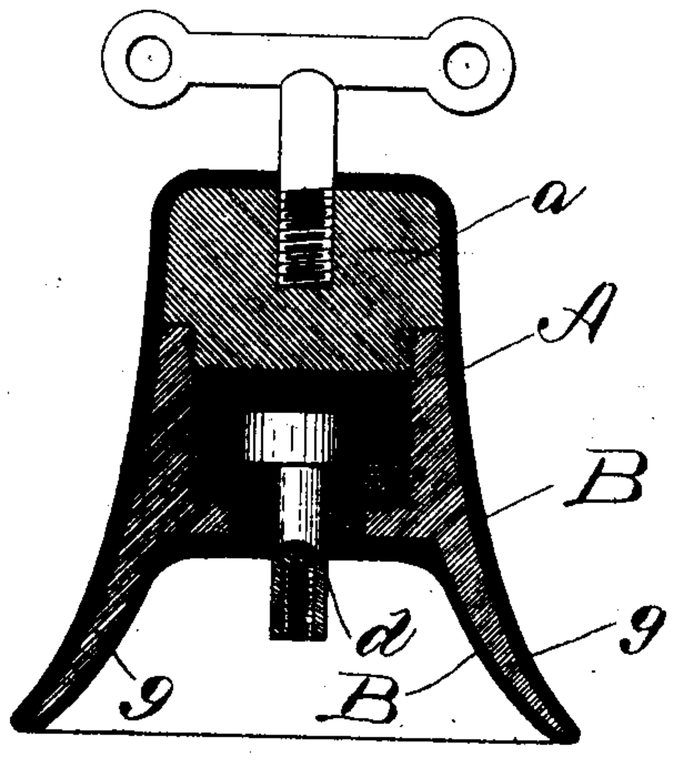
(No Model.)

L. McCARTHY.

TROLLEY WIRE INSULATOR.

No. 502,826. Patented Aug. 8, 1893.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LOUIS McCARTHY, OF BOSTON, MASSACHUSETTS.

TROLLEY-WIRE INSULATOR.

SPECIFICATION forming part of Letters Patent No. 502,826, dated August 8, 1893.

Application filed March 27, 1893. Serial No. 467,724. (No model.)

To all whom it may concern:

Be it known that I, LOUIS MCCARTHY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Insulators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a more efficient and durable insulator for use in suspending overhead electrical conductors.

My present invention is an improvement on the hanger or trolley wire insulator shown in Letters Patent No. 449,943, dated April 7, 1891, granted to me and the improvement consists in so covering the exterior of the metallic bell-shaped case of the insulator as to thoroughly protect it from the effects of moisture or exposure to the air and at the same time increase and improve the insulative quality.

My invention will be readily understood from the following description in which reference is made to the accompanying drawing.

In said drawing the figure shows a bell-shaped insulator designed for use in supporting trolley wires or overhead conductors, the view being in section to more clearly show the construction.

A is a bell shaped case of metal provided with a cap *a* adapted to be screwed into the case as shown. To the cap arms or projections may be attached, or secured, by means of which the insulator is held in place in the well known manner. The bell shaped case is hollow and is provided at *b* with a flange or rib projecting inwardly as shown. The bolt *d* having a head of any desired shape is provided with a number of layers or sheets of mica, each of which is perforated to receive the bolt, and which is strung thereon, a sufficient number of sheets being used to fully insulate the head of the bolt from the bell. After the bolt is in place in the bell, a series of sheets of mica perforated or cut away centrally to receive the head of the bolt are then placed around the bolt head and the space above the bolt head is then filled with a series of sheets of mica and the cap put in position. In this manner all that portion of the bolt *d* which lies within the bell or within the opening between the edges of the flange *b* is surrounded and completely insulated by mica. The exterior of the bell is covered with a layer of insulating composition B which is applied in a plastic condition, molded over the surface and then allowed to harden. Any plastic insulating composition may be employed, but one of high insulative quality is desirable. I prefer to apply this insulating composition over the entire surface of the bell, both above and below the skirt as also over the edges of the skirt, but many of the advantages of my construction may be obtained by partially covering the exterior of the bell. As for example, the outer molded covering may be applied around the bolt *d* and extended only to the adjoining portions of the skirt, thus sealing and protecting the joint. Such an outer covering is efficient in protecting the metal from the effects of moisture, and it also increases the insulative quality of the insulator. It will be noted that the insulative covering layer is exterior to the insulator proper and is not integral with the interior insulating material.

I am aware that it is not broadly new to cover an insulator with an exterior molded covering, the same being shown in Letters Patent No. 468,773, dated February 9, 1892, granted to me, as also in Letters Patent No. 489,658, dated January 10, 1893, granted to me and I do not herein claim the same.

What I claim is—

An insulator for overhead conductors having a bell shaped case and projecting skirt, inclosing a metallic connection and insulated from said connection by mica and having an exterior layer or covering of insulating material molded thereon and conforming to the exterior shape thereof, to wholly or partially cover the exterior surface, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS MCCARTHY.

Witnesses:

WM. A. MACLEOD,

ROBERT WALLACE.