July 14, 1936. F. MACCARONE 2,047,697

WELT SHOE AND METHOD OF MAKING SAME

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Fig:1.

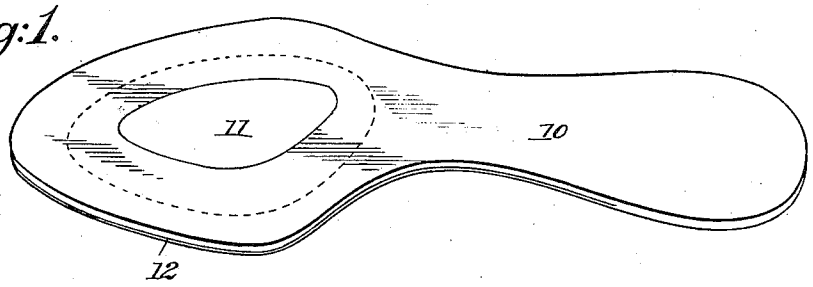


Fig:2.

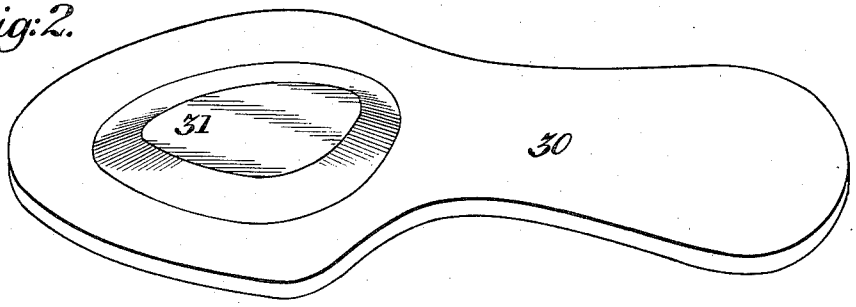


Fig:3.

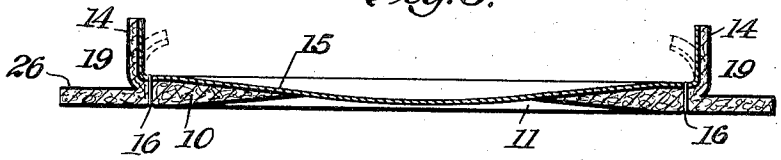
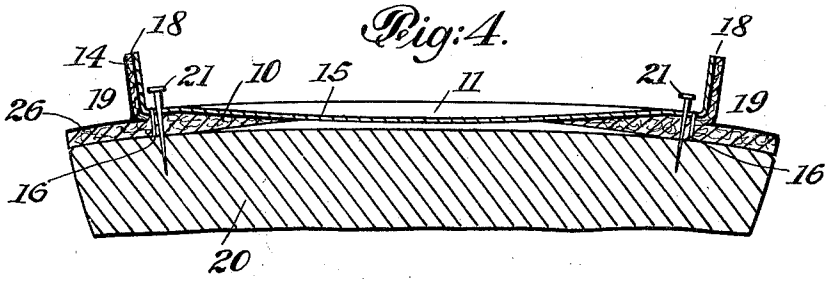


Fig:4.



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Fig:5.

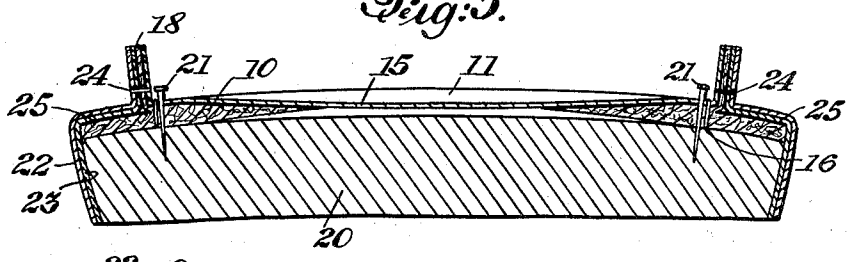


Fig:6.

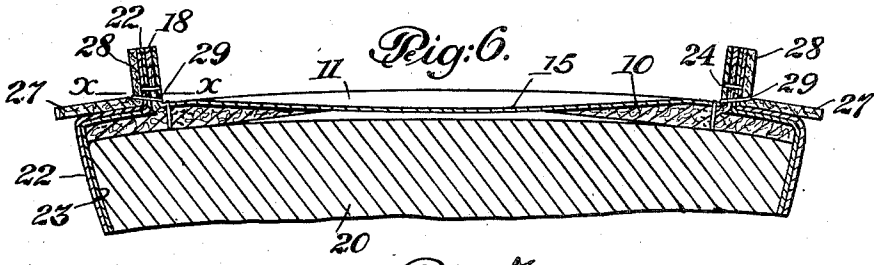


Fig:7.

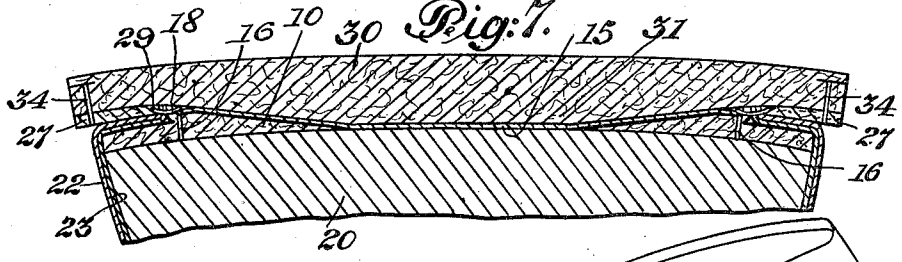
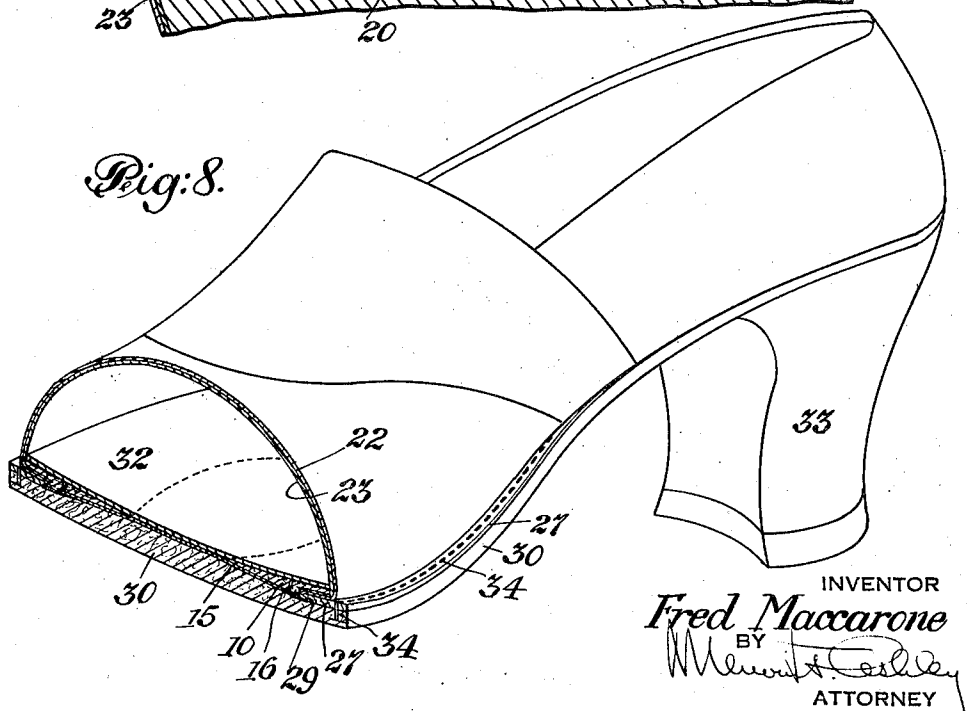


Fig:8.



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UNITED STATES PATENT OFFICE

2,047,697

WELT SHOE AND METHOD OF MAKING SAME

Fred Maccarone, Brooklyn, N. Y., assignor to The Del-Mac Shoe Process Corporation, New York, N. Y.

Application January 6, 1936, Serial No. 57,715

8 Claims. (Cl. 12—142)

My invention relates to welt shoes of the type taught in my U. S. Patent No. 2,012,914 of August 27, 1935. A principal object of my invention is to provide a light and flexible welt shoe having improved fitting and shape holding qualities and a more resilient bottom construction.

Another principal object is to provide a single soled welt shoe of this type having an improved inseam construction, a further object is to provide a simple, efficient and economical method of producing my new shoe, and other and further objects will appear from the following specification. Referring to the drawings which form a part of this specification:

Figure 1 is a perspective view of a skeleton insole prepared in accordance with my invention.

Figure 2 is a perspective view of an outsole having a projection on the forepart thereof formed and positioned to register with the skeletonized area of the insole.

Figure 3 is a cross sectional view taken thru the ball portion of the insole and showing an integral lip member formed thereon and a stay member secured over the insole and having its margins turned up to form a part of the insole lip.

Figure 4 is a similar cross sectional view of the insole and stay member tacked on an appropriate last.

Figure 5 is a cross sectional view similar to Figure 4 and shows the upper of the shoe lasted and secured to the insole lip.

Figure 6 is a similar cross sectional view which illustrates the manner in which the insole, the stay, the upper, and a welt are stitched together.

Figure 7 is a similar cross sectional view which shows the finished sole construction, and

Figure 8 is a perspective view of a finished shoe embodying the features of my invention, the toe portion of the shoe being cut off to disclose the finished relationship of the assembled parts in cross section.

In carrying out my invention I provide an insole 10 and a larger outsole 30. The insole has an opening in the forepart at 11, the margins of the opening being skived or bevelled, and the outsole has a projection 31 on the forepart thereof formed and positioned to register with the skeletonized area of the insole. These sole parts are preferably divisions of a single sole blank and may be formed in accordance with methods taught in my U. S. Patents Nos. 1,988,281, 2,012,913, and 2,012,915.

The insole is split inwardly from its edge at 12 about the shank and forepart to define an integral marginal leaf 14. A stay member 15 of fabric or leather is pasted over the shank and ball portions of the insole, said member conforming to the shape of the insole and extending to the edges thereof. If desired, the stay member may be further secured to the insole inwardly of the leaf 14 by stitching 16. The leaf together with the adhering portions of the stay member are then erected to form a lip or rib 18 and to define a feather 26 and a marginal channel 19 outwardly thereof. A standard channel opening machine may be employed to turn up the lip 18, if desired, in which case the lip will assume a condition more nearly as shown in broken lines in Figure 3.

Thus prepared, the insole is secured to a last 20 by the partly driven tacks 21 and the margins of an upper 22, including a lining 23, are pulled over the last into the channel 19 and attached to the lip, as by means of a plurality of staples 24—24, etc., to temporarily hold the upper in lasted relation to the insole. I prefer to apply an appropriate adhesive 25 in the channel to the feather 26 and to the outer wall of the lip and, when this is done, the lip serves effectually to dam the adhesive from flowing over surfaces of the insole where it is not desired.

Heretofore, in making side lasted shoes, particularly welt shoes, it has been the custom to provide the insole member with an integral lip by channeling the outer surface of the insole to form two oppositely disposed channel leaves which are then turned up and adhesively secured together in facing relation. A disadvantage of this method is that it unduly weakens the insole and that the material cut away from the surface of the insole to provide the inner leaf, forms a gutter inwardly of the inseam. A further disadvantage is that such lips are not available for light flexible constructions in which the insole is skeletonized or is otherwise too frail to support an integral lip of adequate strength to withstand the strain of the side lasting operations. Because of this, it has been proposed to attach separate lip members to the surface of the insole but, where this has been done, it has been found that such lip members frequently tend to creep relative to the sole during the side lasting of the shoe with the result that the upper is not evenly and properly pulled over the last. It will be noted that these disadvantages of prior practices are overcome by my present improvements.

A welt 27 having a flanged inner edge 28 is next positioned in the channel and is stitched through and through to the marginal edge of the upper

and the lip, as illustrated in Figure 6 wherein the stitching is indicated at 29, after which the welt flange, upper and lip are trimmed away above the stitching 27 and below the staples 24, substantially along the line x—x of Figure 6.

The upper is lasted to the insole over the heel portion of the shoe by the usual bed lasting operations because of the counter construction of the shoe, and, where the shoe is of box toe construction, I also prefer to follow conventional and well known methods of lasting over the toe area.

The outsole 30 is then superimposed and secured in position as shown in Figure 7, the tacks 21 being first removed and a coat of adhesive being applied between the outsole and the stay member. The outsole is further secured to the welt by adhesive or by conventional welt stitching 34, or by both.

In the course of the sole laying operation, the insole including the skived margins of the forepart opening and the central ball area of the stay member 15 are forced into intimate contact with the last bottom and the stay member is drawn taut over the outsole projection 31, tending in some degree to draw the inseam inward and contributing to the shape holding qualities of the finished shoe. The stay member also serves as a light filler or padding which increases the resiliency of the sole under the pressure of the foot and, being soft, compensates for any slight irregularities and insures a smooth and even interior without appreciably decreasing the flexibility of the shoe.

The remaining steps necessary to complete the shoe, such as the insertion of a sock lining 32 and the attachment of a heel 33, are performed in the usual manner.

I claim:

1. A shoe comprising an insole having an opening in the forepart thereof, an outsole having a projection on the forepart thereof registering with the insole opening, a stay member lying between said insole and outsole and overlying said projection, an upper and a welt secured to the insole and to the margins of said stay member, and means uniting the outsole to said welt.

2. A shoe comprising an insole having an opening in the forepart thereof, the margins of said opening being bevelled, an outsole having a projection on the forepart thereof registering with the insole opening, a stay member lying between said insole and outsole and overlying said projection, and a welt secured between the insole and outsole and to the margins of said stay member.

3. A shoe comprising an insole having an opening in the forepart thereof, the margins of said opening being bevelled, an outsole having a projection on the forepart thereof registering with the insole opening, a stay member lying between said insole and outsole and overlying said projection, and an upper held between the insole and outsole and secured to the margins of said stay member.

4. A shoe comprising an insole having an opening in the forepart thereof, an outsole having a projection on the forepart thereof registering with the insole opening, a stay member lying between said insole and outsole and overlying said projection, and an upper secured between the insole and outsole to the insole and to the margins of said stay member.

5. A shoe comprising a light insole skeletonized at the ball portion thereof, a single marginal leaf integral with the insole on the underside thereof, a stay member underlying the forepart of the insole to reinforce the skeletonized area thereof and extending to reinforce said leaf, an upper and a welt secured to said leaf and to the margins of the stay member, and an outsole secured to the welt.

6. A shoe comprising a light insole skeletonized at the ball portion thereof, a marginal leaf integral with the insole on the underside thereof, a stay member underlying the forepart of the insole to reinforce the skeletonized area thereof and extending to reinforce said leaf, an upper secured to said leaf and to the margins of the stay member, and an outsole secured in underlying relation to said stay member.

7. The method of making a welt shoe which comprises: providing an insole having a skeletonized forepart and a single marginal leaf, affixing a stay member over the insole forepart and over the leaf whereby the leaf and the skeletonized area of the insole are reinforced, securing an upper and a welt to said leaf and to the margins of said stay member, and securing an outsole to said welt.

8. In shoemaking methods, that improvement which includes: providing an insole having a skeletonized forepart and marginal leaf, affixing a stay member over the insole forepart and over the leaf whereby the leaf and the skeletonized area of the insole are reinforced, securing an upper to said leaf and to the margins of said stay member, and securing an outsole in underlying relation to the stay member.

FRED MACCARONE.