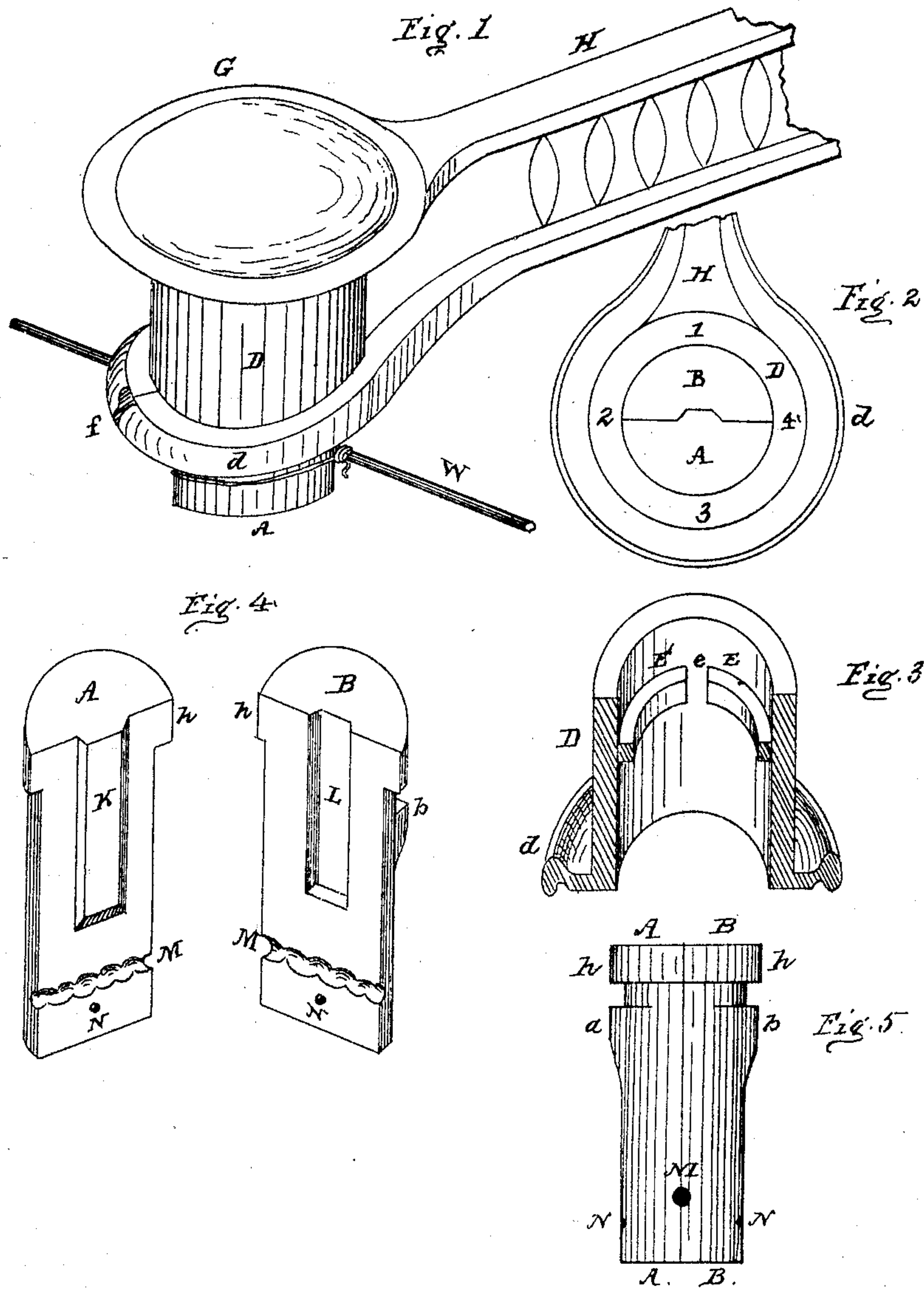


P. EBY.

Telegraph Insulators.

No. 146,996.

Patented Feb. 3, 1874.



Witnesses,
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UNITED STATES PATENT OFFICE.

PETER EBY, OF SALISBURY TOWNSHIP, (NEAR KINZER'S POST OFFICE,) LANCASTER COUNTY, PENNSYLVANIA.

IMPROVEMENT IN TELEGRAPH-INSULATORS.

Specification forming part of Letters Patent No. **146,996**, dated February 3, 1874; application filed August 5, 1873.

To all whom it may concern:

Be it known that I, PETER EBY, of the township of Salisbury, near Kinzer's Post Office, in the county of Lancaster and in the State of Pennsylvania, have invented certain Improvements on Insulators of Telegraph-Wires, of which the following is a specification:

The accompanying illustrations illustrate the construction and arrangement of the same, in which—

Figure 1 shows the holder with its cap and water-ledge on the cross-arm; Fig. 2, a top view of the holder and insulators, the cap removed; Fig. 3, a section of the same, to show the interior ledge and opening. Fig. 4 shows the inside face of both the insulators separated. Fig. 5 shows the insulators joined, as when inserted in the holder.

The object of my invention is a more perfect prevention of water coming in contact with the wire in the insulator, to preserve its conducting power, and prevent its destruction by rust.

The cylindrical holder D, with its inner flange E slotted at *e*, as also its base or water-table *d*, together with the arm H, may be of light casting.

The glass insulators A B are similar to those used in the patent of May 6, 1873, No. 138,489, but modified, and their position and manner of introducing the wire differ substantially.

Fig. 4 shows both sections, the upper flange *h* on each half of the insulator. Section A has a centrally-raised bevel-edged flange, K, on about two-thirds of the inner face or diameter. Section B is provided with a corresponding slot or groove, L, for the reception of the raised portion K. The semi-groove M in each half is shown scalloped, (and at right angles to the flange K,) so that the wire is only closely held by the intermediate points. There is a perforation, N, shown in each section, designed for a leaden wire or its equivalent to pass through both sections, for binding the telegraph-wire, to hold it in place. The semi-flanges *a* and *b*, on the respective pieces or sections A B, are designed for introducing, holding, and locking the same.

The manner of introducing the insulator is thus performed, having reference to the figures on the upper edge of the holder D, Fig. 2. First introduce section B, with its chord from 2 to 4, and arc to 1; then turn it half round, so that B comes opposite to 3. You can now introduce section A into the place previously occupied by section B, the short or narrow flange *a* passing through the open slot *e* in the inner flange E of the holder D, so as to receive the upper flange *h* of the sections A B, which rest upon the said inner flange E, which enters in turning, between the upper flange *h* and partial flanges *a* and *b*, on the outer portion of the several segments. By turning half round the sections are firmly locked, and cannot be removed without again changing the position of A to 1, when it will draw out. Afterward B, by also being turned to 1, will draw out.

When the insulators are inserted, as shown by Fig. 2, the projecting metallic cap G is put over the holder. This effectually protects them from the rain. The water-trough *d*, around the base, catches the drainage, which is discharged at *f*. A groove below also prevents water from running back beneath, against the projecting insulator combined.

In order to introduce the telegraph-wire into the groove or horizontal opening M, the face of contact of both sections may be slightly curved, so as to bind centrally. By making a quarter-turn of the combined insulator, so that B comes opposite 2, there will be sufficient spring to allow the sections to be separated so far as to admit the introduction of the wire, when a quarter-turn back or forward will again firmly lock the segments and hold the wire between them.

To prevent needless chafing after the wire is duly stretched, I provide a leaden wire, which is soft and a non-conductor. This I pass through the segments at N at a right angle to the main wire W, and twist the ends of said leaden wire or its equivalent around the telegraph-wire on both sides of the insulator.

I do not again broadly claim the two sections of an insulator, with flanges and entering core or center, for such is claimed in the

joint invention of myself and M. B. Fenninger, on which this is deemed an additional improvement; therefore—

What I claim, and desire to secure by Letters Patent, is—

1. The metallic cylindrical holder D, having an internal flange, E, open at *e*, and provided with a projecting water-table, *d*, below, and with a cap or lid, G, to cover the top, together with the arm H of the holder, in combination with an insulator made in two sections, A B, and inserted vertically into said holder, substantially in the manner and for the purpose specified.

2. In combination with the flanged cylindrical holder D E *e*, the sectional insulator A B, when inserted vertically with its sectional groove M horizontal and below the holder, and securing the ordinary wire W by means of a non-conducting and non-corroding material like leaden wire, passed through perforations N, made in said sections, the whole jointly connected, and operated in the manner and for the purpose mentioned.

PETER EBY.

Witnesses:

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