F. P. MANSBENDEL.

BINDING POST.

APPLICATION FILED MAY 10, 1916.

1,264,833. Patented Apr. 30, 1918.

Fig. 1.

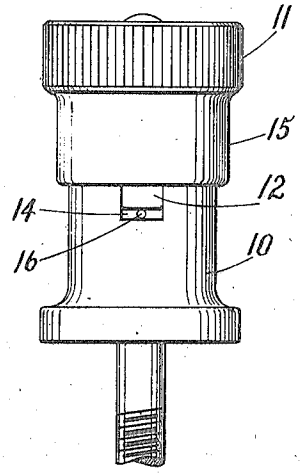


Fig. 2.

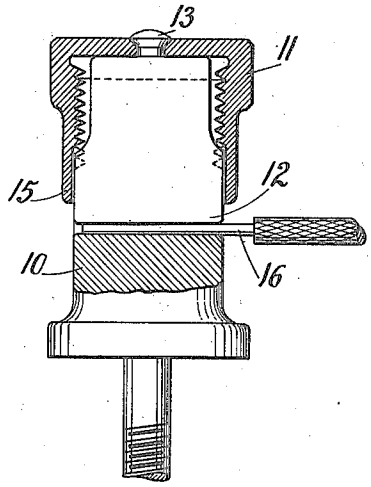


Fig. 3.

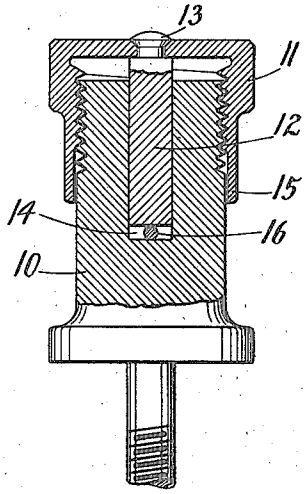


Fig. 4.

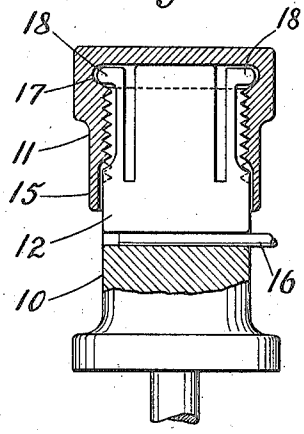
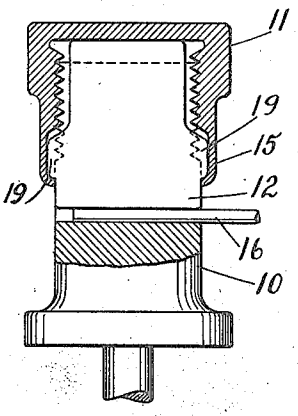


Fig. 5.



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UNITED STATES PATENT OFFICE.

FRITZ P. MANSBENDEL, OF BROOKLYN, NEW YORK.

BINDING-POST.

1,264,833. Specification of Letters Patent. Patented Apr. 30, 1918.

Application filed May 10, 1916. Serial No. 96,479.

To all whom it may concern:

Be it known that FRITZ P. MANSBENDEL, a former citizen of the German Empire, and who has declared his intention of becoming an American citizen, and a resident of Brooklyn, in the county of Kings and State of New York, has invented certain new and useful Improvements in Binding-Posts, of which the following is a specification.

The invention relates to binding posts, as employed in connection with electrical apparatus, for securing an electrical conductor.

It has for its object a binding post which will receive and securely hold a conductor of any cross-section, or a stranded conductor, and a fine and light conductor equally as well as the largest and heaviest conductor which the post will take. The clamping of the conductor is so effected that no bending or looping of the conductor end is required, and in such a manner that the said conductor will not be deformed or injured, due to any kinking, twisting or cutting of the same. Accidental movement of the conductor, furthermore, will not be effective to open the post and loosen the conductor, as is the case with certain types. Large contact surfaces are provided and a positive contact insured by a direct screw pressure, as all springs and the like are dispensed with; and adjustment for different size conductors is readily effected by merely turning a screw cap. The contact surfaces, moreover, may be readily refinished, in case of wear, without affecting the efficiency of the clamping. The invention has for a further object to so design the binding post that the same will present a smooth and unbroken surface, and be provided with but a single opening or passageway for the insertion of the conductor, which opening will present no mechanical obstruction to the insertion or withdrawal of the said conductor. The post, also, presents no exposed thread, and is rendered dirt and dust proof. It is so designed, furthermore, that the head or cap of the post cannot be twisted off or bent, and that the tightening or loosening by the turning of the head may be effected without injuring the fingers.

The nature of the invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 is a front elevation of the improved binding post.

Figs. 2 and 3 are vertical sections therethrough taken at right angles to each other.

Figs. 4 and 5 illustrate modifications.

All the views, moreover, show the post partly open and clamping a conductor; and similar characters of reference designate corresponding parts throughout the several views.

Referring to the drawings, 10 designates the body portion or post proper, arranged for attachment in any suitable manner and provided at its upper end with screw threads which are adapted to receive a cap 11 mounted over the outer end of said post. This cap is correspondingly threaded internally over its inner portion with substantially the same number of threads as the post. The post 10, moreover, is provided with a diametrically-cut longitudinal slot 14, the bottom of which forms one of the contact surfaces and may be of any desired shape. In this slot is adapted to be reciprocated a suitable slide 12 whose inner surface is adapted to form the other of the contact surfaces and conforms to the shape of the bottom surface of the slot, the two said surfaces being designed to form therein the opening or passageway for a conductor 16, which may be securely held between the same, as hereinafter set forth. A large surface engagement is thereby obtained, insuring positive contact.

To insure the desired pressure upon the conductor 16, to securely retain the same in the post, as well as to admit of retracting the slide 12 to permit of the removal of the said conductor, the slide is arranged to be correspondingly reciprocated by rotatably holding the same by the cap 11 in any well-known manner. For example, as shown in Figs. 1 to 3, the slide 12 may be swiveled in the top of the cap as by a swivel 13; or, as shown in Fig. 4, an annular recess 17 may be formed in the upper portion of the cap into which may be snapped two spring lugs 18 provided at the outer corners of the slide 12 and obtained by longitudinally slotting the said slide. The slide may also be rotatably held by the cap, as indicated in Fig. 5, wherein the inner end of same is shown as provided with laterally-extending ears 19, over which the lower edge of a protecting sleeve or apron 15 is crimped. The said cap is thus arranged to bear against the slide; and, by screwing down the cap 11, the said slide is forced inwardly to bot-

tom in the slot, the desired pressure being exerted upon the conductor 16 by correspondingly rotating the said cap. Sufficient clearance may be left between the slotted end of the post 10 and the inner surface of the cap top 11 to permit of taking up for any wear. To retract the slide for the purpose of effecting the removal of the conductor 16, it is necessary merely to reverse the direction of rotation of the cap 11.

As shown, the wall of the cap 11 is extended over the post, being in the nature of a sleeve or apron 15, and extends a sufficient distance to prevent the threads of the post from becoming exposed during any stage of the retraction of the slide 12. The portion of the said slide 12 beyond the threaded portion of cap 11 is widened to occupy the space of the unthreaded or apron portion of said cap so that, in conjunction with the post 10, a sufficiently tight fit to protect the threads against the entrance of dust and dirt is provided for, as well as a suitable housing for the same, whereby a satisfactory adjustment is insured. The apron, furthermore, acts as a guide to the slide, as against any lateral motion of the same. It will be evident that, in withdrawing the conductor from the slot opening, there are no obstructions therein to catch or injure the said conductor, as is the case with the ordinary binding posts now in general use wherein the conductor has become deformed by the action of the screw stem and jammed in the passageway.

I claim:

1. A binding post, comprising: a body portion longitudinally slotted from one end and externally threaded at said slotted end; a screw cap internally threaded over its inner portion to fit the corresponding threaded end of the body portion, and having an extending sleeve portion fitting over said body portion to provide a protecting apron over same; and a slide rotatably held by said cap, confined for reciprocation in said slot and adapted to bottom therein to clamp thereby a conductor when the screw cap is turned in one direction, and to be retracted to release the same when turned in the opposite direction.

2. A binding post, comprising: a body portion longitudinally slotted from one end and externally threaded at said slotted end; a screw cap internally threaded over its inner portion to fit the corresponding threaded end of the body portion, and having an extending sleeve portion fitting over said body portion to provide a protecting apron over same; and a slide rotatably held by said cap, the portion thereof below the threaded portion of the cap being of the full width of the body portion to occupy the unthreaded portion of the said apron, the said slide, furthermore, being confined for reciprocation in said slot and adapted to bottom therein to clamp thereby a conductor when the screw cap is turned in one direction, and to be retracted to release the same when turned in the opposite direction.

Signed at New York, in the county of New York and State of New York this 9th day of May, A. D. 1916.

FRITZ P. MANSBENDEL.