

No. 698,976.

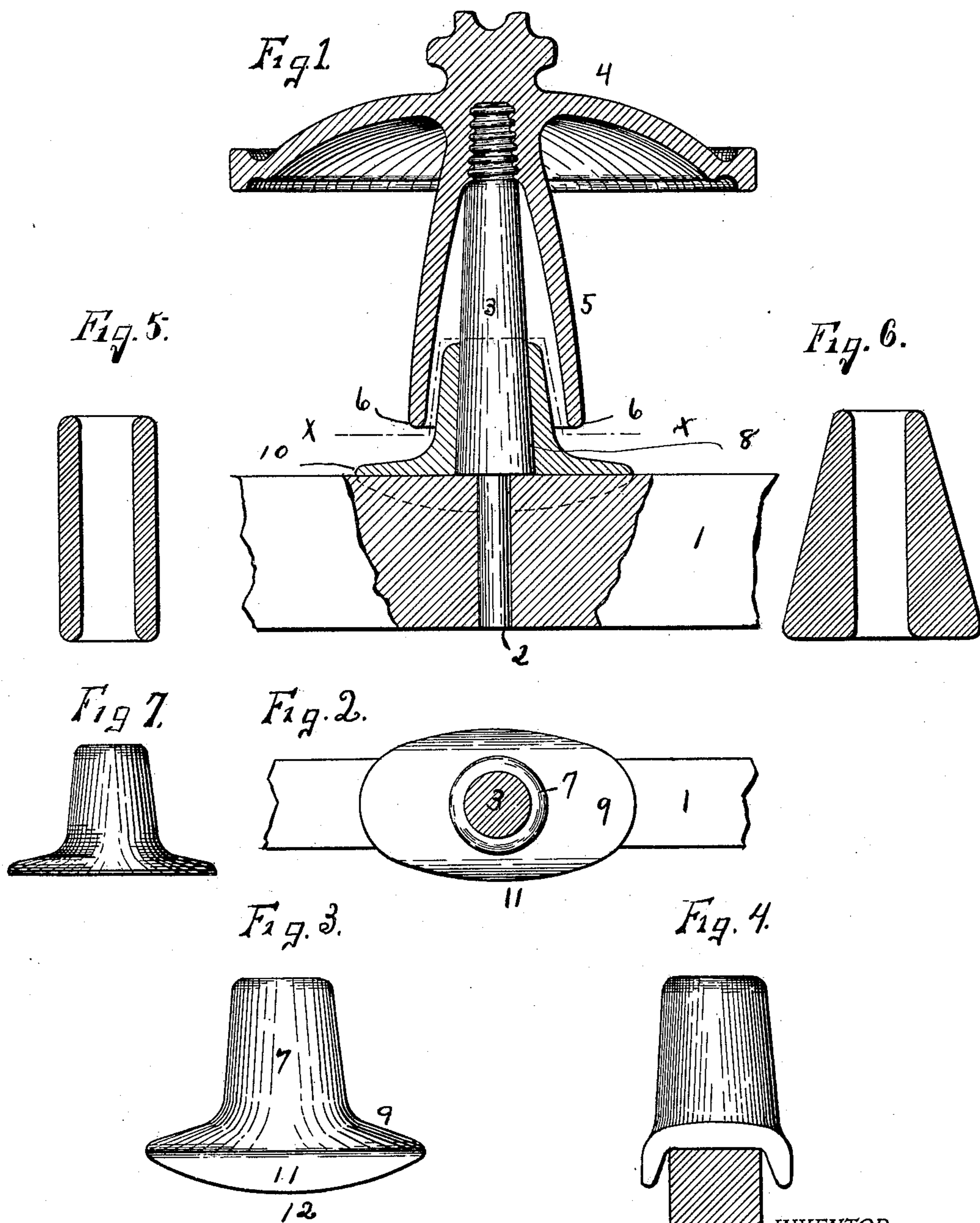
Patented Apr. 29, 1902.

F. M. LOCKE.

SLEEVE FOR PROTECTING INSULATOR PINS.

(Application filed Nov. 11, 1901.)

(No Model.)



WITNESSES:  
E. H. Benson  
J. C. Arthur

INVENTOR  
F. M. Locke  
BY  
Smith & Devison  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

FRED M. LOCKE, OF VICTOR, NEW YORK.

## SLEEVE FOR PROTECTING INSULATOR-PINS.

SPECIFICATION forming part of Letters Patent No. 698,976, dated April 29, 1902.

Application filed November 11, 1901. Serial No. 81,915. (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 Improvements in Sleeves for Protecting Insulator-Pins, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in sleeves for protecting insulator-pins.

The object of this invention is to produce a sleeve adapted to be mounted upon the pin which carries the insulator at the cross-arm and to provide means to prevent the burning or charring of the insulator-pins and their supporting-arms and also to obviate the liability of surface leakage at the insulator.

It is well known that in supporting conductors for high-voltage electric currents upon any of the existing insulators there is a strong tendency for the current to leak or flow over the surface of the insulator, thereby reaching the supporting-pin and cross-arm and tending to burn or char said arm or pin, usually at their junction one with the other. Owing to the accumulation of moisture and foreign matter at the base of these pins, particularly in wet or moist weather, this leakage frequently results in a perceptible loss of current potential and not infrequently occasions serious accidents from short circuits; and to the end of obviating this short circuit my invention consists in the several new and novel features of construction and operation which are hereinafter described, and specifically set forth in the claims hereunto annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of an insulator mounted upon a pin and my improved sleeve surrounding the lower end of the pin, the sleeve and insulator and a portion of the cross-arm being in section. Fig. 2 is a view on line X X, Fig. 1. Fig. 3 is a side view of the sleeve complete detached. Fig. 4 is a cross-section of a cross-arm, showing an end view of the sleeve mounted thereon. Figs. 5, 6, and 7 are modified forms of sleeve.

Similar numerals of reference indicate corresponding parts.

1 is a cross-arm, 2 a bolt mounted therein which carries the pin 3, which pin is threaded

at its upper end or provided with any other means for carrying the insulator 4. The insulator 4 has the downwardly-extending base 5, terminating at the point 6.

7 is the insulating-sleeve, mounted upon the cross-bar 1 and surrounding the base of the pin 3, as shown in Fig. 1. This sleeve has the usual central opening 8, and the flange 9 extends longitudinally with the cross-arm to a point some distance beyond the point where the lower end of the insulator would intersect the cross-arm if it were extended, as shown at 10, and the opposite or lateral edges of the sleeve are dropped down, as shown at 11, so as to form a hood and protect the side of the cross-arm from the moisture. The lower edges of the hood-depressed portion of the flange 11 are constructed semicircular, as shown at 12 in Fig. 3. This is for the purpose of allowing the water which accumulates to pass down the edges and drip at the center.

In Fig. 5 I show a straight sleeve, and Fig. 6 a frusto-conical-shaped sleeve for the purpose in hand.

In Fig. 7 I show a sleeve having a flange at the bottom.

While I preferably construct the sleeve herein described and shown of porcelain, yet I do not limit myself to any particular material or shape.

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

1. A sleeve for an insulator-pin, constructed of porcelain or similar material, having a flange at the bottom extending out to a point beyond the point at which the base of the insulator would intersect the cross-arm in case the insulator-base was extended.

2. An insulator-sleeve constructed of porcelain or similar material having a flange at its lower end and adapted to rest upon the cross-arm and extending beyond a point upon the cross-arm which would be in vertical alignment with the base of the insulator.

3. A sleeve for an insulator constructed of porcelain or similar material, having a flange at the bottom adapted to rest upon the cross-arm and having the sides which rest upon the upper face of the cross-arm extended beyond the point upon the cross-arm in vertical alignment with the base of the insulator.

4. A sleeve for an insulator constructed of porcelain or similar material, having a flange at the bottom adapted to rest upon the cross-arm and having the sides which rest upon the upper face of the cross-arm extended beyond the point upon the cross-arm in vertical alignment with the base of the insulator and having the sides of said flange depressed for the purpose of forming a hood to protect the edges of the cross-arm from the elements.

5. A sleeve for an insulator constructed of porcelain or similar material, having a flange at the bottom adapted to rest upon the cross-arm and having the sides which rest upon the upper face of the cross-arm extend beyond the point upon the cross-arm in vertical alignment with the base of the insulator and having the sides of said flange depressed for the purpose of forming a hood to protect the edges of the cross-arm from the elements, the lower edge of said depressed portion being semi-circular for the purposes specified.

6. A sleeve for an insulator-pin constructed of porcelain or other insulating material sur-

rounding the pin at the point where said pin meets the cross-arm and out of contact with the insulator and bolt which secures the pin to the cross-arm.

7. A sleeve for an insulator-pin constructed of porcelain or other insulating material surrounding the pin at the point where said pin meets the cross-arm, said sleeve being enlarged at its lower end and out of contact with the insulator and bolt which secures the pin to the cross-arm.

8. A sleeve for an insulator-pin constructed of porcelain or other insulating material surrounding the pin at the point where said pin meets the cross-arm, said sleeve increasing in size as it approaches its lower end and out of contact with the insulator and bolt which secures the pin to the cross-arm.

In witness whereof I have hereunto set my hand this 11th day of October, 1901.

FRED M. LOCKE.

Witnesses:

MILDRED M. NOTT,  
HOWARD P. DENISON.