Jan. 15, 1924. 1,481,217

R. E. MALOY

GROMMET

Filed Nov. 21, 1921

Fig. 1.

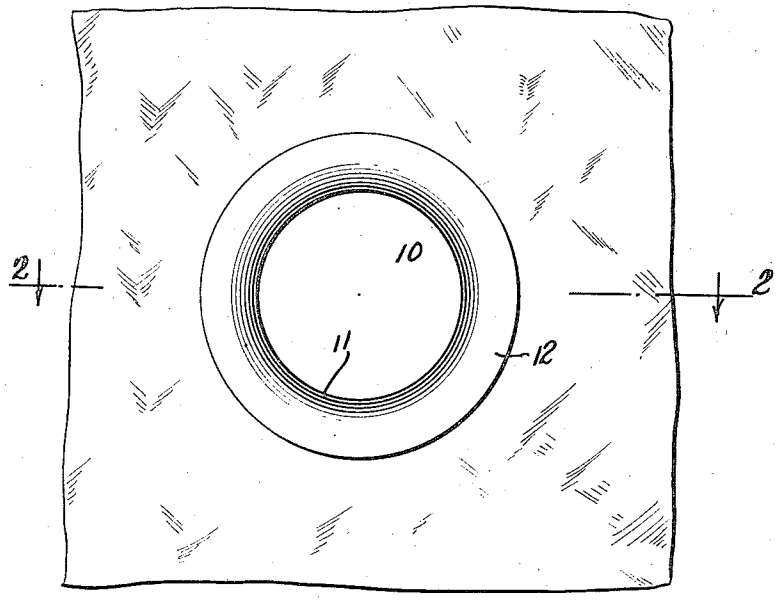


Fig. 2.

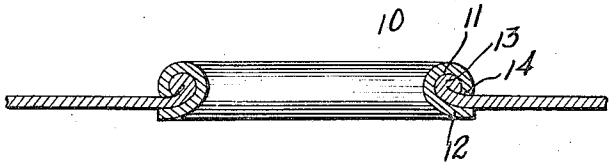
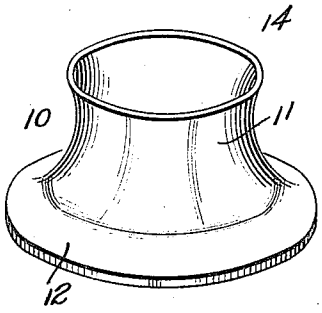


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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GROMMET.

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To all whom it may concern:

Be it known that I, RICHARD E. MALOY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Grommet, of which the following is a full, clear, and exact description.

This invention has relation to an improvement in grommets and contemplates for its principal object a one-piece metal grommet as a substitute for two-piece or three-piece grommets heretofore employed.

As a further object the invention aims to produce a one-piece metal grommet which coacts and engages with the material defining the opening in which the grommet is positioned in such a manner as to positively preclude the accidental displacement or dislodgment of the grommet from the material when once applied.

With the above recited and other objects in view, the invention resides in the novel construction set forth in the following specification, particularly pointed out in the appended claim and illustrated in the accompanying drawings, it being understood that the right is reserved to embodiments other than those actually illustrated herein to the full extent indicated by the general meaning of the terms in which the claims are expressed.

In the drawing—

Figure 1 is a bottom plan view illustrating the grommet in applied position.

Fig. 2 is a transverse sectional view therethrough taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the grommet prior to its association with the material.

Referring to the drawing by characters of reference, the grommet designated in its entirety by the numeral 10 comprises a substantially hyperboloidal body 11 having an integral outwardly flared annular flange 12 at one extremity which constitutes a base against which one surface of the material which defines the edge of the opening is clamped when the body 11 is turned or upset upon its insertion and application to the material. When applied as illustrated in Fig. 2 the body 11 is forced through an opening initially formed in the material which is of a diameter appreciably less than the smallest diameter of the body 11 and said body is turned outwardly and upset to gradually expand and roll the edge of the material defining the opening into the form of a bead 13 the extreme end or edge 14 of the body being finally directed toward the base flange 12 to confine the bead 13 within a substantially tubular and annular channel between the outer walls of the body 11 and flange 12. By utilizing a grommet of this formation, it will be seen that a better grip on the edge of the material defining the opening is obtained which practically precludes any possibilty of accidental separation of the material from the grommet as is the case where the opening for the reception of the grommet is of a size substantially equal to the tubular body thereof under the ordinary practice. In upsetting the free end of the body, the edge of the material defining the opening of necessity is rolled outwardly to form the bead, thereby obviating the necessity of employing a particular means for producing the same.

I claim:

A grommet, comprising an elongated hollow body having concave sides, an outwardly flared outer end and a flanged inner end, in combination with a piece of material having an opening of less diameter than the smallest diameter of the body and through which the body of the grommet is passed and upset, whereby the edge of the material defining the opening will be formed into a bead and an annular channel formed by the body and flange to enclose the beaded edge and the portion of the material adjacent said edge.

RICHARD E. MALOY.