

C. R. SLUSSER.
ELECTRIC INSULATOR.
APPLICATION FILED JAN. 30, 1907.

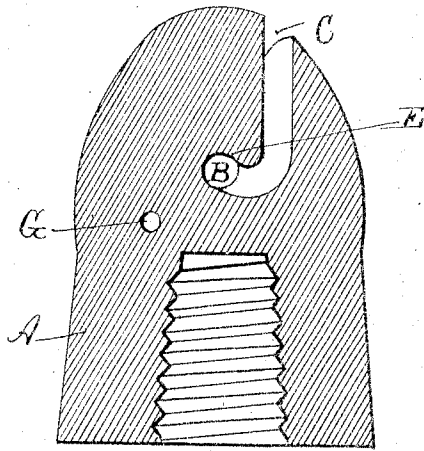


Fig. 1

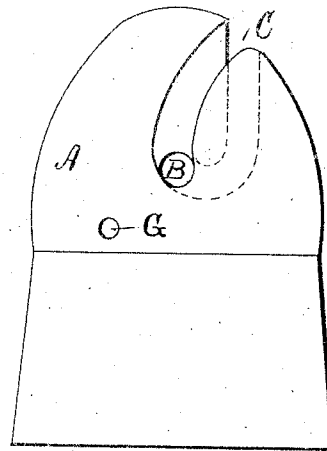


Fig. 2

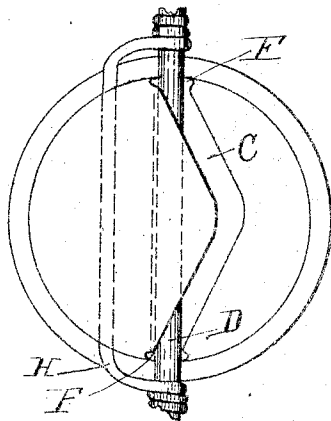


Fig. 3

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES R. SLUSSER, OF MONTPELIER, IDAHO.

ELECTRIC INSULATOR.

No. 881,967.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed January 30, 1907. Serial No. 354,920.

To all whom it may concern:

Be it known that I, CHARLES R. SLUSSER, citizen of the United States, residing at Montpelier, in the county of Bear Lake and State of Idaho, have invented certain new and useful Improvements in Electric Insulators, of which the following is a specification.

This invention relates to insulators such as are used for supporting heavy or light electric wires or conductors, and particularly to that part of such insulators which holds the conductor, rather than the part which attaches the insulator to its support.

The general object of the invention is to provide an insulator that shall be more convenient in construction work, repair work, and in changing lines, than are ordinary insulators, and that at the same time shall be inexpensive.

With such object in view, the insulator is formed by perforating a suitable insulating body diametrically, to receive the wire or conductor, and also slotting it to open the perforation laterally throughout its entire length, the slot being made to coincide with the ends of said perforation but made to deviate from the plane of the perforation between said ends. The slot being thus formed, the conductor can pass into it laterally only when itself bent, and when the conductor has been drawn straight in the perforation, it cannot be removed laterally therefrom.

For convenience in description, merely, the insulator will be supposed in a vertical position, and the supported conductor will be supposed in a horizontal plane.

In the accompanying drawings, Figure 1 is an axial section of a simple form of insulator involving my invention. Fig. 2 is a side elevation of the same device. Fig. 3 is a plan view of the insulator with a conductor supported thereby and secured by a tie wire.

In these figures, A represents the body of an insulator of any suitable material and in this instance shown as adapted to be screwed upon a pin or peg in the usual way, although any known means of support may be employed. Above the usual threaded cavity, the body is provided with an approximately diametrical perforation B, and this is opened laterally throughout its length by a slot C extending therefrom to the outer surface of the body. Upon the outer surface of the body, the slot coincides with the end portions of the perforation, but be-

tween these two points the slot deviates from the plane of its ends and of said perforation. Preferably the upper portion of the insulating body is rounded, and the middle point of the external path of the slot is at some distance from the highest part of the block, whereby one wall of the slot is to some extent exposed to serve as a form over which the conductor may be bent into conformity with the angle or curve of the slot and thus be instantly fitted to enter the latter. When the conductor has been passed inward in the slot to rest in the perforation, B, and has been made nearly straight by tension, it cannot pass laterally out of the perforation although it may be drawn along longitudinally in the same to any extent.

Preferably, the slot does not extend inward directly toward the perforation but is approximately vertical, as shown, until it nearly reaches the horizontal plane of the perforation, when it turns somewhat abruptly and extends to the latter. By this construction, a very heavy body of material around which the slot passes, overhangs the wire at E, and that portion which was bent to fit the slot is not necessarily straightened when put in place by the lineman, but may remain bent until at a later time tension upon the wire straightens it. Since the perforation and slot are both large enough to leave some play for the ordinary wire, a certain amount of bending is in any case possible, even when the wire has been forced completely within the perforation. It is preferred to make the slot of approximately V-shape, as shown, but this form may be varied, and it is also usual to ream the outer ends of the perforation, as indicated at F.

In stringing the conductor through a series of my insulators, it has often been found advantageous to employ a vehicle carrying a light tower over which the conductor is paid out, a man at the top of the tower swinging the conductor alongside each insulator as it is reached, giving the wire a quick bend and slipping it into place during a momentary stop of the vehicle.

In order that the conductor may not slip longitudinally so far as to be disengaged from many insulators, in case of breakage, it is desirable to tie the conductor at long intervals, such intervals commonly being a half mile in length, and to facilitate this each insulator is provided with a small perforation G at a convenient point. A small wire,

H, being passed through this aperture its ends are wound snugly about the conductor D on each side of the insulator and in close contact with the same, and thereby longitudinal slipping is effectually prevented. When it is desired to remove a long section of wire, these ties are first removed, when the wire can be drawn through a long line of insulators.

10 If it be desired to put a new insulator in place of a broken one, it is quite possible to draw in enough slack, between tie points, to allow the necessary bending of the conductor.

Although the wire within the insulator cannot be re-bent so that the wire can pass out laterally, one end of the wire may be bent sharply at one side of the insulator and then by moving the body of the wire longitudinally, the upturned end may be made to traverse the slot, thus quickly freeing the wire.

What I claim is:

1. An insulator consisting of a body of insulating material provided with a straight, approximately diametrical perforation of approximately the size of the wire to be carried,

and with an upwardly extending bent or distorted slot communicating with the entire length of said perforation and extending to the outer surface of said body; whereby the wire when in place lies free in the middle of the body but can be inserted or removed only when bent.

2. An insulator, the combination with a body of insulating material provided with an approximately diametrical straight perforation of approximately the size of the wire to be carried and with an outwardly open slot coinciding with said perforation throughout the entire length of the latter and having its middle outer portion deflected from the plane of the perforation, and detachable devices for connecting said body with the line wire, carried thereby and adapted to resist slipping of said wire.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES R. SLUSSER.

Witnesses:

FRANCIS S. MAGUIRE,
WALLACE GREENE.