

July 2, 1963

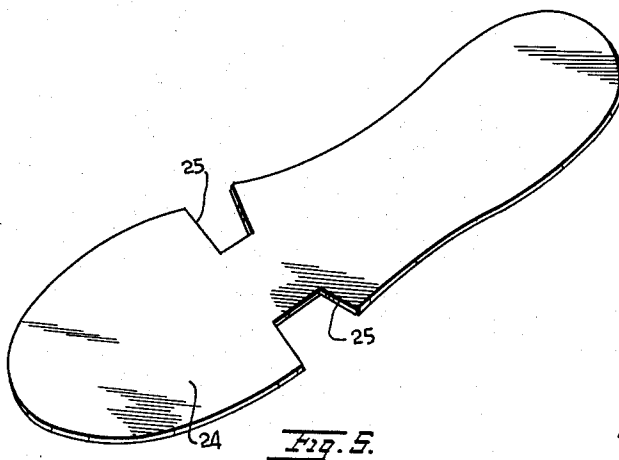
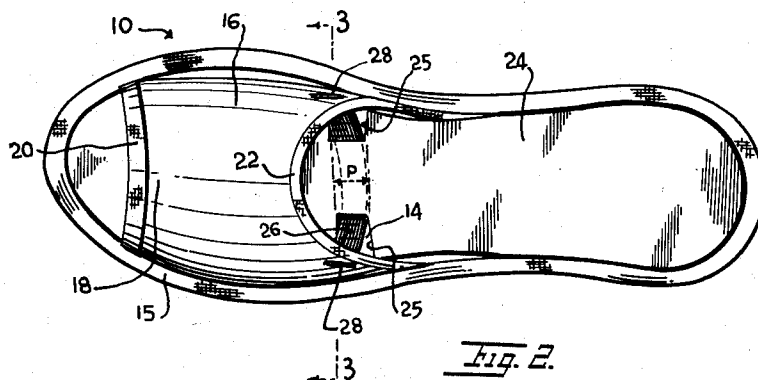
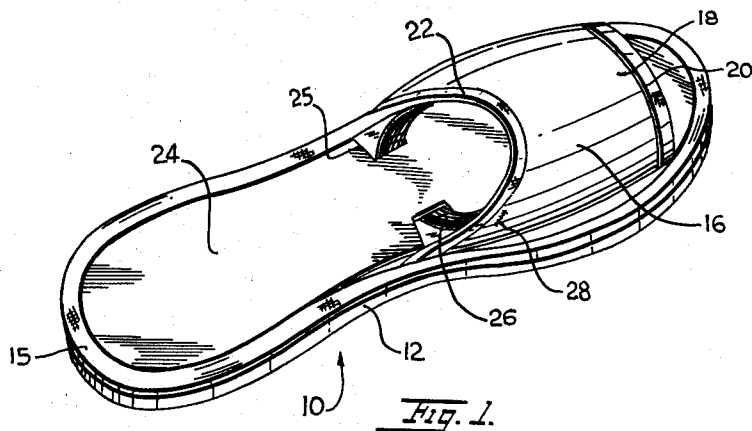
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3,095,656

ELASTIC CRADLE GRIP FOR FOOTWEAR

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2 Sheets-Sheet 1



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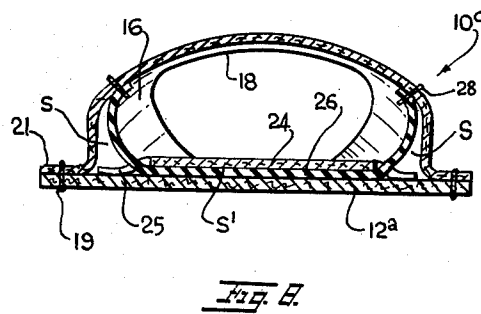
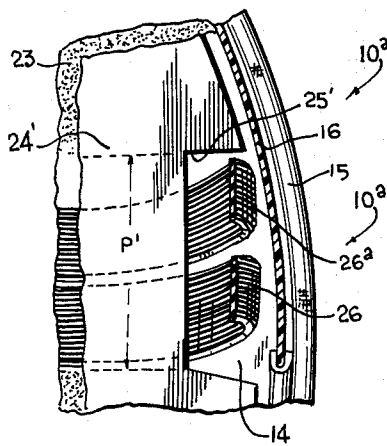
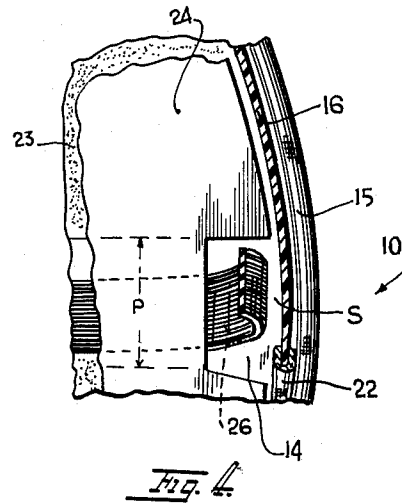
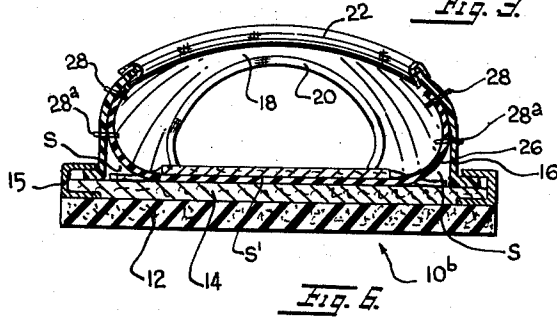
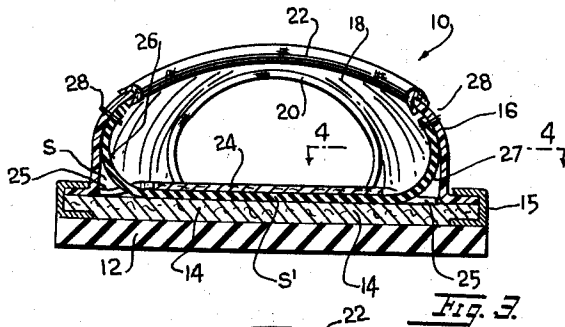
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ELASTIC CRADLE GRIP FOR FOOTWEAR

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2 Sheets-Sheet 2



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This invention relates to the art of footwear and more particularly concerns an article of footwear having elastic gripping means to hold the article on a wearer's foot.

A principal object of the invention is to provide a shoe, slipper or other article of footwear with an elastic band which at least partially encircles the instep of the wearer's foot under tension so that the footwear is held on the wearer's foot.

While the invention is especially useful for shoes and slippers having no back, it is applicable to such footwear and to all others which fit too loosely upon a wearer's foot. The invention makes unnecessary the use of laces, thongs or other holding means. It avoids the use of elastic gussets which have been provided in the uppers of some types of prior slippers and shoes and provides the advantage that cutting and sewing of the upper of a shoe or slipper to install the elastic gripper is not required. The elastic gripping means provided according to the invention is not visible externally of the footwear while it is being worn. The elastic gripping means can be readily replaced when worn, which is a feature not possible with prior known elastic gussets used heretofore in footwear.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIG. 1 is a perspective view of a slipper embodying the invention.

FIG. 2 is a top plan view of the slipper on an enlarged scale.

FIG. 3 is a cross-sectional view taken on line 3-3 of FIG. 2.

FIG. 4 is a fragmentary sectional view taken on line 4-4 of FIG. 3.

FIG. 5 is a perspective view of an insole used in the footwear according to the invention.

FIG. 6 and FIG. 8 are sectional views similar to FIG. 3 showing other footwear embodying the invention.

FIG. 7 is a sectional view similar to FIG. 4 illustrating a modification of the invention.

Referring to the drawings, there is shown in FIGS. 1-4 an article of footwear, which in this instance is a slipper or sandal 10. The sandal has a resilient outsole 12 to which is secured by stitching and/or cement a midsole 14. A cloth binding tape 15 extends peripherally all around the midsole 14. Secured to the midsole is an upper 16 made of resilient but inelastic material such as leather or plastic. This upper extends only over the forepart of the sandal in an arched configuration. The front or toe end 18 of the upper may be cut away if desired as shown in the drawing. Binding tapes 20, 22 may be provided at opposite raw edges of the toe and instep of the upper to finish these edges.

The sandal has an insole 24 which is secured by cement 23 or the like to the upper side of midsole 14 at all points except at a central portion P where there are provided rectangular cutouts or notches 25 as best shown in FIGS. 2 and 5. The notches extend inwardly at opposite lateral edges of the insole. An elastic band 26 extends under the insole 24 at the central portion thereof. Opposite ends of the band extend upwardly through the notches 25 and are secured by any suitable fastening means such as stitching

ing 28 to the opposing sides of the upper. The band 26 is somewhat shortened so that its opposite end portions 27 are spaced away from the adjacent sides of the upper, to define spaces S as clearly shown in FIGS. 3 and 5.

When the wearer inserts his foot into the sandal 10, the elastic band 26 expands and grips the sides of the instep and bottom arch of the foot under tension. The instep abuts the upper. This construction provides a snug fit and grip on the foot even though the sandal otherwise fits loosely. Since the band 26 is free to stretch in the space S' between the midsole 14 and insole 24 it readily accommodates itself to the foot while walking so that a snug, secure and comfortable grip is continuously maintained.

FIG. 7 shows a modification of the invention in which parts corresponding to those of sandal 10 are identically numbered. This sandal 10^a is provided with two separate bands 26 and 26^a both secured at their ends to the sides of the upper 16. Notches 25' in the insole 24' are somewhat longer than notches 25 in the longitudinal direction of the insole at central insole portion P', to accommodate the two bands. For very large sizes of footwear the use of two bands 26, 26^a will be preferred in place of the single elastic band 26. Use of a single band will generally be sufficient for most ordinary sizes of children's, ladies' and men's footwear.

FIG. 6 shows a further modification of the invention in which two spaced lines of stitching 28, 28^a substantially parallel to outer sole 12, midsole 14 and innersole 24 are provided on each side of the upper and at the attached end of the band 26 in sandal 10^b. Stitching 28^a is located below stitching 28. This provides a stronger attachment of the band 26 to the upper than the single line of stitching 28. In addition, it is possible to cut and remove the lower line of stitching 28^a at each side of the upper 16. This will serve to enlarge the free length of the band which will then be held only by stitching 28. This will accommodate the band to grip a larger foot or to grip a smaller foot with less tension.

FIG. 8 shows another sandal 10^c of simplified structure. The cloth binding tapes on the edges of the upper 16 are omitted. The outer free edges 21 of the upper 16 are secured by stitching 19 to the outer lateral edges of the sole 12^a. The insole 24 overlays the band 26 and outersole 12^a, and the ends of the band are secured by stitching 28 to the inner sides of the upper. Other parts of sandal 10^c are similar to those of sandals 10, 10^a and 10^b and corresponding parts are identically numbered.

Although the invention has been described only in connection with sandals or slippers having no backs, it is obvious that it is also applicable to shoes, sneakers and other footwear having backs. It can also be used with footwear such as boots, galoshes, and the like. A particularly advantageous use can be made of the invention with very loosely fitted articles of footwear such as overshoes. Regardless of what other fastening means may be used at the ankle of the footwear, there generally exists excessive looseness at the instep which makes wear and walking uncomfortable. The present invention will provide a snug fit of the footwear to the foot to increase its comfort in wear and improve its external appearance.

The band or bands employed to serve as gripping means are invisible when in use. They can be removed, reset and replaced quickly by hand or by means of ordinary shoe repair equipment.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In an article of footwear having an outer sole and an arched upper attached to the sole an elastic band, means securing opposite ends of the band to opposite inner sides of the upper, the remainder of the band being unattached and said band extending across the outer sole and freely expansible to grip the arch and sides of the instep of the foot of a wearer and an insole secured to said outer sole at all points except at a central portion thereof to define a passage with said outer sole, said unattached remainder of the band passing through said passage and freely expansible therein, said securing means including two spaced lines of stitching at each side of the upper extending substantially parallel to the outer sole, whereby the securement of the band to the upper is strengthened, and whereby removal of one line of stitching at each side of the upper lengthens the free central portion of the band for accommodating a larger foot.

2. A sandal comprising an outer sole, a midsole secured to the outer sole and extending the length thereof,

an innersole superposed on and secured to said midsole and extending the length thereof, said innersole having opposed notches in the long edges thereof, intermediate its ends, adjacent the instep of the wearer, a curved upper secured along the midsole forwardly of the instep of the wearer, and an elastic band extending loosely across and underneath the innersole and extending upwardly through the notches therein, the ends of said band being stitched to the upper at the instep of the wearer, at the extremities of the band and at points slightly spaced inwardly of the extremities, the loose unattached portion of the protruding band adapted to grip the instep of the foot of the wearer.

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