(No Model.)

E. C. COOLIDGE.

BINDING SCREW FOR ELECTRIC WIRES.

No. 273,259. Patented Mar. 6, 1883.

Fig. 1.

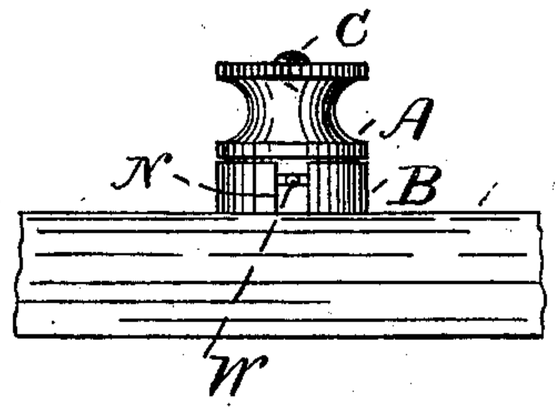


Fig. 3.

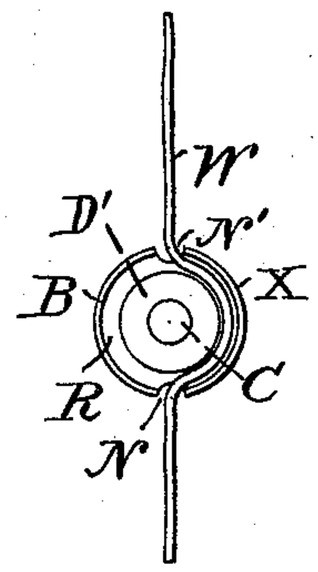
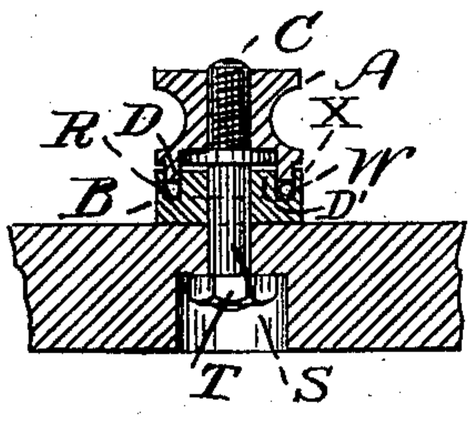


Fig. 2.



Witnesses

J. H. Cheever.

Geo. Willis Pierce.

Inventor.

E. C. Coolidge.

UNITED STATES PATENT OFFICE.

ELLERY C. COOLIDGE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE AMERICAN BELL TELEPHONE COMPANY, OF SAME PLACE.

BINDING-SCREW FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 273,259, dated March 6, 1883.

Application filed December 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, ELLERY C. COOLIDGE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Binding-Screws for Electric Wires, of which the following is a specification.

My invention relates to binding-screws which are used in electrical apparatus for the purpose of conveniently connecting the apparatus with conducting-wires over which electricity is to be transmitted, and has for its object a surer and more permanent contact of the wire with the screw-post than any heretofore devised.

The form of screw-post now in use is open to serious objection. The thumb-screws, owing to changes in temperature and occasional jarring, will in time become loosened, and the wires, held merely by the point of the screw against the bottom of the aperture in the post, necessarily become loosened, introducing an abnormally-high resistance in the line. They also are very apt to slip out, breaking the circuit thereby.

In the drawings which form a part of this specification, Figure 1 is a side view of the complete binding-screw with a wire fastened thereto. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a top view of the lower portion of the post B.

As will be noticed, the screw-post consists of two parts—the thumb screw or nut A and the post B. The thumb-screw A is tapped vertically through its center to admit of being screwed on the screw C, which projects vertically from the lower portion, B. The lower part of the thumb-screw A is turned away, leaving the projection D. The post B, on its superior surface, is recessed, (shown in the figure by R,) leaving the hub D′, at the base of the screw, and the ridge X. This ridge is slotted vertically at two portions diametrically opposite to one another, (shown by N N′.) The post is fastened to a table or base-board by means of the screw S and nut T. A wire connection is made as follows: The thumb-screw A is unscrewed nearly to its full extent. The wire represented at W is brought into the notch N and carried around the hub D′, its end emerging at the slot N′. The thumb-screw is now screwed on, bringing the projection D forcibly against the wire and squeezing it into the recess R. It will be seen that by this method a much greater amount of surface of wire is brought into contact with the screw-post than by any other known method. Should the thumb-screw accidentally become loosened, the wire will still remain in its place, and there will be but little danger of the contact being broken.

Although I have shown in the drawings the ridge as being slotted on opposite sides, I do not confine myself to those relative positions. The slots may be near together in the ridge. In this case the wire would be passed around the hub, not crossing itself, but lying flat in the recess.

Having now fully described my invention, I claim as novel—

1. A binding-screw consisting of a post and nut, the former being recessed and notched, and the nut formed with a shoulder adapted to fit the recess of the post, substantially as described.

2. In a binding-screw, the combination of a shank, consisting of a threaded pin projecting from a cup having curved or circular slots approximately the width of a wire, with a nut adapted to screw on the threaded pin, and having its inferior surface fitted to enter the said cup, whereby a wire placed in the cup and through the slots may be rigidly held by the nut, substantially as described.

3. In a binding-screw, the combination of the post having formed therein a curved or circular groove or recess approximately the width of a wire, and the screw or nut having a curved shoulder which fits into said recess when the screw or nut is screwed down, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 28th day of December, A. D. 1882.

E. C. COOLIDGE.

Witnesses:
J. H. CHEEVER,
GEO. WILLIS PIERCE.