

E. F. WESTON.
 BINDING POST.
 APPLICATION FILED FEB. 20, 1917.

1,234,840.

Patented July 31, 1917.

Fig. 1.

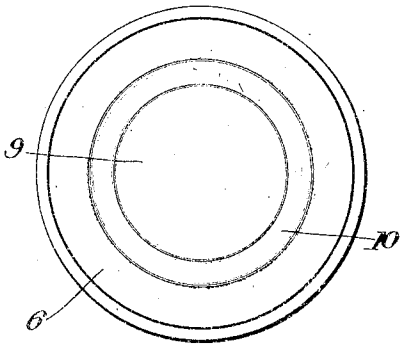


Fig. 3.

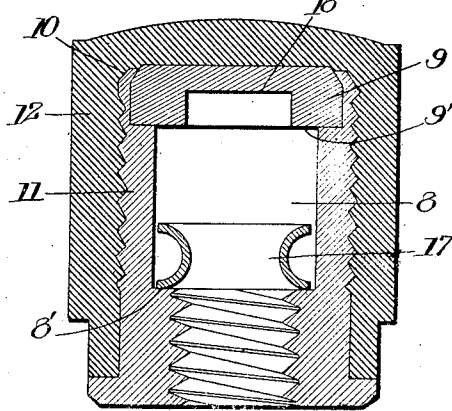


Fig. 2.

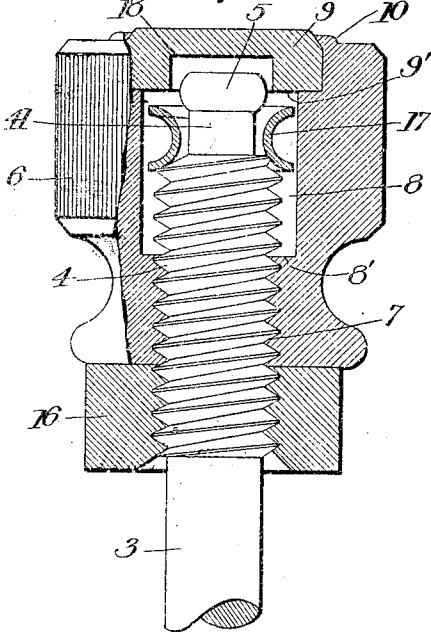


Fig. 5.

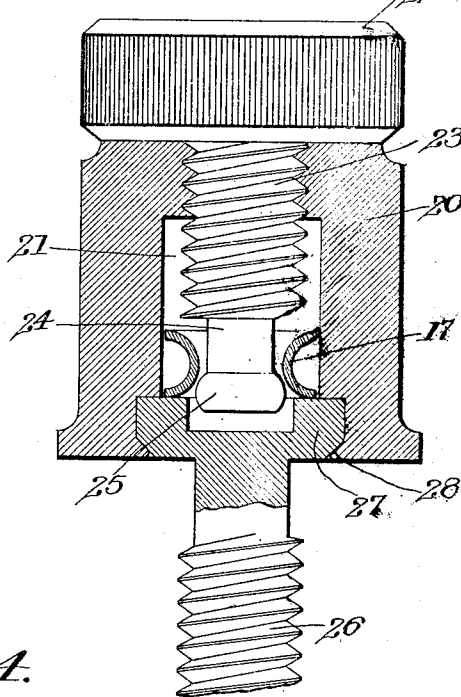
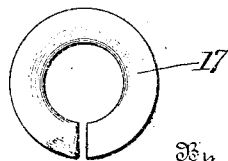


Fig. 4.



Witness

G. H. Baker

Inventor

Edward F. Weston

By *Byron J. Townsend & Brinkman*

Attorneys.

UNITED STATES PATENT OFFICE.

EDWARD F. WESTON, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO WESTON ELECTRICAL INSTRUMENT COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

BINDING-POST.

1,234,840.

Specification of Letters Patent.

Patented July 31, 1917.

Application filed February 20, 1917. Serial No. 149,783.

To all whom it may concern:

Be it known that I, EDWARD F. WESTON, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Binding-Posts, of which the following is a specification.

This invention relates to binding-posts and is concerned particularly with means whereby accidental dislodgment of the movable member is prevented, these means however permitting such disengagement upon the application of sufficient force.

Heretofore binding-posts have been made either with non-removable heads or with heads which came off freely, but I am not aware that any binding-post has ever been provided with means for retarding or making difficult the removal of the head, as hereinafter described.

The advantages of this form of post are that the head may be removed for inspection and cleaning of contact surfaces; that in case of damage to the insulating material or finish of the head, a new one may be substituted with great ease, (which is not the case with the non-removable type); that all types of cable terminals may be used, including those commonly known as eye terminals, in which it is necessary to remove the head and slip the terminal over the stud; and that the spring retarding feature prevents the liability of loss of the head during transit.

The invention is set forth in the specification and accompanying drawings in which—

Figure 1 is a plan view of the binding-post;

Fig. 2 is a central vertical section there-through;

Fig. 3 is a central vertical section through a modified form of head;

Fig. 4 is a plan view of the resilient collar; and

Fig. 5 is a sectional view of a modification.

As shown in the drawings, the binding-post comprises a stud and a head. The stud has a screw thread portion 4, a reduced unthreaded portion 41, and a preferably rounded knob-like portion 5, of larger diameter than the portion 41. The head 6 of the post has a lower threaded aperture 7 and an enlarged interior chamber 8, the

upper end of which after the split ring 11, to be later described, has been inserted therein is closed by a cap 9, held in position by an annular lip 10 of the head 6, which lip is staked over the edge of the cap. The outer face of the head 6 is preferably knurled and may be of metal or insulation (see Fig. 3). In Fig. 3, the head comprises an inner metallic portion 11, which is surrounded by an outer insulating portion 12, preferably molded in place. In other respects the invention as shown in Figs. 2 and 3 is the same.

Within the chamber 8, is located the resilient windlass-shaped split collar 17, the outer diameter of which is slightly less than the diameter of chamber 8 and the inner diameter of which is slightly less than that of the knob-like portion 5 of stud 4. This collar 17 is free to move up and down within chamber 8. In its lowest position it rests against a lower shoulder 8' in chamber 8, and in its uppermost position it bears against an upper shoulder 9'. The inner central portion of the cap 9 may have a recess 18 therein, into which the portion 5 of stud 4 passes as the head 6 is screwed down on the stud 4.

In the operation of the device, as the head 6 is threaded onto stud 4, the upper knob-like portion 5 enters the chamber 8 and, as it progresses into said chamber, contacts with the lower flared edge of collar 17, and pushes the collar before it. When the collar 17, is forced far enough up into chamber 8, its upper edge contacts with the shoulder 9', and the movement of the collar is stopped. Thereafter, as the head 6 is further screwed onto stud 4, the knob-like portion 5 of the stud is forced through the inner aperture of collar 17, which yields slightly, allowing the head 5 to pass therethrough into recess 18, the collar then embracing the portion 41 of the stud below the head.

When the head 6 is unscrewed from stud 4, the lower rounded edge of knob 5 contacts with the upper flared edge of collar 17 and holds it down until the collar abuts the shoulder 8'. In further unscrewing head 6 from stud 4, the knob 5 is again forced through the inner aperture in collar 17, which yields and releases the stud, so that the head can be entirely removed, the collar 17 being however permanently retained

within the chamber 8, and in position to re-engage the stud, when the head is again screwed on. It will, therefore, be readily seen, that when the head 6 has once been
 5 screwed onto stud 4, any jarring or vibration will not cause the head 6 to be accidentally unscrewed from stud 4, since it takes a positive and continuous motion through several turns of head 6 to force portion 5
 10 through the collar 17. The head 6 can, without disengagement from the stud 4, be sufficiently separated from the cooperating member 16, to permit the insertion therebetween of the conductor with which electrical connection is to be made. If an eye-terminal is
 15 to be connected, the head can be removed and the eye of the terminal placed over the stud 4.

A modified form of the device is shown in
 20 Fig. 5. In this form, the retarding mechanism is contained in the body 20, which has within it a chamber 21. The head 22 has a screw-threaded stud 23, extending through a corresponding screw-threaded opening in
 25 the top of the body 20, and has, as in the other form of the device, a reduced portion 24, and a knob-like portion 25. The body 20 is secured on a screw-threaded stud 26 having a cap 27, inserted into an opening
 30 in the base of the body portion, a lip 28 being staked over the outer edge of the cap. The operation of this form of the device will be readily understood from the foregoing description. The dimensions of the chamber
 35 21 are such that the head can be unscrewed, without detachment, far enough to permit a conductor to be inserted and clamped between the head and the body; while if desired, the head can be removed, and an eye-terminal located over the stud 23, and similarly clamped between the head and body.

It will be readily understood that my invention is not limited to the precise form, construction and arrangement of the parts
 45 shown as modifications and these particulars will readily suggest themselves to those skilled in the art.

From the structure disclosed it is apparent that the parts are simple, light and easily
 50 replaceable, and may be constructed of any suitable material.

I claim:

1. A binding-post comprising two co-operating clamping elements, one having an
 55 interior chamber and the other a stud extending into said chamber, and resilient means within said chamber cooperating with

both said elements to retard the removal of one element from the other.

2. A binding-post comprising a member
 60 having an interior chamber, a stud having a knob-like end adapted to project into said chamber and resilient means within said chamber in engagement with said knob-like
 65 end of the stud to restrain the removal of said element from said stud.

3. A binding-post comprising a member having an interior chamber, a resilient collar within said chamber adapted to move
 70 freely therein, a stud having a knob-like end adapted to be moved into and out of said chamber, said knob-like end being adapted to be forced through said resilient collar.

4. A binding-post comprising a member
 75 having an interior chamber with upper and lower shoulders, a stud having a knob-like end adapted to project into said chamber, a resilient collar within said chamber, said collar having an outer diameter less than
 80 that of the chamber and an inner aperture of less diameter than the knob-like end of said stud, said knob-like end of the stud adapted to be forced through the inner
 85 aperture of said collar in its upward movement when the collar abuts against the upper shoulder and in its downward movement when the collar abuts against the lower
 90 shoulder.

5. A binding-post comprising a member
 90 having an interior shouldered chamber, a resilient split collar retained within said chamber but adapted to move therein, a stud having a knob-like end adapted to be
 95 moved into or out of said chamber, said resilient collar being adapted to yield and embrace the knob-like portion of the stud at the limit of its upward movement within
 100 said chamber, and to yield and release said stud at the limit of its downward movement within the chamber.

6. A binding-post comprising a member
 105 having an interior shouldered chamber, resilient means within said chamber adapted to move freely therein, a stud having a knob-like end adapted to be moved into or out of
 110 said chamber, said resilient means being adapted to yield and embrace the knob-like portion of the stud at the limit of upward movement of said resilient means within
 115 said chamber, and to yield and release said stud at the limit of downward movement of said resilient means within the chamber.

In testimony whereof I affix my signature.

EDW. F. WESTON.