W. W. SMITH.

Telegraphic Insulator.

No. 53,246. Patented March 13, 1866.

Fig. 1.

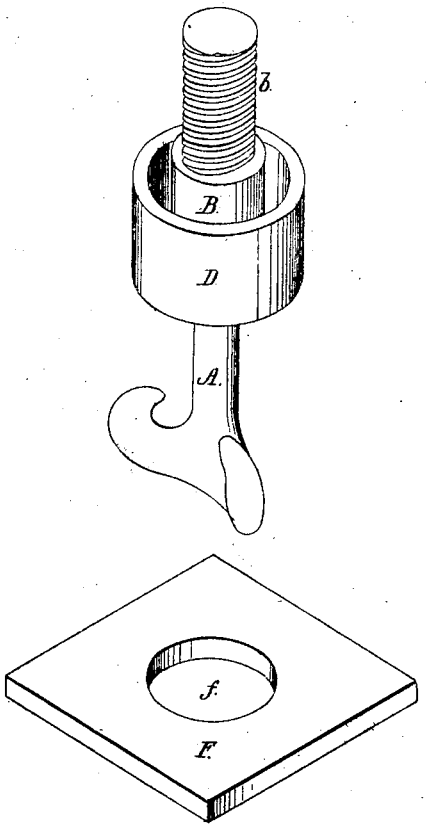
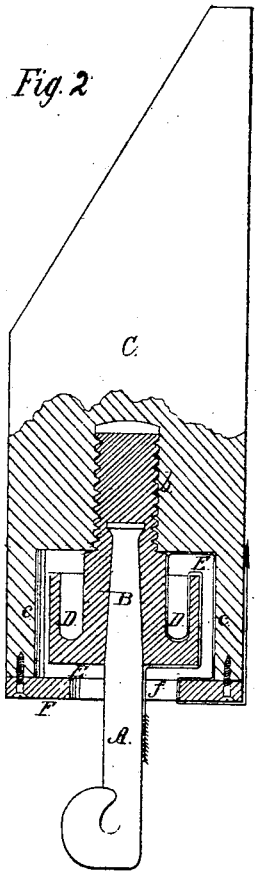


Fig. 2



Witnesses,

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UNITED STATES PATENT OFFICE.

W. W. SMITH, OF CINCINNATI, OHIO.

IMPROVEMENT IN TELEGRAPH-INSULATORS.

Specification forming part of Letters Patent No. **53,246**, dated March 13, 1866.

To all whom it may concern:

Be it known that I, WILLIAM W. SMITH, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Telegraphic Insulator; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to a form of insulator adapted to greatly diminish or entirely remove the tendency of ascending currents of fog, mist, or vapor to form a conducting medium upon the surface of the insulating material.

Figure 1 is a perspective view of the parts of my insulator detached. Fig. 2 is an axial section of the same parts in position.

The shank A of the hook which supports the telegraph-wire is secured in a block, B, of glass, vulcanized rubber, gutta-percha, or other tough and non-conducting substance, provided with a screw-shank, *b*, to enable the block to be screwed into a projection, C, from the telegraph-post. The lower portion of the block B has the form of a reflexed lip or cup, D, which is wholly inclosed in a chamber, *c*, of the projection C, which chamber is so much larger than the cup as to leave an annular passage or interval, E, around, above, and below it.

A wooden cap or annulus, F, secured to the lower end of the projection C, opposes the direct ascent of vapor into the vertical portion of the passage E, and receives upon its outer surface most of the dew or moisture mechanically suspended in said vapor.

The central aperture, *f*, of the annulus F is so much larger than the shank A as to leave a clear passage all around it.

It will be perceived that before any vapor can rise into the interior of the cup D it must impinge against the lower surface of the annulus F and again against the bottom of the cup D, thereby undergoing two direct interruptions to its ascent, which favor the deposition of moisture before entering the annular chamber E, on impinging against whose top it is again arrested and deprived of what slight moisture may remain mechanically suspended in it. It is also apparent that the electric current, in escaping, must traverse the entire course indicated by blue arrows in Fig. 2.

I claim herein as new and of my invention—

1. The reflexed or cup-formed insulating-block, B, inclosed in a chamber, C, of post or projection therefrom.

2. In the described combination with the above, the perforated cap or annulus F *f*.

In testimony of which invention I hereunto set my hand.

W. W. SMITH.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.