No. 730,805. PATENTED JUNE 9, 1903.

W. G. STROH.

INSULATOR.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

FIG. 1.

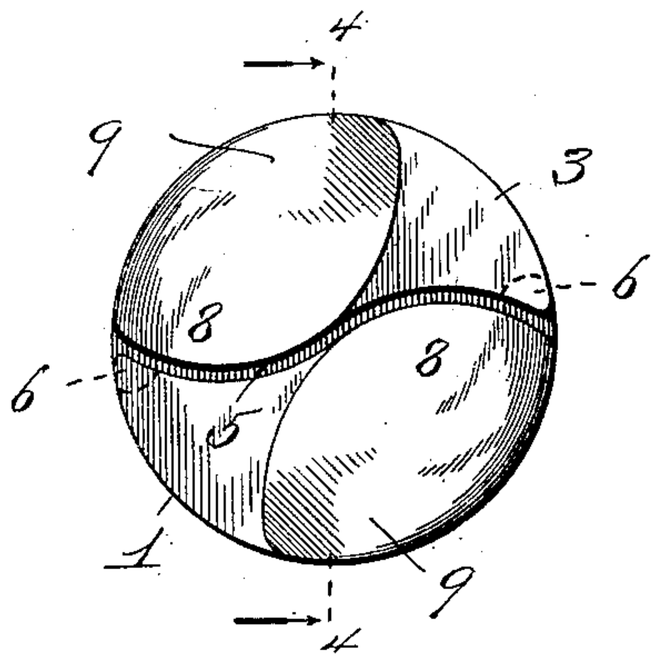


FIG. 3.

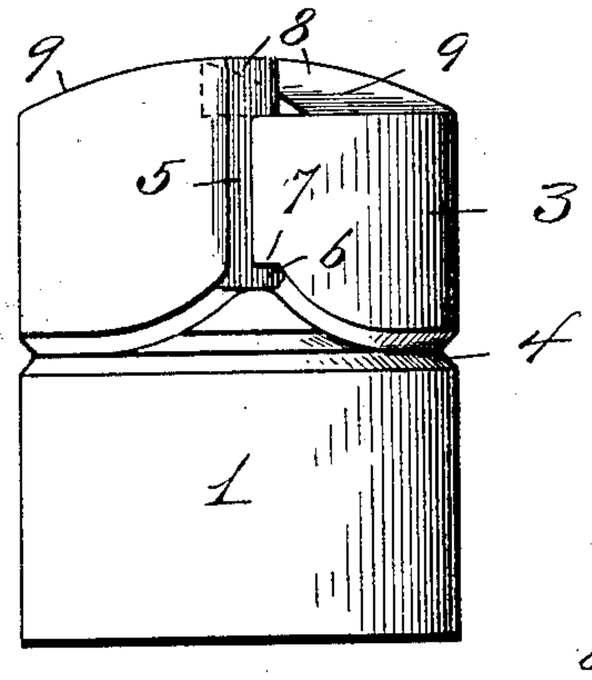


FIG. 4.

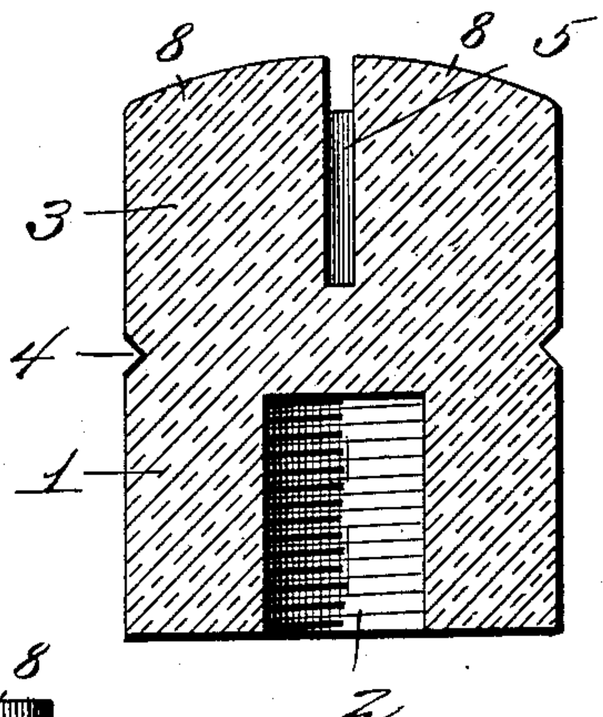
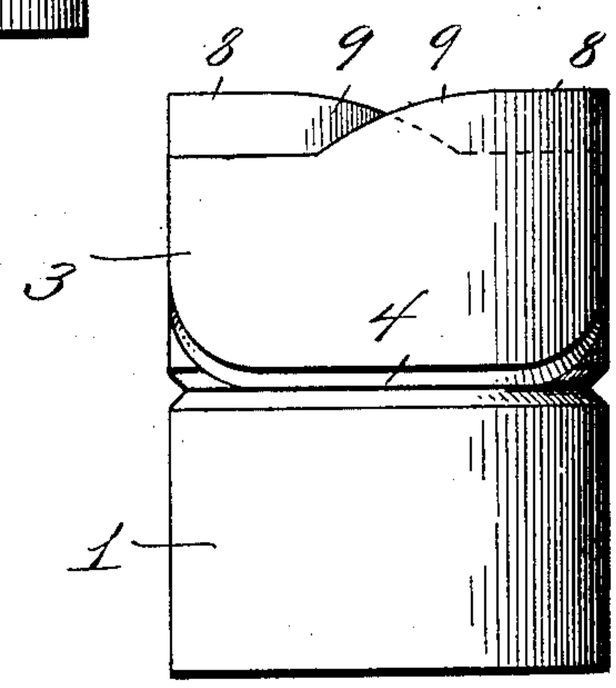


FIG. 2.



Witnesses

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No. 730,805. Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM G. STROH, OF HUME, ILLINOIS.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 730,805, dated June 9, 1903.

Application filed March 7, 1903. Serial No. 146,690. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. STROH, a citizen of the United States, residing at Hume, in the county of Edgar and State of Illinois, have invented new and useful Improvements in Insulators, of which the following is a specification.

This invention relates to insulators such as are used for electrical wires of any voltage, more especially telephone and telegraph wires; and the objects of the invention are to provide an insulator to which the wires may be attached without tying or looping the same thereabout and wherein the wires may be readily disposed by a simple operation; to provide an insulator wherein the wire will be tightly held in the event of breakage at some point beyond the insulator; to provide an insulator having means whereby a wire may be practically applied thereto and secured without looping or tying the same and also having means to adapt the insulator to be used as ordinary forms of such devices, and to provide an insulator of a strong and durable nature and of superior efficiency in general.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of an insulator embodying the features of the invention. Fig. 2 is an elevation of the same. Fig. 3 is a view similar to Fig. 2 looking toward a different portion of the insulator. Fig. 4 is a transverse vertical section on the line 4 4, Fig. 1.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The invention contemplates the construction of an insulator from a single piece of glass or any other non-conducting material suitable for the purpose wherein all the parts and features of construction are produced at one operation either by molding or other method.

The numeral 1 designates the lower or body portion of the insulator, having a vertically-screw-threaded socket 2 opening out through the bottom thereof. Continuous with the body is a head 3, and between the lower portion of the head and the upper part of the body, or at the point where the latter merges into the former, a circumferential groove 4 is formed, as in the ordinary insulator construction, to receive a loop of the wire to be supported by the insulator or a tie-wire. This construction is provided to produce an insulator having a general use.

Extending centrally downward through the center of the head 3 is a compound-curved slot 5, having at the base thereof in reverse positions lateral slots 6, which produce overhanging shoulders 7. The upper entrance to the slot 5 is guided by reversely-positioned cam-guide enlargements 8, having convex guide-faces 9, as shown by Fig. 2, the said faces being disposed on opposite sides of the slot 5 and in reverse positions. These cam-guide enlargements are employed to direct the wire to the compound-curved or sinuous slot 5, and in applying a wire to the insulator for the purpose of securement, it is disposed on the said cam enlargements and turned until it is guided to the lowest terminal edges of the said enlargements and is given a shape corresponding to that of the slot, so that it may be readily forced into the latter. When the wire is pressed downwardly to the base of the slot, the insulator is slightly turned to cause the wire to enter the lateral slots 6 under the shoulders 7. The shoulders 7 obstruct any tendency of the wire loosely moving upwardly through the slot 5 and becoming detached.

It will be seen that the improved insulator dispenses with the use of tying-wires and is virtually self-tying through the medium of the sinuous slot 5 and the lateral slots 6 to form the shoulders 7. Moreover, the reversely-inclined convex faces of the cam enlargements are exceptionally convenient in applying the wire to the insulator. It will be understood also that the insulator will be attached to the usual form of peg on a cross-tree or other support.

One of the main advantages of the present form of insulator is that it will hold a wire on a straight lead, so that in case of a break on either side of the insulator the wire is prevented from slipping through the insulator, owing to the sinuous slot 5, thus holding the slack in the line and in repairing only

one end needs to be picked up. The cam-guide enlargments are integrally formed with the head in contradistinction to insulators having separate pieces for this purpose that have to be secured in place. Moreover, the opposite walls of the slot 5 being curved regularly will obviate any tendency toward breaking the wire when it is applied to the insulator.

Changes in the form, proportions, and minor details may be resorted to without in the least departing from the spirit of the invention.

Having thus fully described the invention, what is claimed as new is—

An insulator, comprising a body having an integral head formed with a sinuous slot extending downwardly thereinto below the upper surface thereof and opening outwardly at diametrically opposite points, the head at the base of the slot being formed with reversely-extending lateral slots at the opposite terminals of the sinuous slot to provide overhanging shoulders, and the top of the head on opposite sides of the slot having flat cam enlargements which are inclined downwardly toward diametrically opposite portions of the head to form screw or inclined surfaces to direct a wire disposed at an angle to the sinuous slot accurately into the latter by turning the wire.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM G. STROH.

Witnesses:
HARRY BOON,
WEBSTER L. STROH.