April 28, 1925. 1,535,693

O. A. SMITH

BINDING POST

Filed May 2, 1922

Fig. 1.

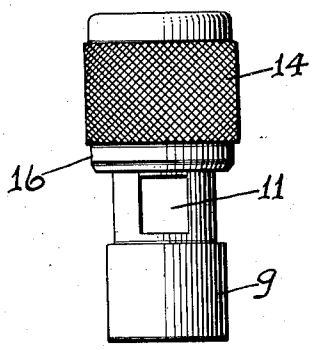


Fig. 2.

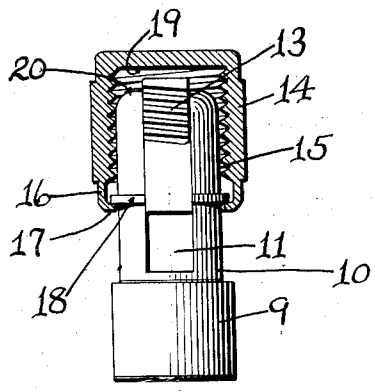


Fig. 3.

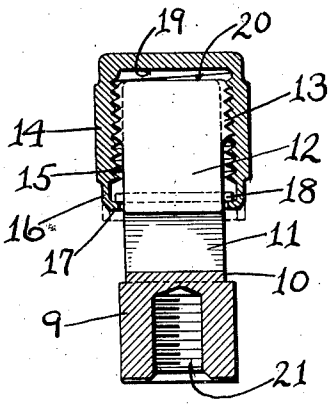


Fig. 5.

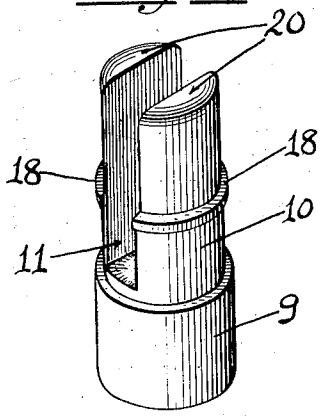


Fig. 4.

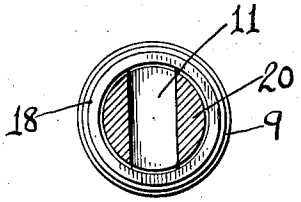
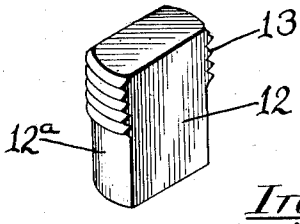


Fig. 6.



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Patented Apr. 28, 1925. 1,535,693

UNITED STATES PATENT OFFICE.

OSCAR A. SMITH, OF EAST CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL ACME COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

BINDING POST.

Application filed May 2, 1922. Serial No. 558,013.

To all whom it may concern:

Be it known that I, OSCAR A. SMITH, a citizen of the United States, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Binding Posts, of which the following is a specification.

This invention relates to binding posts, an object thereof being to provide an improved device of this character which will be relatively inexpensive, quick and easy to manufacture, and which will also be efficient and serviceable in use.

A further object of this invention is to provide a binding post of the general type wherein a gripping or clamping slide is reciprocated in a channel or slot in the binding post for the purpose of holding a conductor, and in which the slide member is reciprocated by means of a rotatable cap which is held from substantial longitudinal shiftable movement. Furthermore in the present invention the body member of the binding post is not exteriorly threaded so as to be held in threaded engagement with the cap, and as a result efficient operation of the device is permitted and the cost of manufacture is relatively lessened.

Other objects of this invention will appear in the following description thereof, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters indicate corresponding parts in the several views and wherein Fig. 1 is a side elevation of my improved binding post. Fig. 2 is a similar view, parts being shown in section; Fig. 3 is a vertical section of the binding post; Fig. 4 is an end view of the body member; Fig. 5 is a perspective view thereof; and Fig. 6 is a perspective view of the clamping or gripping slide.

The present improved binding post comprises in general a body member having a channel slot or recess adapted to receive for shiftable movement a clamping slide, the slide having threaded portions cooperating with an internally threaded portion of a cap or sleeve mounted over the body member. The construction is such that upon rotation of the cap the slide member will be reciprocated relatively thereto and without any substantial shiftable movement of the cap. In the present instance the body member comprises a main portion 9 and a shank 10 preferably of less diameter extending therefrom and slotted to form a channel or guideway 11 of any suitable depth and width. Freely carried in this channel or slot 11 for shiftable or reciprocatory movement is a slide member or gripping device 12 having the end faces 12ª thereof preferably curved or segmental in shape, the upper end faces 13 being screw-threaded. The non-threaded portion of the slide has, in the present instance, the same width as the diameter of the portion 10, the threaded portion however having a greater diameter.

A cap 14 is mounted over the upper end of the body member and is internally threaded at 15 so as to cooperate with the threaded portions 13 of the slide 12. The lower annular portion 16 of the cap projects below the threads only a sufficient distance to permit the proper operation of the device and to permit the lower edge of the cap to be bent or crimped inwardly over an annular rib 18 formed on the body member. As a result of this construction the cap 14 is firmly held in position and is prevented from being removed. It will be noted that the bifurcated ends of the shank portion 10 extend substantially to the top of the cap and hence the cap is prevented from shifting in one direction by engagement of the ends 20 against the top portion 19 of the cap. Hence it will be seen that the cap may be freely rotated in either direction but is held from shiftable or reciprocatory movement.

In operation it is merely necessary to rotate the cap 14 upon the body member and by virtue of the threads 15 of the slide 12 engaging the internal threads of the cap, the slide member will be reciprocated in the slot or channel 11 thereby gripping or releasing a wire or other conductor. Since the body member is not exteriorly threaded, as has heretofore been the case in devices of this type, it is not necessary to extend the lower edge of the cap 14 any considerable distance for the purpose of providing a protecting cover or skirt, which has heretofore been the case. As a result less material is re-

quired for the manufacture of the cap. The slide member 12 is not secured or in any way connected to the cap 14 but is adapted to be shifted independently thereof. The base of the binding post is tapped as at 21 so as to permit the same to be secured to any suitable support in the usual manner.

Thus it will be observed that the slide is shifted in both directions by means of the coacting threads on the cap, or sleeve, and the slide, and it is a well known fact that a thread action is a most powerful lifting medium and therefore is commonly used in lifting jacks whereby many tons may be easily lifted.

Although I have described my invention in its preferred form it is to be understood that I do not limit myself to the construction herein shown and described except in so far as defined in the claims and embraced within the scope thereof.

I claim as my invention:

1. A binding post having a body provided with a transversely slotted portion, a slide shiftable in the slot thereof, and a rotatable sleeve on said body, said body and sleeve having cooperating means for preventing any other than slight longitudinal movement of the sleeve during the rotation thereof and said sleeve and slide having cooperating means for reciprocating the slide on the rotation of the sleeve.

2. A binding post having a body provided with a transversely slotted portion, an exteriorly threaded slide shiftable in the slot thereof, a rotatable sleeve on said body and having threads cooperating with the threads of the slide, said body and sleeve having cooperating means for preventing any other than slight longitudinal movement of the sleeve during the rotation thereof, whereby on the rotation of the sleeve the slide will be reciprocated.

3. A binding post having a body provided with a transversely slotted portion, an exteriorly threaded slide shiftable in the slot thereof, and a rotatable cap on said body and having interior threads cooperating with the threads of the slide, said cap overlapping only the outer part of the length of the slot, said body and cap having cooperating means for preventing any other than slight longitudinal movement of the cap during the rotation thereof, whereby on the rotation of the cap in one direction the slide will be shifted toward the inner end of the slot.

4. A binding post having a body provided with a transversely slotted portion, a slide shiftable in the slot thereof, and a rotatable sleeve on said body overlapping only a part of the length of the slot, whereby the other part of said slot can receive a wire transversely of the body, said sleeve and body being free of cooperating threads and said sleeve and slide having cooperating means, whereby the slide is reciprocated on the rotation of the sleeve.

5. A binding post having a body provided with a transversely slotted portion, a slide shiftable in the slot thereof, and a rotatable sleeve on said body overlapping only a part of the length of the slot, whereby the other part of said slot can receive a wire transversely of the body, said sleeve and slide having cooperating threads, whereby the slide is reciprocated on the rotation of the sleeve.

6. A binding post having a body provided with a transversely slotted portion, a slide shiftable in the slot thereof, and a rotatable sleeve on said body overlapping only a part of the length of the slot, whereby the other part of said slot can receive a wire transversely of the body, said sleeve and slide having cooperating threads, whereby the slide is reciprocated on the rotation of the sleeve and said sleeve and body having cooperating means for preventing any other than slight longitudinal movement of the sleeve.

7. A binding post having a body provided with a transversely slotted portion, an exteriorly threaded slide shiftable in the slot thereof, and a rotatable cap on said body overlapping only the outer part of the length of the slot whereby the inner part of said slot can receive a wire transversely of the body, said cap having interior threads engaging only the threads of the slide and said cap and body having cooperating means for preventing any other than slight longitudinal movement of the cap, whereby on the rotation of the cap the slide is reciprocated.

8. A binding post having a body provided with a transversely slotted portion, an exteriorly threaded slide shiftable in the slot thereof, and a rotatable cap on said body overlapping only the outer part of the length of the slot whereby the inner part of said slot can receive a wire transversely of the body, said cap having interior threads engaging only the threads of the slot and said body having a rib and said cap having an inturned part thereunder for preventing any other than slight longitudinal movement of the cap, whereby on the rotation thereof the slide is reciprocated.

9. A binding post having a body provided with a transversely slotted portion, a slide shiftable in the slot thereof, and a rotatable sleeve on said body overlapping only a part of the length of the slot, whereby the other part of said slot can receive a wire transversely of the body, said sleeve and slide having cooperating threads, whereby the slide is reciprocated on the rotation of the sleeve and said sleeve and body having cooperating means for preventing any other

than slight longitudinal movement of the sleeve and comprising interlocking parts between the body and sleeve.

10. A binding post comprising a slotted body member, a threaded reciprocating slide located in said slot, and a rotatable threaded sleeve having the threads thereof cooperating only with the threads of the slide for reciprocating said slide, said sleeve and body having cooperating means for preventing any other than slight reciprocation of the sleeve during the rotation thereof.

Signed at Cleveland, Ohio, this 27th day of April, 1922.

OSCAR A. SMITH.