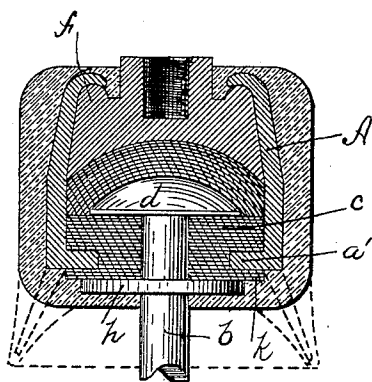


(No Model.)

L. McCARTHY.
INSULATOR.

No. 520,606.

Patented May 29, 1894.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LOUIS MCCARTHY, OF BOSTON, MASSACHUSETTS.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 520,606, dated May 29, 1894.

Application filed September 23, 1892. Renewed December 22, 1893. Serial No. 494,475. (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 drawing.

My present invention is an improvement on the insulator shown and described in an application for Letters Patent filed by me August 8, 1892, Serial No. 442,418. In the use, under certain conditions of an insulator such as is shown and described in my said application above referred to, it has been found that the part of the connecting-piece which extends outside the metallic case of the insulator was not sufficiently insulated therefrom. My present invention has for its object to provide an insulator which shall obviate this difficulty and it consists in an insulator having the exterior portions of the connecting piece provided with a shoulder or nut or annular projection and having a series of sheets of mica interposed between said shoulder or projection and the proximate exterior portions of the case, all as hereinafter set forth.

The novel features of my invention are pointed out in the claim which is appended hereto and made a part hereof.

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

In the drawing the figure is a vertical central section showing an insulator embodying my invention.

Having reference to the drawing A is a metallic case preferably of substantially cylindrical form, open at one end and having an aperture at the other end to accommodate the connecting piece *b*. That portion of the connecting piece which is contained within the case is insulated therefrom by a surrounding mass of mica or equivalent material *c*. The open end of the case A is closed by the insertion therein of a cap or follower *f*, the edges of the case being turned or bent over the top of the cap as shown after the latter is inserted in the case. The connecting piece *b* is preferably headed as shown at *d* and a number of sheets of mica which have been cut to fit the interior of the case and which are provided

with a central aperture to accommodate the stem of the connecting-piece are strung on the connecting-piece next the head thereof. The connecting-piece is then placed within the case and a series of sheets of mica is placed over the rounded head thereof. The cap *f* is concaved to correspond with the convex or rounded head *d* of the connecting-piece. The cap *f* is provided with a screw-threaded socket by means of which the insulator may be secured in place and the projecting stem of the connecting-piece may be screw-threaded or provided with an eye in the well-known manner for purposes of attachment. The portions of the insulator thus far described are fully set forth in my application above referred to.

My present invention consists in combining with such an insulator the following features: The space between the flanges *a'* surrounding the stem of the connecting-piece is filled by a series of sheets of mica which are cut to the proper size and which are strung on said stem or this space may be filled with comminuted mica, a sufficient quantity of comminuted mica being employed to completely fill the space when the mica is compacted and compressed. Outside the flanges *a'* of the case, I place a series of sheets of mica *k* which are strung on the stem of the connecting-piece *b*, and which are large enough to extend or lap over the flanges *a'* as shown. These sheets of mica are firmly compressed and held in position between a shoulder or annular projection *h* on the stem of the connecting piece and the flanges *a'*. The annular projection is preferably a washer or disk of metal which may either be screwed onto the stem or be held in place thereon in any other well known manner. It will also be clear that if the head *d* of the connecting piece be made to screw onto the stem, the retaining shoulder for the mica *k* may be formed integral with the stem. This construction materially lessens the danger of bridging between the stem of the connecting piece and the shell or case from the deposition of moisture and the like.

The dotted lines indicate a skirt and show the application of my invention to a trolley wire insulator.

What I claim is—

An insulator comprising a case, a connect-

ing-piece within said case and insulating material to insulate it therefrom, a cap for said case, secured in place therein by bending the edges of the case over said cap, said connecting-piece being provided on that portion thereof which is outside said case with a shoulder and having a series of sheets of mica interposed between said shoulder and the proximate portions of said case, whereby all por-

tions of the connecting piece are insulated from said case, substantially as set forth.

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

LOUIS MCCARTHY.

Witnesses:

WM. A. MACLEOD,
A. H. MORRISON.