

(No Model.)

E. J. BULLOCK.
INSULATOR.

No. 527,317.

Patented Oct. 9, 1894.

Fig. 1

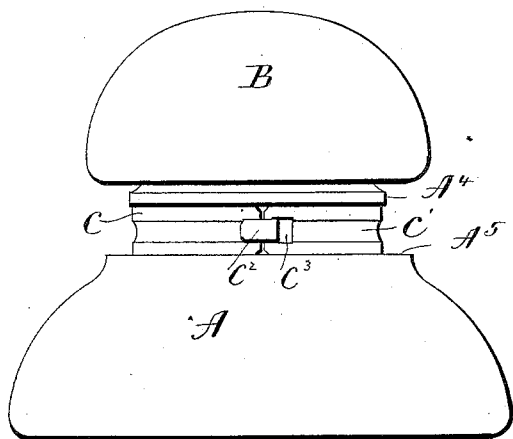


Fig. 2

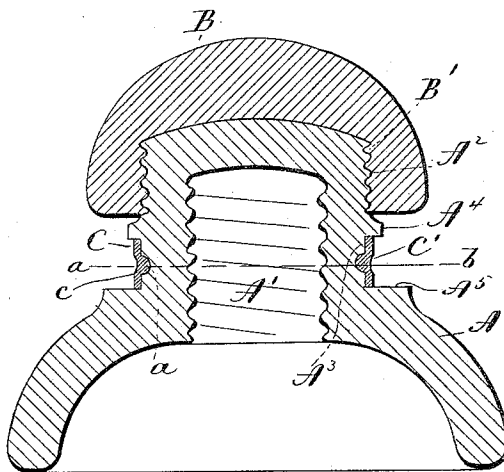


Fig. 4

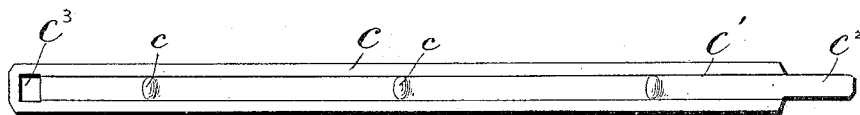
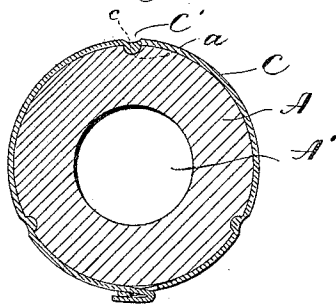


Fig. 3



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UNITED STATES PATENT OFFICE.

EDWARD J. BULLOCK, OF WALLINGFORD, CONNECTICUT.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 527,317, dated October 9, 1894.

Application filed November 27, 1893. Serial No. 492,123. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. BULLOCK, of Wallingford, in the county of New Haven and State of Connecticut, have invented a new Improvement in Insulators; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of one form which an insulator constructed in accordance with my invention may assume; Fig. 2, a view thereof in vertical central section; Fig. 3, a view in transverse section on the line *a—b* of Fig. 2, showing the depressions formed in the inner wall of the recess; Fig. 4, a plan view of the metal strap which is located in the recess to take the chafing of the wire.

My invention relates to an improvement in that class of insulators for use in putting up telegraph and telephone and other electric wires, which consist of an inverted cup-shaped body and an overhanging head, having a neck or reduced portion between them, the said body and head being cast in one piece of glass. Insulators thus constructed are objectionable, on account of the inconvenience of applying the wires to them, that being done by forming in the wires loops sufficiently large to pass over the heads of the insulators, the loops being afterward reduced in size so that they will not slip off over the said heads. Insulators constructed as described have also been objectionable because the sawing or chafing of the wires on the glass causes the same to break.

The object of my invention is to avoid the objections above recited, and to produce an insulator of superior convenience in use, and not liable to breakage on account of chafing.

With these ends in view, my invention consists in an insulator having an inverted cup-shaped body constructed with a hub, and a removable head applied to the said hub, which is adapted to have its base encircled by the wire which is overhung and thus prevented from upward displacement by the lower edge of the said head.

My invention further consists in an insu-

lator having an inverted cup-shaped body and a removable head, and a metal wearing shoe or collar applied to the body below the head, and receiving the wire which it holds off from the glass.

My invention further consists in certain details of construction as will be hereinafter described and pointed out in the claims.

As herein shown, the inverted cup-shaped glass body *A*, is constructed with an internally threaded socket *A'*, and a large externally threaded hub *A²*, the base of which contains an annular recess *A³*, flanked at its upper edge by an annular overhanging shoulder *A⁴*, and at the lower end by an annular horizontal shoulder *A⁵*. It will be understood that the socket *A'*, receives a threaded peg on which the insulator is mounted, and which is not shown because of ordinary construction. The removable head *B* is made of cast glass, and constructed with an internally threaded opening *B'*, adapted in size to receive the outer end of the externally threaded hub *A²* of the body. The exterior surface of the head is convex in form, and of such a diameter that its lower edge slightly overhangs the horizontal shoulder *A⁵* aforesaid. The proportions of the parts may be varied, but they will be substantially as shown. By preference I locate in the annular recess *A³* a wearing-collar or shoe of sheet-metal. As shown, this consists of a strap *C*, having a longitudinal groove *C'*, and constructed at one end with a tongue *C²*, and at the opposite end with an eye *C³*, through which the tongue passes for securing the two ends of the strap together, as shown in Fig. 1. It is designed that the groove *C'* shall practically correspond to the diameter of the wire to be applied to the insulator. To prevent the metal from slipping on the glass, it is provided with several bumps *c*, projecting inward, and taking into correspondingly arranged depressions or pockets *a*, formed in the vertical wall of the recess *A³*. It is not essential that the said metal wearing surface be constructed in the manner described, or that it have the form of a collar, for it might be less than a circle, and answer the purpose. Its detail construction might also be varied.

In using my improved insulator, the head is removed when a loop formed in the wire

may be readily slipped over the hub of the body, after which the head is replaced. The loop thus formed is of substantially the right size, and does not require much if any subsequent manipulation and reduction to fit it to the insulator, whereby a great economy of time and labor results from the use of my improvement. The metal wearing shoe takes the chafing of the wire, and prevents the same from cutting into and fracturing the glass, whereby a great source of breakage in insulators of this class is saved.

I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. An insulator having an inverted cup-shaped body constructed with a hub, which is adapted to have its base encircled by the wire, and a removable head applied to the said hub, and constructed to overhang the base thereof by being made of larger external diameter than the same, substantially as described.

2. An insulator having a body provided with an annular recess, a removable head applied to the said body, and a metal wearing surface located in the said recess, substantially as described.

3. An insulator having an inverted cup-shaped body constructed with an externally threaded hub, which has an annular recess formed in its base, an internally threaded removable head adapted to be applied to the threaded outer end of the said hub, and a metal wearing surface located in the said recess, substantially as described.

4. An insulator having a body constructed with an externally threaded hub which has an annular recess formed in its base, a removable head, and a metal wearing surface consisting of a strap, located in the said recess, having its ends secured together, constructed with a longitudinal groove, and held against slipping in the said recess, substantially as described.

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

EDWARD J. BULLOCK.

Witnesses:

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C. A. HARRISON.