

April 14, 1936.

W. W. DEWHURST ET AL

2,037,620

BINDING POST

Filed July 31, 1934

Fig. 1.

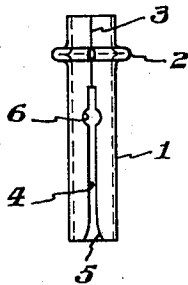


Fig. 2.

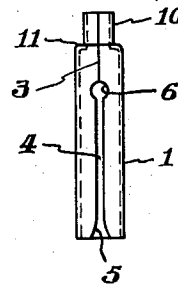


Fig. 3.

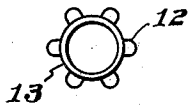


Fig. 4.

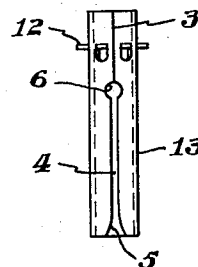
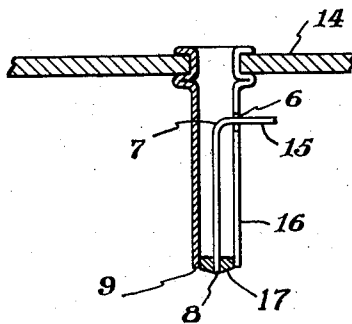


Fig. 5.



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BINDING POST

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Application July 31, 1934, Serial No. 737,752

5 Claims. (Cl. 173-259)

This invention relates to binding posts, and more particularly to a device of that character which is suitable for use in anchoring electrical conductors in an electrical apparatus.

5 An object of our invention is to provide a binding post having suitable characteristics for accommodating a plurality of wire conductors of ordinary size and for anchoring such conductors, as by a soldering operation.

10 Another object of our invention is to provide a tubular binding post which may be securely affixed to a relatively thin supporting member and which will accommodate two or more conductors from different electrical units and from different portions of a wiring panel such that, when the assembly has been completed, a soldering together of the various conductors issuing from the tip of any one binding post may be readily accomplished.

20 The foregoing and other objects and advantages of our invention will be more readily understood upon reference to the following detailed description when read in connection with the accompanying drawing, in which

25 Figure 1 is a view of one of our binding posts having a suitable slot for insertion therein of a conductor, and having a beaded flange externally of the post body;

30 Fig. 2 is a view showing a modified form of our binding post in which one end is swedged to a smaller diameter, thereby providing a shoulder to be engaged with one face of a laminated sheet to which the post may be riveted;

35 Fig. 3 is an end view of another modified form of our invention showing an arrangement of lips protruding from the cylindrical wall of the post;

40 Fig. 4 is another view of the post shown in Fig. 3 and more clearly setting forth the manner of formation of these lips integral with the post itself for serving as shoulders against which one face of a laminated member may rest when the post is riveted thereto; and

45 Fig. 5 is a cross-sectional view showing one of our binding posts assembled with a laminated supporting member and with a bent conductor the end of which may be soldered to the end of the binding post.

50 In a copending application Serial No. 733,456, filed July 2, 1934, by Carpenter and La Rue, which application was assigned to the assignee of the instant application, it was shown how tubular binding posts may be employed to advantage in a wiring panel for radio apparatus and the like. Carpenter and La Rue proposed to rivet the binding posts to a lamination of insulating material

and to interject certain conductors of their wiring panel internally of the binding posts from end to end. They showed conductors terminating adjacent the end of the binding post, where they might be soldered thereto by what is known as a "pot-soldering" operation, or in any other suitable manner.

5 Our improved binding posts are adapted to serve as anchorages for electrical conductors. Our posts, too, may be riveted to the bottom lamination of a wiring panel such as disclosed in the aforesaid copending application. We prefer, however, that our binding posts shall be so constructed as to serve conveniently for the admission of other conductors from the outside of the tubular wall thereof. For example, it may be desirable to arrange a plurality of resistors, capacitors and the like to be anchored beneath a wiring panel. In order that this anchorage may be secure and that the various resistors, capacitors, etc., may be firmly held in place, we have found it desirable to arrange our binding posts in two rows with suitable spacing therebetween so that pairs of conductors leading from the various electrical elements may straddle any two of the binding posts.

10 In order that the assembling operations may be facilitated, we have found that these conductors from the resistors, capacitors, etc., may readily be wedged into slots which we provide in our binding posts. The posts themselves are preferably made of metal having such resilience that the slotted opening, extending along a portion of the cylindrical body, may be expanded slightly and when the conductor is brought to a certain position where the slot is somewhat widened, it is retained thereat by the slight closing up again of the slot.

15 Referring to Fig. 1, we have provided a binding post which is preferably formed from sheet metal or tubing. Non-metallic material may be used, however, in cases where it is not essential that a conductor be soldered to the end of the post. If a non-metallic material is used, then, of course, the post would serve merely as an anchorage and to hold a plurality of conductors in juxtaposition until soldered together.

20 The tubular body 1 may be formed, in a manner well known in the art, having a beaded flange 2. The two edges 3 of the flat sheet from which the post is formed may be caused to meet at one end and across the beaded shoulder 2. A slot 4 is provided which opens up at the other end, the corners being slightly rounded as at 5. A widened portion of the slot appears at 6. If the

width of the slot 4 is made slightly less than the diameter of the conductor to be wedged therein, it will be seen that the slot will open up during the assembly operation but will immediately close again when the conductor reaches the opening 6. By forming a bend 7 in the conductor, as shown in Fig. 5, it will be seen that, after the assembly has been completed, the end 8 of the conductor and the end 9 of the binding post will be held adjacent one another for facilitating a soldering operation.

Fig. 2 shows a modification of our invention in which, in place of the beaded shoulder 2, we have formed a shoulder 11 by reducing the diameter of the post as at 10. The slot 4 and the widened portions 5 and 6 thereof are the same as shown in Fig. 1.

Another modification of our invention is shown in Figs. 3 and 4. The lip members 12 may readily be punched out before the flat material is rolled up into its tubular shape. These lips 12 serve to seat the tubular post against a surface surrounding an orifice in a laminated supporting member. A riveting operation may, therefore, be performed such as will securely affix the post 13 to the lamination. The arrangement of the slot in the post of Fig. 4 is similar to that shown in Fig. 2.

Fig. 5 shows how any one of the binding posts of the several modifications shown in Figs. 1, 2, 3, and 4 may be riveted to a sheet or lamination 14, preferably of insulating material. A conductor 15 as has already been stated, may be wedged into the slot 16 and positioned so that the bend 7 is adjacent the opening 6, whereas both the conductor-end and the post-end are brought together to facilitate a soldering operation. The solder is indicated at 17.

To those skilled in the art, many modifications of our invention will readily suggest themselves. We do not intend, therefore, that our invention shall be limited except as is necessitated by the prior art and by the scope of the appended claims.

We claim as our invention:

1. A binding post for electrical conductors comprising a shouldered hollow cylindrical member formed of resilient material, said member having an end-to-end slit therein, said slit being substantially closed along the region of the shoul-

der and having an opening of substantially uniform width extending from a terminal of said post along a substantial portion of the cylindrical wall, said opening being widened at said terminal to facilitate the wedging therein of a conductor, and said opening being widened at a point remote from said terminal to accommodate said conductor.

2. In combination, an electrical conductor of suitable diameter having an end portion bent at an angle to an adjacent portion, a binding post of tubular formation having a slotted opening therein, the terminals of said slot having a diameter greater than that of said conductor and wider than the section of said slot intermediate said terminals, said binding post being composed of resilient material whereby said angular conductor is entered into one of said terminals and wedged through the narrow portion of said slot into the other of said terminals, and a body of solder affixing the end of said conductor to the end of said post so as to retain the bend of said conductor internally of said post.

3. In combination, a binding post of tubular formation having a slotted opening extending from one end of said post along a given portion of its length and being widened near its inner end, and a conductor soldered to said binding post, said conductor being of slightly greater diameter than the normal width of said opening, said conductor having a bend therein such that a portion of the conductor is disposed internally of said binding post and longitudinally thereof, and another portion projects through the widened inner end of said slotted opening.

4. An electric fitting comprising a flanged tube having an end-to-end slit therein, said slit being substantially closed at one end of the tube and open at the other end, the open portion of said slit terminating in a widened conductor retaining orifice intermediate said ends.

5. An electric fitting in accordance with claim 4 and having an outwardly extending circumferential bead intermediate said orifice and the end of said tube containing said substantially closed portion of said slit.

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