No. 809,743. PATENTED JAN. 9, 1906.

E. E. P. PETERY.

CROSS ARM FOR CARRYING HIGH TENSION WIRES.

APPLICATION FILED AUG. 19, 1904.

Fig. 1.

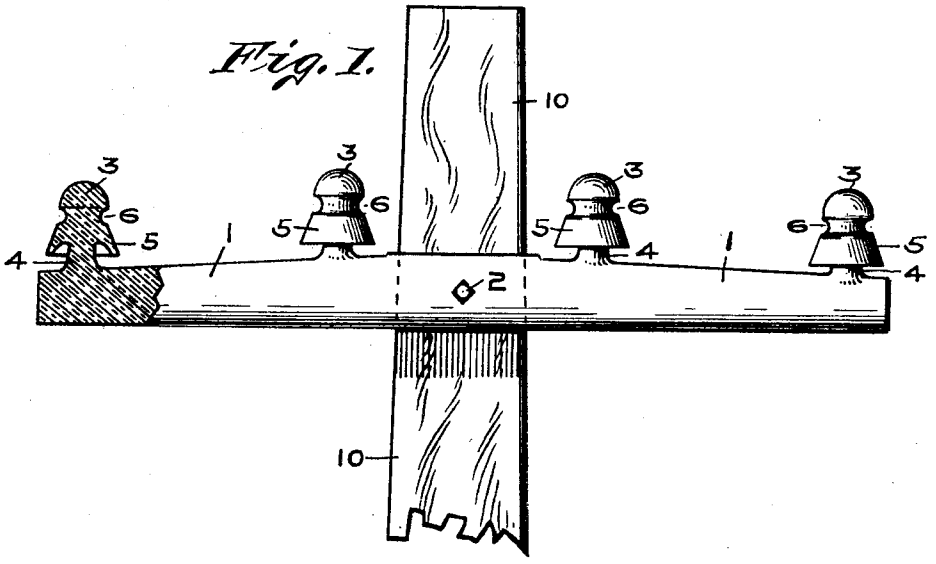


Fig. 2.

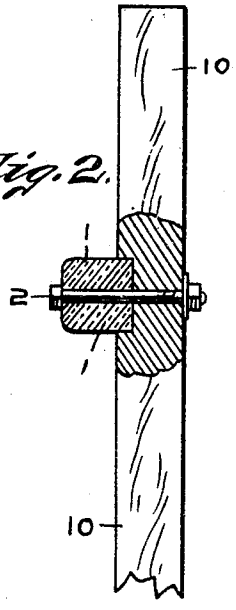
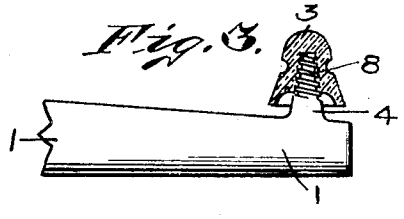


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

EVAN E. P. PETERY, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO SAMUEL BOWSHER, OF INDIANAPOLIS, INDIANA.

CROSS-ARM FOR CARRYING HIGH-TENSION WIRES.

No. 809,743. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed August 19, 1904. Serial No. 221,340.

To all whom it may concern:

Be it known that I, EVAN E. P. PETERY, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Cross-Arms for Carrying High-Tension Wires, of which the following is a specification.

This invention relates to cross-arms for carrying insulators for high-tension electric wires; and the object of the invention consists in the production of arms which are composed wholly of non-conducting material.

The cross-arms in general use for carrying high-tension electric wires are composed of wood and are provided with glass or other non-conducting insulators; but it has been found during rainy weather that the water shedding from the insulators saturates the supporting-stems, on which the insulators are mounted, and the wood arms, which permits the electric fluid to escape over the wet surfaces. It is a well-established fact that a great loss of the current is sustained in the utilization of the wood cross-arms. To overcome this objection is the chief object of this invention by substituting arms composed wholly of non-conducting material, and the arrangement and construction of such non-conducting arms will be more particularly described in the annexed specification and the novel features thereof then pointed out in the claim.

Referring to the accompanying drawings, which are made a part hereof, and on which similar numerals of reference indicate similar parts, Figure 1 is a side view of my non-conducting cross, in which a part is shown in elevation and a part in section. Fig. 2 is a cross-section of the arm and shows the tie-bolt passing transversely through the arm for securing the latter to the post. Fig. 3 is a fragmentary detail of one end of the arm and shows an insulator in section, which is formed separately of the arm.

In the drawings, 1 is the body of the cross-arm, which is preferably composed of glass or other non-conducting material and is secured to the post 10 by means of the bolt 2. It will be understood, however, that I do not wish to limit myself to any particular kind of a fastener, as any style of fastener that will hold the arm rigidly against the post may be employed. The arm is preferably cast of one piece of material and is provided with insulators 3, which are preferably formed integral with the arm 1. The contour of the insulators 3 are similar to the ordinary insulators now in use and are provided with stems 4, that support and hold said insulators above the arm. The insulators 3 are also provided with the petticoats 5 common to all insulators, which direct the water away from and protect the stems where they merge into the insulator-bodies. The insulators 3 are provided with the circumferentially-disposed grooves 6, which form seats for the wires.

Fig. 3 of the drawings shows a modified construction of the non-conducting arm, and while the stems 4 are formed integrally with the arm the insulator, which is shown in section, is formed separately. In this construction the stems are provided with the screw-threads 8, which engage with corresponding threads in the interior of the insulators. By means of this construction the insulators 3 may be constructed of a non-conducting material, which is different from that which composes the arm 1, or vice versa, and, further, it permits the use of various sizes of insulators on the arm.

Having thus fully described my said invention, what I desire to secure by Letters Patent is—

The combination with a support, of a cross-arm made entirely of glass, said arm having holes for bolting the same to the pole, and said arm having integral vertical pins terminating with integral insulator-knobs, said knobs having circumferential grooves, and downwardly and outwardly flaring flanges integral with the knobs between the grooves and the arm.

In witness whereof I have hereunto set my hand, at Indianapolis, Marion county, Indiana, this 13th day of August, A. D. 1904.

EVAN E. P. PETERY.

Witnesses:

F. W. WOERNER,

JOSEPH A. MINTURN.