O. A. SMITH.

BINDING POST.

APPLICATION FILED AUG. 2, 1919.

1,420,771. Patented June 27, 1922.

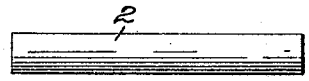



Fig.1.

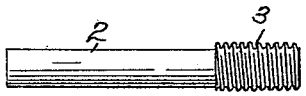



Fig.2.

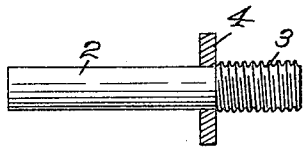



Fig.3.

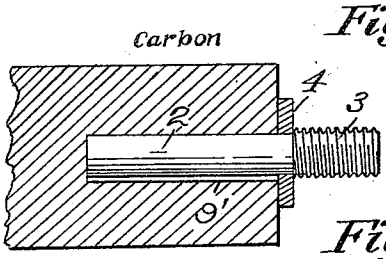



Fig.6.

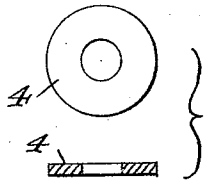



Fig.7.

Fig.4.

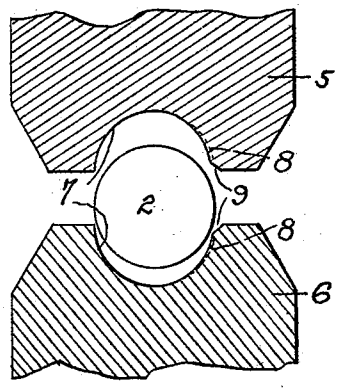



Fig.5.

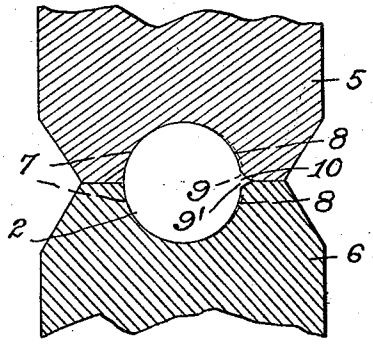
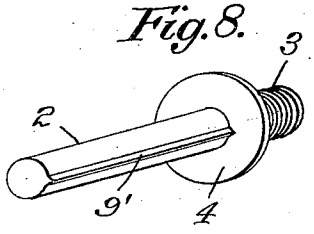



Fig.8.




Inventor:
Oscar A. Smith
By his Attorney

# UNITED STATES PATENT OFFICE.

OSCAR A. SMITH, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO WILLIAM R. MITCHELL, OF CLEVELAND, OHIO.

## BINDING POST.

1,420,771. Specification of Letters Patent. Patented June 27, 1922.

Application filed August 2, 1919. Serial No. 314,885.

*To all whom it may concern:*

Be it known that I, OSCAR A. SMITH, a citizen of the United States, residing at 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 adapted for use with the carbons of batteries and to the method of making the same, the object of the invention being to provide an improved binding post adapted for the attachment of electrical conductors or wires to the carbon of a battery.

I am aware of the patent to E. C. Henn, 813,093 of February 20, 1903 in which the post is provided with a circular series of longitudinally extending ribs located around the shank of the post but in practice I found that these posts frequently tend to split the carbon, having had considerable to do with the making of the post described in said patent and also found that they were expensive to make.

In the drawings accompanying and forming a part of this specification, Fig. 1 illustrates a piece of stock cut to the desired length to form the post; Fig. 2 illustrates the stock threaded at one end for the reception of the terminal nut; Fig. 3 illustrates the punched washer in position against the thread; Figs. 4 and 5 illustrate forms of dies which may be used in forming this post; Fig. 6 illustrates a completed post inserted in one end of a carbon rod; Fig. 7 illustrates the punched washer; and Fig. 8 is a perspective view of the completed post.

Similar characters of reference indicate corresponding parts in the several figures of the drawings.

The stock 2 cut to the desired size is provided at one end with a suitable thread for the reception of the terminal nut and upon this post is slipped a suitable punched washer 4. The post is then placed between a pair of meeting dies 5 and 6, each provided with a substantially semi-circular recess 7, formed to fit the curved surface of the stock, one portion of which however is of smaller radius (see dotted lines 8), to stamp and form the metal and which portion of smaller radius terminates in a beveled portion 9 forming a V-shaped recess 10 when the die members are brought together. By this means, when the binding post is placed between the meeting dies and pressure exerted on the post through the dies a fin 9′ is formed at one side thereof, which is sufficient to prevent the turning of the post within the carbon while at the same time the post may be forced into a suitable drilled opening of the carbon without the liability of splitting the carbon as heretofore, especially as this fin is of a V-shaped formation and therefore formed with a relatively sharp cutting edge as it were, owing to the V-shaped recess 10 of the dies so that it tends to cut its way into the carbon and thus prevents the splitting thereof.

That part of each die member having the smaller radius or built on portion 8, may have this gradually formed and extending over about 90° of each member if preferred.

It will be observed that as hereinbefore stated, the provision of the threads form a shoulder for the punched washer to rest against while the longitudinally extending projection 9 also forms a shoulder against the washer after the same is in place to prevent the dislocation thereof.

The various details may be more or less changed without departing from the spirit or scope of this invention.

I claim as my invention:

1. A binding post having a V-shaped rib extending along one side only thereof.

2. A binding post having a single projection extending along the side thereof.

3. A binding post having a single projection extending along the side thereof, said rib having a V-shaped formation.

4. A binding post having a threaded end, a washer thereon, and a V-shaped rib located along one side only thereof between the end of the post and said washer.

5. A binding post having a threaded end, the major portion of said post having a smooth surface, said post having a longitudinally extending rib at one side thereof.

6. A binding post having a threaded end, the major portion of said post having a smooth surface, said post having a longitudinally extending rib at one side thereof having a V-shaped formation.

7. A battery cell element consisting of a rod of non-metallic substance having a bore in its outer end portion, a binding post

adapted to be forced thereinto and having a projecting end provided with conductor attaching means and having the end projecting into said rod provided with a single projection or rib extending along one side thereof.

8. A battery cell element consisting of a rod of non-metallic substance having a bore in its outer end portion, a binding post adapted to be forced thereinto and having a projecting end provided with conductor attaching means and having the end projecting into said rod provided with a single projection or rib extending along one side thereof, said rib having a V-shaped formation.

9. A battery cell element consisting of a rod of non-metallic substance having a bore in its outer end portion, a binding post adapted to be forced thereinto and having a projecting end provided with conductor attaching means and having the end projecting into said rod provided with a single projection or rib extending along one side thereof, said rib having a V-shaped formation and extending throughout the length of that part of the post which projects into said rod.

Signed at Cleveland, county of Cuyahoga and State of Ohio, this 30th day of July, 1919.

OSCAR A. SMITH.