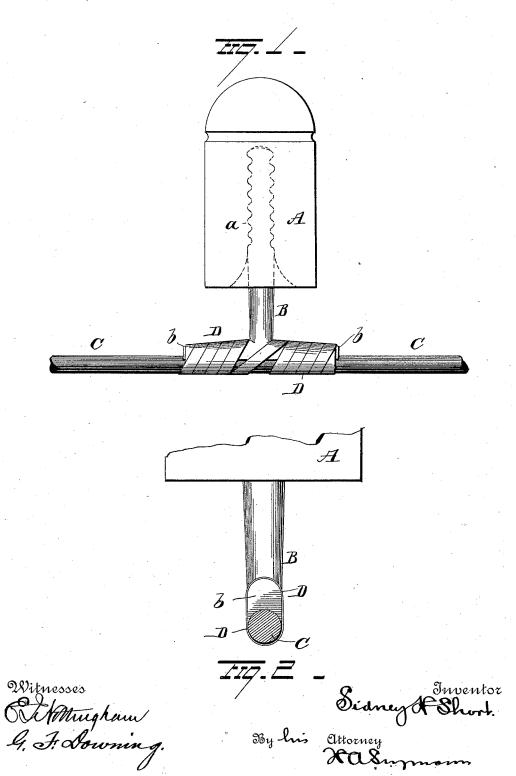
## S. H. SHORT.

DEVICE FOR SUSPENDING ELECTRIC CONDUCTORS.

No. 417,747.

Patented Dec. 24, 1889.



## UNITED STATES PATENT OFFICE.

SIDNEY H. SHORT, OF CLEVELAND, OHIO.

## DEVICE FOR SUSPENDING ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 417,747, dated December 24, 1889.

Application filed July 30, 1889. Serial No. 319,168. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY H. SHORT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and 5 useful Improvements in Devices for Suspending Electric Conductors for Electric Railways; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in devices for suspending electric conductors for electric railways, the object being to provide a simple and effective device for suspending electric conductors, and which will not interfere with or obstruct the operation of the trolley in passing over the supporting device.

with these ends in view the invention consists in the combination, with the hanger and conductor, of a metallic ribbon or wire wound around the conductor and hanger and securing the parts together.

The invention further consists in the combination, with a conductor and hanger constructed with laterally-projecting arms, of a thin metallic ribbon or wire wound around the conductor and hanger-arms for securing the parts together.

In the accompanying drawings, Figure 1 is a view in side elevation of one embodiment of my invention, and Fig. 2 is a transverse section of the same.

5 A represents an insulator, which may be of any approved construction and secured to the supporting-wire in any desired manner.

B is a hanger, the shank a of which is secured within the insulator, its lower end being constructed with two laterally-projecting arms bb, which may be of any suitable length and shape.

C is a conductor which is fastened to the arms b b of the hanger by means of a thin 5 metal ribbon D, wound spirally around the conductor and the arms b b. In view of the fact that the ribbon D may be very thin, it

will project but slightly below the surface of the conductor, so that it will not cause the trolley to jump or spark in passing over it; 50 but in view of the length of the laterally-projecting arms b b the fastening may be extended to such length over the conductor that it will be of such strength as to securely retain the conductor in place. The 55 ends of ribbon D may be soldered, riveted, or fastened to the hanger-arms in any other desired manner. Instead of using a metal ribbon D, I may use fine wire as a means of fastening the conductor to the hanger. 60 Again, the laterally - projecting arms of the hanger may be round or square in cross-section; or the arms may be made concave on the under side, so as to receive the conductor.

It is evident that many slight changes in 65 the construction and form of the parts might be resorted to without departing from the invention, and hence I would have it understood that I do not restrict myself to the particular construction shown and described; but, 70

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an insulator, a rigid hanger secured thereto, the latter having an enlarged bearing-surface on its under side, and a conductor, of a flexible metal fastening for securing the conductor in contact with said bearing-surface, substantially as set forth.

2. The combination, with a conductor and a hanger constructed with laterally-projecting arms, of a thin metallic fastener wound around the hanger-arms and conductor for fastening the parts together, substantially as 85 set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SIDNEY H. SHORT.

Witnesses:

John E. Erickson, John C. Dolph.