J. W. HARDESTY.

EXPANDING GUSSET.

APPLICATION FILED OCT. 24, 1910.

986,055.

Patented Mar. 7, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

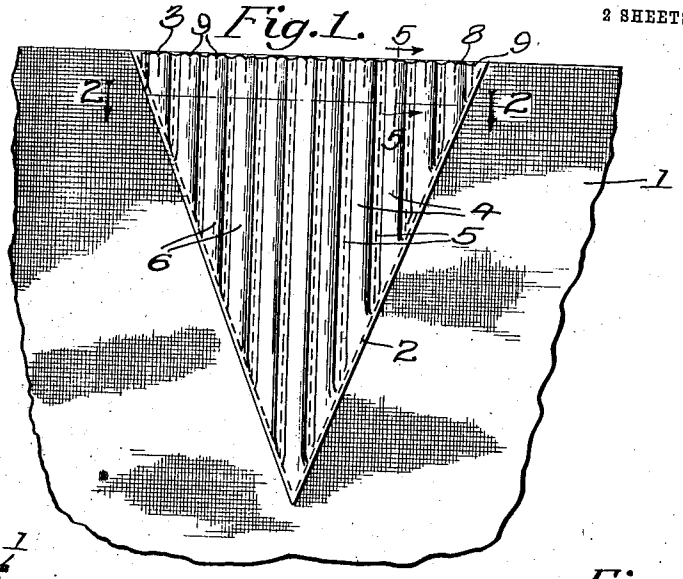


Fig. 2a.

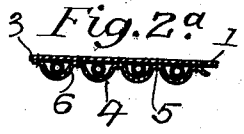


Fig. 5.

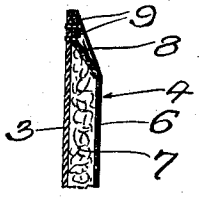


Fig. 2.

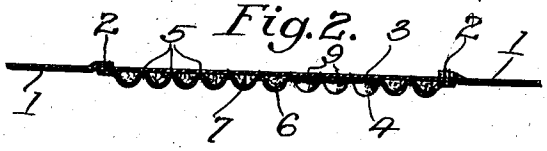


Fig. 3.

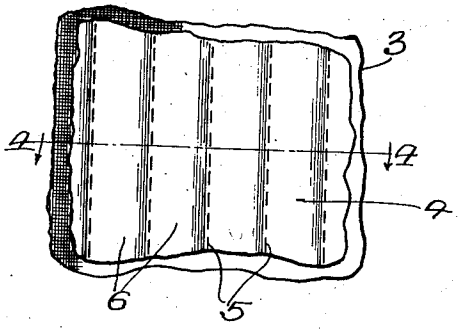
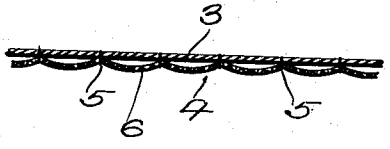


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 6.

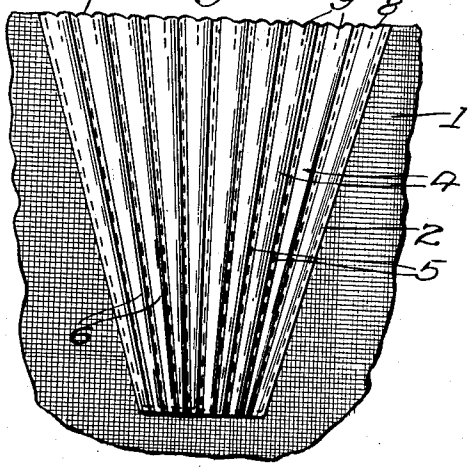


Fig. 7.

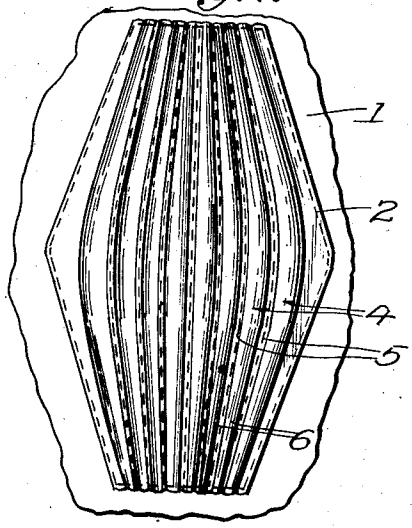


Fig. 8.

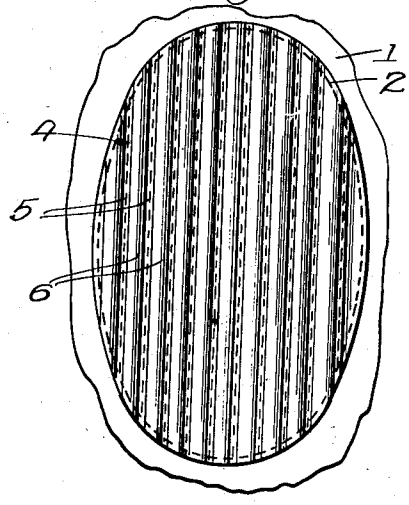


Fig. 9.

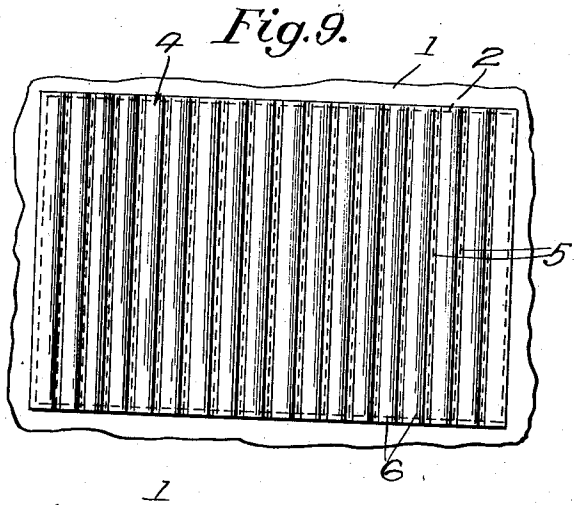
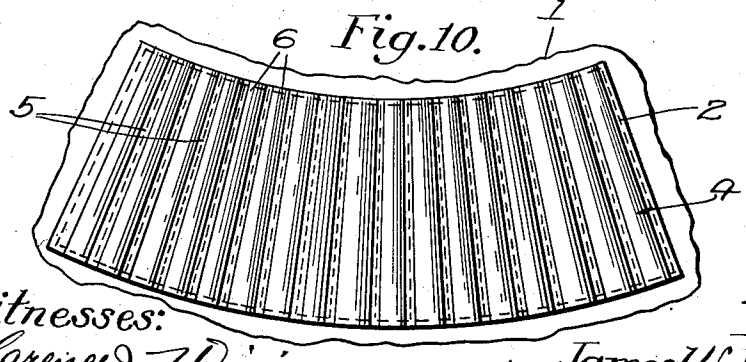


Fig. 10.



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EXPANDING GUSSET.

986,055. Specification of Letters Patent. Patented Mar. 7, 1911.

Application filed October 24, 1910. Serial No. 588,619.

To all whom it may concern:

Be it known that I, JAMES W. HARDESTY, a citizen of the United States, residing at Los Angeles, California, have invented a new and useful Expanding Gusset, of which the following is a specification.

My object is to make an expanding gusset provided with a structural element comprising an inner elastic portion, and an outer inelastic portion which will correspond to or resemble the material or fabric with which the said gusset is to be combined or attached so that where leather or a leather substitute is used the gusset will be water and dust proof; said inner elastic and outer inelastic portions being so combined or attached as to allow even expansion and contraction over the entire surface of the gusset and limit the said expansion and contraction to conform to the purpose for which it is intended; and my invention consists of the novel features herein shown, described and claimed.

In the drawings: Figure 1 is a fragmentary plan of a piece of material such as leather or cloth with an expanding gusset inserted in accordance with my invention. Fig. 2 is a cross section on the line 2—2 of Fig. 1. Fig. 2ª shows a modified form of filler. Fig. 3 is a fragmentary plan upon an enlarged scale and illustrating the construction of the gusset. Fig. 4 is a cross section on the line 4—4 of Fig. 3. Fig. 5 is a sectional detail on the line 5—5 of Fig. 1. Fig. 6 is a view analogous to Fig. 1 and showing tapered tubes. Fig. 7 is a view analogous to Figs. 1 and 6 and showing a diamond shaped gusset in which the tubes are larger in the center than at the ends. Fig. 8 shows a rounded gusset. Fig. 9 shows a rectangular gusset. Fig. 10 shows a gusset forming a segment of a circle, the outer ends of the tubes being larger than the inner ends.

Referring to the drawings in detail: The body material 1 may be of leather or other suitable inelastic material.

An expanding gusset embodying the principles of my invention may be made in a great variety of shapes and the tubes may be straight, tapered or enlarged in the middle, as shown in Figs. 1, 6, 7, 8, 9 and 10.

A section of the elastic web 3 is cut to the desired size and shape and a section of leather, cloth, or other suitable inelastic material corresponding to or resembling the body material 1 in appearance is cut to the desired size and shape. In Figs. 1 and 3 the inelastic material is secured to the elastic web by parallel lines of stitching 5 and the element thus produced is secured to the body material 1 by lines of stitching 2. The inelastic material is loose between the lines of stitching 5 and the tubes 6 thus produced are supplied with a filler 7 of pliable, yielding material such as cotton, wool, soft rubber tubes or the like. The filler 7 serves to produce even, symmetrical corrugations at all times, thereby improving the appearance of the exposed material forming the expanding gusset. The filler being soft and compressible and expansible does not interfere materially with the action of the elastic web 3.

In Fig. 6 I have shown the tubes 6 tapered from one end to the other. In Fig. 7 I have shown the tubes tapered both ways from the middle. In Fig. 10 the tubes are tapered from one end to the other as in Fig. 6. In Fig. 2 I have shown the tubes 6 filled with a fibrous material. In Fig. 2ª I have shown the tubes 6 filled with soft rubber tubes. In order to close the ends of the tubes 6, along the exposed edge 8 of the gusset, short lines of stitches 9 are inserted between the stitches 5 and parallel therewith, as shown in Figs. 1 and 5.

It is obvious that the inelastic material 4 will limit the expansion of the elastic web 3, that it will protect the elastic web from wear and make the article dirt proof, and that if leather is used it may be made water proof.

Special attention is called to the fact that the covering of the gusset may be of the same material as the body of the article, or of a lighter material resembling the body material.

I claim:

1. A body material having a cut-away place for an expanding gusset; an expanding gusset inserted in said cut-away place and stitched to the body material, said expanding gusset comprising an inner elastic web; an outer inelastic piece of material resembling the body material and attached to the elastic web by lines of stitching running cross-wise of the expanding lines, the inelastic material being loose between the lines of stitching and forming tubes, and a filler of pliable, yielding material in the tubes.

2. An expanding gusset comprising an inner elastic web; an outer inelastic material secured to the web by lines of stitching running cross-wise of the expanding lines, the inelastic material being loose between the

lines of stitching, thus forming tubes, and a filler of pliable, yielding material in the tubes.

3. An expanding gusset comprising, an inner elastic web; an outer inelastic material secured to the elastic web by lines of stitching running cross-wise of the expanding lines, the inelastic material being loose between the lines of stitching, thereby forming tubes; a filler in the tubes, and short lines of stitching between the ends of the first mentioned lines of stitching so as to close the ends of the tubes.

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