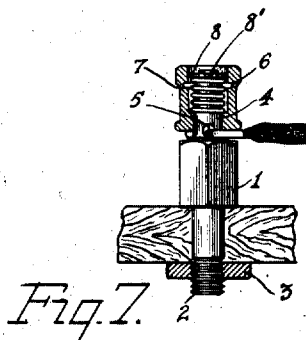
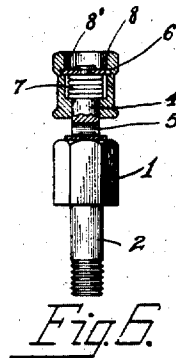
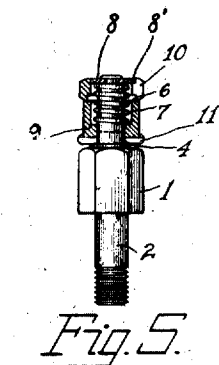
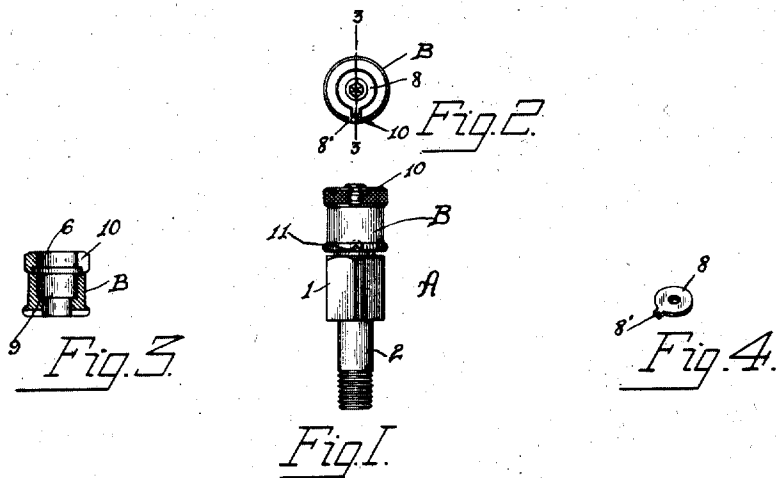


1,245,628.

Patented Nov. 6, 1917:



Witnesses:

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Inventor.

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UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF CHICAGO, ILLINOIS, ASSIGNOR TO KELLOGG SWITCHBOARD AND SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SPRING-TERMINAL FOR BINDING-POSTS.

1,245,628.

Specification of Letters Patent.

Patented Nov. 6, 1917.

Application filed December 26, 1912. Serial No. 738,567.

To all whom it may concern:

Be it known that I, CHARLES H. SMITH, a citizen of the United States of America, residing in Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Spring-Terminals for Binding-Posts, of which the following is a specification.

My invention relates to binding posts and has to do more particularly with devices of this character which are actuated by spring tension to yieldingly hold a conductor. My invention is directed more particularly to devices of the above character in which means are provided to hold the cooperating clamping members out of holding relation, an object of my invention being to provide such a device which is simple of construction and cheap to manufacture.

In the accompanying drawing I have illustrated a preferred form of my invention with several views relating to the same device and like reference characters indicating like parts.

Figure 1 is a side elevation of my invention;

Fig. 2 a top view of Fig. 1;

Fig. 3 is a section through the line 3, 3, of Fig. 2 but showing only the movable clamping member;

Fig. 4 illustrates in perspective the combined spring holding washer and stop;

Fig. 5 is a left side elevation of Fig. 1 showing the clamping sleeve in section and with the device at normal;

Fig. 6 is a view similar to Fig. 5 but with clamping sleeve held out of clamping relation with the body portion; and

Fig. 7 shows the device with its parts in clamping relation and with a conductor held thereby.

The particular embodiment of my invention as herein illustrated comprises a body portion A, a clamping member B suitably connected and acting under the influence of a spring 7. The body member A comprises a central portion 1 preferably hexagonal shaped and having a fastening stud 2 adapted to extend through the device to which the post is to be attached and clamped by means of a nut 3, as shown in Fig. 7. A supporting stud 4 extends from the body portion 1, and has a hole 5 adapted to receive a conductor. The sleeve or clamping member B is slidingly supported by the stud

4 and has a locking means preferably in the form of an annular shoulder 6 formed by cutting an annular groove inside the sleeve. A helical spring member 7 is positioned inside of the sleeve B and encircles the stud 4. A washer 8 is staked upon the end of stud 4 after the spring 7 is inserted in the sleeve B, said spring 7 being under a normal tension while supported between the shoulder 9 and the washer 8 as illustrated in Fig. 5. An annular locking projection or stop 8¹ extends from the washer 8 and with the clamping sleeve at normal as in Figs. 1 and 5, said stop 8¹ rests in a slot 10 cut through a portion of the wall of sleeve B. With the device in position as shown in Fig. 5, a rotation of clamping member B is not permitted, but member B may be moved longitudinally upon the stud so as to permit the insertion of a conductor into the hole 5. A V-shaped groove 11 is cut into the clamping surface of sleeve B so as to secure a greater holding surface upon the conductor at times.

In devices of the present character it is desirable to use a spring of considerable tension so as to securely hold the conductor, and due to the smallness of the device it is not convenient for the operator to hold the clamping member out of clamping relation with the body against the spring tension with one hand, and the attempt to insert the conductor with the other hand especially if the binding post is placed in an inconvenient position. Therefore, I have arranged cooperating holding means on the clamping and body portions arranged so as to permit moving the clamping member out of clamping relation and holding it thus until the operator desires to release it. To this end my invention is directed, and due to the cooperation between the lateral projection 8¹ and the shoulder 6 of the clamping member B, said clamping member B may be pulled upwardly on the stud from its normal position of Fig. 5 to its position as illustrated in Fig. 6. Then a slight turn of the member B takes slot 10 away from stop 8¹ and brings said stop 8¹ into holding relation with the shoulder 6. Therefore, when the operator releases his hold upon the clamping member B it remains in the position shown in Fig. 6. After the conductor has been inserted into the opening 5, by rotating the member B, the slot 10 upon

coming opposite the projection 8¹ allows the spring 7 to force the clamping member B downwardly against the conductor thus yieldingly holding it in the binding post.

By the term "catch" in the appended claims I contemplate any means by which the movable member is caught and held out of engagement with the stationary member.

While I have illustrated my invention in a preferred embodiment, I am aware that any changes and modifications thereof are possible without departing from the spirit and scope of my invention and therefore I do not desire to be limited to the exact structure as disclosed.

What I claim as new and desire to secure by United States Letters Patent is:

1. A spring binding post including a body member and a sleeve member each having clamping surfaces for holding a conductor, a helical spring acting upon the sleeve member to yieldingly hold the said conductor between the clamping surfaces, said members being so constructed as to permit locking said sleeve member out of clamping relation with said body member.

2. A spring binding post including a stationary member and a relatively movable member each having cooperating clamping surfaces, resilient means tending to effect such clamping cooperation, said members being so constructed and cooperating in such a manner as to hold the movable member out of clamping relation with the stationary member when moved from its normal position.

3. A spring binding post comprising a body member, a clamping sleeve member, a central stud extending from said body member through said sleeve, a helical spring positioned inside of said sleeve member and encircling said stud, said sleeve and body members having cooperating clamping surfaces adapted for holding a conductor, said spring being adapted to act upon said body and sleeve members so as to yieldingly hold the conductor, an annular shoulder within the sleeve and a cooperating lateral projection carried by the stud whereby when said sleeve is moved out of clamping relation with the body it is so locked against the tension of said spring.

4. A spring binding post including a body member and a clamping member having cooperating surfaces for holding a conductor, a spring acting upon said members to yieldingly hold the said conductor, means whereby said clamping member may be moved out of its clamping relation with said body member, and a catch operative to retain said clamping member out of its clamping relation with said body member when said clamping member is so moved.

5. A spring binding post comprising a supporting member and a clamping member

each having cooperating surfaces for yieldingly holding a conductor, and a projection carried by said supporting member for cooperation with an annular groove in said clamping member whereby when said clamping member is moved out of clamping relation with said supporting member and is rotated it is held out of clamping engagement with said supporting member.

6. A spring binding post including a stationary member and a relatively movable member each of said members having a cooperating clamping surface for holding a conductor, resilient means tending to effect such clamping cooperation and a member carried by said stationary member for cooperation with said movable member whereby said movable member may be clamped out of clamping relation with said stationary member under tension of said resilient means.

7. A spring binding post including relatively movable elements having cooperating clamping surfaces, resilient means tending to effect such clamping cooperation, means whereby said elements may be manually separated, and a catch for holding said members in such position.

8. A spring binding post comprising a stationary element and a relatively movable element having cooperating clamping surfaces, means tending to yieldingly effect such clamping cooperation, said movable element adapted to be manually moved out of clamping relation with said stationary element, and a catch for holding said movable element in such position.

9. A spring binding post including a body member, a clamping sleeve, a central stud extending from said body member through said sleeve, a helical spring positioned inside of said sleeve member and encircling said stud, said sleeve and body member having cooperating clamping surfaces adapted for holding a conductor, and a catch member supported by said stud for holding said sleeve member out of clamping relation with said body member.

10. A spring binding post comprising a main member, a clamping member slidably supported over said main member, cooperating means for said main and clamping members adapted for holding a conductor, a spring acting upon said main and clamping members for yieldingly holding the said conductor, and a catch adapted to hold said clamping member out of clamping relation with said main member.

11. In a binding post, the combination with a slidable clamping element normally maintained in clamping position, of a cooperating stationary clamping element, and means for maintaining said slidable element in a non-clamping position against the normal tendency thereof.

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12. In a binding post, the combination with a stud, of movable and stationary clamping elements supported thereby, a pin secured to one of said clamping elements, the
5 other clamping element being formed with a recess into which said pin projects to permit the two clamping elements to assume clamping position in contact with each other, and also formed with an abutting surface for engaging said pin when the movable clamping
10 element is separated from the other clamping element and rotated to bring the abutment into alinement with the pin, and a spring for normally holding the two clamping mem-
15 bers together in clamping position.

13. In a binding post, the combination with a stud, of movable and stationary clamping elements supported thereby, a locking pin secured to one of said clamping elements and adapted to engage with the other
20 of said elements, and a terminal clip having a locking recess adapted to fit over said pin,

whereby said terminal clip will be maintained against displacement.

14. In a binding post, the combination 25 with a stud, of movable and stationary clamping elements supported thereby, said movable clamping element being provided with a recess, a projection secured to said stationary clamping element and adapted to extend into the recess formed in the movable
30 clamping element, whereby said movable element may be prevented from turning when in clamping position and maintained in non-clamping position, when the said element is
35 raised and moved so that the recess is out of alinement with said projection.

Signed by me at Chicago, in the county of Cook and State of Illinois, in the presence of two witnesses.

CHARLES H. SMITH.

Witnesses:

G. E. MUELLER,
B. O'BRIEN.