

(No Model.)

F. M. LOCKE.
INSULATOR.

No. 590,806.

Patented Sept. 28, 1897.

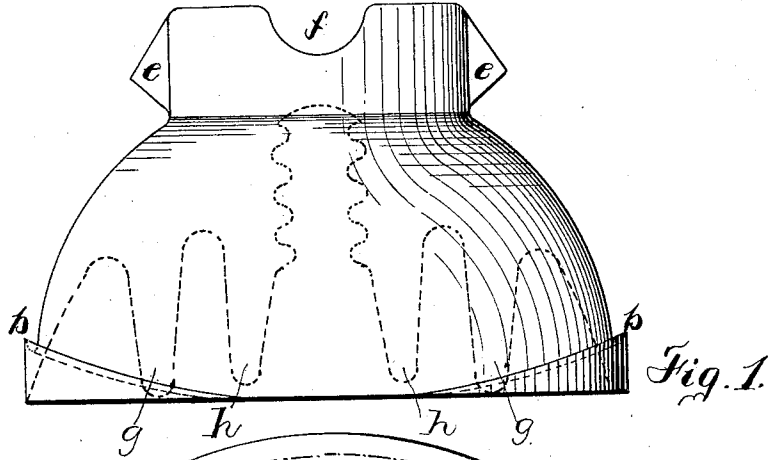


Fig. 1.

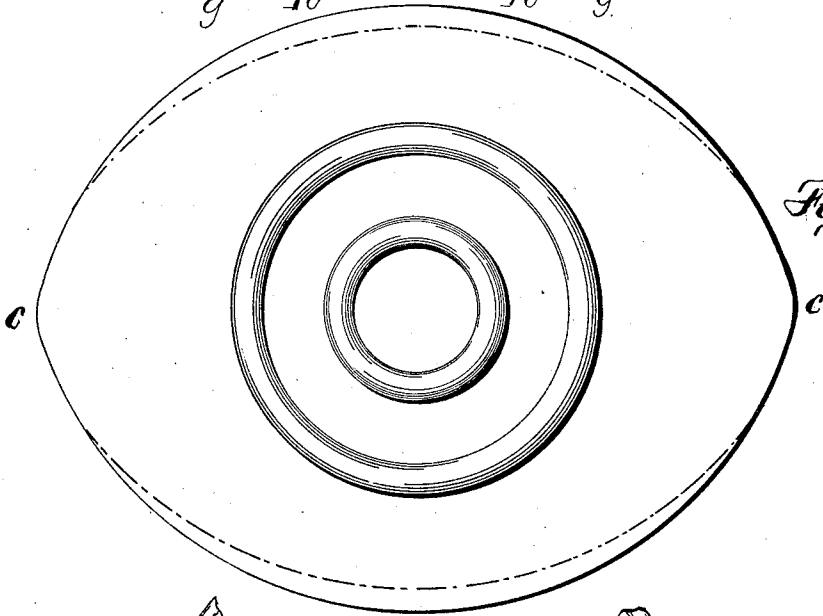


Fig. 2.

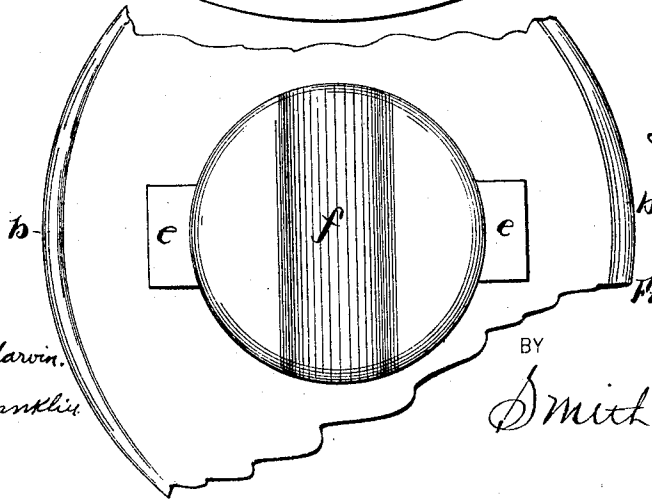


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FRED M. LOCKE, OF VICTOR, NEW YORK.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 590,806, dated September 28, 1897.

Application filed December 16, 1896. Serial No. 615,834. (No model.)

To all whom it may concern:

Be it known that I, FRED M. LOCKE, of Victor, in the county of Ontario, in the State of New York, have invented new and useful
5 Improvements in Insulators, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to insulators for electric conductors. My object is to improve their construction and increase their insulating efficiency and general utility; and to that end my invention consists in the several new and novel features of construction hereinafter described and which are specifically set forth in the claims hereunto annexed.

Insulators heretofore have been constructed higher than they are broad, but I have found that these insulators have been defective in
20 that they do not produce the best results, owing to their short diameter and spread. I have therefore found in actual practice that it is necessary to increase the spread with respect to the height, and this for two reasons:
25 first, the increase of its efficiency as an insulator, and, second, that it allows me to use a shorter, and therefore a stronger, insulating-pin, which is particularly desirable in high-voltage-power transmission.

I have observed that in the ordinary insulators, as above described, the edge comes so close to the supporting-pin or the support upon which it is mounted that the current arcs from the edges of the insulator to the pin
35 or support upon which it is mounted. To obviate this difficulty, I have constructed an insulator as broad or broader than it is high and provided it with one or more skirts or petticoats. This construction of an insulator
40 is absolutely new and the results obtained have greatly increased its insulating powers, as I have been able to discover from actual practice. I may also provide the insulator with a bead or trough upon its periphery to
45 conduct the water to certain points, so that the dripping will take place at points remote from the support upon which the pin is mounted. I am thereby enabled to prevent the water from accumulating upon the entire lower
50 edge of the outer skirt, which would other-

wise form a conductor for the current, which when it had passed around to the point nearest the support would otherwise be across.

Reference is hereby made to the accompanying drawings, in which— 55

Figure 1 is a side elevation of an insulator which embodies my invention. Fig. 2 is an inverted view thereof; and Fig. 3, a plan view of an insulator, parts being broken away.

a is the insulator, constructed of glass, porcelain, or other insulating material, and may have its outer skirt oblong, oval, or rounded, as shown in Fig. 2 of the drawings, and being as broad or broader than it is high, which allows me to use a much shorter insulating-pin,
60 which is therefore more substantial. This is particularly desirable in high-voltage-power transmission, as a strong supporting-pin is as essential as good insulation.

The insulator may be provided with semicircular troughs or grooves *b*, extending around the periphery of the skirt, inclining toward the points of the skirt *c* having the greatest breadth for the purpose of conducting the water where it may pass off at points most
70 remote from the support and thereby avoiding the possibility of preventing the current from arcing thereto, as would be the case where the skirt is circular in form and the moisture allowed to accumulate equally around the
80 lower edge.

In Fig. 1 I show tie-wire lugs or bosses *e*, and *f* is a recess in the top of the insulator, in which the wire is adapted to rest.

g and *h* are petticoats or skirts, any number of which may be used. 85

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An insulator having its outer skirt oblong, and means for conducting the moisture toward its lateral extremities. 90

2. An insulator having a skirt constructed oblong, and means for conducting the moisture toward its lateral extremities, its top being provided with tie-wire, lugs, or bosses. 95

3. An insulator which is as broad or broader than it is high, and which is provided with semicircular troughs or grooves *d* extending around the periphery of the skirt, and inclin- 100

ing toward the points of the skirt having the greatest breadth, substantially as specified.

4. An insulator which is oval or oblong in shape, and which is as broad or broader than it is high, and which is provided with semicircular troughs or grooves *d*, extending around the periphery of the skirt and inclining toward the points of the skirt which have the greatest breadth, substantially as shown.
- 10 5. An insulator having a spread greater than its height and shaped so as to be somewhat elliptical, and provided with a groove or trough upon its periphery so as to dis-

charge the water at the ends of the longest diameter, substantially as described. 15

6. An insulator having a spread greater than its height, and having its skirt provided with means for conducting the moisture toward its lateral extremities, substantially as shown. 20

In witness whereof I have hereunto set my hand this 7th day of December, 1896.

FRED M. LOCKE.

In presence of--

H. P. DENISON,
MARY A. FRANKLIN.