(No Model.)

A. L. IDE.

INSULATING COVER FOR TROLLEY OR CONDUCTING WIRES FOR ELECTRIC RAILWAYS.

No. 453,326. Patented June 2, 1891.

Fig. 1.

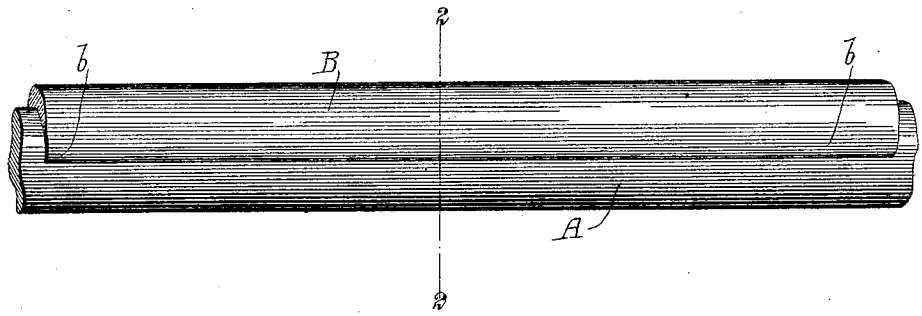


Fig. 2.

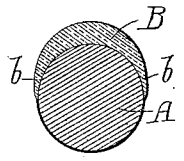
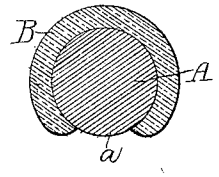


Fig. 3.



Witnesses:-
Louis H. Whitehead.
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Inventor:-
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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INSULATING-COVER FOR TROLLEY OR CONDUCTING WIRES FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 453,326, dated June 2, 1891.

Application filed December 31, 1890. Serial No. 376,392. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. IDE, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Insulating-Covers for Trolley or Conducting Wires for Electric Railways; 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 insulating devices for trolley or current-conducting wires in use in electric railways, whereby the accidents now frequently occurring may be avoided and more perfect insulation insured. The trolley-wire is suspended in the air over the street and is liable to be crossed by other wires falling upon it, and when one wire crosses another wire damage occurs, the circuit is broken, and the wires burned. In several instances the falling wire has caused accident and permanent injury to horses and pedestrians. Where a telephone-wire falls upon the trolley-wire the damage created has extended to the telephones in the immediate vicinity, causing more or less damage. These and other accidents have suggested the necessity of means for remedying the same, and to that end the present invention has been devised.

It consists in securing to a current-conducting wire an insulating non-conducting material covering the upper portion of the wire, thus protecting said upper portion of the wire from contact with any wires which may fall across it, while exposing the lower portion of the wire for contact with the trolley or slide.

Figure 1 represents a side view of a portion of a conducting-wire embodying my invention. Fig. 2 is a cross-sectional view of the same, taken on line 2 2 of Fig. 1. Fig. 3 is a cross-section of a wire provided with a modified form of my insulating-cover.

In said drawings, A is the trolley-wire, which is of the usual size and is suspended in the air in the usual manner, so that it will not revolve or rotate.

B is a coating or shield of any suitable insulating non-conducting material, preferably of rubber, semicircular in form, and applied by any suitable adhesive material, such as cement, to the upper portion of the trolley-wire. Said shield B is preferably tapered at its edges, at *b*, in order that the curved flange of the trolley or slide, as usually constructed, may the more readily remain in contact with the wire A when the trolley is rounding a curve. The thin portions *b* are sufficiently thick, however, to cause an electric wire that should happen to fall upon the coating or covering B and hang downwardly to stand out from the wire A, and by this means prevent contact between the two wires.

I do not intend to limit myself to rubber as the insulating non-conducting coating, as any other non-conducting material may be used, nor do I intend to limit myself to the particular shape of the coating B, although, as stated, I prefer that it should be thickest at its central portion and gradually taper toward the edges *b*.

In Fig. 3 I have illustrated, for example, a different construction of the coating or shield B. In this form said coating extends almost entirely around the wire, leaving a portion of the wire (indicated at *a*) exposed for contact with the trolley or slide.

I claim as my invention—

A trolley or conducting wire partially enveloped in a non-conducting insulating-covering suitably applied thereto, said covering being thickest in cross-section at its central portion, substantially as and for the purpose specified.

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

ALBERT L. IDE.

Witnesses:

TAYLOR E. BROWN,

JOHN E. WILES.