No. 634,766. Patented Oct. 10, 1899.

W. ROCHE.

ELECTRICAL BINDING POST.

(Application filed Aug. 22, 1899.)

(No Model.)

Fig 1

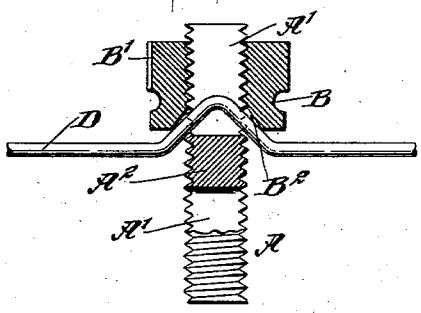


Fig 4

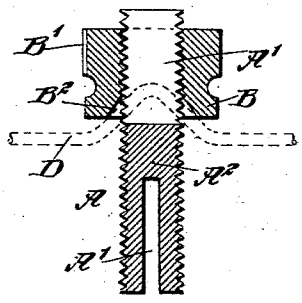


Fig 2

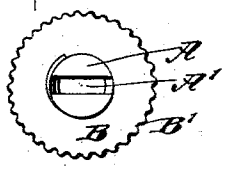
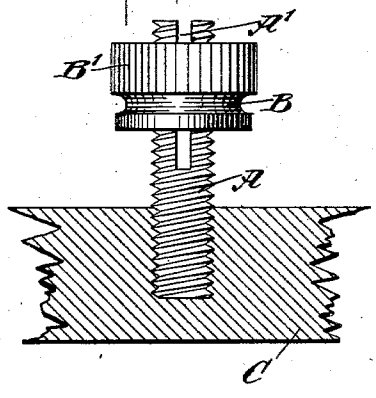


Fig 3



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ELECTRICAL BINDING-POST.

SPECIFICATION forming part of Letters Patent No. 634,766, dated October 10, 1899.

Application filed August 22, 1899. Serial No. 728,109. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ROCHE, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Electrical Binding-Post, of which the following is a full, clear, and exact description.

My invention relates to binding-posts or connections for electrical apparatus, and has for its object to provide a simple construction which will effectively hold the wire against twisting or slipping with little danger of breaking it and which in the act of clamping the wire will automatically remove the insulation thereof, so as to render scraping or like manipulations unnecessary.

To this end my invention consists in the particular construction and arrangement of parts hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an axial section of one form of my improved binding-post. Fig. 2 is a plan thereof. Fig. 3 is an elevation of another form of my invention, and Fig. 4 is an axial section of a third form.

The improved binding-post consists of two parts—viz., the core or screw A and the clamp or nut B.

The core A, as shown in Figs. 1 and 2, is exteriorly screw-threaded from end to end and is slitted longitudinally from the end faces to within a distance from the center, the slots A′ thus leaving between them a solid center piece A^2. The two slots A′ may be located in the same plane, as shown in Fig. 1, or in longitudinal planes arranged at an angle to each other—for instance, at a right angle—as represented in Fig. 4.

The nut or clamp B is adapted to screw on the core A from either end and has a milled portion B′, whereby it may be turned more readily. At one end the bore of the nut is widened conically or approximately so, as shown at B^2 in Figs. 1 and 4, said widened or funnel-shaped portion being preferably smooth; but, if desired, the surface may be roughened.

In the construction shown in Fig. 3 the core A, instead of being slitted at both ends, is solid at its lower end, which screws into a suitable base C. In all other respects the construction is identical with that shown in the other figures.

In operation the wire D is inserted in the slot A′ either endwise, as with the customary perforated binding-post, or sidewise, the nut B being first removed for this purpose. The slotted construction of the core A obviously is of especial advantage where it is desired to connect a wire with another which is already fastened at both ends without detaching the fastened wire at either end. In this case one end of the core of my improved binding-post may (after removal of the nut B) simply be slipped over the fastened wire without disturbing the latter in the least, the clamping being then effected as will be described presently, and then the other wire will be inserted and clamped at the opposite end of the core A. The nut B is screwed toward the solid center piece A^2, and during its rotation the lower edge of the nut, at the widened portion B^2, engages and scrapes the wire D, so as to effect a good contact, and in case the wire is covered with an insulator the insulation is cut and removed by the inner edge of the nut at the bottom thereof. The wire is gradually pressed toward the inner end of the slot A′ until the central portion of the wire engages the solid core A^2. As, however, the screw-thread on the core is extended beyond the inner end of the slot, the further rotation of the nut will bend the wire into the V shape shown in Figs. 1 and 4, thus not only clamping the wire into firm engagement with the nut and core, but at the same time giving it such a shape that a longitudinal pull will have little tendency to withdraw the wire even if the nut should become loose. Furthermore, the flaring shape of the nut's bore bends the wire at an obtuse angle, rendering it much less liable to breakage than if the bore were of the same width throughout.

The forms shown in Figs. 1, 2, and 4 are adapted for connecting two wires or for connecting a wire with a terminal of a battery, such as a dry battery. The form shown in

Fig. 3 is intended for all kinds of electrical apparatus in which a base or like support is employed.

It will be seen that my improved binding-post is simple in construction, cheap to produce, and effective in operation.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from the end inward, the screw-thread extending inwardly beyond the inner end of the slot, and a clamp or nut constructed to screw on said core and having a funnel-shaped interior enlargement at one end of its bore.

2. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from the end inward, and a clamp or nut constructed to screw on said core and having a funnel-shaped interior enlargement at one end of its bore.

3. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from both ends inward, with a solid center piece between the inner ends of the slots, and a clamp or nut constructed to screw on said core and having a funnel-shaped interior enlargement at one end of its bore.

4. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from both ends inward, the planes of the two slots being at an angle to each other, and a clamp or nut constructed to screw on said core and having a funnel-shaped interior enlargement at one end of its bore.

5. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from both ends inward, the planes of the two slots being at an angle to each other, and a clamp or nut constructed to screw on said core.

6. An electrical binding-post, comprising a core screw-threaded exteriorly and slitted longitudinally from both ends inward, with a solid center piece between the inner ends of the slots, and a clamp or nut constructed to screw on said core.

WILLIAM ROCHE.

Witnesses:
JOHN LOTKE,
EVERARD BOLTON MARSHALL.