Nov. 26, 1935. A. CAGGIANO 2,022,557

PACKAGE TIE

Filed Nov. 18, 1933

Fig. 1.

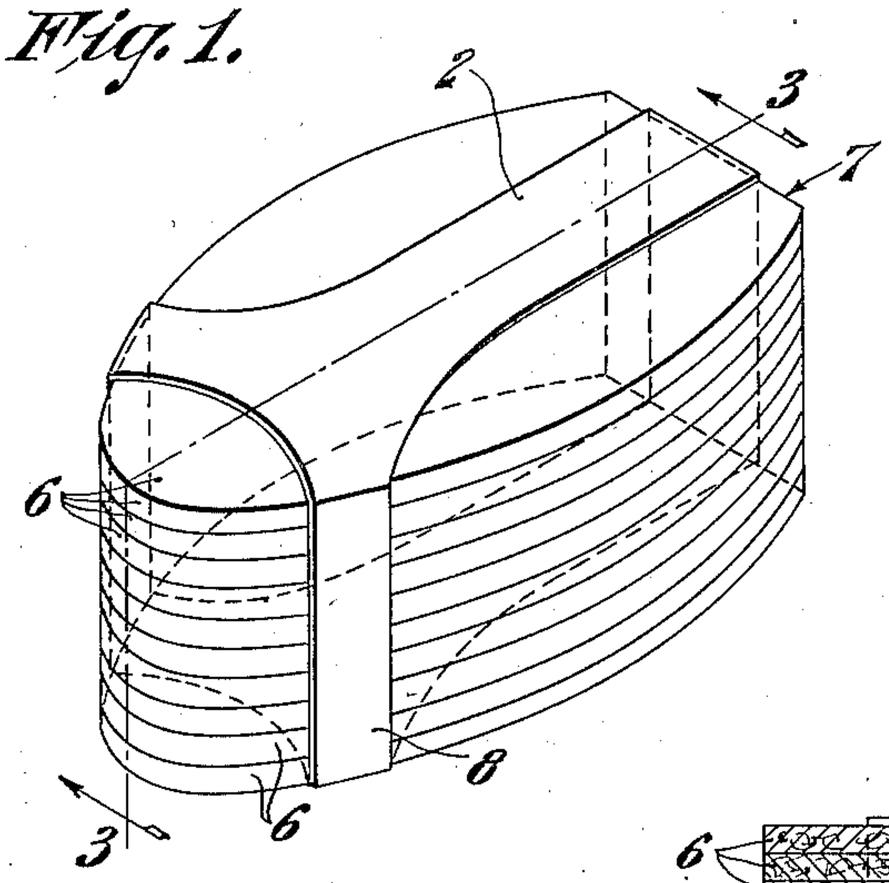


Fig. 2.

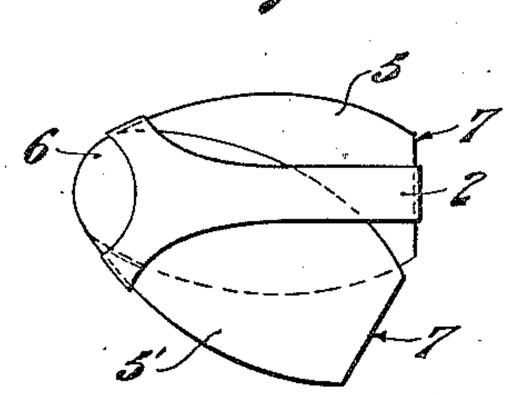


Fig. 3.

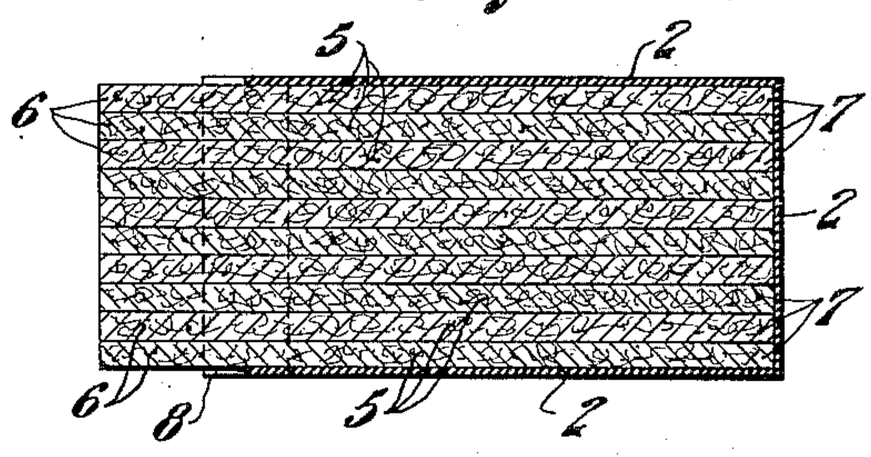


Fig. 4.

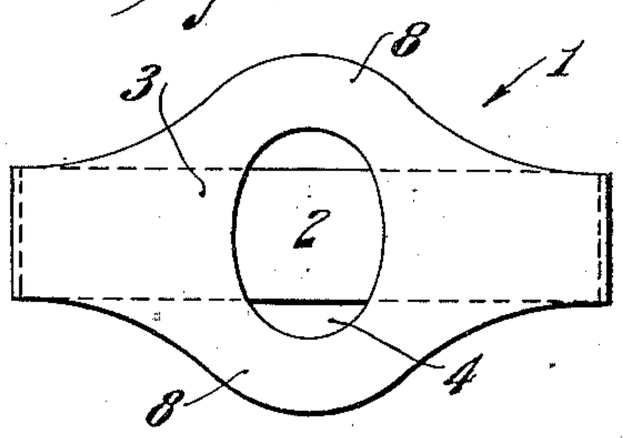


Fig. 5.

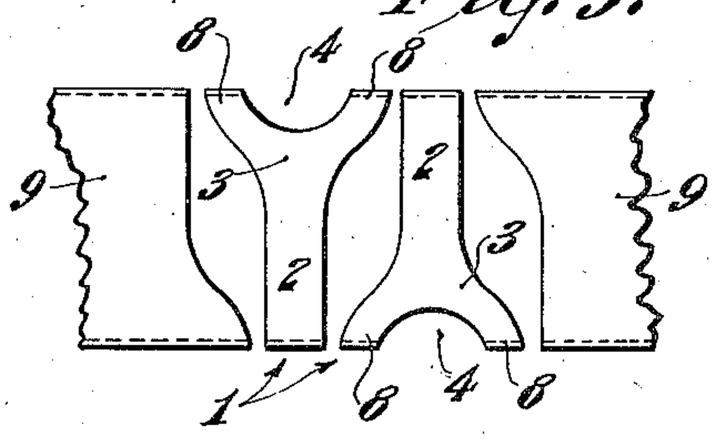


Fig. 6.

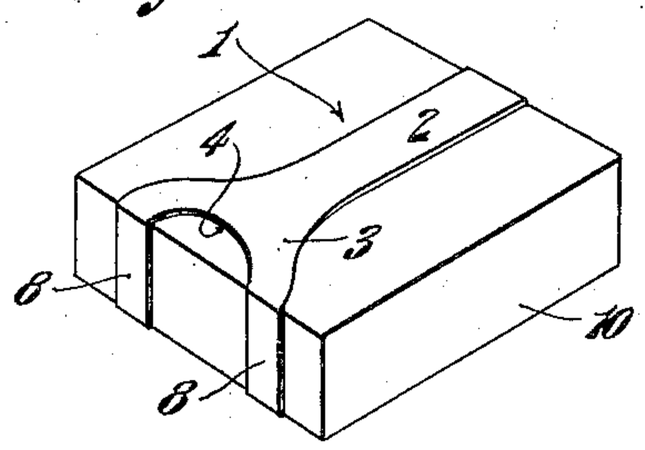


Fig. 7.

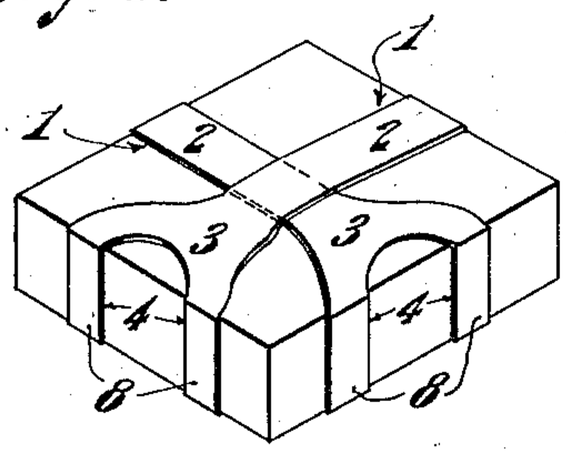
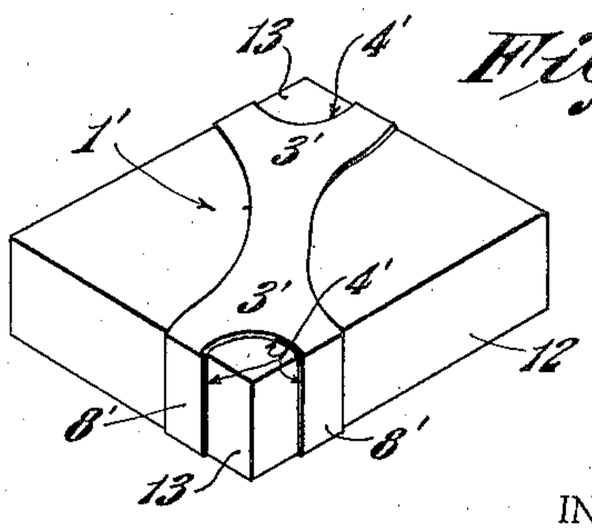


Fig. 8.



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UNITED STATES PATENT OFFICE

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PACKAGE TIE

Anthony Caggiano, Springfield, Mass.

Application November 18, 1933, Serial No. 698,668

8 Claims. (Cl. 24—17)

My invention relates to improvements in package ties.

An object of my invention is to provide an elastic, unitary, package tie which will securely retain a plurality of articles in package form, and at the same time, permit an article to be removed from, or added to, the package, without materially displacing the remaining articles in the package.

A further object of my invention is to provide a package tie, which will be equally efficient in holding a plurality of articles of rectangular, or of irregular shape.

These, and other objects and advantages of my invention will be more completely described and disclosed in the specification, the accompanying drawing, and the appended claims.

Broadly, my invention comprises an endless band of elastic material, having a portion thereof of relatively wider than the band proper, the wide portion being formed with an opening.

A preferred embodiment of my invention is illustrated in the accompanying drawing, in which:—

Fig. 1 is a perspective view, illustrating the package tie, as used to form a package of a plurality of leather shoe soles.

Fig. 2 is a plan view of the package, illustrated in Fig. 1, showing one of the soles in position to be removed from the package.

Fig. 3 is a longitudinal, sectional view, taken on the line 3—3 of Fig. 1.

Fig. 4 is an elevational view of the package tie, removed from a package.

Fig. 5 is a diagrammatic view, illustrating a method of cutting the ties from a rubber tube.

Fig. 6 is a perspective view, of a package tie, as used on a rectangular package.

Fig. 7 is a perspective view, similar to Fig. 6, illustrating two package ties on a rectangular package, and

Fig. 8 is a perspective view, illustrating a modified form of package tie, as used on a rectangular package.

Referring now to the drawing in detail:

Figs. 1, 2, and 3 illustrate the use of my package tie for holding a plurality of shoe soles. The present practice, in the trade, is to secure these soles together with wire. The wire marks and dents the top and bottom soles in the package, and grooves the edges of the intermediate members. As soon as one of the units has been removed, the wire is no longer useful, and the package falls apart. These objections are entirely overcome by the use of the elastic package tie illustrated, which will not mark the articles enclosed, and which will, because of its elasticity, adapt itself to varying numbers of units in the package.

The package tie 1 is formed with the relatively narrow band, or strap portion 2, and the wider portion 3. The portion 3 is pierced, or cut out, to form the opening 4. In Figs. 1, 2, and 3, the tie 1 is used to form a package of shoe soles 5. The pointed ends, or toes 6, of the soles 5, are thrust through the opening 4 in the tie 1, and the strap portion 2 of the tie 1 passes across the top of the upper sole 5, down over the backs 7 of the soles 5, and returns across the bottom of the lower sole, indicated at 5, to complete the package. Thus, the irregular shaped soles are securely held by the tie 1 on top, bottom, rear, and two sides. The broad, or extended portions 8, of the tie 1, situated on opposite sides of the opening 4, securely grip the soles 5, on either side of the toes 6.

The elastic ties, or bands 1, may be economically cut from a tube 9 of rubber, or other suitable elastic material, (see Fig. 5). Preferably, I cut these ties from a rubber tube, similar to an automobile inner tube, but it will be readily understood, by those skilled in the art, that other materials, such as two-way stretch fabric, may be used with advantage, or that the ties may be made directly from the rubber, without first forming the tube 9.

Figs. 6 and 7 illustrate the use of the elastic tie 1, in forming square, or rectangular packages. In Fig. 6, a single tie is used on the package 10, and in Fig. 7, the package 11 is shown bound together with two of the package ties 1.

Fig. 8 illustrates the use of a modified form of tie 1′ for forming a rectangular package 12, in which the tie 1′ is formed with oppositely disposed wide portions 3′, each formed with openings 4′, in which oppositely disposed corners 13 of the package 12 are inserted. This form of tie 1′ is a very simple and efficient tie for packages made up of units of square, or rectangular shape, while the tie 1 is more adaptable for units of odd, or irregular shape, as illustrated in Fig. 1.

Fig. 2 illustrates a unit 5′, or member, in position, to be removed from, or inserted in, the package of soles 5.

What I claim is:—

1. A package tie comprising, a resilient endless band member having a portion thereof formed with opposed and curved side edges, said portion being provided with an opening.

2. A package tie comprising an endless elastic

band having a strap portion at one end and a relatively wider portion at its opposite end and having an opening centrally disposed in said wider portion, the axis of said opening being perpendicular to the wider portion in which it is formed.

3. A package tie comprising, an elastic endless band member having a portion thereof shaped as a parallel sided strap and a portion thereof shaped as an ellipse with its longer axis perpendicular to the sides of said strap portion, said elliptical portion being formed with an elliptical opening therein.

4. A package tie comprising, an elastic endless band member having a narrow parallel sided strap portion and a relatively wider portion having sides located in planes that are curved with reference to each other and formed with an opening therein.

5. A one-piece elastic package tie comprising, a unitary endless band member having an elliptical opening in the band for receiving the toe portion of a stack of shoe soles and the remainder of the band passing around the top, bottom and end portions of the stack of shoe soles, or like articles, as described.

6. A package tie comprising a single elastic tubular member having an opening in the wall thereof, the axis of which opening is perpendicularly disposed, relative to the axis of said tubular member.

7. A package tie comprising an elastic tubular member having a portion thereof relatively wider than the rest, said wider portion having an opening therein, the axis of which opening is perpendicularly disposed relative to the axis of the tubular member.

8. A one-piece elastic package tie comprising, a tubular member provided with an opening in the wall thereof.

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