Dec. 25, 1928. 1,696,616

F. C. WAPPLER

BINDING POST

Filed March 16, 1927

Fig. 1.

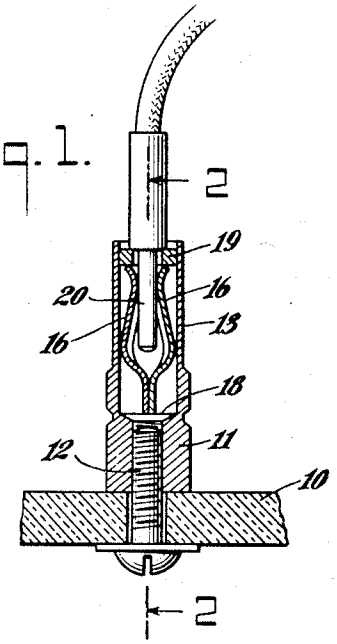


Fig. 3.

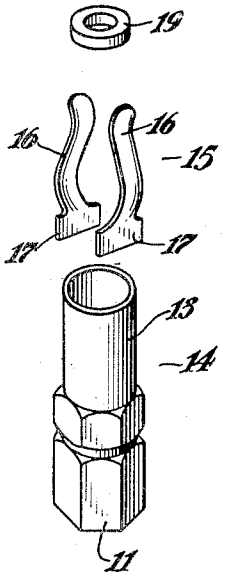


Fig. 2.

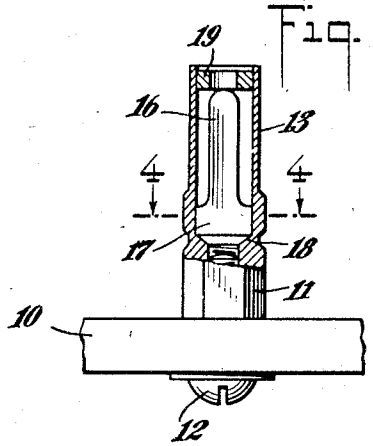
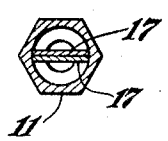


Fig. 4.



INVENTOR
Frederick Charles Wappler,
BY
Frederick Breitenfeld
ATTORNEY

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UNITED STATES PATENT OFFICE.

FREDERICK CHARLES WAPPLER, OF NEW YORK, N. Y.

BINDING POST.

Application filed March 16, 1927. Serial No. 175,688.

My present invention relates generally to binding posts, having particular reference to the type wherein the end of a wire or the like is designed to be inserted longitudinally into a suitable opening.

One object of the invention is to provide a binding post of such a structural nature that the constituent parts thereof will be few in number, extremely simple in form, and adapted to be assembled purely by virtue of frictional engagement.

Although I have illustrated and shall hereinafter describe a binding post wherein such frictional engagement is the only means for achieving the proper assembly of the constituent parts, nevertheless it will be understood that as to certain phases of my invention, the sole employment of friction is not essential.

My invention contemplates the provision of a tubular element adapted to be fastened at one end to a suitable support and adapted to receive through the other end a wire or prong of ordinary construction. My invention also contemplates the arrangement within the tube of a set of independent complementary clamps arranged in a receptive manner with respect to the inserted wire and adapted to frictionally and resiliently clamp and engage said wire when it is inserted.

One feature of my invention lies in providing these clamps in the form of extremely simple stamped elements adapted to be frictionally engaged and retained within the tube. More particularly, I provide each clamp with a resilient contact portion and a non-resilient portion, the latter being so constructed and arranged that it may be jammed and retained frictionally within the tube.

Another feature of my invention lies in providing a closure for the open end of the tube, said closure being also of the simplest construction and being designed to remain frictionally in position.

For the attainment of the foregoing objects and such other objects as may hereinafter appear or be pointed out, I have illustrated one embodiment of my invention in the accompanying drawings in which—

Fig. 1 is a vertical cross-section through a binding post embodying the features of my invention and showing a typical wire element in association therewith;

Fig. 2 is a vertical cross-section taken substantially along the line 2—2 of Fig. 1;

Fig. 3 is an exploded view of the essential elements of my device; and

Fig. 4 is a horizontal cross-sectional view taken substantially along the line 4—4 of Fig. 2.

In the drawings, 10 denotes a base upon which the binding post is designed to be mounted. In the form shown, the binding post has a lower portion 11 having a central threaded bore with which a suitable bolt 12, passing upwardly through the base 10, is adapted to engage.

Mounted upon the attaching portion 11 is a tube 13, the interior diameter of which is somewhat larger than the diameter of the threaded bore with which the bolt 12 engages. Preferably, the portions 11 and 13 are formed of a single integral element indicated generally by the reference numeral 14 in Fig. 3. I also prefer to shape the outside surface of the portion 11 in the form of a hexagon to facilitate the application of a wrench or similar instrumentality.

Constructed for frictional accommodation within the tube 13 are a set of clamps indicated generally in Fig. 3 by the reference numeral 15. In the form shown, I have provided two complementary clamps adapted to be associated in juxtaposed positions to provide opposite jaws for receiving a wire.

Referring to Fig. 3, it will be noted that each clamp comprises an integral stamping of generally T-shaped construction, the stem 16 of the T being suitably curved and constructed to provide a resilient contact portion. The cross-bar 17 of the T is provided at the lower end of the clamp and is non-resilient.

The resilient portions 16 are of a width considerably smaller than the inside diameter of the tube 13 so that free adjustment of these resilient contacts may be possible. In the illustrated embodiment, the stem 17 is of a width substantially equal to the inside diameter of the tube 13 so that the clamp may be inserted into the tube

through the open end thereof and jammed into its proper position, the clamp being held in this position by the frictional engagement between the portion 17 and the opposite inside walls of the tube.

The proper limiting and predetermination of the position of the clamps within the tube is assured by the shoulder 18 automatically provided between the threaded bore and the relatively larger tube portion 13.

Where two clamps are employed, the cross-bars 17 are first designed to be superposed upon one another so as to arrange the clamps in mutually cooperative and operative positions; thereafter the clamps are jammed into the tube. It will be understood, however, that more than two clamps may if desired be employed. The essential feature of the invention lies in arranging and constructing the non-resilient rear ends in such a manner that when the clamps are mutually associated in operative relationship said ends may be frictionally jammed into and retained in said tube.

To complete the structure of the binding posts, I prefer to provide a washer 19 of such a size as to permit its jamming into the end of the tube after the clamps have been inserted. The washer 19 has a central opening therein arranged to permit the passage therethrough of a wire 20 or the like as shown in Fig. 1. The washer 19 serves to seal all of the open end of the tube except a passage for the wire adapted to be inserted through said end.

It will be obvious that after the clamps 15 are mutually associated and jammed into position, and after the washer 19 has been similarly jammed into position, a complete operative structure of extremely simple construction is provided. The insertion of a wire 20 through the aperture in the washer 19 will force its way into engagement between the cooperating tongues 16 and be frictionally held in electrical contact therewith. The removal of the wire 20 is effected by simply withdrawing the wire. At the same time, casual access to the interior of the tube is effectively prevented, the complete structure being totally devoid of any projecting portions requiring manipulation or adjustment or likely to constitute a source of annoyance.

It will be obvious that many changes in the details herein described and illustrated for the purpose of explaining the nature of my invention may be made by those skilled in the art without departing from the spirit and scope of the invention as expressed in the appended claims. It is therefore intended that these details be interpreted as illustrative and not in a limiting sense.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is—

1. In a binding post, a tube, a set of independent complementary clamping members for application into the tube, and means for frictionally holding said clamping members in said tube.

2. In a binding post, a tube, a set of independent complementary clamping members for application into the tube, and means for frictionally holding said clamping members in said tube, said means being associated with the rear ends of said members, and the latter comprising resilient tongues extending in a receptive manner toward one end of the tube.

3. In a binding post, a tube having an open end, a set of complementary clamping members frictionally held within the tube and arranged in a manner receptive to an elongated conductor inserted into said open end, and an apertured washer frictionally held in said end to seal all of the latter except a passage for said conductor.

4. In a binding post, a tube, a set of longitudinally arranged complementary clamping members therein, each clamping member comprising a resilient tongue and a non-resilient rear end, the latter being of a size and configuration to permit frictional jamming and retention thereof into and in said tube.

5. In a binding post, a tube, a set of longitudinally arranged complementary clamping members therein, each clamping member comprising a resilient tongue and a non-resilient rear end, the latter being of a width substantially equal to the interior tube diameter whereby the clamping member may be fixed in operative position within the tube by frictionally jamming said end thereinto.

6. In a binding post, a tube, and a set of complementary clamping members therein; each clamping member comprising a longitudinally arranged resilient tongue narrow enough to permit transverse adjustment thereof, and a non-resilient rear end; said rear ends being of such widths with respect to the inside tube diameter that when the clamping members are mutually associated in operative relationship said ends may be frictionally jammed into and retained in said tube.

7. In a binding post, a tube, and a set of complementary clamping members therein; each clamping member comprising an integral T-shaped stamping whose stem is constructed to constitute an adjustable resilient tongue longitudinally positionable within the tube and whose cross-bar is so constructed as to be frictionally retainable between the inner walls of the tube.

8. In a binding post, a tube, and a set of complementary clamping members therein; each clamping member comprising an integral T-shaped stamping whose stem is con-

structed to constitute an adjustable resilient tongue longitudinally positionable within the tube and whose cross-bar is so constructed as to be frictionally retainable between the inner walls of the tube; said tube having an open end with respect to which the tongue may be receptively positioned and having also an interior shoulder adapted to limit the insertion of said cross-bar.

In witness whereof, I have signed and sealed this specification this 26 day of February, 1927.

FREDERICK CHARLES WAPPLER.