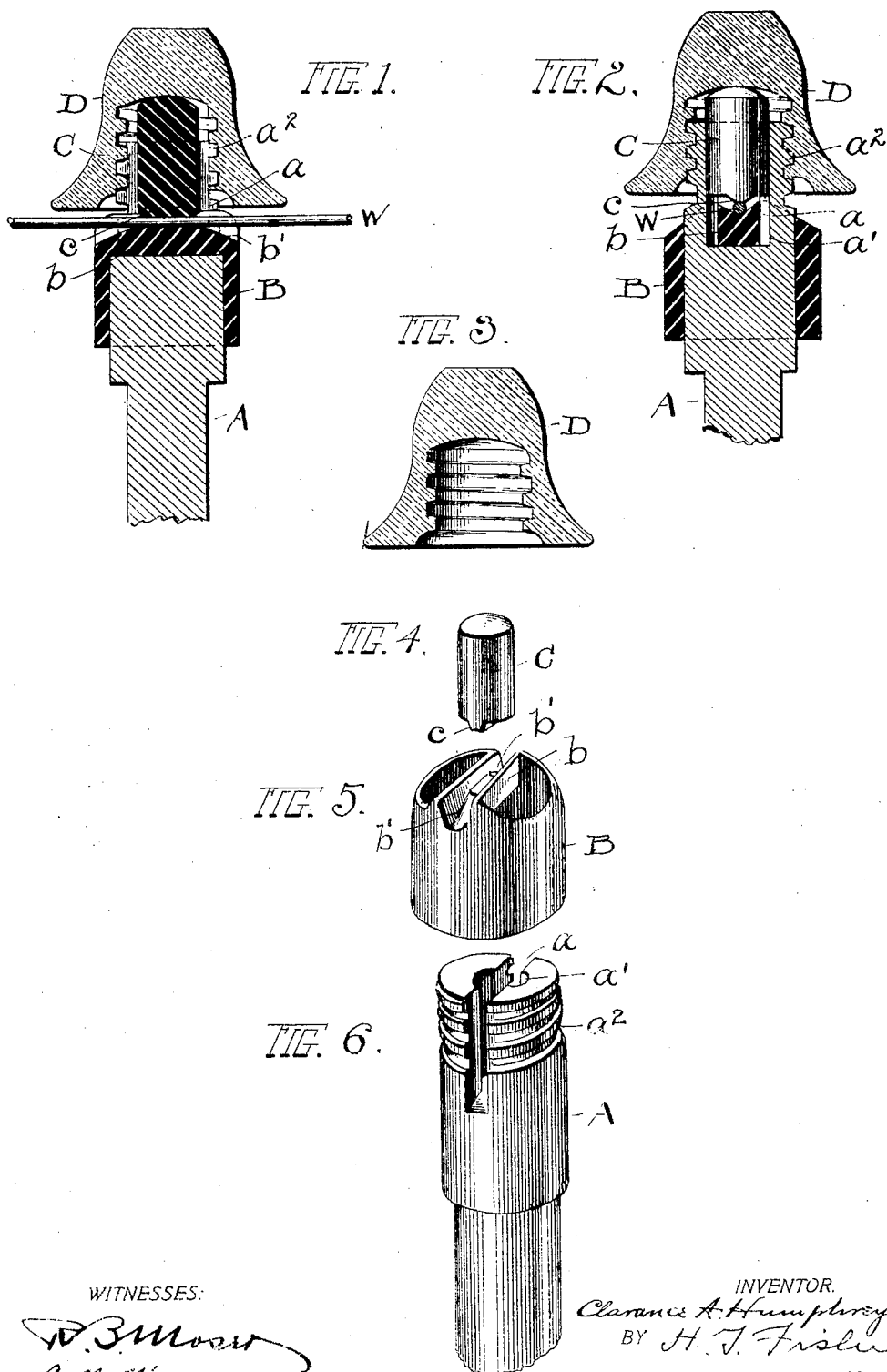


C. A. HUMPHREY.
INSULATOR FOR ELECTRIC WIRES.
APPLICATION FILED FEB. 15, 1904.



WITNESSES:

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CLARANCE A. HUMPHREY, OF ELYRIA, OHIO.

INSULATOR FOR ELECTRIC WIRES.

No. 802,397.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLARANCE A. HUMPHREY, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Insulators for Electric Wires; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to insulators for electric wires; and the invention consists in an insulator particularly adapted for outdoor uses to secure telegraph and other wires on a line exposed to the elements, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figures 1 and 2, respectively, are vertical sectional elevations of my new and improved insulator, taken on lines at right angles to each other, the lower portion of each view representing a support, which presumably is a pole or stud upon which the insulator is mounted. Fig. 3 is a vertical sectional elevation of a preferably wooden or glass cap by which the insulator is surmounted and which serves both as a locking and sheltering medium, as will hereinafter more fully appear. Fig. 4 is a side elevation of a preferably non-conducting plug or follower for engaging upon the wire, and Fig. 5 is a perspective view of a glass or other insulating support for the wire sleeved upon the stud-support. Fig. 6 is a perspective view of a wooden or other support, such as a pole, post, stud, or the like for supporting the insulator and the wire.

As thus shown, A is the supporting member of my invention and may be a pole, stud, or other upright, preferably of wood, but may be of any other suitable material and constitute the support for all the other parts of the device. To this end the said post or support A is provided with a transverse slot *a* in its top, a central bore *a'* about the depth of said slot and an annular thread *a''* the depth of the said slot or approximately from the top down.

B represents a non-conducting sleeve engaged over support A from the top and provided with a central cross portion *b*, having a trough to carry the wire W. This part may be made of any suitable non-conducting material, but it is preferably of glass, and trough *b* is preferably highest at its middle or center and inclined downward or outward at each side, so as to make only a comparatively short

surface engagement on the trough and which will be under cover. The cross portion or trough *b* is designed to fit somewhat comfortably on the slot *a* of the support A and rests down upon the bottom of the said slot, thus exposing the threaded part of support A above the said sleeve B. Said sleeve encompasses the post A about and below the slot *a*, so as to afford a non-conducting surface at this point and prevent possible running or jumping off of the current from the trough upon the wood surface of the post.

C represents a plug or follower adapted to enter loosely in the bore *a'* in the top of support A. The depth of said bore is the depth of slot *a*, and the said plug has a slightly-grooved rib *c* across its bottom adapted to rest upon wire W in the trough *b*. This plug also is of glass or of any equivalent non-conducting and enduring material which will serve as a good insulator and extends up into the cap D above the threaded part of the base-support A when in use, relatively as seen in Figs. 1 and 2.

Now in order to engage the plug firmly upon the wire and lock all the parts permanently together I employ a preferably wooden or glass cap D, which is threaded to engage upon post A and to rest down upon the plug C and bear it firmly upon wire W, and thus cause the wire to be gripped so as to be effectually fastened.

It will be noticed that by this construction there is an exclusive glass or insulating contact for the wire above and below and that the point of engagement of plug C upon the wire is sheltered or housed by the overhanging and laterally-spreading cap. The narrow point of contact internally of the parts also promotes protection in that respect. For this reason also, and to cause drainage of any moisture that may otherwise gather in trough *b*, I incline the bottom of the said trough at its ends *b'* downward considerably, which leaves the point of wire contact at the center only, as above described. It will be observed also that this construction is such that while it will afford perfect fastening for the wire for an indefinite period it is readily separable and removable in case a change is required.

What I claim is—

1. In wire-insulators, a support and a non-conducting part sleeved over the top thereof and having a trough to receive the wire, a follower of non-conducting material to engage upon the wire on said trough and a cap bear-

ing upon said follower and having locking engagement with the said support, substantially as described.

2. An insulator for telegraph and other
5 wires comprising a support with a slot transversely in its top and a thread about said slotted portion, in combination with a non-conducting member sleeved over said support and provided with a channeled cross portion
10 for the wire resting in said slot and a separate part bearing on said wire, said channeled cross portion being beneath the thread about the top of the said support, substantially as described.
3. The support for the insulator having an
15 open slot centrally in its top and threaded about its outer portion, a wire-supporting sleeve over the said slotted support having a trough integral therewith and engaged in said
20 slot, a follower adapted to engage upon a wire

in said trough and a cap resting upon said follower and engaged on the threaded portion of the said support, the said follower having an engaging rib on its bottom, substantially as described.

4. In insulating mechanism for telegraphic and other wires, a non-conducting sleeve having a trough centrally across its top and a support therefor, in combination with a bolt-shaped follower having a transverse rib on its
30 end over the middle portion of said trough and a cap bearing on the end of said follower and holding it in engaging position, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

CLARANCE A. HUMPHREY.

Witnesses:

L. B. FAUVER,
R. S. READ.