

(No Model.)

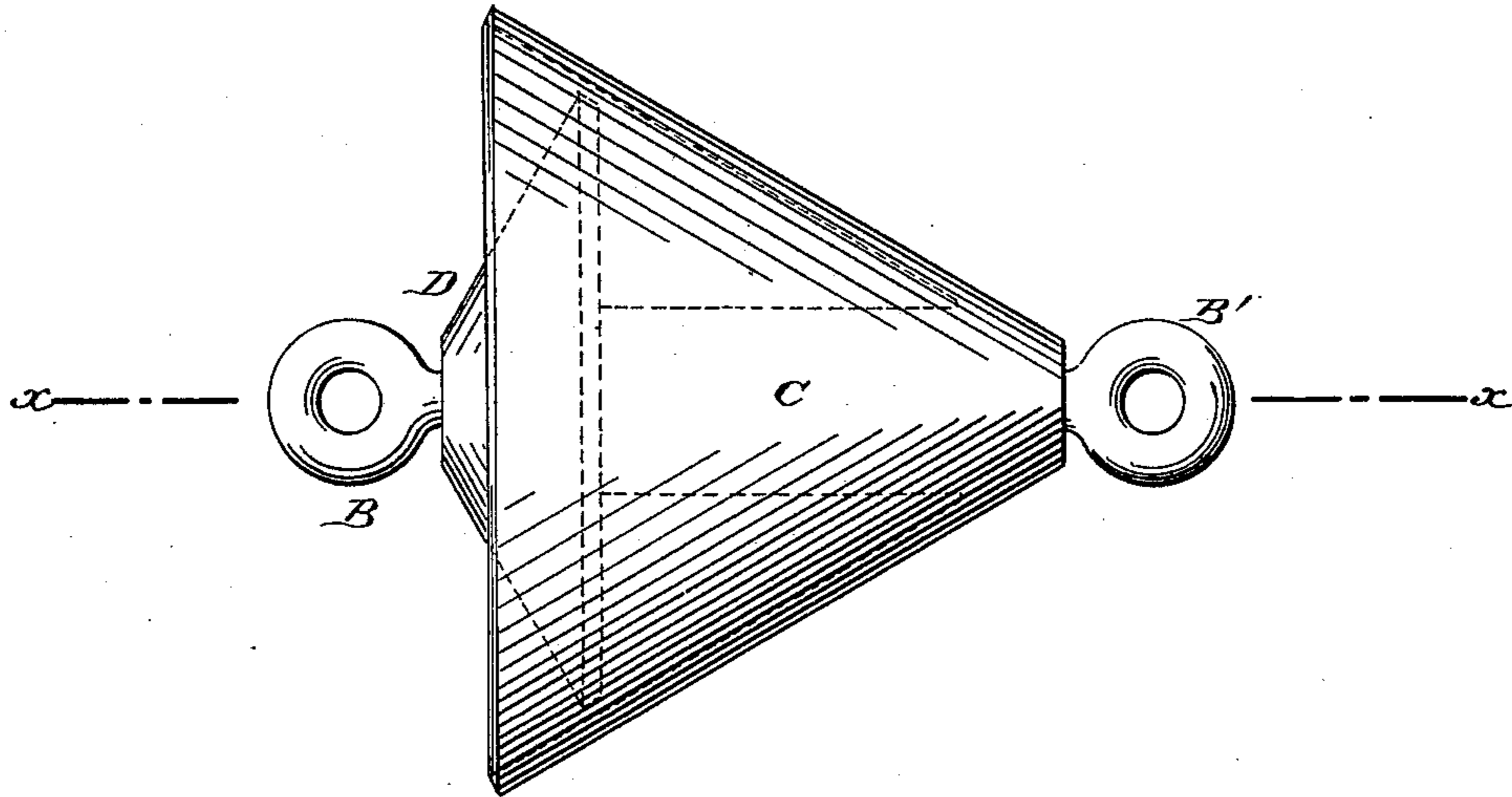
H. VAN SANDS.

LOOP INSULATOR.

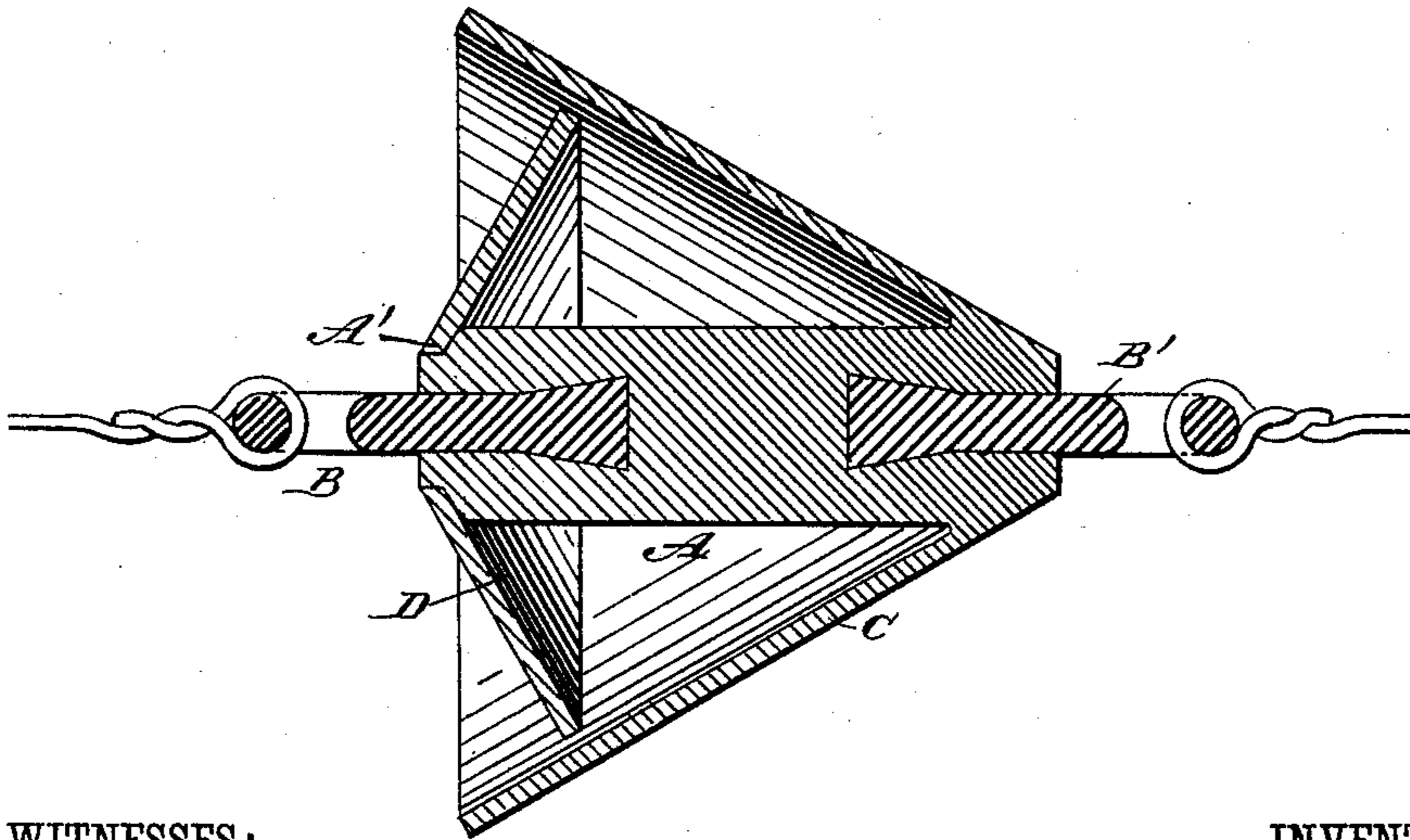
No. 362,682.

Patented May 10, 1887.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HORACE VAN SANDS, OF NEW YORK, N. Y.

## LOOP INSULATOR.

SPECIFICATION forming part of Letters Patent No. 362,682, dated May 10, 1887.

Application filed January 26, 1887. Serial No. 225,604. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE VAN SANDS, of the city, county, and State of New York, have invented a new and useful Loop Insulator, of which the following is a full, clear, and exact description.

My invention has for its object to provide loop insulators with opposite overlapping water-sheds in the usual shape of a flaring shield on one end and a flaring guard on the other extending within the shield, the selection of material being such that the adjacent edges of the shield and guard can be brought into close proximity with each other to prevent all entrance of moisture without danger of the electric current leaping from one to the other.

To this end the invention consists, essentially, in forming the coupling-piece of the insulator, together with the guard and overlapping shield, entirely of non-conducting material, as hereinafter more fully described, and then definitely claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of my loop insulator. Fig. 2 is a central sectional view of the same.

The inner cylindrical coupling-piece, A, is formed of glass, gutta-percha, or other suitable non-conducting material, and in its ends are secured, preferably in the process of casting, the dovetail shanks of the eyebolts B B', forming the fastening devices to which the ends of the wires to be connected and insulated from each other are attached, as shown in Fig. 2.

With one end of the coupling-piece A is formed integrally and of a non-conducting material the conical cup-shaped shield C, which extends to or slightly beyond the other end of the coupling-piece, and on this latter

end is fixed a reverse conical guard, D, also made of a non-conducting material. This guard is much more flaring than the shield C, and when in place projects within the shield nearly to the inner surface of the same.

I prefer to attach the guard D to the coupling-piece A by forming on the coupling-piece a shoulder, A', beveled to correspond with the taper of the guard D, and in the center of the guard an aperture of a size to permit the passage of the eyebolt B therethrough and fit upon the neck formed by the shoulder A' on the coupling-piece, the guard then being cemented or otherwise secured thereto. The guard and shield thus combined and arranged prevent rain, snow, &c., from beating in upon the coupling-piece A, and thereby forming an electric connection between the wires. A sufficient space is left between the inner surface of the shield C and the edge of the guard D to prevent water from running from one to the other by capillary attraction. This insulator is more particularly intended for electric-light wires, as the dry zone constantly maintained thereby on the coupling A will prevent all passage of electricity and danger of forming an arc.

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

In an electric loop insulator, the combination, with the non-conducting coupling-piece and its end-connecting devices, of a flaring shield extending from one end of the coupling-piece and a flaring guard extending from the other end thereof within and closely to the shield, the guard and shield being both formed of non-conducting material, substantially as set forth.

HORACE VAN SANDS.

Witnesses:

CLARENCE L. BURGER,  
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