Feb. 12, 1929. 1,702,024

R. R. SMITH ET AL

SPRING CLIP FOR ELECTRICAL CONDUCTORS

Filed Sept. 17, 1924

Fig. 1.

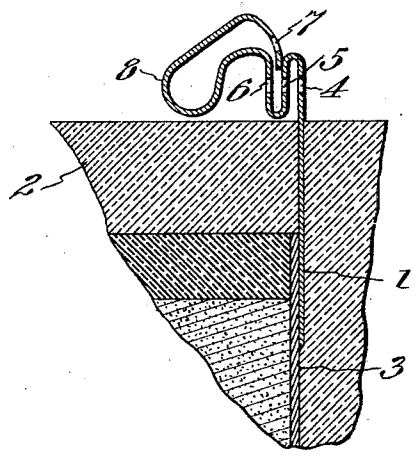


Fig. 2.

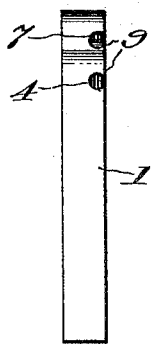
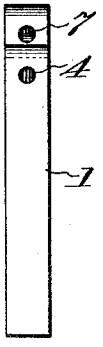


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SPRING CLIP FOR ELECTRICAL CONDUCTORS.

Application filed September 17, 1924. Serial No. 738,250.

The invention relates to spring binding clips, such as are adapted to grip a wire or the like by resilient action.

The objects of the invention are to provide a cheap and simple clip with a strong and positive gripping action, of such sturdy construction as to withstand a maximum of rough usage without being damaged. A further object is to provide a clip of the above characteristics which is adapted for use in making connection to dry cells which are deeply embedded in plastic, as in the case of the radio plate or "B" batteries of dry cells which are now in general use.

An embodiment or the invention is shown in the accompanying drawing, in which

Fig. 1 is a longitudinal section of the novel clip applied to a plastic-embedded dry cell;

Fig. 2 is an elevation included to show the notches which receive the conductor; and

Fig. 3 is a similar view of a modification in which the notches are replaced by holes through the material of the clip.

For economy of material and ease of manufacture the clip is so designed that it can be constructed from a length of sheet metal strip. Ordinarily the material will be sheet brass of such cross-section and composition as to give the desired resiliency.

As shown in the drawing, one end of the length of strip forms the shank 1 which is of considerable length so that it may extend through the plastic 2 and be firmly attached, as by soldering, to the zinc electrode 3 of an embedded cell.

At the upper end of shank 1 the strip is bent into an S-shape, and three alined notches 4, 5 and 6, are formed in one edge of the strip. This S-shaped portion with its notches constitutes one of the two wire-gripping portions of the clip.

The end of the length of strip which is opposite the shank 1 is provided with a notch 7 and constitutes a second wire-gripping portion of the clip. Notch 7 is arranged to be brought into alinement with notches 4, 5 and 6 by pressing the end of the strip bearing notch 7 into one of the arches of the S-shaped portion. The portion 8 of the strip which lies between the two wire-gripping portions is bent so that it brings the two wire-gripping portions of the clip close together, but resiliently holds the notches out of alinement. To grip a conductor in the clip, the notches are pressed into alinement, the bare conductor laid in them and the pressure is released, whereupon the resiliency of the portion 8 of the strip will press one edge of each notch against the conductor. Since four edges are in contact with the conductor, a very low resistance contact as well as a firm grip will result.

As shown in Fig. 3, holes or perforations through the metal strip may be used instead of notches, the conductor being threaded through them in obvious manner. However, we prefer the notches as they make the placing of the conductor in the clip somewhat easier. It will be noted that the notches have a projecting corner 9 at the edge of the strip in which they are formed which serves to hold the conductor in the notch when the edge of the notch is drawn against the conductor.

We claim:

1. A spring binding clip for electrical conductors comprising a strip of sheet metal bent to form the following portions disposed consecutively along the length of the strip; a shank adapted to be attached to the electrode of a dry cell; an S-shaped wire-gripping portion having three alined openings to receive a conductor; a resilient portion; and a second wire-gripping portion having an opening adapted to be alined with the first-mentioned openings by flexing the resilient portion.

2. A spring binding clip for electrical conductors comprising a strip of sheet metal bent to form the following portions disposed consecutively along the length of the strip; a shank adapted to be attached to the electrode of a dry cell; an S-shaped wire-gripping portion having three alined notches to receive a conductor; a resilient portion; and a second wire-gripping portion having a notch adapted to be alined with the first-mentioned notches by flexing the resilient portion.

In testimony whereof, we affix our signatures.

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