

April 10, 1928.

1,665,550

J. T. JANETTE

CONTACT HOLDER

Filed March 30, 1925

Fig. 1.

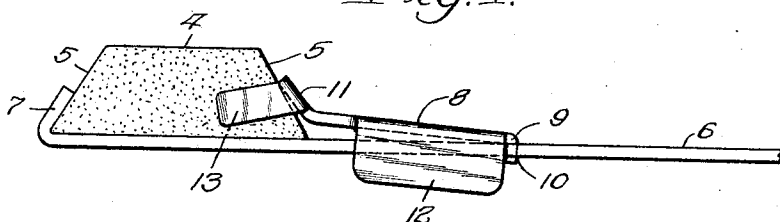


Fig. 2.

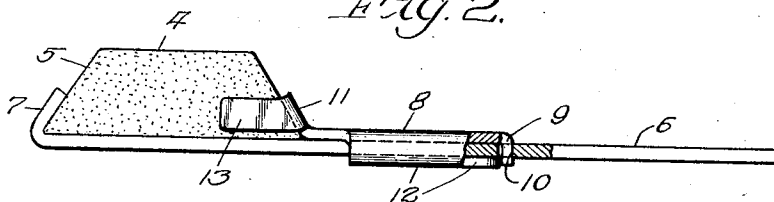
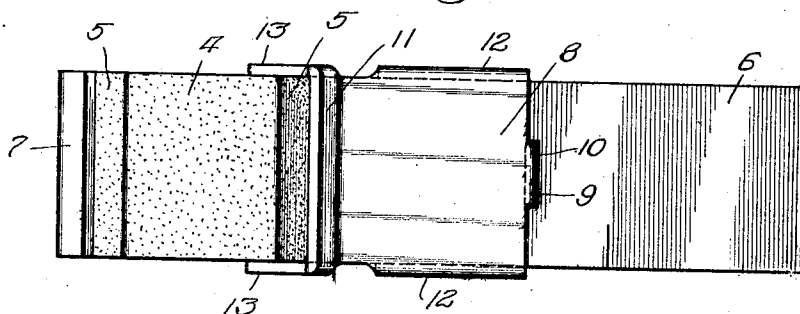


Fig. 3.



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CONTACT HOLDER.

Application filed March 30, 1925. Serial No. 19,404.

This invention relates to electrical contact holders for holding contacts or brushes adapted for various purposes, but more particularly for use in electric motors, switches or the like, and also relates to the method of mounting such contacts.

The electrical contacts or brushes are frequently made of carbon or carbon compositions in order to withstand wear and arcing. Such contacts or carbon blocks must be mounted in metallic holders which serve as conductors and it is difficult to securely fasten the contact in the holder in order to prevent the contact from working loose and to prevent arcing between the contact and the holder. It is particularly difficult to properly hold such contacts when they are made comparatively small, as for instance, for use in small motors.

The objects of this invention are to provide a simple and efficient mounting or holder for electric contacts or brushes; to provide means whereby the contact will be securely pressed into its seat or socket; to provide a novel holding clip and means for fastening it in position to give a tension on the contact; and to provide such other novel features and advantages as will appear from the following specification.

In the accompanying drawings illustrating this invention,

Figure 1 is a side view of the contact and holder with the fastening clip shown in intermediate position;

Figure 2 is a similar view with the parts shown in assembled position and parts broken away to show the details of construction; and

Figure 3 is a plan view.

While my improved device may be made in any desired size, I have heretofore utilized it in connection with small motors in which the contact or brush is about one-fourth inch square, and the drawings show an enlargement of such sized brushes.

The contact or brush 4, which is made of carbon or the like, is beveled at either end, as shown at 5, 5. The base of the contact engages with a metal strip or bar 6 which is fastened to the motor or other device in any desired manner and serves as a conductor for carrying the current to or from the brush. This strip is bent at an acute angle at one end to form an abutment 7 which fits against the corresponding face of the brush 4. The brush or contact is held at the other

end by a clip or fastener 8 which is preferably made of spring brass or resilient metal so that it will have a yielding or spring action against the face of the brush.

This clip is provided at one end with a tang 9 which engages with a hole 10 in the strip 6. The other end of the clip is bent upwardly to form an abutment 11 which engages with the inner face of the brush and is bent at approximately the same angle as the face. However, the clip and end portions are designed so that when the tang is inserted in the hole 10, the upper end of the abutment 11 will strike the brush and hold the clip in slightly raised position, as shown in Figure 1. The clip 8 is also provided with side projections or wings 12 which are adapted to be bent under the strip 6 for holding the parts in assembled position, as shown in Figure 2. The abutment portion 11 of the clip also has tongues or lugs 13 which extend over the sides of the contact or brush 4 for holding it against lateral movement, the brush being preferably about the same width as the strip 6.

When the device is to be assembled, the clip 8 is placed in position as shown in Figure 1 and the device is then placed in a press which presses the clip down to the position shown in Figure 2, and the wings 12 are bent under the strip 6 to complete the operation. On account of the tang 9 passing through the hole 10, the clip is prevented from longitudinal movement and consequently the opposite end may be forced against the contact or brush so as to hold the brush firmly against the abutment 7 or in the socket provided for the same by the two pieces. By making the clip or fastener 8 of spring metal or resilient metal, such pressure will be maintained and the brush will be held securely in position without liability of working loose, and therefore arcing between the brush and holder is also prevented.

My device may be made in different forms or shapes for different machines for electrical apparatus, and therefore I do not wish to be limited to the exact arrangement or method herein shown and described except as specified in the following claims in which I claim:

1. In a brush holder, the combination of a metal strip having one end bent at an acute angle, a contact engaging with said strip and having one end beveled to engage

with the bent portion of the strip, a clip having a tang at one end passing through a hole in the strip and having its opposite end engaging with the adjacent beveled end of the contact, said clip having integrally formed projections bent under the strip for holding it in adjusted position.

2. In a device of the character set forth, the combination of a contact having oppositely beveled ends, a metal bar having one end bent to engage with one end of the contact, said bar also having a hole there-through at a short distance from the contact, a resilient clip having a tang at one end engaging with said hole, the opposite end of the clip being adapted to be pressed against the adjacent beveled end of the contact, said clip also having wings adapted to be bent under the bar for holding it in adjusted position, and also having tongues for engagement with the sides of the contact.

3. The method of mounting a non-metallic

electric contact, which consists in placing the contact on a metal strip having an abutment for engagement with one end of the contact, then placing a yielding metal clip in engagement with the contact, and providing means for preventing longitudinal movement of the clip along the strip, then pressing the clip downwardly against the contact and strip, and bending the sides of the clip under the strip for fastening the same in position.

4. The method of mounting a contact, which consists in placing the contact on a metal strip having an abutment for engagement with one end of the contact, then providing a clip having a tang at one end passing through a hole in the strip, then pressing the clip against the contact and strip, and finally bending the sides of the clip over the strip for holding the parts in fixed position.

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