No. 804,115. PATENTED NOV. 7, 1905.

G. W. GOODRIDGE.

ELECTRICAL INSULATOR.

APPLICATION FILED MAY 5, 1905.

Fig. 1.

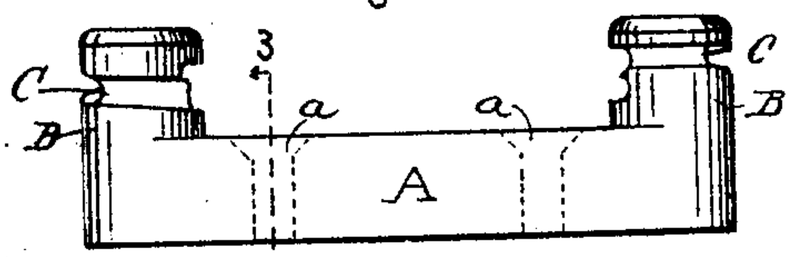


Fig. 2

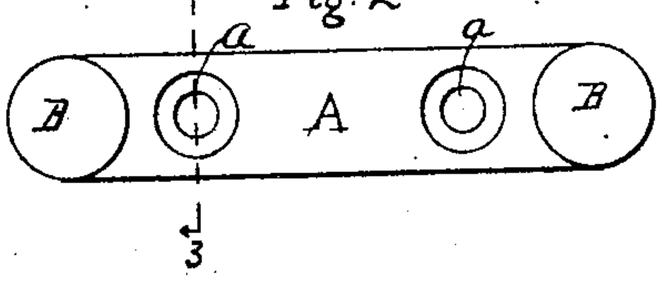


Fig. 3.

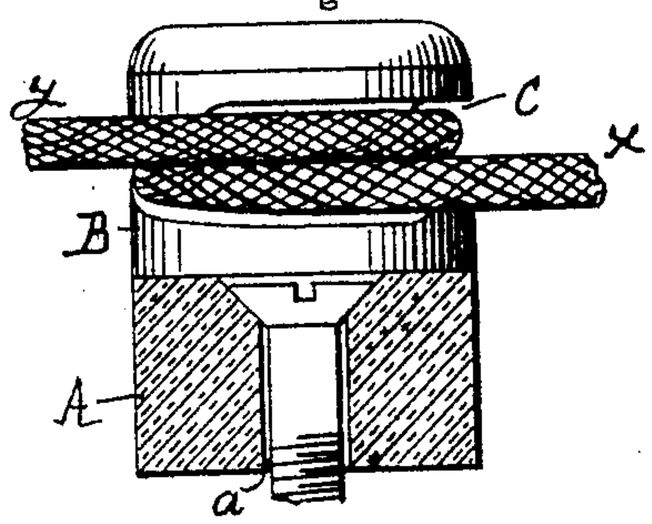


Fig. 5

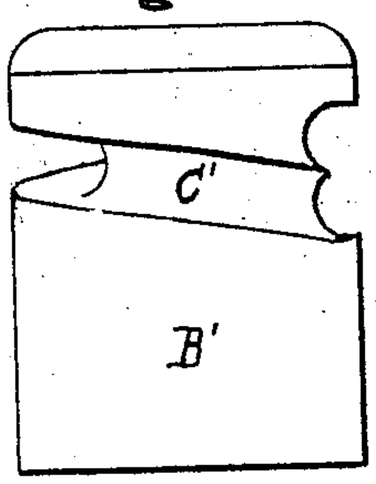


Fig. 4.

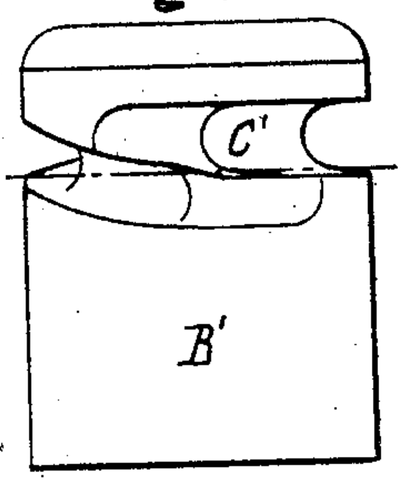


Fig. 6.

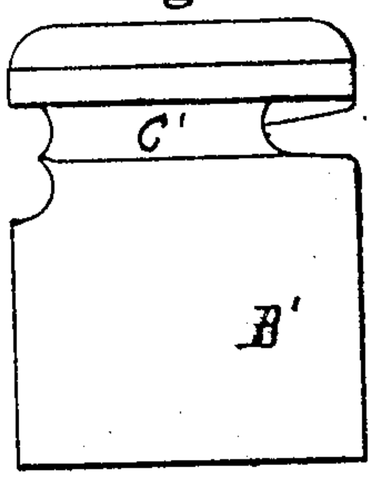
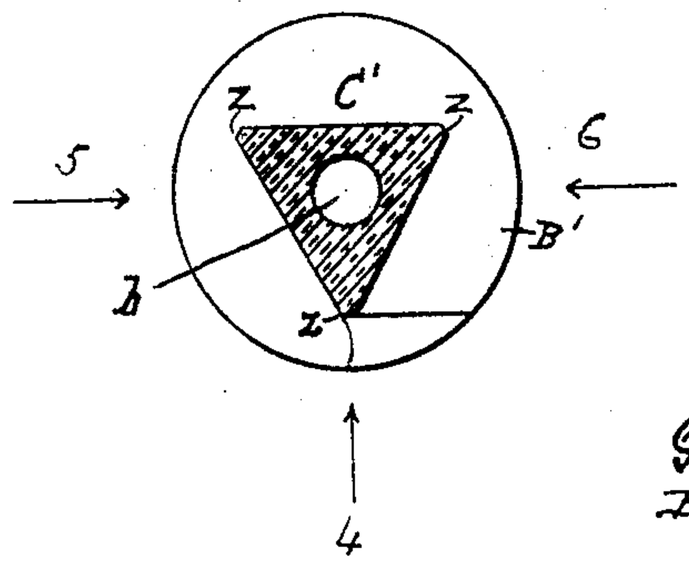


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

GILBERT W. GOODRIDGE, OF BRIDGEPORT, CONNECTICUT.

ELECTRICAL INSULATOR.

No. 804,115. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed May 5, 1905. Serial No. 258,960.

To all whom it may concern:

Be it known that I, GILBERT W. GOODRIDGE, a citizen of the United States of America, residing in Bridgeport, county of Fairfield, State of Connecticut, have invented an Improved Electrical Insulator, of which the following is a specification.

My invention relates to that class of insulators which are designed for the support of electrical conductors, particularly insulated conductors in either exterior or interior wiring.

The object of my invention is to provide an insulator which will be simple in construction, inexpensive to manufacture, inexpensive to use, easily wired without the use of tie-wires, and yet be strong and efficient in use.

In the accompanying drawings, Figure 1 is a side elevation of a cleat-insulator of my invention. Fig. 2 is a plan view of the same. Fig. 3 is an enlarged transverse section taken on the line 3 3, Figs. 1 and 2, showing the cleat secured in position and the wire connected up. Fig. 4 is a side elevation of a single-wire insulator embodying my invention when looking in the direction of the arrow 4, Fig. 7. Fig. 5 is a side elevation of the same looking in the direction of the arrow 5, Fig. 7. Fig. 6 is a side elevation looking in the direction of the arrow 6, Fig. 7; and Fig. 7 is a sectional plan on the line 7 7, Fig. 4.

My invention may be embodied either in a cleat with two or more knobs, one for each wire, as illustrated, for example, in Figs. 1, 2, and 3, or my invention may be embodied in single-knob form, as illustrated in Figs. 4 to 7. In the cleat construction the body A is formed with outwardly-projecting posts B B with spiral grooves of the character hereinafter described to receive and hold the conductors without the use of any clamp or any tie-wire. I prefer to make the posts B B cylindrical and to locate them (in the case of a cleat for a pair of wires) at the ends beyond the holes *a* for the securing-screws; but in the case of a three-wire cleat or for a larger number there will be another post or posts between the end posts. The spiral groove on each post B is shown at C and on an enlarged scale in Figs. 4 to 7 and is sufficient to take one turn of the wire, the incoming end *x* and outgoing end *y* lying closely adjacent, as shown in Fig. 3. This groove C is made of varying depths, so as to produce angles *z z*, Fig. 7, to kink the conductor sufficiently to prevent it from slipping when coiled into the groove. In the drawings I have shown the insulator as of triangular section at the bottom of the spiral groove.

It will be understood that the described construction of insulator-post with a spiral groove of varying depths between the angles is applicable to a single-post or single-wire insulator, and I have so shown it at B′ in Figs. 4, 5, 6, and 7, the hole *b* for the securing-screw, Fig. 7, being in this case in the center of the post. In this form the insulator has the advantage of dispensing with the use of the tie-wire commonly employed. In the case of the cleat my invention has the advantage of dispensing with the use of the usual upper half of the cleat, diminishing the cost, facilitating wiring, and permitting the use of shorter securing-screws.

I claim as my invention—

1. An insulator-post, having a circumferential spiral groove to receive and hold conductor-wire, the post being of angular cross-section at the groove, which is of varying depth between all the angles.

2. An insulator having a cylindrical body with a circumferential spiral groove around it, the body being of triangular section at the groove.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GILBERT W. GOODRIDGE.

Witnesses:

N. W. HARDER,

H. G. WALES.