

(No Model.)

H. H. BROOKS.  
INSULATOR.

No. 482,913.

Patented Sept. 20, 1892.

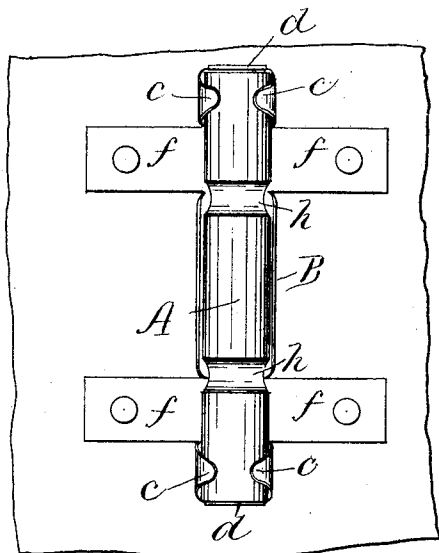


Fig. 1.

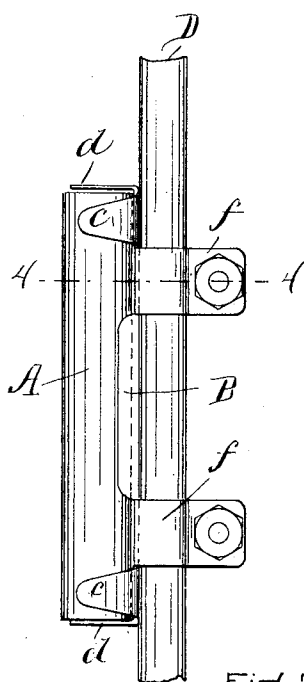


Fig. 2.

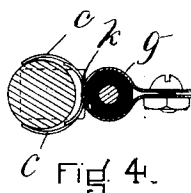


Fig. 4.

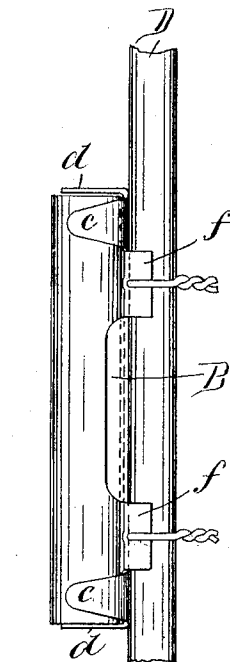
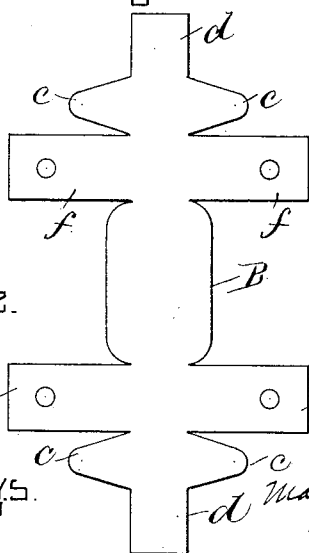


Fig. 3.

WITNESSES.

Robert Wallace,  
Atty. H. Morrison.

f  
c  
Fig. 5.

INVENTOR.

Herbert H. Brooks  
by  
Macleod Calver Raudall  
his atty.

# UNITED STATES PATENT OFFICE.

HERBERT H. BROOKS, OF CAMBRIDGE, ASSIGNOR OF ONE-HALF TO AUGUSTUS T. CLARK, OF BOSTON, MASSACHUSETTS.

## INSULATOR.

SPECIFICATION forming part of Letters Patent No. 482,913, dated September 20, 1892.

Application filed October 26, 1891. Serial No. 409,781. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT H. BROOKS, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Insulators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to produce an effective, inexpensive, and durable tree-insulator for electric wires; and it consists of a cylinder of glass or other non-conducting substance mounted in a suitable frame or holder for attachment to the tree or other object, all as more particularly hereinafter set forth.

In the accompanying drawings I have shown my invention as embodied in the best form now known to me, and in the following description reference is made thereto.

In said drawings, Figure 1 is a front view showing my insulator as secured to a tree. Fig. 2 is a side elevation showing my insulator attached to a wire. Fig. 3 is a similar view showing a different method of attachment to the wire. Fig. 4 is a section on line 4 4, Fig. 2. Fig. 5 is a plan view of the blank from which the holder is formed.

A represents a cylinder, preferably of glass or other insulating material.

B is a holder or support, preferably of sheet metal, which is curved or trough-shaped in cross-section, as shown, Fig. 4, and which is provided with four projections *c*, which are curved to correspond to the shape of the insulating-cylinder A. The projections *c* serve to hold the insulating-cylinder in place, while at the same time permitting it to roll on its long axis. Lips or projections *d* are formed at either end of the cylinder A, which serve to prevent it from slipping out of the holder. The holder B is provided with suitable lugs or projections *f*, by means of which it may be nailed or otherwise secured to the tree or other object.

The holder B will be clearly understood from Fig. 5, which shows a plan of the blank which is cut from the sheet metal and which is used to make the holder. This blank is

cut by a suitable die or in any other known way, preferably from sheet metal. A form or mandrel somewhat larger in diameter than the cylinder A is then laid on the blank and the points *c* and body or connecting portion of the blank between the projections are bent over the mandrel into shape. One of the end retaining-lips *d* is then bent up at the end of the mandrel, and the holder is then ready to receive the insulating-cylinder. After the cylinder is put in place by slipping it into the holder endwise the other end lip *d* is bent up to prevent the cylinder from falling out, and the insulator is then ready for use.

As will be obvious, the insulator may be applied either to a tree or other object with which the wire comes in contact or it may be applied to the wire itself. At Figs. 2, 3, and 4 I have shown it applied to the wire. For this purpose the projections *f* may be made shorter or entirely dispensed with and the holder wired directly to the wire D, (see Fig. 3,) or the lugs *f* may be turned back and clasped around the wire and secured by means of a nut and screw, as shown, Figs. 2 and 4. To assist in securing the insulator to the insulating-covering of the wire B, one or more punch-points *k* may be struck up in the back of the holder, so that when the holder is wired to the wire D these points are forced into the insulating-covering *g* of the wire D (see Fig. 4) and serve to prevent the holder from turning or changing its position on the wire.

When the insulator is used in certain positions, it may be advisable to form an annular groove in the cylinder A, as shown at *h*, Fig. 1, in order that the wire may play over the cylinder with less danger of becoming displaced.

What I claim is—

1. An insulator consisting of a cylinder of insulating material and a holder wherein the said cylinder is placed and loosely held, the said holder being shaped to partially inclose the cylinder, and thereby keep it in place, substantially as described.

2. An insulator consisting of a cylinder of insulating material and a holder wherein the said cylinder is placed and loosely held, the

said holder being provided with lips or projections which partially inclose the cylinder, and thereby keep it in place, substantially as described.

- 5 3. An insulator consisting of a cylinder of insulating material and a trough-shaped holder wherein the said cylinder is placed and loosely held, the said holder having lips or projections which partially inclose the cylin-

der, and thereby keep it in place, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT H. BROOKS.

Witnesses:

WM. A. MACLEOD,  
CHAS. F. RANDALL.