

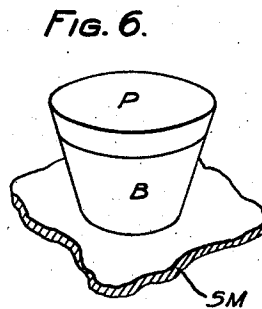
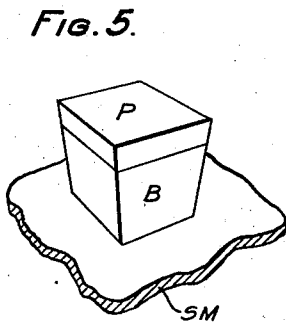
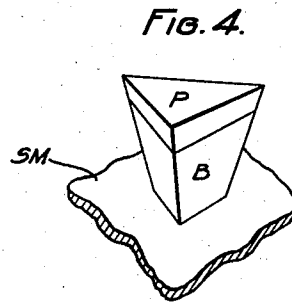
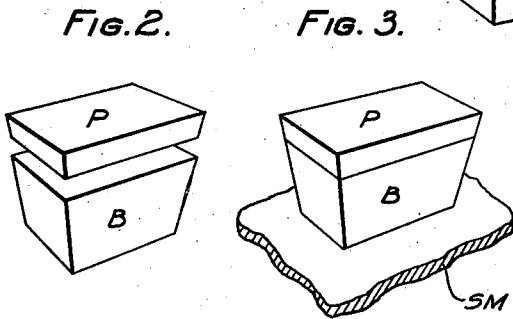
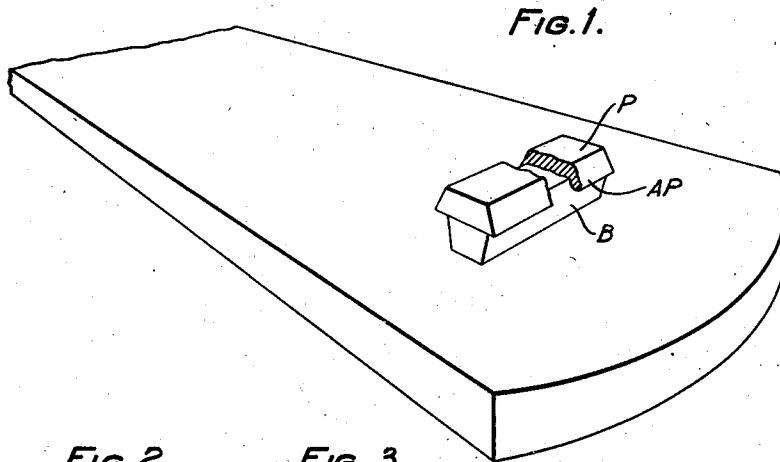
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H. O. SIEGMUND

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METHOD OF PRODUCING SWITCHING APPARATUS PARTS

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INVENTOR
H. O. SIEGMUND
BY *Irving Mac Donald*
ATTORNEY

UNITED STATES PATENT OFFICE

HUMPHREYS O. SIEGMUND, OF WEST ORANGE, NEW JERSEY, ASSIGNOR TO BELL TELEPHONE LABORATORIES, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

METHOD OF PRODUCING SWITCHING APPARATUS PARTS

Application filed November 27, 1928. Serial No. 322,274.

This invention relates to electrical switching apparatus and more particularly to methods of manufacturing contact members for use in such apparatus.

5 According to this invention a frustum of a pyramid-shaped bi-metallic block of base and precious metal is secured, as by welding, to a supporting member in an inverted position, and in a subsequent operation the block
10 thus secured is formed into a contact member by reforming the contact point opposite the weld, leaving an apron of precious metal which serves as a protecting sparking area around the base metal. The contact member
15 thus formed may assume the shape of any desired geometrical figure, such as that of a parallelogram, circle, square, or triangle, depending upon the area of contact registration required for a maximum deviation of the
20 contact supporting members relative to each other.

The contact metal may be united to the base metal as by welding, brazing or by any other well-known method and the thickness of the
25 precious metal is governed solely by the number of switching operations required, the total height of the contact from its supporting spring being controlled by the thickness of the base metal used. Contacts made according
30 to this method are capable of performing a great number of efficient switching operations, while making possible the saving of a considerable amount of precious metal.

Other features of invention and advantages will appear from the following description and by the claims appended thereto, reference being had to the accompanying drawing in which:

Fig. 1 is an enlarged perspective view of a switch spring made in accordance with the features of this invention;

Fig. 2 is a view of the precious and base metal block before welding;

Fig. 3 is a view similar to that of Fig. 2 showing the blocks united; and

Figs. 4, 5 and 6 are views of different shaped contacts mounted on their supporting switching members with portions broken away.

50 In producing switching apparatus parts

according to the method of this invention, a block P of precious metal shown in Fig. 2 and of the desired contacting or effective surface shape is united to a similar shaped block
55 B of base metal as shown in Fig. 3. Each of the blocks P and B may represent a frustum of a pyramid as shown in Figs. 2, 3 and 5, a prismoid as shown in Fig. 4, a truncated cone as shown in Fig. 6 or any other desired
60 geometrical figure.

The blocks of precious and base metal may be cut in any convenient manner from respective sheets and united as by welding to form bi-metallic blocks as shown in Figs.
65 3, 4, 5 and 6. These blocks may also be cut direct from a bi-metallic sheet in which the precious metal sheet is united to the base metal sheet prior to the cutting of the blocks. The lower face of the bi-metallic block thus
70 constructed is then welded or otherwise united to a supporting member SM, after which the precious metal P is formed in such a manner that its peripheral edge is bent downwardly over the edge of the base metal block
75 B in order to form a protecting sparking apron AP around the base metal as shown in Fig. 1. This precious metal apron effectively protects the base metal from side sparking and greatly lengthens the life of the con-
80 tacts.

By the use of this method it is obvious that a protecting sparking apron may be formed on contacts of any desired shape, the shape being governed by the extent of deviation in the assembly of the switch springs
85 and the area of contact registration characteristic of the electrical apparatus of which the contacts form parts.

What is claimed is:

1. The method of producing switching apparatus parts which consists in welding a bi-metallic block to a switching member, and forming a protective edge around one of the metals in a subsequent operation.

2. The method of producing switching apparatus parts which consists in welding the apex of a block representing a frustum of a pyramid to a supporting member, and subsequently reforming the apex of the block
100 opposite the weld.

3. The method of producing switching apparatus parts which consists in uniting a block of base metal to a block of precious metal, welding the base metal to a supporting member and forming the precious metal into a contact and a protective sparking surface on the base metal in a subsequent operation.

4. The method of producing switching apparatus parts which consists in uniting a block of precious metal to a block of base metal of the same shape, welding the base metal to a supporting member, and forming a contact and sparking area of precious metal around the base metal.

5. The method of producing switching apparatus parts which consists in welding the apex of a truncated block of precious metal to the base of a truncated block of base metal, said precious and base metal blocks forming complementary portions of a truncated bi-metallic block when so joined, welding the apex of the truncated bi-metallic block to a supporting member and swaging the precious metal to form a contact and a protective apron on the base metal subsequently to the welding of the bi-metallic block to the supporting member.

In witness whereof, I hereunto subscribe my name this 23rd day of November, 1928.

HUMPHREYS O. SIEGMUND.