Feb. 28, 1928. 1,660,807

O. B. NORGREN

BINDING POST

Filed May 28, 1925

Fig. 1

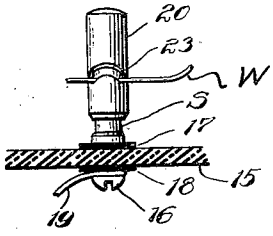


Fig. 3

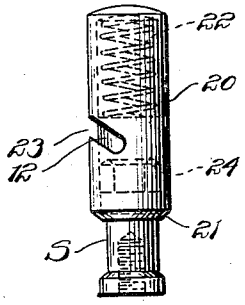
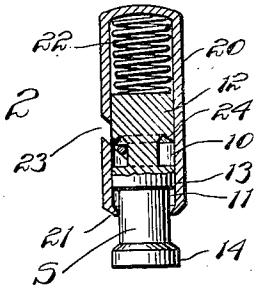


Fig. 2



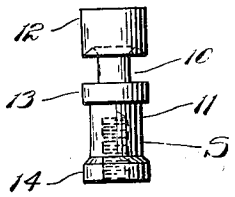


Fig. 4

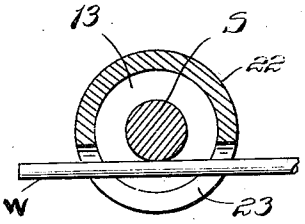


Fig. 5

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UNITED STATES PATENT OFFICE.

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BINDING POST.

Application filed May 28, 1925. Serial No. 33,370.

My invention relates to binding posts, and has for its object improvements in such devices.

In the accompanying drawings

Fig. 1 is an elevation of the device about full size and in position of making an electrical connection;

Fig. 2 is a sectional elevation an enlarged scale;

Fig. 3 is a similar elevation with the contact wire removed;

Fig. 4 is an elevation of the central stem; and

Fig. 5 is a much enlarged transverse section.

The central stem or standard S is a bar of metal in which have been cut annular grooves 10 and 11 to leave a head 12, a collar 13 and a base 14. The lower end of the standard is drilled and tapped as shown in dotted lines in Figs. 3 and 4 so that the device may be secured to a panel or other support 15 by screw 16 and washers 17 and 18. A permanent electrical connection is furnished at 19.

Mounted upon the upper end of the standard is a tubular cap 20 having its upper end closed, and having the edges of the open end turned in to form a lip as shown at 21. Inside of the cap 20, and over the head 12, is a spring 22 which acts to elevate the cap with respect to the standard. The inturned lip 21 engaging the lower edge of collar 13 limits this upward movement of the cap, and also prevents the removal of the cap. The spring 22 permits the cap to be pressed downward with respect to the standard.

Cut in the side of the cap 20 is a transverse downwardly inclined slot 23 which extends a little less than half way thru. The location of this slot is such that when the cap is in its elevated position, as shown in Fig. 3, the slot is closed by the head 12. When the cap is pushed down by hand, the slot may be moved to a position below the head 12, and a wire as W may be moved transversely into the slot and under the head 12. If the cap is now released, the spring 22 will elevate the cap 20 and grip the wire between the lower edge of head 12 and the lower edge of slot 23, at the same time forcing the wire inward against that part of the standard S which is in the annular groove 10.

As thus secured, the wire W is held firmly against the standard and makes electrical connection therewith. To insure perfection of electrical contact, and also to hold the wire W more securely against withdrawal, I undercut the head as shown at 24 to produce a sharp edge which bites slightly into the wire under the elevating force of the spring 22.

The standard S is a fixed post to which is connected a conductor 19. The cap 20 is mounted to reciprocate on the standard, being moved manually in one direction and by the spring in the other direction. The cap is also freely rotatable on the standard so that the slot 23 may be at any side of the post and accommodate a wire coming from any direction.

The spring 22 is entirely enclosed. It is also to be noted that the slot 23 is closed by the head 12 except when a wire W is being inserted or withdrawn. In normal position, as shown in Fig. 3, this closure is complete by the head. When a wire is held, as in Figs. 1 and 2, the part which is not closed by the head is closed by the wire itself. As a consequence of this, dust and dirt are kept away from the contact making parts of the post, and there is greater certainty of a good electrical connection being made.

It is to be observed that this binding post has all of the conveniences of other spring operated posts, but it has the added convenience of being accommodated to a wire coming from any horizontal direction. It also has the advantage of excluding dust from the operating parts, and its smooth exterior gives it a finished appearance.

What I claim is:

1. In a binding post, a standard having an annular groove in its exterior, a longitudinally movable tubular cap having bearing surfaces on the standard above and below the groove, said cap being rotatable on the standard and having an inclined transverse slot in its side, and a spring enclosed by said cap and serving to hold the cap at a position in which the slot will be closed by a bearing surface on the standard but will permit the cap to be depressed so as to open the slot.

2. In a binding post, a standard secured in a fixed position to a support and having an annular groove removed a short distance from the upper end thereof, a cap of pressed metal slidably and rotatably mounted upon

the standard and provided with a slot in its side, and a spring enclosed by said cap, said spring serving to hold the cap normally at a position in which the slot will be closed by that part of the standard which is above the groove.

3. In a binding post, a standard having an annular groove therein, said groove being undercut so that the metal above the groove will have a sharp edge at its lower periphery, a cap slidably and rotatably mounted upon the standard and provided with an inclined slot in its side, and a spring enclosed by said cap and serving to force a wire in said slot against said sharp edge.

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