F. BEMENT & E. A. LOGAN.

INSULATOR.

APPLICATION FILED NOV. 15, 1915.

1,224,259. Patented May 1, 1917.

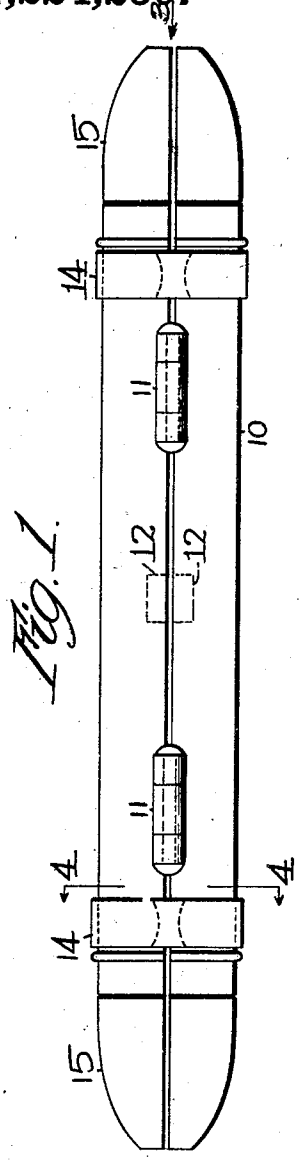

Fig. 1.

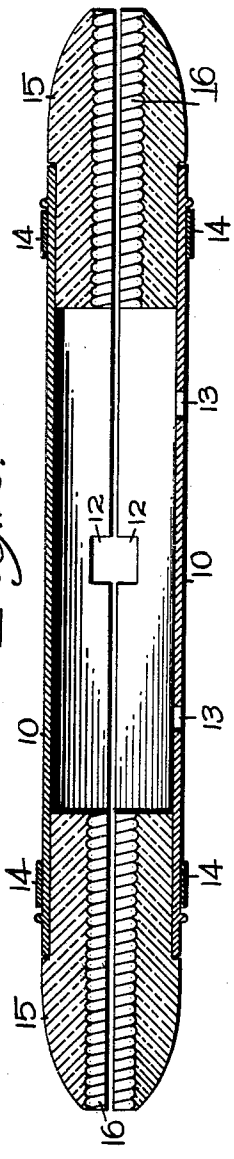

Fig. 2.

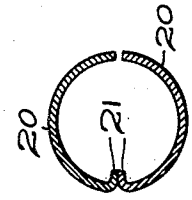

Fig. 5.

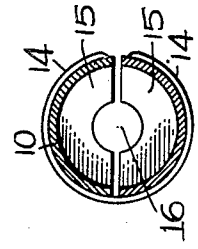

Fig. 4.

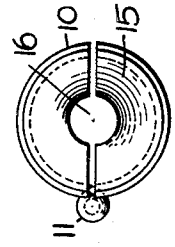

Fig. 3.

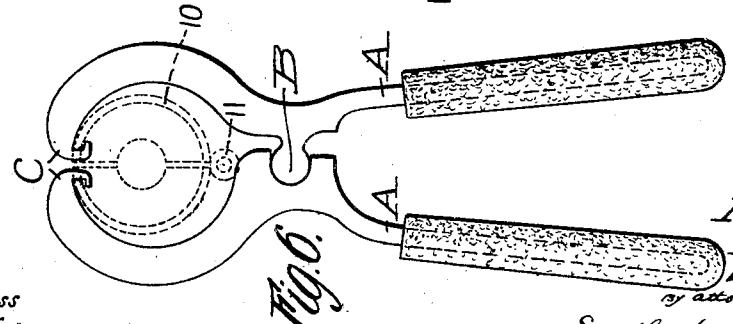

Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANK BEMENT AND EDWARD A. LOGAN, OF SHREWSBURY, MASSACHUSETTS.

INSULATOR.

1,224,259. Specification of Letters Patent. Patented May 1, 1917.

Application filed November 15, 1915. Serial No. 61,507.

To all whom it may concern:

Be it known that we, FRANK BEMENT and EDWARD A. LOGAN, citizens of the United States, both residing at Shrewsbury, in the county of Worcester and State of Massachusetts, have invented a new and useful Insulator, of which the following is a specification.

This invention relates to an insulator for use particularly on high tension wires to prevent leakage of the current where they engage branches of trees or buildings.

The principal objects of the invention are to provide a simple and convenient device which can be readily applied to an insulated wire which is already in position and is being rubbed or engaged by a tree or the like; to provide a construction the parts of which are readily assembled and replaced in case of breakage, and which will be comparatively inexpensive, and to provide one in which there is a large passage for the wire, in which water will not collect.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a side view of a preferred embodiment of the invention;

Fig. 2 is a central longitudinal sectional view of the same;

Fig. 3 is an end view;

Fig. 4 is a sectional view on the line 4—4 of Fig. 1;

Fig. 5 is a sectional view similar to part of Fig. 4 showing a modification, and

Fig. 6 is a view of the tool which can be employed for manipulating the insulator.

For the purpose of providing a device which can be placed in position readily the insulator is made up mainly of a cylindrical casing 10 formed of two semi-cylindrical halves preferably of sheet metal. When these halves are assembled they constitute substantially a tube. The two halves are shown in Figs. 1 and 3 as hinged together at 11 so as to rock about a longitudinal axis at one edge. They are provided with notches 12 in the opposite edge for a purpose which will appear. They are also shown as provided with drain openings 13 for permitting any moisture to drain out.

These two halves are held together by a pair of springs 14 of a simple form. It will be obvious that these springs will tend to keep the parts in closed position and that they can be separated by forcing apart the two edges in which the notches 12 occur.

At each end each semi-cylindrical member 10 carries fixed to it a semi-circular porcelain insulating member 15 extending into the end of the tube a material distance and having a gentle curve at the end substantially flush with the end of the tube so as to avoid difficulty from the rubbing of branches over it. These porcelain members 15 are provided with semi-cylindrical passages 16 extending centrally therethrough to the inner part of the tube and these preferably are provided with screw threads or other grooves to hold them more securely on the insulated wire to which it is to be applied.

In the use of the device a tool, such for example as that shown in Fig. 6, is employed having a pair of handles A, pivot B, and jaws C, which latter are adapted to engage in the notches 12. This tool is placed around the insulator with the jaws in the position indicated in Fig. 6 and then the handles are forced together, thus springing the tubular insulator apart so as to permit it to be placed over the insulated wire which is to be protected. It will be understood that the porcelain end pieces move with the metal halves as they are fixed thereto. Having placed the device over the wire the tool is released and its parts can be separated by taking them apart at the pivot B.

In this way a device is provided which is simple, durable and inexpensive and also easy to apply. It contains no projections or corners that are likely to be caught by the swaying branches, and consequently is not likely to be forced along the wire after it is applied, and the corrugations of the holes 16 further serve to prevent this. They also serve to keep the wire taut in the hollow space provided so that it will not engage the metal tubing of which it is made.

In the form shown in Fig. 5 the hinges 11 are omitted and the two members 20 are simply provided with inwardly extending projections 21 on which the parts can rock. If desired these two projections can be secured together in any desired way and the parts 20 made of spring stock so that there will be no necessity of additional springs as in the other case.

Although we have illustrated and described only two embodiments of the invention, we are aware of the fact that many other modifications can be made therein by any person skilled in the art without departing from the scope of the invention as

expressed in the claims. Therefore, we do not wish to be limited to all the details of construction herein shown and described, but what we do claim is:—

1. An insulator of the class described, comprising a hollow casing made up of two members adapted to rock away from each other about an axis along one side, a pair of insulating members located at each end of the said casing, said insulating members being movable with the two members of the casing and being provided with passages for the reception of an insulated wire, and springs for holding said casing closed.

2. An insulator of the class described, comprising a tubular main portion composed of two semi-cylindrical hollow members, insulating members extending into the ends thereof and each composed of two semi-cylindrical porcelain pieces having a central passage for a wire, and a pair of springs arranged about the tubular members to hold the two parts together, said tubular members having notches at their adjacent edges for the purpose of permitting them to be engaged at that point and separated.

In testimony whereof we have hereunto set our hands.

FRANK BEMENT.
EDWARD A. LOGAN.