

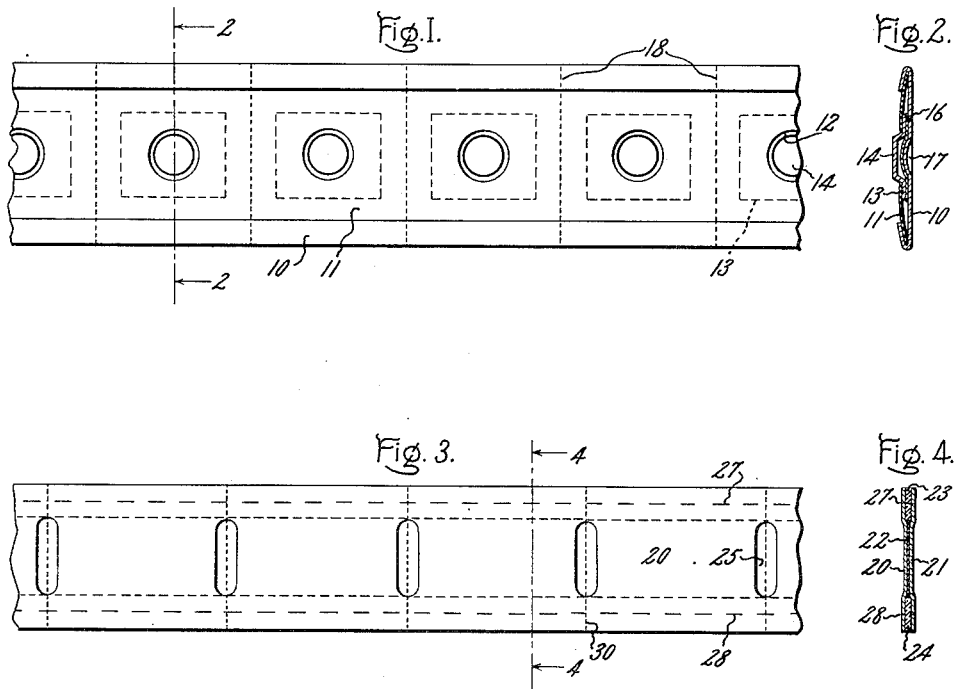
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H. E. BUTLER

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FILM CUT-OUT

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Inventor:
Henry E. Butler,
by *Charles E. Jullar*
His Attorney.

UNITED STATES PATENT OFFICE

HENRY E. BUTLER, OF SCOTIA, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK

FILM CUT-OUT

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My present invention relates to film cut-outs and has for its main object the provision of an improved cut-out manufactured in the form of a strip from which individual cut-outs having the proper size may easily be separated when needed.

My invention will be better understood from the following description when considered in connection with the accompanying drawing and its scope will be pointed out in the appended claims.

Referring to the drawing, Fig. 1 illustrates a somewhat enlarged plan view of a film cut-out made in accordance with my invention; Fig. 2 is a sectional view along line 2—2 of Fig. 1; Fig. 3 illustrates a modification of my invention also somewhat enlarged, and Fig. 4 is a sectional view along line 4—4 of Fig. 3.

Referring to the drawing in detail, Figs. 1 and 2 illustrate a section of a film cut-out made in the form of a ribbon. It comprises a metal strip 10 which is folded over at the edges to hold an insulating strip 11. The insulating strip 11 may be of any suitable material, such as varnished paper, for example, and is provided with spaced openings 12 which are used to space metallic members 13, the raised portions 14 of which are caused to project through the perforations 12. The main body of member 13 may, of course, be of any desired shape.

Between the member 14 and the metal strip 10, an insulating film 16 is placed. This film 16 may be a coating of oxide or lacquer sprayed onto member 13 or thin paper, cloth or the like. The type and thickness of the film is chosen in accordance with the resistance required.

In assembling the cut-out above described, the metal strip 10 and insulating strip 11 are placed so that the holes 12 align with indentations 17 in the metal strip 10. An insulating film 16 and a member 13 are placed so that the raised portion 14 on member 13 projects through hole 12 and the insulating film 16 is directly underneath member 13. When the edges of strip 10 are bent over, a rigid structure is formed. This can be manufactured in a continuous strip and partially cut

or perforated along lines 18 which permits the handling of the cut-out in the form of rolls and an easy separation into individual cut-outs when needed. The spacing of lines 18 is such that the edges of member 13 are spaced from the edges of the section a distance greater than the thickness of the insulating film 16.

A modification of my invention is disclosed in Figs. 3 and 4. In this modification two strips of metal 20 and 21 are separated by an insulating film 22. Additional insulating strips 23 and 24 which are considerably greater in thickness than the insulating film 22, are added along the two edges for the purpose which will appear hereinafter.

The metal strip 20 is provided with narrow openings 25 which extend between the inner edges of the two insulating strips 23 and 24. These holes 25 are spaced from each other approximately a distance equal to the length of an individual cut-out. When the parts are assembled in any suitable manner, such as by stitching with a non-conducting thread along lines 27 and 28 as indicated, the strip is partially cut or perforated along lines 30 so that the individual cut-outs may be separated from the strip as and when needed.

The strips 20 and 21 are of relatively thin metal. When, therefore, these strips are stitched together as indicated or when torn apart along the lines 30, there is a possibility of the burs from the upper strip contacting the lower strip and destroying the cut-out. For this reason the strip 20 is provided with the holes 25 which in effect cuts the metal away from the separating edge; and for the distance that the metal of the strip 20 is not cut away from the edge, the additional thickness of insulation is provided whereby the two strips are separated far enough to prevent the burs from one strip contacting the other strip.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A film cut-out comprising a metal strip partially divided into sections, an insulating film, and metal members separated from said metal strip by said insulating film and arranged to form integral units with said sec-

tions respectively when the said sections are completely separated from said strip.

2. A film cut-out comprising a metal strip partially divided into sections, an insulating film, and metal members separated from said insulating strip by said insulating film arranged to form integral units with said sections respectively when they are separated from said strip and having their edges separated from the edges of said sections a distance greater than the thickness of said insulating film.

3. A film cut-out comprising a pair of contiguous strips, each partially divided into sections, an insulating film arranged between said strips, and means whereby each pair of said sections form integral units when they are separated from said strips.

4. A film cut-out comprising a metal strip, a plurality of metallic members, an insulating film arranged between said members

and said strip, and an insulating member arranged to space said members along said strip and to hold them in fixed relation to said metal strip.

5. A film cut-out comprising a metal strip partially divided into sections, an insulating film and a second metal strip attached to said first strip, said second strip being partially divided into sections by openings extending laterally of said strip and centered over the lines dividing said first strip, and insulating members extending between the edges of said strips and the ends of said openings whereby the edges of the respective sections of said two strips are spaced from each other a distance greater than the thickness of said film when they are completely severed from said strips.

In witness whereof I have hereunto set my hand.

HENRY E. BUTLER.

25	90
30	95
35	100
40	105
45	110
50	115
55	120
60	125
65	130