July 9, 1929. W. D. KYLE 1,720,181

INSULATOR

Filed Jan. 25, 1926

Fig. 1.

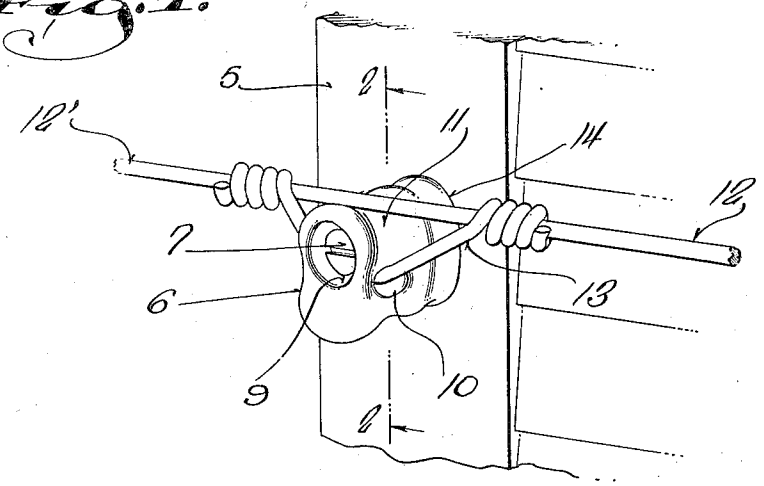


Fig. 4.

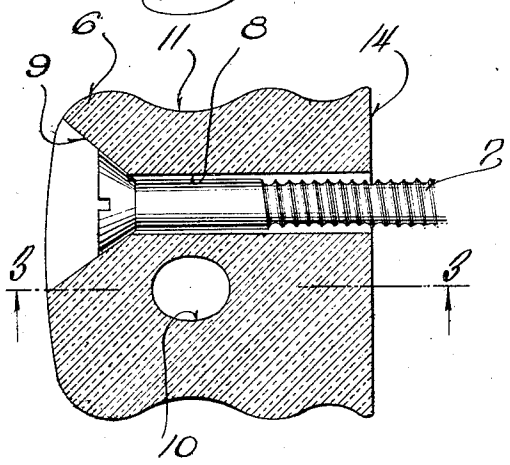
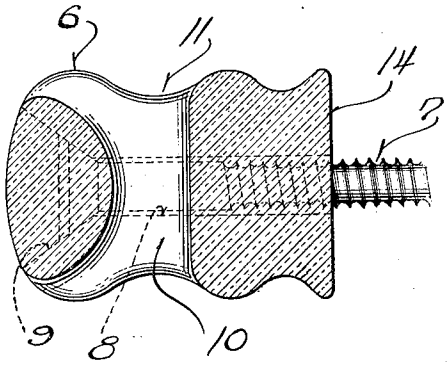


Fig. 3.



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UNITED STATES PATENT OFFICE.

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INSULATOR.

Application filed January 25, 1926. Serial No. 83,564.

This invention relates to certain new and useful improvements in insulators of that type commonly known as house brackets.

Heretofore insulators or brackets of this type have been usually supplied with an attaching member cemented in a recess formed therein. This construction has several inherent deficiencies or failings the most noticeable of which is its inability to successfully withstand the various stresses applied thereto and, therefore, it is an object of this invention to provide an insulator having means for attachment to a support whereby the insulator is free to adjust itself to more readily withstand all working stresses.

Another object of this invention resides in the provision of an insulator having a securing means, whereby upon attachment of the insulator to a support, the porcelain thereof is free to pivot to a position in which the insulator is better adapted to meet the given stresses and put the porcelain thereof in compression.

A further object of this invention is to provide an appliance of the class described which is of simple and durable construction and which requires no assembling of parts.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a perspective view illustrating the application of my improved insulator to a building or other support;

Figure 2 is a sectional view of the insulator detached from its support and taken through Figure 1 on the plane of the line 2—2, and

Figure 3 is a sectional view of the insulator taken through Figure 2 on the plane of the line 3—3.

Referring now more particularly to the accompanying drawing in which like numerals designate like parts throughout the several views, the numeral 5 designates a support shown in the drawing as a portion of the wall of a building. The insulator or bracket 6 preferably of porcelain or other insulating material is secured thereto by an attaching screw 7, passed through a longitudinal bore 8 which is offset with respect to the longitudinal axis of the insulator. The outer end of the bore is preferably countersunk, as at 9, to receive the head of the attaching screw.

The insulator is further provided with a transverse opening 10, adapted to receive a wire, and a channel 11 in its outer periphery and in line with the transverse opening.

If desired, the line 12 may be passed directly through the opening 10, but the more usual method is to engage the line in the channel 11 and thread its tie wire 13 through the opening. This secures the line to the insulator with a minimum of effort. In attaching the insulator to its support, the screw 7 is preferably drawn just tight enough to draw the approximate oval shaped base 14 of the porcelain against the support, but at the same time permit the porcelain member to swivel or pivot on the screw 7 when moved under strain.

In the drawing I have shown the insulator supporting a horizontal line wire, the stress applied thereby is all in a downward direction and the insulator due to the eccentric position of the screw 7 has taken a position with the toe of its base in line with the direction of the applied stress, thus putting all parts of the porcelain in compression.

Assume now that instead of continuing the end 12′ of the line horizontally as shown, it is brought down vertically in line with the side of the building, the direction of the resultant stress is at an angle to both ends of the line and substantially bisects the angle formed thereby. The porcelain insulator will no longer retain its position with the toe of the base pointing downward, but is swung on the screw so that the direction in which its toe points coincides with the direction of stress. Thus it will be seen that the insulator is free to adjust itself to a position putting it in compression no matter what the direction of the applied stress is.

What I claim as my invention is:

An insulator of the class described, comprising a body portion substantially oval shaped in cross section with its inner end

perpendicular to its axis and having a single bore in its major axial plane extending longitudinally through said body at a point spaced from its center of gravity and an opening passing transversely through the body portion, the opening communicating with a reduced medial portion at the outer end of the body portion and with a circumferential channel, and means passed through the longitudinal bore for securing the insulator to a support, the reduced medial portion and the circumferential channel facilitating the connection of a wire, the application of which causes the insulator to pivot on its securing means to point its center of gravity towards the direction of stress.

In testimony whereof I affix my signature.

WILLIAM D. KYLE.