

(No Model.)

L. H. DESISLES.
INSULATOR.

No. 539,040.

Patented May 14, 1895.

Fig. 1.

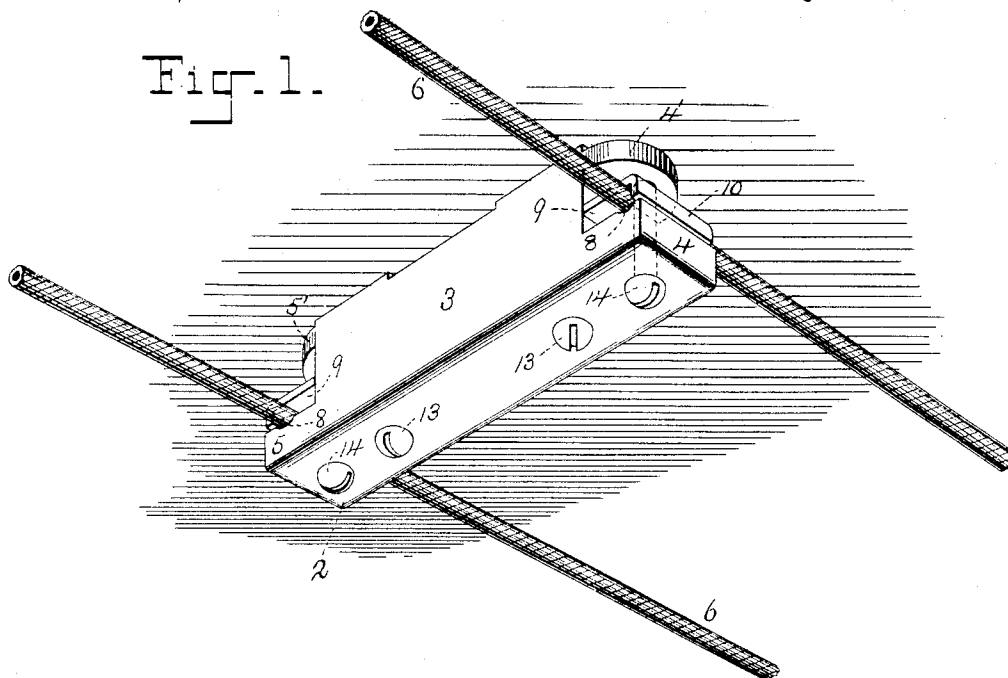


Fig. 2.

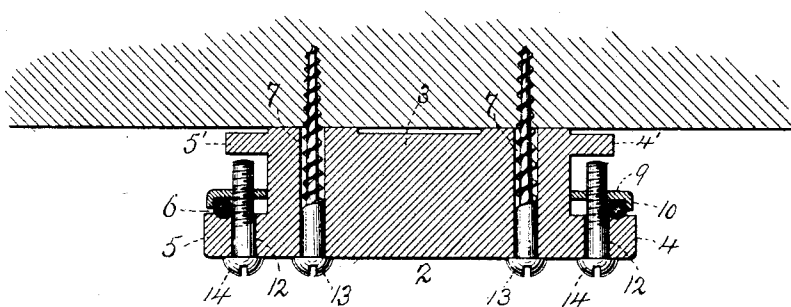
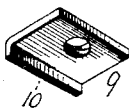


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

LEONARD H. DESISLES, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD TO FREDERICK S. PALMER, OF SAME PLACE.

INSULATOR.

SPECIFICATION forming part of Letters Patent No. 539,040, dated May 14, 1895.

Application filed September 10, 1894. Serial No. 522,580. (No model.)

To all whom it may concern:

Be it known that I, LEONARD H. DESISLES, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Insulators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to insulators, more particularly such as are employed in stringing electric wires for use in the interior of buildings.

The object of my present invention is to obtain an insulator adapted to effect certain specific results, combined with simplicity of construction, ease of putting up, and non-liability of breakage when in the act of wiring. The specific results consist in the peculiar mode of affixing a clamp upon the insulator by which every length of wire between any two insulators is made independent of every other, and each may be under different tension; further, in the fact that no special preparation of the insulator is required; also that sharp corners may be turned, and lastly short-circuiting, arising from water drip or moisture is prevented by a guard or cover. It is furthermore adapted without alteration in form to grasp the largest or the smallest wires in use.

The drawings represent, in Figure 1, a perspective view of an insulator embodying my invention. Fig. 2 is a longitudinal vertical section. Fig. 3 is a perspective view of the clip from beneath.

In said drawings I have shown an insulator at 2 of any desired form preferably made of porcelain, since this material is cheaply produced, while the shape can be easily altered prior to heating. Other material having good insulating properties however may be substituted. In the present instance the insulator is shown as having an oblong body 3, rectangular in cross-section with rounded projections, upper and lower respectively 4, 4', 5, 5'.

The lower ones I term brackets, as they serve as supports for the wire, shown at 6, while the upper ones are styled guards or caps, as they cover the metallic device employed for clamping the wire, and thereby prevent short-circuiting, which may arise from moisture or drip from the ceiling, where said insulators are usually applied.

As before premised these insulators are especially adapted for interior work, and are employed in the wiring of ware-houses, hotels, stores and other buildings or compartments. In such locations it is desirable to produce a very cheap insulator, likewise one that can be easily applied to a ceiling or wall of a room without difficulty and without danger of breaking. Hence I have formed two transverse holes 7 having a smooth bore for the introduction of nails or screws, as may be preferred.

One of the requirements of a good insulator of this class is that it shall not only be cheap and readily put up, but that every section of wire shall be independent of every other; that is, although the wire is continuous the tension between any two insulators is to be independent of that between any other insulators. To this end the brackets 4, 4', are provided preferably with a transverse groove or slot 8, while a metallic clip or binder 9 having a lip 10 adapted to overlap the wire and prevent the latter from slipping off against lateral pull is affixed upon the upper face of the bracket on the supposition that the insulator is pendent from the ceiling. This clip is preferably of stout brass and is in the present instance centrally bored or thereabout, and said hole is screw-threaded to engage one end of a retaining screw or bolt 14 adapted to pass freely through a hole 12 formed in the insulator. Furthermore the inner end of the clip is intended to contact with or approach very closely the end of the insulator proper, and thus the latter serves as a stop and prevents the clip from moving, when turning the fastening screw home. The advantages of this method of constructing the insulator are several. Primarily the body portion requires no special preparation, and is of the simplest form having merely four smooth bored holes

7, 12, as specified, and is thus easily cast or molded, at a very small outlay. Secondly, the fastening device comprising the screw 14 and clip 9 is very easily attached to the insulator, the latter being simply cored to create a smooth hole, and no machine labor is required, the screw passing freely through the hole prepared for it and entering the clip. Hence such pressure can be applied to the wire as will make every length between two insulators independent. Lastly, the guards or caps 5, 5', extend over the screw, thus interposing an insulating material, which prevents short-circuiting due to moisture or leaks from above.

15 The method of application is as follows: The spot being chosen an insulator is selected and there fastened by means of nails or screws 13 through the holes 7. The wire 6 is then applied in the groove 8, the clip 9 superposed and the retaining screw 14 slipped through the hole 12 previously prepared and secured to said clip by screw-thread engagement. By turning the screw any desired pressure can be applied to the wire without danger of breaking or injuring the bracket, since such pressure is equally distributed, the head of the screw bearing on one side, while the clip rests upon the opposite side thereof. As before stated the proximity to or the contact of the clip with the end of the insulator prevents said clip from turning and allows the operator to use both hands in setting the screw home or in tightening the wire just previous to this final act.

35 One of the attendant advantages in this insulator consists in its adaptability for the largest or smallest wires in use. The application of a large or small wire requires no change in the form of the insulator, but different sizes of wires are grasped merely by a

change in the position of the clip up or down upon the screw 14 with which it engages. Furthermore in clamping the wire to the insulator no bend in the wire occurs. Hence no abrasion and no liability of tearing the insulating material and exposing the wire.

What I claim is—

1. As a new article of manufacture, an insulator for wire support, comprising a main body of insulating material, having end brackets, a metallic clip, and a holding screw, said screw and clip to have screw-thread connection with each other, and co-operating with a bracket to hold a wire, substantially as and for purposes stated.

2. An insulating body, its end brackets transversely grooved, and end caps thereabove, combined with a metallic clip, a holding bolt which has screw-threaded engagement with said clip, and a perforation through the bracket to allow free passage of the body of the screw, the clip and the bracket co-operating to retain a wire, substantially as set forth and explained.

3. In combination with an insulating body, end brackets thereupon, a holding screw adapted to extend loosely through a bracket, a metallic clip transversely bored and screw-threaded to engage the screw, and a lip forming part of the clip and adapted to lie in parallelism with and overlap the wire which is grasped between the bracket and the clip proper substantially as specified.

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

LEONARD H. DESISLES.

Witnesses:

H. E. LODGE,
E. K. BOYNTON.