

F. H. SPEICE.
 SPRING BATTERY CLIP.
 APPLICATION FILED DEC. 30, 1916.

1,237,718.

Patented Aug. 21, 1917.

Fig. 1.

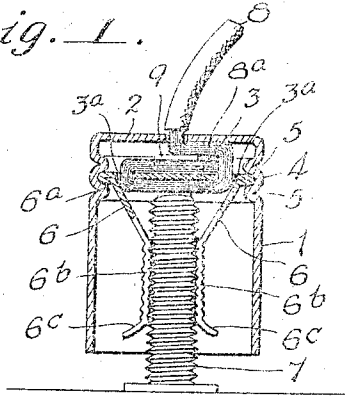


Fig. 2.

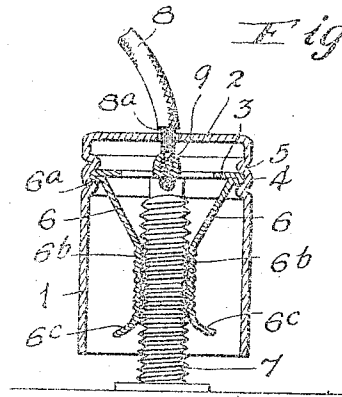


Fig. 3.

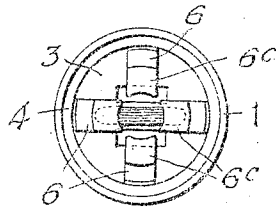


Fig. 4.

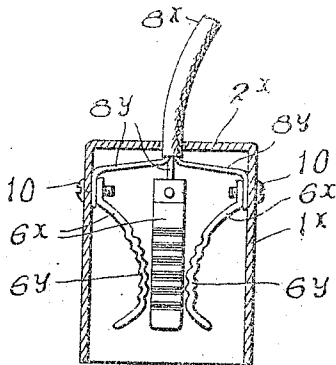
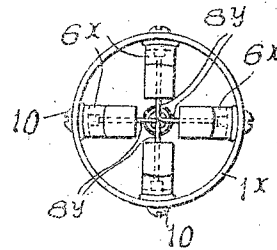


Fig. 5.



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SPRING BATTERY-CLIP.

1,237,718.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANCIS HAROLD SPEICE, a citizen of the United States, residing at Dubois, in the county of Clearfield, State of Pennsylvania, have invented a new and useful Spring Battery-Clip; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to certain new and useful improvements in quickly detachable binding post clips, the object of the invention being to provide a device of this character which embodies novel features of construction whereby it can be quickly applied to a binding post or removed therefrom, and will produce an excellent electrical connection therewith.

Further objects of the invention are to provide a binding post clip which is comparatively simple and inexpensive in its construction, which will securely grip a binding post so, that it will not jar loose thereon or become accidentally disengaged therefrom, and which can be used to advantage upon the terminals of conducting cables which are employed for connecting a series of batteries.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a longitudinal sectional view through a clip constructed in accordance with the invention, showing the same as applied to a binding post.

Fig. 2 is a similar view, taken on a plane at right angles to that of Fig. 1.

Fig. 3 is a bottom plan view of the clip.

Fig. 4 is a view similar to Fig. 1, showing a slight modification.

Fig. 5 is a bottom plan view of the modified form of clip.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the embodiment of the invention illustrated by Figs. 1, 2 and 3 of the drawing, the numeral 1 designates a hollow cap which is substantially cylindrical in shape, being open at one end and closed at the opposite end by an integral head or wall 2. A disk 3 is fitted in the cap 1 and locked rigidly in position thereon at a point toward the closed end thereof. The edges of this disk 3 are shown as received within an annular channel 4 formed by a pair of spaced ribs 5 which are pressed inwardly from the side walls of the cap. If desired, longitudinal slits may be formed in the side walls of the cap and arranged at the crimped portions 5 thereof to admit of the latter springing outwardly when inserting the disk 3 in position or removing it therefrom. This disk is formed with a series of integral and radially projecting arms 6 which are returned inwardly at 6^a, and then inclined outwardly toward the open mouth of the cap, terminating in the opposed jaws 6^b which have a substantially parallel relation to each other and are preferably corrugated so as to grip and securely engage the threads of a conventional binding post 7. In the present instance there are four of these arms 6, each provided with a jaw 6^b, and the extremities of the jaws are deflected outwardly at 6^c to provide a flared mouth to direct the end of the binding post between the jaws when the device is being applied to a binding post. The conductor or cable 8 has the insulation removed from the end 8^a thereof which extends through an opening in the closed end 2 of the cap, is threaded through openings 3^a in the disk 3, and secured at the top of the disk by clamping wings 9 which are stamped from the disk and bent upwardly therefrom.

A slight modification is shown by Figs. 4 and 5, in which the character 1^x designates a hollow cap which is preferably cylindrical in shape, one end thereof being open while the other end thereof is closed by an end wall 2^x. An annular series of spring arms 6^x are arranged within the hollow cap 1^x, the upper ends thereof being engaged by screws 10 which pass through openings in the walls of the cap and have a threaded engagement with the spring arms, while the lower ends of the spring arms are deflected inwardly toward each other and terminate in the corrugated gripping jaws 6^x. These

jaws are adapted to engage the threads of the binding post for the purpose of retaining the cap in position and establishing an electrical connection therewith. The conductor 8^x passes through an opening in the end wall 2^x of the cap, the insulation being removed from the extremity of the conductor which is divided to form four wires 8^y, one of the wires leading to each of the spring arms 6^x and being wrapped around the corresponding screw 10 so as to be clamped between the arm and the walls of the cap when the screw is tightened.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A battery clip including a hollow cap having an open end and a closed end, a peripheral series of spring arms arranged within the cap and projecting outwardly toward the open end thereof, said springs terminating in inwardly deflected spring jaws arranged for coöperation with each other to grip a binding post, and a flexible conductor having the end thereof carried through the closed end of the cap and connected to the spring arms.

2. A battery clip including a hollow cap having an open end and a closed end, a disk fitted within the hollow cap and fixed therein at a point toward the closed end thereof, a peripheral series of spring arms carried by the disk and projecting toward the open end of the cap, said arms terminating in inwardly deflected spring jaws which are arranged to grip a binding post, and a flexible conductor having the end thereof

carried through the closed end of the cap and connected to the disk.

3. A battery clip including a hollow cap having an open end and a closed end, a disk fitted within the cap and secured therein toward the closed end thereof, said disk being formed with a series of integral radial arms which are returned inwardly and deflected outwardly toward the open end of the cap, said arms terminating in spring jaws arranged for coöperation with each other and to grip a binding post, and a flexible conductor having the end thereof carried through the closed end of the cap and secured to the disk.

4. A battery clip including a hollow cap having an open end and a closed end, the side walls of the disk being pressed inwardly to provide a pair of spaced annular ribs, a disk inserted within the cap and seated between the annular ribs thereof, said disk being formed with a series of radial arms which are returned inwardly and extended outwardly toward the open end of the cap, said arms terminating in spring jaws arranged for coöperation with each other to grip a binding post, and a flexible conductor having the end thereof carried through the closed end of the cap and connected to the disk.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS HAROLD SPEICE.

Witnesses:

CHAS. W. ALLEN,
CORNELIUS ALLEN.