(No Model.)

L. M. NEAL.

INSULATOR.

No. 378,971. Patented Mar. 6, 1888.

Fig. 1.

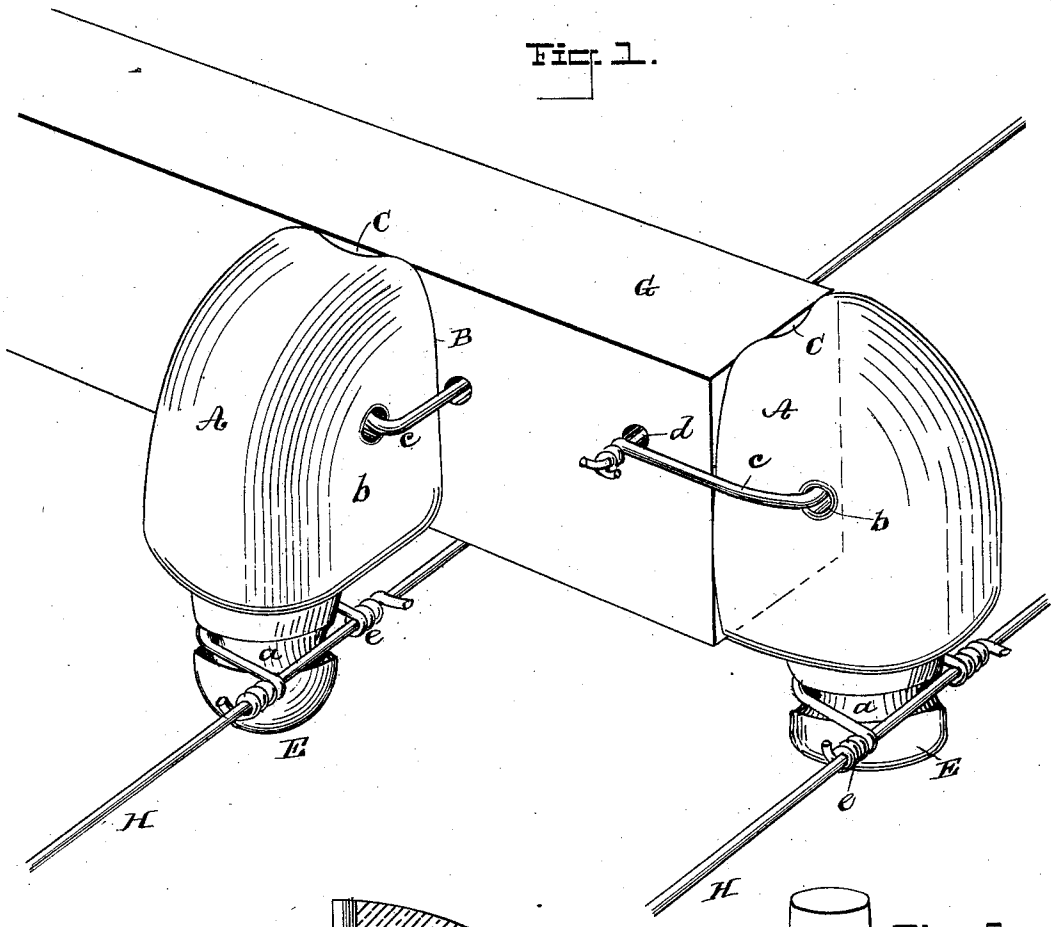


Fig. 2.

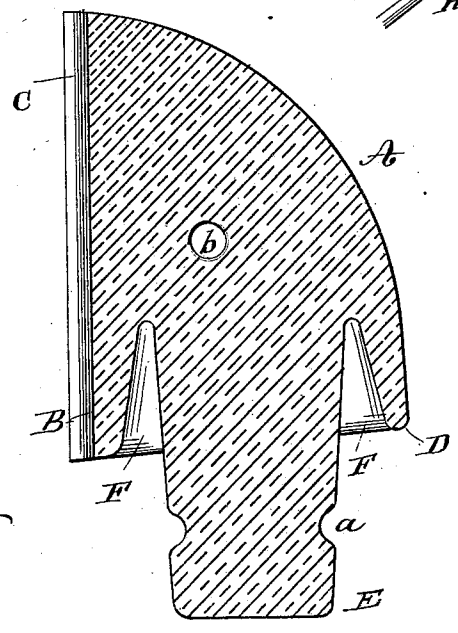
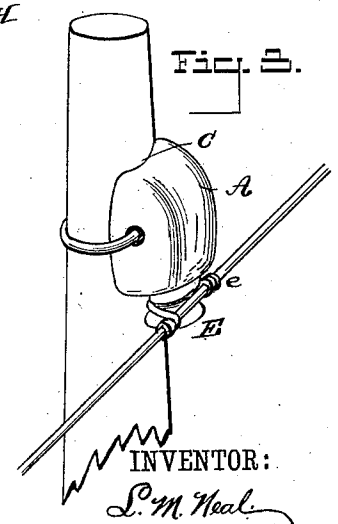


Fig. 3.



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UNITED STATES PATENT OFFICE.

LEWIS M. NEAL, OF NORTH MIDDLETOWN, KENTUCKY.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 378,971, dated March 6, 1888.

Application filed November 15, 1887. Serial No. 255,215. (No model.)

To all whom it may concern:

Be it known that I, LEWIS M. NEAL, of North Middletown, in the county of Bourbon and State of Kentucky, have invented a new and Improved Insulator, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a perspective view of my improved insulator, and Fig. 2 is a central longitudinal section. Fig. 3 is a perspective view showing the application of the insulator to a pole.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide an insulator for attachment to poles, cross-arms, and to other supports, and to furnish a simple and inexpensive fastener for the said insulator.

My invention consists in an insulator formed of a solid piece of glass or other insulating material, with a post for receiving the telegraph-wire, a channel around the post to increase the efficiency of the insulator, and with a transverse aperture for receiving the wire by which the insulator is fastened to its support.

The body A of the insulator has an inner straight surface, B, for contacting with its support, formed with a shallow concave longitudinal groove, C, for adapting it for use in connection with poles or trees. The outer surface of the insulator is made convex. The under annular edge, D, of the insulator is approximately at right angles with the surface B.

A post, E, projects from the body of the insulator, and is surrounded by a V-shaped annular channel, F. A half-round circumferential groove, *a*, is formed in the post E, in its lower end, for receiving the telegraph and tie wires. The under annular edge, D, of the insulator is inclined slightly downward toward the side B, which touches the support to cause the water to follow the under annular edge of the insulator and be discharged at the corner adjoining the support. A transverse aperture, *b*, is formed in the body of the insulator, to receive the wire *c*, by which it is secured to the support G, the wire passing through the aperture *b*, and through an aperture, *d*, in the support G, and afterward being tied or twisted together.

When the support G is a cross-arm or telegraph pole, the insulator may be attached to the end or side of the support, as shown. When it is attached to a pole or tree, the concave surface C is clamped against the convex surface of the pole or tree by means of the tie-wire *c*.

The telegraph-wire H is secured to the post E of the insulator by the wire *e*, which passes around the post E and is twisted around the telegraph-wire.

My improved insulator may be made of glass, porcelain, rubber, or any of the other well-known insulating materials; but I prefer to make it of glass on account of its efficiency, durability, and cheapness.

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

1. As an improved article of manufacture, an apertured block of insulating material having a grooved inner surface and a convex outer surface, and provided with a downwardly-projecting and circumferentially-grooved post, as set forth.

2. An insulator consisting of an apertured block of insulating material having a straight inner surface and a convex outer surface, and provided with a downwardly-projecting and grooved post, and with an annular groove around said post, substantially as described.

3. An insulator consisting of a block of insulating material having the straight inner surface, B, and provided with the downwardly-projecting and grooved post E, and with the annular groove F, forming the annular under edge, D, inclined toward the surface B, substantially as and for the purpose set forth.

LEWIS M. NEAL.

Witnesses:
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E. P. BEAN, Jr.,
GEO. B. SPINCER.