

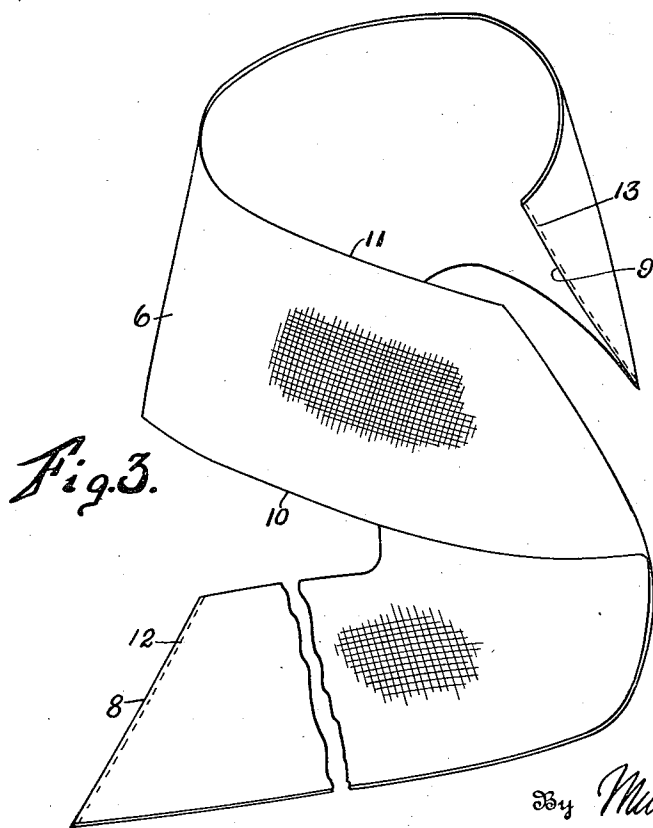
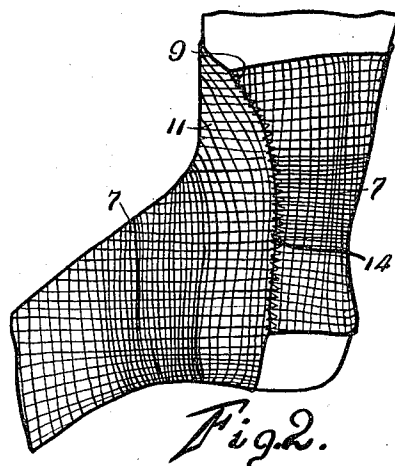
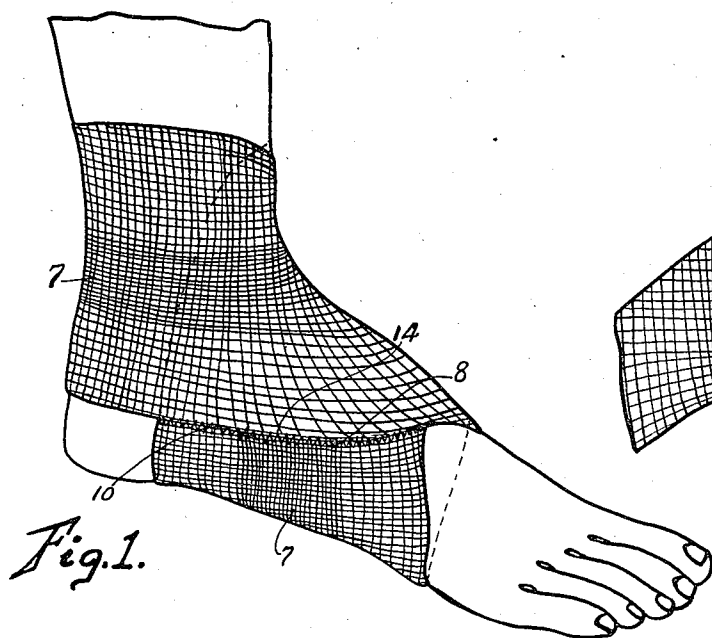
Sept. 10, 1935.

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2,013,757

ANKLET

Filed May 30, 1930



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UNITED STATES PATENT OFFICE

2,013,757

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Application May 30, 1930, Serial No. 457,591

8 Claims. (Cl. 128—166)

This invention relates to an ankle and arch brace or bandage and has for an object to provide such a brace in which certain parts effect a greater binding pressure upon the arch and ankle of a wearer than do other of its parts.

Another object is to provide a brace of this kind which will not wrinkle, crimp or become distorted when in use.

Another object is to produce such a brace from a single length of material.

Another object is to produce such an article in a simple, inexpensive and efficient manner.

These objects are attained by the means described herein and set forth in the accompanying drawing, in which:

Fig. 1 is a perspective view showing the brace in position upon a foot.

Fig. 2 is a view showing the side of the foot and brace opposite to that shown in Fig. 1.

Fig. 3 is a perspective view of the cut material of the brace before being joined to form the article of this invention.

The material contemplated herein for use in manufacturing the brace, is that set forth and illustrated in my application Serial No. 497,592, which became automatically abandoned on April 19, 1932. Said abandoned application was filed on the same day as this application, namely, May 30, 1930, and it related to elastic strip-webbing adapted to be stretched longitudinally but not transversely thereof. The webbing, as disclosed in said abandoned application and as used herein therefore, has an elastic warp and a non-elastic weft and is provided with means by which the central longitudinal section of the strip possesses greater tensile strength than the lateral portions thereof. In general, this is effected by providing a relatively greater number of elastic strands in this central section than in the adjacent, lateral sections.

The section of material forming a brace of this invention is substantially in the shape of a parallelogram, the transverse edges being cut on a bias constituting a moderate angle relative to the perpendicular. A bias angle of substantially 30° to the perpendicular has been found satisfactory. One of the biased edges 8 is securely attached to one of the longitudinal edges 10 whereby an arch loop is formed, this connection being shown in full lines in Fig. 1. The other biased edge 9 is similarly attached to the other longitudinal edge 11, whereby an ankle loop is provided, which connection is shown in full lines in Fig. 2.

More specifically, the steps in the manufacture of the article are as follows: a suitable pattern

is positioned upon a length of the webbing 6, the middle, longitudinal section of the webbing, as above described, being indicated at 7. A row of stitching 12 and 13 is applied transversely of the webbing along each biased edge of the pattern. Thereafter the portion of the strip intermediate the stitched lines is looped twice upon itself and in opposite directions, in substantially the manner indicated in Fig. 3. Edge 10 is positioned along stitching 12 and these parts sewed together. During this sewing operation, the portion of edge 10 along which the stitching 12 extends is held stretched so that said portion will not be rendered non-elastic by the cross-attachment of the inelastic weft thereto. Thereafter, the adjacent free portion of the webbing is cut off close to the stitching 12 and a line of cross stitching 14 applied along the intersection of the two edges. The formation of the arch loop is thus effected. The portion of the webbing comprising stitching 13 is then moved toward the edge 11 after the fashion indicated in Fig. 3, and the parts joined as described above and as clearly shown in Fig. 2, whereby an ankle loop is effected and the article completed. The attachment of the biased ends to the lateral edges of the webbing, as described, effects a substantial right-angle relationship of the ankle to the arch loop.

The stretching of edges 10 and 11 while the biased ends are being sewed thereto maintains the elasticity of these parts of the device. The slight puckering that occurs at these points when the brace is not in use, entirely disappears when the latter is stretched into position upon the foot of a wearer.

The indicated construction of the present device is considered a preferable method of securing great efficiency and beneficial results from the webbing material used. It will be noted that by means of the structure disclosed the longitudinal mid-section 7, of greatest tensile strength, passes directly over and around the portions of the ankle and arch where injury or weakness is most commonly sustained, and where support is most required. Moreover, the brace is reversible and may be used equally well upon either foot.

What is claimed is:

1. An arch and ankle brace constructed of a single strip of elastic webbing having biased ends, said ends being attached to opposite sides of the webbing intermediate the ends for providing a pair of loop portions disposed in a substantially right-angle relationship.

2. An arch and ankle brace constructed of a single strip of longitudinally elastic webbing having substantially parallel, biased ends, said ends

being attached along opposite sides of the webbing intermediate said ends for providing a pair of loop portions disposed in a substantially right-angle relationship.

5 3. An arch and ankle brace constructed of a single strip of longitudinally elastic webbing having a central longitudinal section of greater tensile strength than the adjacent sections, the strip having substantially parallel, biased ends attached to opposite sides of the webbing intermediate said ends for providing a pair of loop portions disposed in a substantial right-angle relationship, one of said loop portions being adapted to encircle the arch, and the other of said loop portions being adapted to encircle the ankle of a wearer.

4. The method of forming an arch and ankle brace from a strip of elastic webbing, said method consisting in providing two obliquely disposed substantially parallel lines of stitching transversely of the strip, looping twice upon itself and in opposite directions the portion of the strip intermediate said lines of stitching, securing the looped portions to the intermediate portion at opposite sides of said intermediate portion and along the lines of stitching, and cutting off the free portions of the strip above the joined portions.

5. The method of forming an arch and ankle brace from a strip of webbing elastic longitudinally thereof and non-elastic transversely thereof, said method consisting in providing two oblique-

ly-disposed substantially parallel lines of stitching transversely of the strip, looping twice upon itself and in opposite directions the section of the strip intermediate said lines of stitching, stretching a portion of the strip on each side of said intermediate section, securing one of said looped portions to each stretched portion, along the lines of the stitching, and cutting off the free parts of the strip adjacent the joined portions.

6. An arch and ankle support formed of a strip of webbing elastic longitudinally and non-elastic transversely thereof, said strip having substantially parallel, bias cut ends, the strip being looped upon itself in opposite directions and said ends being attached to opposite sides of the strip intermediate the ends while said strip is in a stretched condition, whereby to provide a pair of elastic loop portions adapted to encircle the arch and ankle of a wearer.

7. A combined arch and ankle brace constructed of a strip of elastic material having opposite ends, said ends being attached to opposite side edges of the strip of elastic material intermediate the said ends thereof for providing a pair of loops.

8. A combined arch and ankle brace constructed of a strip of elastic material having opposite ends, said ends being attached adjacent to opposite side edges of the strip of elastic material intermediate the said ends thereof for providing a pair of loops.

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