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M. RATHBUN

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BINDING POST

Filed Aug. 10, 1927

Fig. 1.

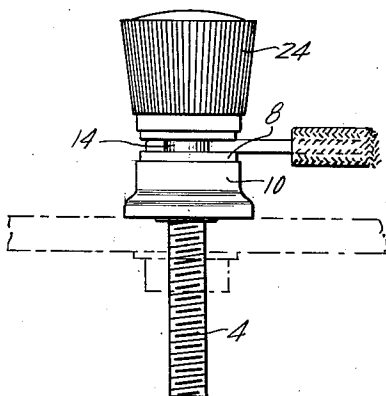


Fig. 2.

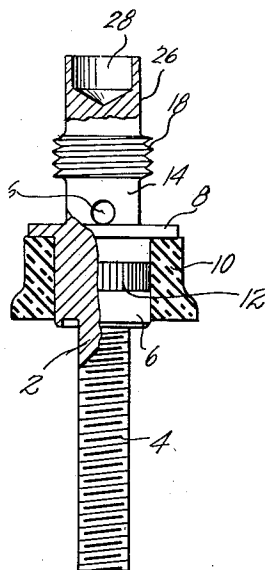


Fig. 3.

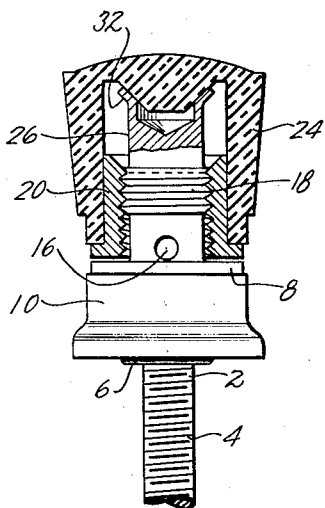
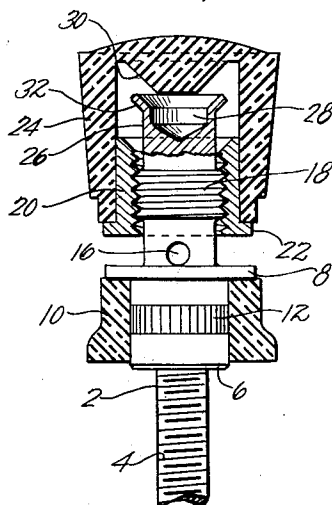


Fig. 4.



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BINDING POST

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This invention relates to binding posts such as are ordinarily employed to secure temporarily the detachable parts of electric circuits, and particularly to binding posts of the type in which means is provided for preventing too ready removal of the cap.

A general object of the invention is to provide a binding post of the type in which means is provided for resisting too easy removal of the cap, which can be manufactured economically, which is easy to assemble and which does not interfere with the ordinary clamping and unclamping movements of the cap.

Other objects and important features of the invention will appear from the following description and claims when considered in connection with the accompanying drawings in which—

Figure 1 is an elevation of an assembled binding post embodying the present invention, this view merely showing the external appearance of the post and not illustrating any details of the novel features of the present invention;

Figure 2 is an elevation partly in section of the stem of the binding post of the present invention;

Figure 3 is a view partly in vertical section showing an assembled binding post and illustrating the manner in which the temporary stop is formed on the end of the stem by engagement of the end of the stem with a flange-turning projection on the interior of the cap; and

Figure 4 is a view similar to Figure 3 showing the cap in a slightly different position on the post, this view also showing the base portion of the binding post partly in section.

In the manufacture of the post, the stem 2 of the post may advantageously be formed as shown as an integral structure of brass or other suitable material, the stem having a threaded portion 4 of sufficient length to extend through the part on which the post is to be mounted or to be screwed into a hole tapped in this part, the stem being enlarged above the threaded part 4, as shown at 6, to form the stationary clamping part of the post, this enlargement 6 being preferably pro-

vided with a flange 8 and the stationary clamping portion of the post thus formed being in some cases provided with an insulating or ornamental portion 10 formed, for example, of molded insulation and surrounding the enlargement 6 and abutting against the flange 8. The insulation 10, whether plastic or other suitable material, may be pressed or moulded in position on the enlarged portion 6 of the post and this part of the post may be roughened as shown at 12 to prevent turning of the part 10 on the part 6 or too ready removal therefrom.

The illustrated stem of the binding post, like that of the ordinary binding post, is preferably provided above the stationary clamping portion 8 with a smooth cylindrical portion 14 having therethrough a wire-receiving opening 16, and above this cylindrical portion 14 the post is provided with the usual threads 18 to receive the cap which carries the movable clamping portion of the binding post. In the illustrated embodiment of the invention, this cap comprises a cylindrical metallic member 20 internally threaded to fit the threads 18 of the stem and provided with a flange 22 against which rests the lower edge of the covering shell 24 of the cap, which may be formed of bakelite or other suitable material.

Above the threaded portion 18 the stem of the binding post preferably has a reduced cylindrical portion 26 over which the internal threads of the member 20 of the cap may freely move without engagement with the cylindrical surface of this part 26. As the stem is constructed in Fig. 2 and before the post is completely assembled, the threaded part of the cap may move freely on and off from the stem of the post. To prevent too ready removal of the cap from the stem, without interfering with the normal free clamping and unclamping movements of the cap, is, as above suggested, one of the important objects of the present invention. To this end the stem is preferably so constructed that when the cap is moved down into its clamping position on the post, or, preferably, when it is moved to the limit of its clamping movement on the post, a cooperating portion of the cap will engage

the stem and form on the stem a temporary stop which, while it resists too ready removal of the cap from the stem, does not entirely prevent the cap from being removed from the stem by simply unscrewing the cap. This temporary stop does not, however, interfere with the normal clamping and unclamping movements of the cap on the stem.

In the illustrated embodiment of the invention, a concentric recess 28 is formed in the end of the stem 2 as, for example, by drilling into the end of the stem, the wall of this recess preferably being thin enough so that it will readily be turned outwardly by engagement with the conical surface of the inward projection 30 in the end of the shell 24 of the cap. As shown in Fig. 3 of the drawings, when the cap is screwed down substantially to the limit of its clamping movement, the engagement of the conical projection 30 on the inside of the end of the shell portion 24 of the cap with the annular rim around the recess 28 will turn a flange 32 on this rim substantially into the oblique position shown in Figs. 3 and 4 of the drawings, which oblique flange 32 will serve as a temporary stop when engaged by the upper end of the part 20 of the cap or by the uppermost thread of this part of the cap. Between this temporary stop 32, however, and the uppermost thread of the threads 18 on the stem, the cap is free to move over the reduced cylindrical portions 26 of the stem and thus the temporary stop 32 does not interfere with the ordinary clamping movements of the cap.

By reason of its oblique inclination to the cylindrical surface 26 of the stem, and by reason of the comparative thinness of the metal of which it is formed, the stop 32, as above suggested, serves merely as a temporary stop and does not positively prevent the removal of the cap from the stem when slightly more force is applied to the unscrewing movement than that employed in merely moving the cap from its clamping to its unclamping positions. This permits the cap to be removed easily if it is desired to replace it in the event that it becomes damaged or broken or if for any other purpose it is desired to remove the cap from the post.

From the foregoing description it will be seen that the invention provides a binding post having means for preventing the ready removal of the cap, which can be manufactured economically, which is simple to assemble and disassemble, and which is attractive in appearance.

What is claimed as new is:

1. A binding post comprising a stem and a cap having cooperating threaded portions, said stem having at its end a portion more easily deformed than the threaded portion thereof over which the threaded portion of the cap may be freely moved and said cap having a shoulder inwardly from said

threaded portion and a portion adapted to engage said end and deform it to a shape which will cause it to serve as a stop against said shoulder whereby the movement of the cap on the stem may be limited without any binding therebetween before the limit is reached.

2. A binding post comprising a stem and a cap having cooperating threaded portions, said stem having at its end an extension more readily deformable than the threaded portion thereof, and said cap being provided with means adapted to engage said extension and turn it over into position to engage the end of the threaded portion of said cap and resist the removal of the cap from the stem.

3. A binding post according to claim 2 in which the end of the stem is concentrically recessed and in which the cap is provided with means adapted to engage and flange outwardly throughout its circumference the annular end portion of the stem when said cap is screwed into clamping position.

4. A binding post according to claim 2 in which the end of the stem is concentrically recessed and in which the cap is provided with a concentric conical projection adapted to engage and flange into obliquely out-turned position said annular end of said stem to provide a temporary stop for the unscrewing movement of said cap on said stem.

5. A binding post comprising a stem and a cap having cooperating threaded portions, said cap having a recess extending therein from the threaded portion and said stem having a part adapted to extend into said recess and to be deformed so as to prevent its re-entering the threaded portion without any such deformation of the stem as would interfere with the free movement of the cap relative to the stem to bring the deformed part to or away from the position at which it acts as a stop, and means carried by the cap which will effect such deformation after the cap and stem have been assembled.

6. A binding post comprising a cap having a threaded portion terminating at its inner end in a conical shoulder, a stem having a threaded portion adapted to cooperate with the threaded part of the cap and an extension beyond the threaded portion which is adapted to be readily deformed without causing any substantial deformation of the remainder of the stem and adapted to enter through the threaded portion of the cap, and means within the cap to bend said extension into the path of the shoulder in said cap so as to constitute therewith a stop for limiting the movement of the cap relative to the stem without interfering with the free movement thereof within the limit thus established.

7. A binding post comprising a cap having a threaded portion terminating at its inner end in a conical shoulder, a stem having

a threaded portion adapted to cooperate with the threaded part of the cap and a thin tubular portion extending beyond the threaded portion and adapted to enter through the threaded portion of the cap, and means within said cap to spread the tubular portion to substantially conform to the shoulder in the cap whereby to constitute it a stop to limit movement of the cap relative to the stem.

10 Signed at Lockport, N. Y., this 4th day of August, 1927.

MERRILL RATHBUN.

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