March 26, 1929. O. DOELTER 1,707,054

INSULATOR

Filed March 17, 1926

Fig. 1.

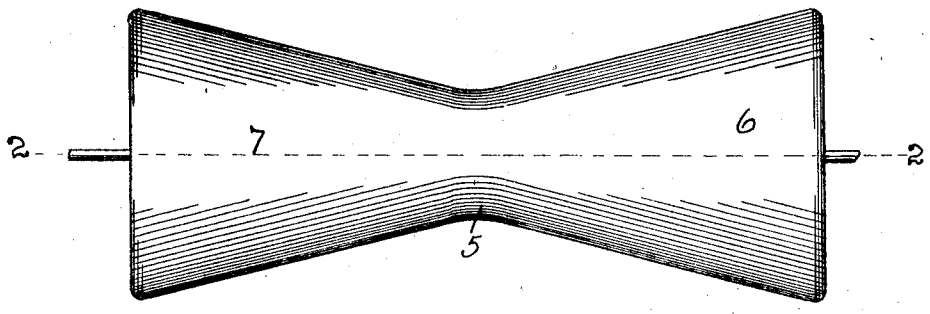
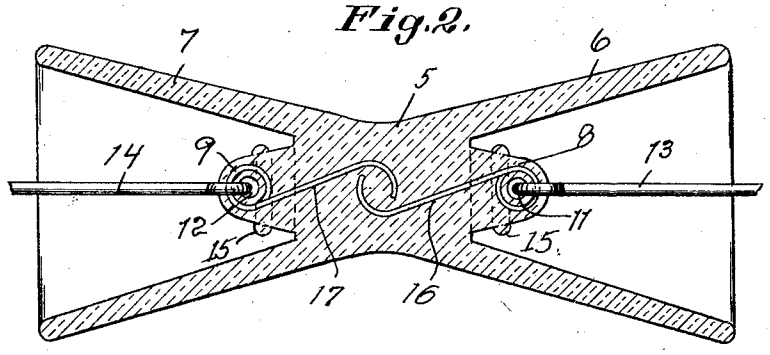


Fig. 2.



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UNITED STATES PATENT OFFICE.

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INSULATOR.

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This invention relates to improvements in insulators and has particular reference to an insulator which may be used out of doors or in any other place where it is liable to be affected by moisture.

The principal object of this invention is to produce an insulator which may be suspended in any position and one which will prevent leakage of current under any weather conditions.

Another object is to produce an insulator which will be mechanically strong.

An additional object of this invention is to produce an insulator which will be neat in appearance, economical to manufacture and, therefore, well within the purchase price of the average user.

A still further object is to produce an insulator which will come within the requirements of the fire-underwriters.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a side view of my improved insulator,

Figure 2 is a cross section taken on the line 2—2 of Figure 1.

It is a well-known fact that rain, snow, sleet and similar moisture bearing elements tend to cause a leakage of current over an insulator. This leakage often becomes so serious as to cause a shutting down of the apparatus to which the same is connected.

I have, therefore, sought to produce an insulator wherein the wire connected thereto will be protected irrespective of the position of the insulator.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates the center portion of my insulator to which are molded bell-shaped extremities 6 and 7. It is, of course, obvious that these bell-shaped extremities may be of any length desired.

At 8 and 9 I have shown projections formed within the bell-shaped ends 6 and 7, respectively and secured to the center portion 5. It is my intention to cast the insulator in one piece, but it will also be noted that these projections might be re-cast and secured to the center portion 5 in any convenient manner.

Each of these projections is provided with an opening as shown at 11 and 12, respectively, through which the ends of the wires 13 and 14 are threaded, so as to secure the same to the projections.

Referring now to Figure 2, the construction shows re-enforcing elements 16 and 17, which re-enforcing elements are so positioned that an eye 18 is embedded in each of the projections 8 and 9, so as to surround the openings 11 and 12, while the opposite ends of these wires are each bent as shown at 19.

This construction forms a hook which is embedded in the material of the insulator at a point near the center thereof. With an insulator constructed in accordance with my invention, it is possible to use the same vertically in which event the uppermost bell may become filled with moisture, while the lower bell will remain dry, thus keeping the wire connected in the lower bell in a dry condition. Consequently, there will be no electrical leakage.

The same condition applies when the insulator is positioned on an angle. When the insulator is placed in a horizontal position, as shown in Figure 2, a rain straight down will not enter the bell, consequently, the connection of both wires to the projections 8 and 9 will remain dry. Should the rain be from one side, as for instance, the side protected by the bell 7, only that side will receive the moisture and the side protected by the bell 6 will remain dry.

Should the rain be from the opposite direction so as to enter the bell 6, then the bell 7 will act as the protector.

It will be noted that I have provided a drip ring at 15, which drip ring intercepts water which might otherwise run to the tip of the projections and thus form a path for the electric current. By providing this drip ring any mositure which would run from the bell toward the tip of the projections would be conducted away, thereby preventing leakage of current.

It will thus be seen that I have produced a very simple insulator and one that will perform all of the objects above set forth.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

In an insulator, a body portion having flared bell shaped extensions formed thereon, said extensions extending in opposite directions from each other, a projection formed in each of said bell shaped extensions, reinforcing members embedded in said body portion and having an eye extending into and embedded within each of said projections, and surrounding an eye formed in each of said projections and drip rings formed on each of said projections at a point substantially midway between said last named eyes and the body portion for the purpose specified.

In testimony whereof I affix my signature.

OTTO DOELTER.