No. 725,044. PATENTED APR. 14, 1903.

C. CLAYDON.

INSULATOR.

APPLICATION FILED SEPT. 19, 1902.

NO MODEL.

Fig. 1.

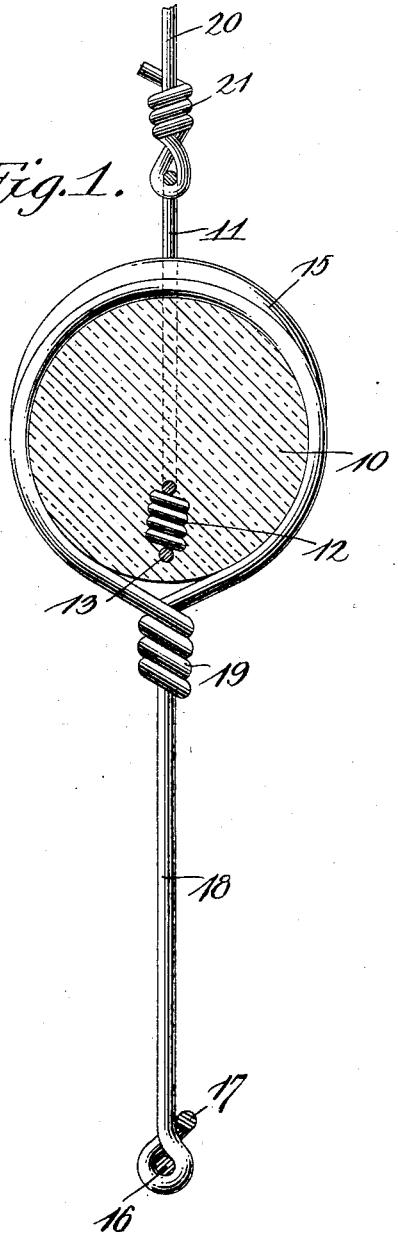
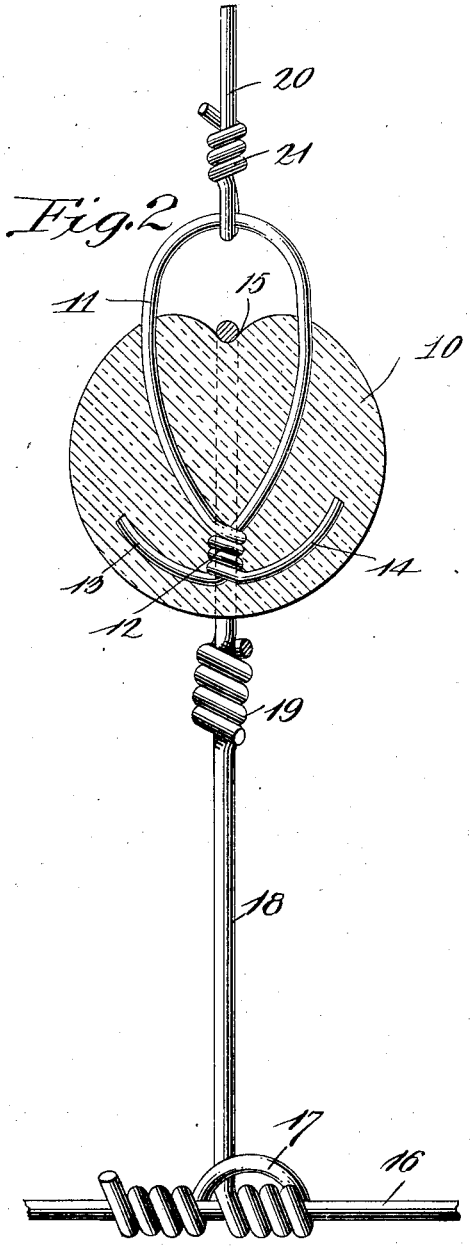


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES CLAYDON, OF SEARCY, TEXAS.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 725,044, dated April 14, 1903.

Application filed September 19, 1902. Serial No. 124,054. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLAYDON, a citizen of the United States, residing at Searcy, in the county of Madison and State of Texas, have invented a new and useful Insulator, of which the following is a specification.

This invention relates to the insulators employed for suspending electric conductor-wires, more particularly the conductor-wires for telegraph, telephone, and similar lines, and has for its object the production of a cheaply-constructed and easily-installed device which not only securely supports the line-wires and perfectly insulates them, but also renders them secure in position and obviates any tendency of the line to fall if the insulator becomes broken or disarranged.

The invention consists in a block of insulating material having an endless wire loop partially embedded therein, so that a portion of the loop extends from the insulator-block, with a wire-supporting groove around the outer surface of the block and through the projecting portion of the loop, whereby guy-wires may be connected to the block and to the loop and extend in opposite directions and be connected, respectively, to the line-wire and to the post, pole, or other support.

Other novel features of the invention will be disclosed in the description hereto annexed and specified in the claims following.

In the drawings illustrative of the invention, Figure 1 is a transverse sectional elevation, and Fig. 2 is a longitudinal sectional elevation, of the insulator embodying the improvements.

The improved device will be employed for the purpose of connecting telegraph, telephone, and similar line-wires to their supports and may be employed in connection with any of the usual supports employed for this purpose; but as the supports are not a part of the present invention they are not illustrated.

The improved device consists in a block 10 of suitable insulating material—such as porcelain, glass, clay, (preferably vitrified,) or other suitable material—which may be molded or cast. An endless wire loop 11 is provided and embedded in the block 10 when the latter is in a plastic or molten state, so that when completed the loop member 11 will be partially embedded in the member 10 and project therefrom, as indicated. The loop 11 will preferably be formed by twisting the two leg members of the loop about each other, as indicated at 12, with the ends 13 14 turned off in opposite directions, as shown in Fig. 2, so that when the member 10 is molded or cast around the loop the extended ends 13 14 effectually prevent any withdrawal of the loop from the block and materially increase the portion of the loop which engages the material of the block. This is an important feature of the invention and materially increases the efficiency of the device by increasing the holding power of the loop within the block.

Surrounding the member 10 transversely of the loop 11 is a groove 15, the groove passing through the loop, as shown.

The guy-wire leading to the main-line conductor-wire (indicated at 16) will be engaged, as at 17, in the usual manner to the main-line wire and carried thence, as indicated at 18, and around the insulator-block within the groove 15 and through the projecting portion of the loop 11 and thence coiled around the portion 18, as indicated at 19.

The tie-wire by which the insulator is connected to the line-support (not shown) is indicated at 20, connected into the projecting portion of the loop 11, as shown, by the usual coil connection 21. By this simple arrangement a connecting means between the line-wire 16 and the support is provided, with an effectual, simple, and operative insulating medium interposed therein, so that electric currents will not escape from the line-wire.

The insulator, consisting of the block 10 and its loop 11, may be employed wherever a connection is desired between the line-wire and its supports and may be connected to any of the usual supports and may be employed in many localities where the usual insulator is impracticable. For instance, in running telegraph and telephone lines through a timber country much difficulty is met with in attempting to use the ordinary insulators, which require the use of brackets or pins supported from poles or the sides of trees and necessarily in comparatively close proximity to the supports. With the improved device, however, the main-line wires may be supported at any distance from the holding means, as the portions 20 and 18 may be made

of any length, so that the line-wires may be conducted around obstructions or objects which would interfere with their operation and without materially increasing the length of the line.

One of the special advantages of the improved insulator is that it will firmly support the line-wire in event of the breakage of the insulator portion 10. In the ordinary insulator the breakage of the non-conducting portion releases the line-wire, so that the latter falls from the support; but in the improved device the breakage of the non-conducting portion 10 does not release the line-wire, as the loop member 11 still remains engaged with the two portions 18 20 and continues to serve as a support to the line-wire, as will be obvious. This is a very important feature of the invention and adds materially to its efficiency, as it effectually supports the line-wires and obviates any tendency of the latter to fall from the supports in event of the breakage of the non-conductor portion of the device.

The parts may be formed in any desired size to adapt the device to support conductor-wires of any gage and may be employed wherever it is desired to support electric conductor-wires and prevent the escape of the electric currents therefrom.

The parts may be modified in minor particulars without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed is—

1. An insulator consisting of a block of insulating material having a wire-supporting groove in the surface thereof, and a wire loop partially embedded in said block with the side members thereof spaced apart and emerging from the block on opposite sides of and at points remote from said groove.

2. An insulator consisting of a block of insulating material having a wire-supporting groove in the surface thereof, a wire loop partially embedded in said block with the side members thereof spaced apart and emerging from the block on opposite sides of and at points remote from said groove, and a guy-wire disposed in said groove and embracing said block and provided with means for engaging a line-wire.

3. An insulator consisting of a block of insulating material having an endless wire loop partially embedded therein, a guy-wire embracing said block through said loop transversely thereof and provided with means for supporting a line-wire, the side members of said loop emerging from said block on opposite sides of said guy-wire and disposed out of contact therewith, and a tie-wire connected to the projecting portion of said loop.

4. An insulator comprising a block of insulating material, and an endless loop formed of a section of wire twisted together near the ends with the extremities extended in opposite directions, and said twisted portion and extended ends embedded in said block, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES CLAYDON.

Witnesses:
TOM A. SEARCY,
ALLEN SMITH.