosely secured at one end to the other end of said blocks and adapted at its free end to enter said notches and a clamping-nut threaded to the free end of the loop and adapted to be screwed down upon the blocks; substantially as described.

3. In a clamp of the class described, the flexible wire loop, B, the blocks, C, D, having the notches, c', d', and one of the lugs, d^2, d^3, the inner surfaces of said blocks being adapted to clamp a wire or cable, one end of the loop being loosely secured to the blocks and the other end being adapted to enter the notches and being provided with a clamping-nut; substantially as described.

4. A clamp of the class described having two wire-clamping blocks perforated at one end and notched at the other, the inner of said blocks being longitudinally concave and laterally convex and the outer having an outwardly-extending projection at extremity of the notch and a loop extending through the perforations and clenched upon the blocks at one end and being adapted at the other end to enter the notches and there provided with a nut adapted to seat upon the outer surface of the outer block behind said projection; substantially as described.

5. The combination with the blocks, C, D, having the perforations, c, d, the notches, c', d', the grooves, c^2, d^4, and the rib, c^3, of the loop, B, extending through the perforations and clenched at b', and having at the other end the nut, E; substantially as described.

6. A clamp for attaching electric wires and the like to the ordinary insulator consisting of an inner block longitudinally concave and laterally convex on one side, to fit the customary circumferential groove in the insulator, and adapted upon its opposite side to engage with the wire, an outer block having its inner surface also adapted to engage said wire, a rib or elevation upon one of said blocks at a distance from the line of engagement with the wire and adapted to bear upon the other block and a clamping-loop adapted to embrace the insulator and engage at its opposite ends the opposite ends of the blocks between the wire and the rib; substantially as described.

In witness whereof I have hereunto set my hand, at Chicago, in the county of Cook and State of Illinois, this 20th day of January, A. D. 1898.

SYLVESTER S. LEONARD.

Witnesses:
CHAS. O. SHERVEY,
A. I. H. NELSON.