

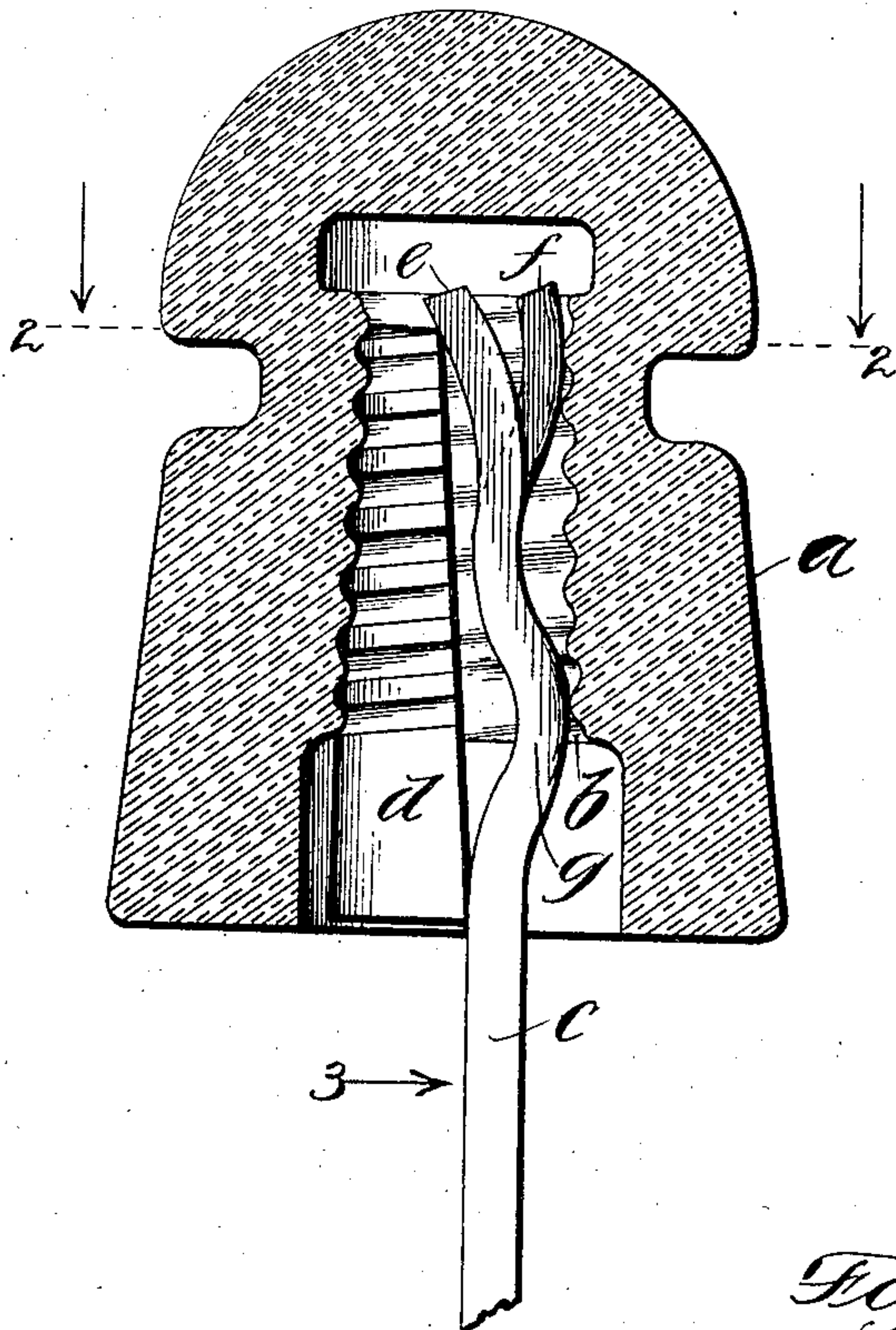
No. 894,201.

PATENTED JULY 28, 1908.

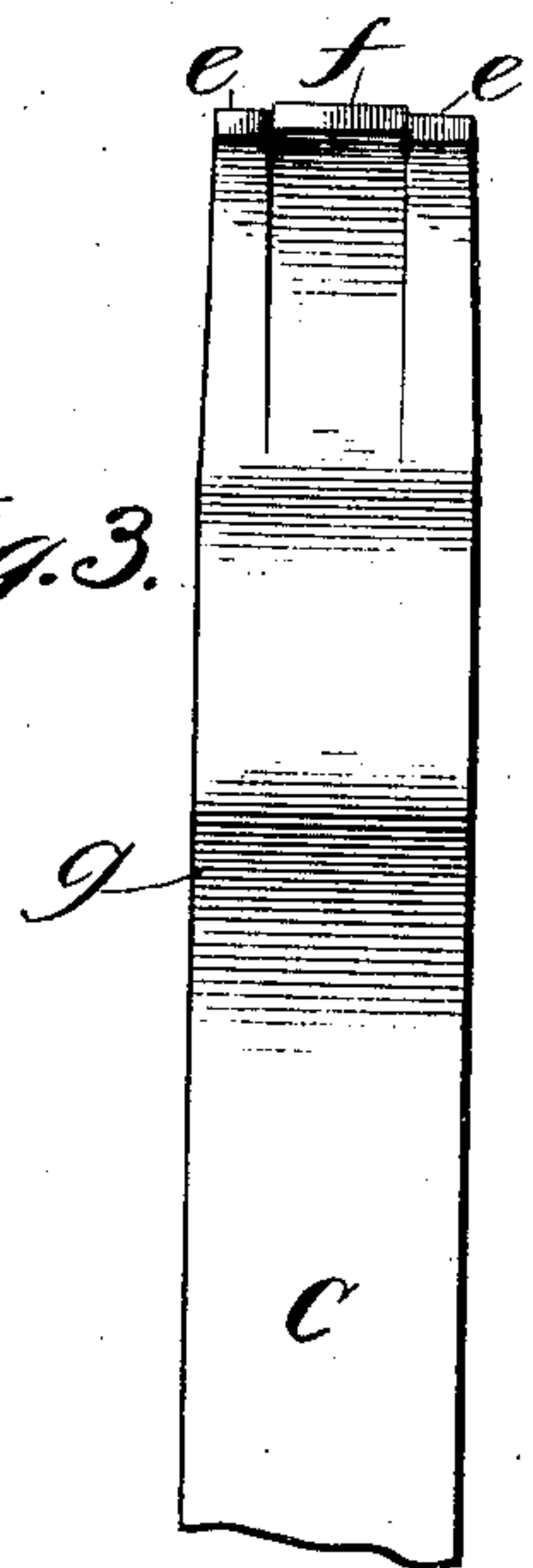
T. E. HALLETT.  
INSULATOR.

APPLICATION FILED JAN. 8, 1903.

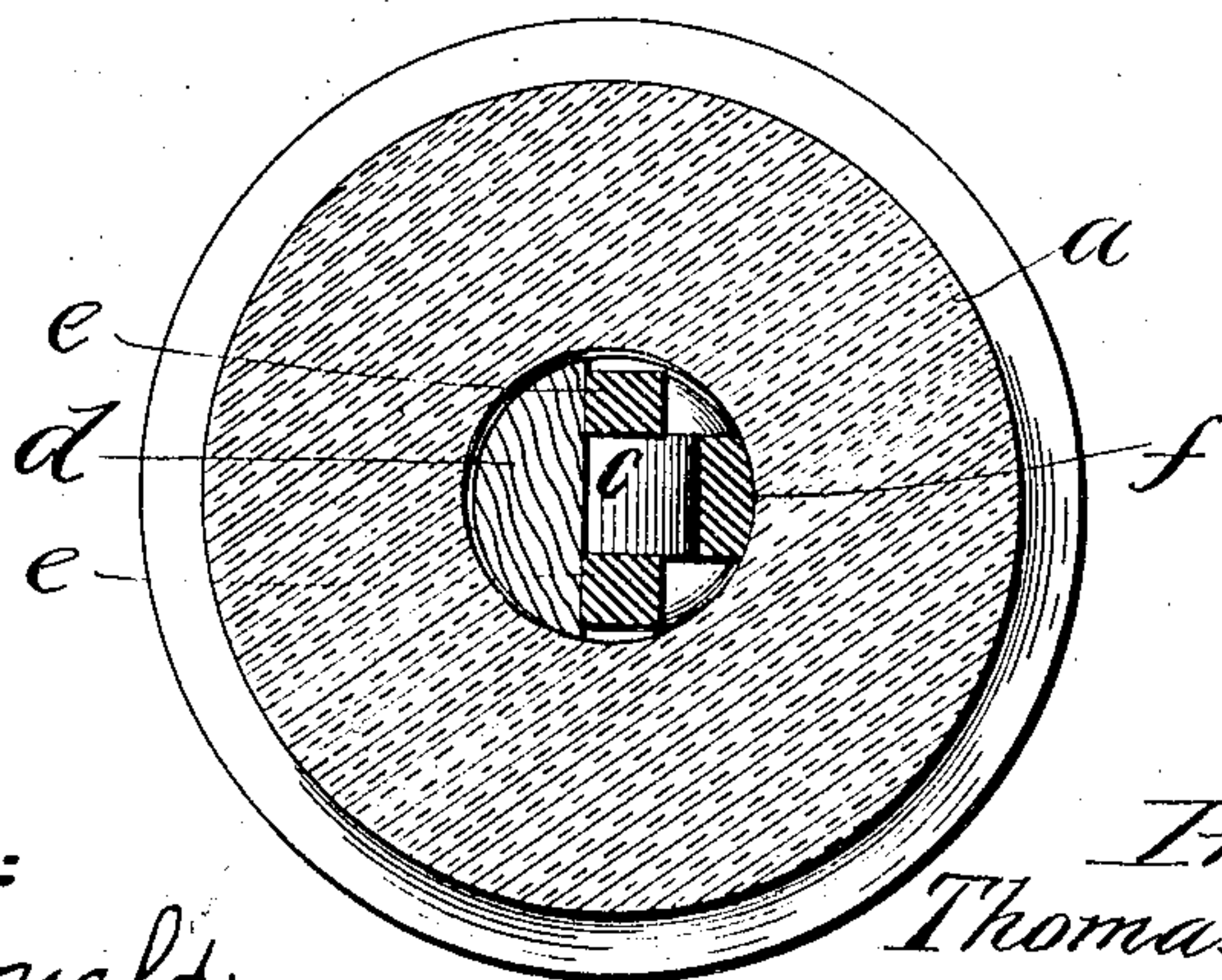
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



*Witnesses:*  
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# UNITED STATES PATENT OFFICE.

THOMAS E. HALLETT, OF CHICAGO, ILLINOIS.

## INSULATOR.

No. 894,201.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed January 8, 1903. Serial No. 138,242.

*To all whom it may concern:*

Be it known that I, THOMAS E. HALLETT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Insulators, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to insulators of the kind employed for supporting transmission wires, such as telephone and telegraph wires upon poles.

It is the object of my invention to secure metal supports for the bodies of insulating material to which the transmission wires are secured. Hitherto it has been proposed to accomplish this object by the provision of two blocks threaded correspondingly to the bore of the insulator, between which blocks there was interposed the metal supporting arm. When the insulator was to be placed in position, these blocks had to be carefully adjusted with respect to each other, so that the threads would register, this caused the device to be somewhat tedious to handle besides making the same expensive, in that the blocks had to be duplicated.

It is the object of my invention to provide a substitute for insulators of this character, by means of which substitute, I am able to dispense with one of the blocks or threaded elements, the metal that supports the insulators being so shaped or associated with such accessories as to enable the same to cooperate with the single block to hold the insulator in position. I prefer as the threaded element, a block of wood as the same is readily and cheaply formed.

As a consequence of the invention, I am enabled in its preferred form to divide a single threaded plug into equal parts each for an insulator, in this way cheapening the cost.

As the metal is desirably of a limited thickness in its ordinary shape, it is usually not sufficiently thick to fill, together with the threaded element, the bore of the insulator. To complete the device of the invention, therefore, there are interposed between the threaded element and the metal bar or arm, filling or distance preserving means, preferably integrally formed with a bar of metal that constitutes the main element of a support, the desired result being secured in the preferred type of device by the pro-

vision of tongues that project in opposite directions to engage the threaded element and the insulator to constitute a filling for the bore that is sufficiently complete to properly engage and support the insulator.

With the device of my present invention by the elimination of one of the blocks, no careful adjustment of the single block employed is required, it only having to be rested against the proper portion of the metal arm or bar when the insulator is secured in place.

In order that the bar may not be longitudinally displaced with respect to the block, the tongue portion of the bar that engages the block, is preferably inclined with respect to the axis of the insulator so that the tendency is to wedge the bar and the block apart, the inclined portion of the arm extending above the top of the block so as to prevent separation of the arm and block.

I will explain my invention more fully by the accompanying drawing; in which

Figure 1 is a sectional view of the insulator with the supporting elements therefor indicated in elevation. Fig. 2 is a sectional view on line 2—2 of Fig. 1. Fig. 3 is a view of the metal supporting bar or arm in the direction of arrow 3 in Fig. 1.

Like parts are indicated by similar characters of reference throughout the different figures.

The body of insulating material *a* may be of any well-known type, such as that illustrated, it being provided with a bore *b* that is threaded. The metal arm or bar that is to support the insulator is at its lower end presumed to be provided with some suitable structural characteristic whereby it may be mounted upon a pole, cross arm or other mounting. The upper end of the metal arm or bar *c* projects within the bore of the insulator and is desirably free of threaded engagement therewith, though not necessarily so. Placed upon one side only of this bar is a threaded element *d* desirably in the form of a wooden block, for the sake of cheapness, though I do not wish to be limited to the material selected, nor to the shape or formation thereof to secure its engagement with the arm and with the insulator, though I prefer a threaded solid block of wood. The wooden block is also desirable because it is sufficiently resilient to compensate for variations in the diameter of the bore of the insulator occurring upon changes in temperature.



In order that the threaded element  $d$  and the arm  $c$  may to the requisite degree, fill the bore of the insulator, distance preserving means desirably secured by bending or twisting the upper end of the arm to engage different portions of the bore and the block, are provided. Tongues  $e$  and  $f$  are preferably formed upon the upper end of the arm and are interposed between the upper end of the threaded element  $d$  and the upper end portion of the bore. The arm or bar  $c$  is also desirably bulging at  $g$  to engage the lower part of the bore, this bulge also acting as a distance preserving agency to properly fill, in conjunction with the lower part of the element  $d$ , the lower part of the bore. Of course, as the drawing indicates, the bore need not be filled entirely, but only sufficiently so as to secure the proper coöperative relation between the elements  $a$ ,  $d$  and  $c$ . In order that the arm  $c$  may not be longitudinally displaced, the tongue portion or portions  $e$  may be inclined with respect to the axis of the insulator, as indicated most clearly in Fig. 1, affording for the block  $d$  an inclined plane upon which the said block may rest as the insulator is secured in place to firmly lock the insulator, block and arm together.

It will be seen that the block and arm are held in engagement with the insulator by the engagement of the bulging portion  $g$  and tongue  $f$  with the side of the bore and by the engagement of the block with the tongues  $e$  at its upper portion and at its lower portion with the body of the arm, the tongues  $e$  by being inclined with respect to the axis of the insulator, and projecting above the top of the block preventing longitudinal separation between the block and arm and forcing the block into engagement with the insulator.

I have thus provided a structure which is radically different from the structures of the prior art whereby an inexpensive device is secured which is easy of manipulation.

It is obvious that changes may be made in the embodiment of my invention herein shown without departing from the spirit of my invention and I do not, therefore, wish to be limited to the precise characteristics illustrated, but

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. The combination with an insulator hav-

ing a screw-threaded bore therein, of a rigid support projecting up within, and in contact with the threaded side wall of said bore, and a single wedge-block bearing against the said support on the side opposite to that which is in contact with the bore wall, and formed with exterior screw-threads in engagement with the threads of the insulator bore.

2. The combination with an insulator having a screw-threaded bore therein, of a rigid support projecting within, and in contact with the threaded side wall of said bore, and with the upper end of said support projecting in a direction opposite to that of the contacting portion, and a single wedge-block in contact with said support below the line of said just named projecting portion, and formed with exterior screw-threads in engagement with the threads of the insulator-bore.

3. The combination with an insulator having a screw threaded bore therein, of a support projecting up within and into contact with the threaded side wall of said bore, and a wedge block bearing against the said support on the side opposite to that which is in contact with the bore wall and formed with exterior screw threads in engagement with the threads of the insulator bore.

4. The combination with an insulator having a screw threaded bore therein, of an element in the form of a support projecting up within and into contact with the threaded side wall of said bore, and a second element in the form of a block bearing against the said support on the side opposite to that which is in contact with the bore wall, one of said elements being threaded.

5. The combination with an insulator having a screw threaded bore therein, of a support projecting up within and into contact with the threaded side wall of said bore, and a block bearing against the said support on the side opposite to that which is in contact with the bore wall and formed with exterior screw threads in engagement with the threads of the insulator bore.

In witness whereof, I hereunto subscribe my name this second day of January A. D., 1903.

THOMAS E. HALLETT.

Witnesses:

GEORGE L. CRAGG,  
JESSIE L. DAVIS.