(Model.)

# C. BIGEON.

## Telegraph Insulator.

No. 234,523. Patented Nov. 16, 1880.

Fig. 1.

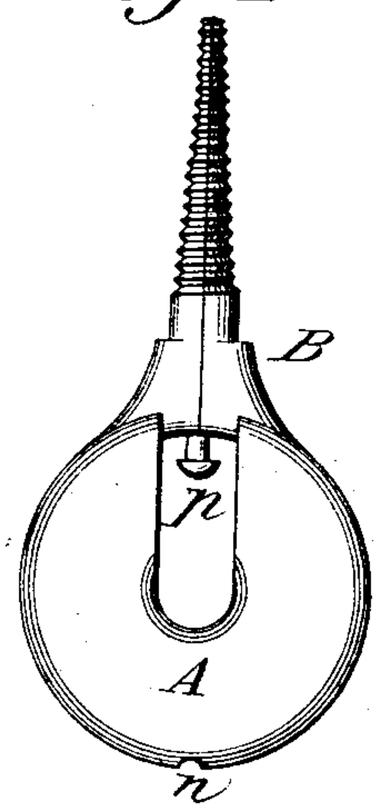



Fig. 2.

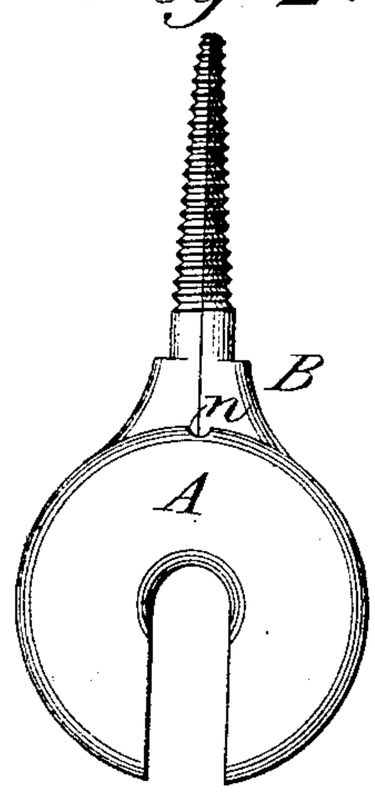



Fig. 3.

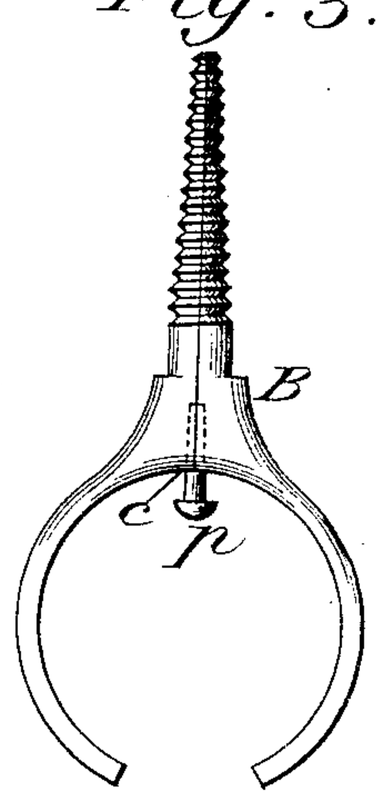



Fig. 4.

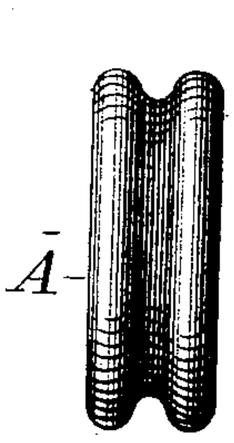
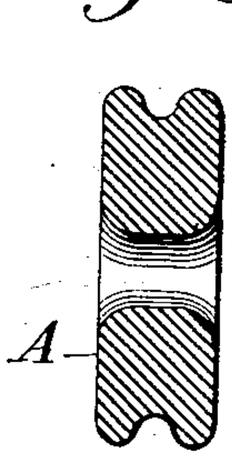



Fig. 5.



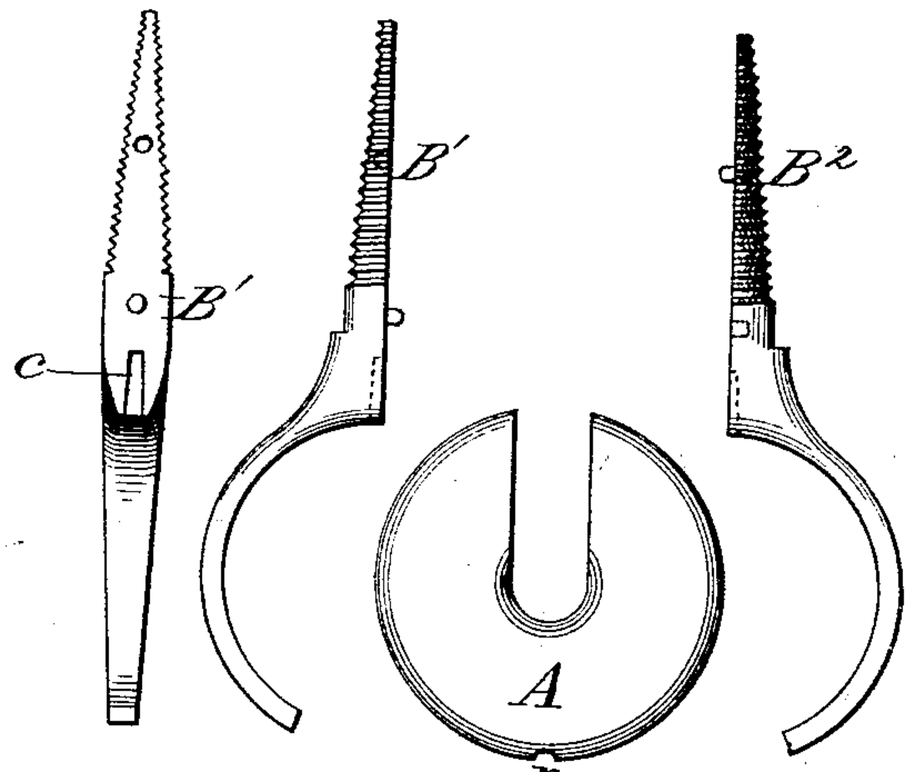




Fig. 6.

Fig. 7.

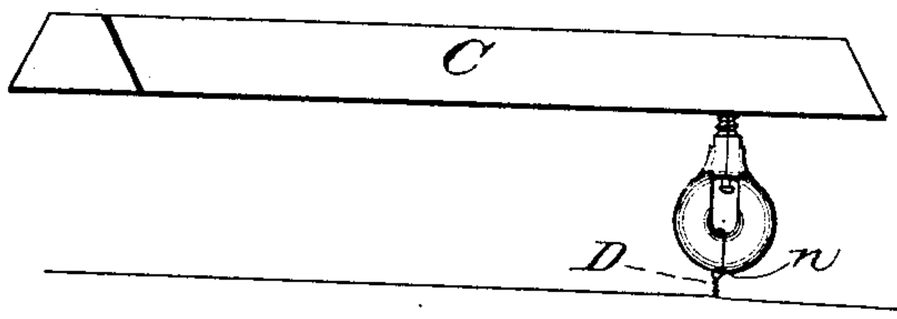



Fig. 8.

Witnesses:
Joseph C. Hosea,
Ed Keliher.

Inventor:
Charles Bigeon,
by Kellogg & Hosea,
Attorney.

# UNITED STATES PATENT OFFICE.

CHARLES BIGEON, OF CINCINNATI, OHIO.

## TELEGRAPH-INSULATOR.

SPECIFICATION forming part of Letters Patent No. 234,523, dated November 16, 1880.

Application filed August 6, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES BIGEON, a citizen of the United States, residing at Cincinnati, Hamilton county, Ohio, have invented new and useful Improvements in Telegraphic Insulators, of which the following is a specification.

My invention relates to devices for suspending electrical wires used for telegraphic and other purposes out of electrical communication with surrounding objects or the earth; and its object is to improve the construction and arrangement of such devices, whereby the wires may be more conveniently secured in or removed from their position, and the process of insulating and mounting continuous lines of wire greatly facilitated, and whereby, also, the insulator is better protected from moisture in exposed situations.

To this end my invention consists in an insulator, of suitable insulating material, of novel construction, and in fastening devices for securing the same to the post or other object to which the same is to be attached.

Heretofore telegraph-insulators have been constructed of a supporting-bracket containing a tubular glass insulator provided with a longitudinal slot, said insulator being adapted to rotate for the purpose of confining the wire in place after it is inserted through the slot, as in Letters Patent No. 123,198, and I therefore disclaim the construction shown and described in said patent.

My invention is embodied in mechanism illustrated in the accompanying drawings, in which Figures 1 and 2 are side elevations of my improved insulating device, showing the insulator proper in different positions; Fig. 3, a side elevation of the two-part clamping device for securing the insulator to the post or other object; Figs. 4 and 5, an edge elevation and cross-section, respectively, of the insulator proper; Fig. 6, an inside edge elevation of one part of the two-part clamp; Fig. 7, a side elevation of the two parts of the clamp shown separated and of the insulator between; and Fig. 8, a perspective view of the cross-arm to be attached to a main post, showing the insulator in position complete, with wire attached.

Similar letters of reference indicate similar parts throughout the drawings.

A in the drawings is the insulator proper, which is formed of glass, porcelain, or any other suitable insulating material, and which is constructed substantially in the form of a grooved pulley, having a radial slot or opening extending to or a little beyond the center.

B is the retaining device, which is substantially a short bar or staple provided with screw-threads and terminating in a double hook or clamp, as shown in Fig. 3, intended to partially embrace the grooved periphery of the insulator A, leaving a space between the extremities of its arms. The clamp B is divided longitudinally through its screw or projecting end into two similar parts, $B'$ $B^2$, provided on their joining surfaces with dowel-pins and apertures, or other suitable means of insuring a proper fit when placed together; and a recess, *c*, may be also provided, as shown in Fig. 3, for the insertion of a pin, *p*, for a purpose hereinafter explained.

C is the arm to which the insulating device is secured, and which is intended to be secured horizontally upon a post or other support. It is constructed with sloping sides, as shown, for the purpose of giving a broader base to shed water and the better to protect the insulator which is attached beneath. It will be apparent that this function may be useful with an insulator of any description suspended beneath.

The operation is as follows: The insulator A is placed between the inclosing-arms of the fastening-clamp and the parts placed together and screwed into the support, with the radial slot of the insulator opening between the ends of the fastening-arms. The wire D is then passed into the radial opening, and the insulator A rotated until it occupies the relative position shown in Fig. 1. The insulator and its clamp together are then rotated one entire revolution horizontally, by which the wire is looped over the lower portion of the insulator, and thus secured in the notch *n* and radial opening, as shown in Fig. 8. The pin *p* may then be inserted as a stop to prevent displacement of the insulator A; but its use I deem unnecessary when the insulator is suspended vertically beneath its support, as in such case the weight of the line-wire would tend to keep it in position.

Where the insulator is attached to the top of a horizontal support or to the side of a vertical support, the pin *p* will be found of advantage in preventing the insulator A from rotating in its bearings.

It will be observed that in putting up a line-wire with this insulator it is not necessary to pass the end of the wire through the opening, as would be the case with an ordinary perforated insulator. It is passed sidewise into the open slot, when, by simply rotating the insulator in its bearings, the wire is completely environed, and by rotating the retaining-clamp and insulator the wire is looped and securely held.

A circular insulator having a radial opening is shown and described in Patent No. 192,811, granted to me July 10, 1877, and such, broadly considered, I disclaim; but

I here claim, and desire to secure by Letters Patent—

1. The combination of the retaining device B, composed of a shank to be driven into the telegraph-post or other support, and terminating at its outer portion in arms forming a double-hooked clamp, with the circular insulator A, formed in a single piece, constructed with a grooved periphery and provided with a radial slot, said grooved periphery being partially embraced and wholly supported by the arms of the double-hooked clamp and adapted to rotate therein, substantially as shown and described.

2. The retaining device B, consisting of a divided shank, terminating at one end in two curved arms forming a double-hooked clamp, with a space between the extremities of the arms, in combination with the circular insulator A, formed in a single piece, with a radial slot and a grooved periphery, in which latter the curved arms of the divided shank are arranged and partially embrace the rotating insulator, all substantially as and for the purpose described.

3. In combination with a circular grooved insulator provided with a radial opening and adapted to be rotated in its clamp, the pin *p* in the clamping device for preventing rotation when in position, substantially as specified.

4. The retaining-clamp B in two parts, held together by insertion of its divided shank in a supporting object and adapted to inclose and retain an insulator, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES BIGEON.

Witnesses:
L. M. HOSEA,
E. B. GREGG.