(No Model.)

J. C. LOVE.

TROLLEY WIRE CLAMP.

No. 532,168. Patented Jan. 8, 1895.

Fig. 1.

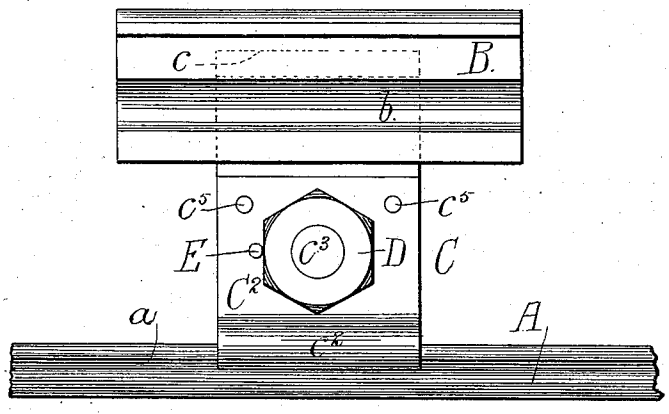


Fig. 2.

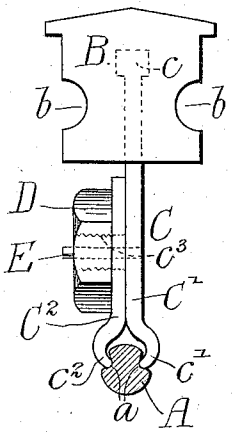


Fig. 3.

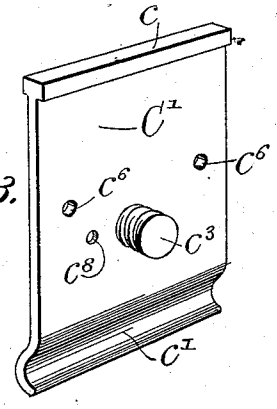


Fig. 4.

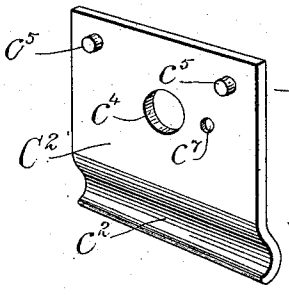
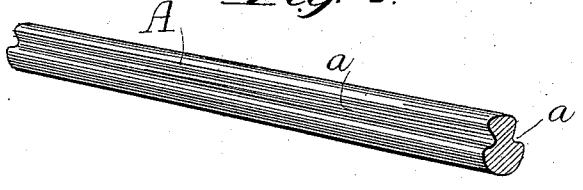


Fig. 5.



Witnesses.
Fredk. H. Wiles.
Louis W. F. Whitehead.

Inventor.
John C. Love
By Dayton, Poole & Brown
Attys.

UNITED STATES PATENT OFFICE.

JOHN C. LOVE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE LOVE ELECTRIC TRACTION COMPANY, OF CHICAGO, ILLINOIS.

TROLLEY-WIRE CLAMP.

SPECIFICATION forming part of Letters Patent No. 532,168, dated January 8, 1895.

Application filed July 11, 1892. Renewed October 13, 1894. Serial No. 525,817. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. LOVE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Trolley-Wire Clamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved supporting device for the trolley wires of electric railways, being adapted both for supporting wires of conductors placed in an underground conduit or suspended in the air.

The invention consists in the matters hereinafter described and pointed out in the appended claim.

As shown in the accompanying drawings: Figure 1 is a view in side elevation of a trolley wire and support therefor embodying my invention. Fig. 2 is an end elevation of the supporting device, the wire being shown in transverse section. Figs. 3 and 4 are perspective views of the two parts of the support separated from each other. Fig. 5 is a perspective view of a piece of the wire employed in connection with the support illustrated.

As shown in the said drawings, A is the conductor or wire against which runs the trolley or moving contact device on a car or vehicle.

B is a block or mass of insulating material which is sustained or supported in any suitable way and which may be of any desired form, and C is a clamp consisting of two parts C′ and C^2 and which is secured at its upper end in the insulating block B and engages at its lower end with the wire A.

The clamp C may be secured in the block B in any suitable manner; as herein shown one of the plates, C′ thereof, being extended upwardly above the other part C^2 and provided with an enlargement or head *c* which is embedded in the mass of insulating material forming the block B.

The wire A instead of being of circular form, as such wires have heretofore been commonly made, is provided with opposite lateral longitudinal depressions or grooves *a a* adapted for engagement with inwardly bent lips, ribs or flanges c' c^2 on the lower margins of the plates C′ C^2 forming the clamp or holder C. The wire will be grooved throughout its length, being thus constructed for convenience in manufacture inasmuch as it may be readily drawn or rolled in this shape. The grooves are shown as of concave or curved form and the surfaces of the wire adjacent thereto as made convex or rounded, but the particular form of the grooves in adjacent parts is obviously immaterial and said grooves may be of rectangular or other form.

c^3 is a stud secured to the inner surface of one of the plates, C′ in the drawings, and passing through a hole c^4 in the other plate C^2, said stud being screw-threaded and adapted to receive a nut D which when placed on the said stud and tightened against the plate C^2 serves to clamp said plates firmly together and hold them positively in engagement with the wire A. As a means of maintaining the plates accurately in position with relation to each other during the time they are being connected by the nut D and thereafter, studs c^5 c^5 are inserted in one of the plates and are adapted to fit holes or sockets c^6 c^6 in the other plate. Said studs c^5 c^5 serve to hold the marginal parts or flanges of the plates accurately in position for engagement with the grooves of the wire when the plates are placed together at the time of assembling the parts and also afford additional means of holding the plates from movement when in use.

In order to prevent the nut D from turning backwardly or becoming loosened from jarring of the parts or otherwise, a pin E may be inserted through holes c^7 c^8 in the plates C′ C^2, which holes are so located as to bring the pin E against one of the flat sides of the nut and thus prevent the same from turning backwardly.

The insulating block B is shown as provided with grooves *b b* in its opposite sides for engagement with horizontal rods or ribs within a conduit, but said block may be made of other form when desired, according to the particular device used for supporting it, the particular means used for sustaining the insulating block forming no part of the present invention.

The employment of a wire-supporting de-

vice of the character described in connection with a grooved wire has several advantages, a particular one being that the wire constructed and supported as described is perfectly smooth or without projection on its surface against which the trolley or contact device bears, thereby preventing vibration or jumping of the trolley such as is caused by the presence of a sleeve or clamp surrounding the wire such as has heretofore been commonly used. The clamping plates described may be quickly and easily applied and clamped to the wire, possess ample strength to resist any strains to which they may be subjected, and are cheaply and easily manufactured. Furthermore, said clamping plates may be easily loosened when it is desired to stretch or draw taut the wire without removal of any of the parts except the pin E which holds the nut D from turning, in cases where such pin is used.

I claim as my invention—

The combination with a grooved wire, and an insulating block, of a clamping device consisting of two flat plates provided with lips or flanges at their lower edges to engage the grooves in the wire, and one of which is embedded at its upper edge in the said insulating block, and means for securing together the said plates, consisting of a single centrally arranged, integral, screw threaded stud on one plate, passing through a hole in the other plate, a nut applied to said screw threaded stud, and one or more smooth studs in one of the plates fitting holes or sockets in the other plate, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JOHN C. LOVE.

Witnesses:

TAYLOR E. BROWN,

GEORGE W. HIGGINS, Jr.