Jan. 14, 1936. C. L. LAIBLE 2,027,737

SHOE

Filed Aug. 17, 1933

Fig. 1.

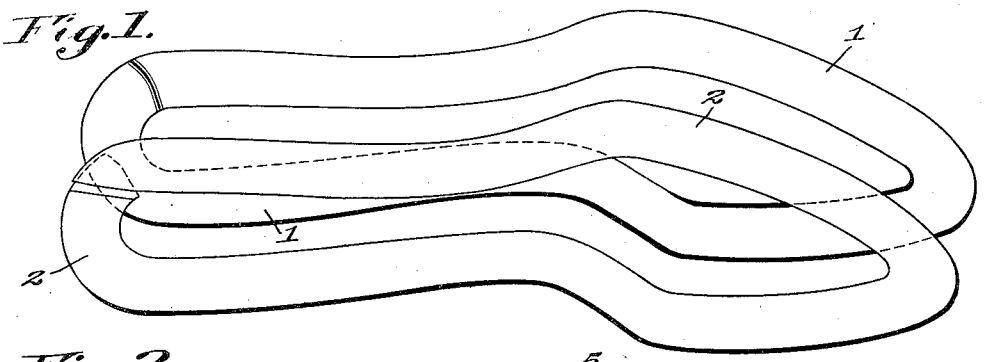


Fig. 2.

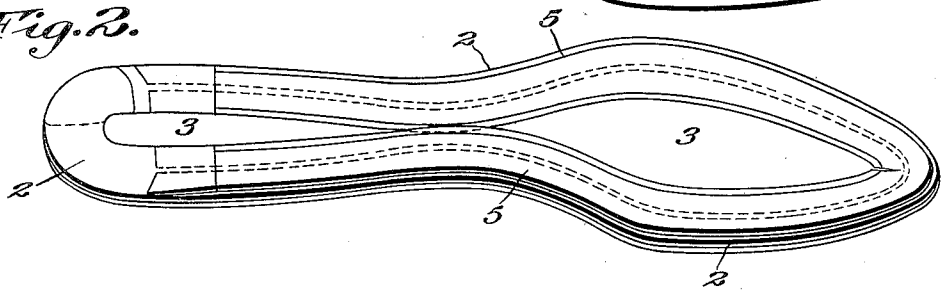


Fig. 3.

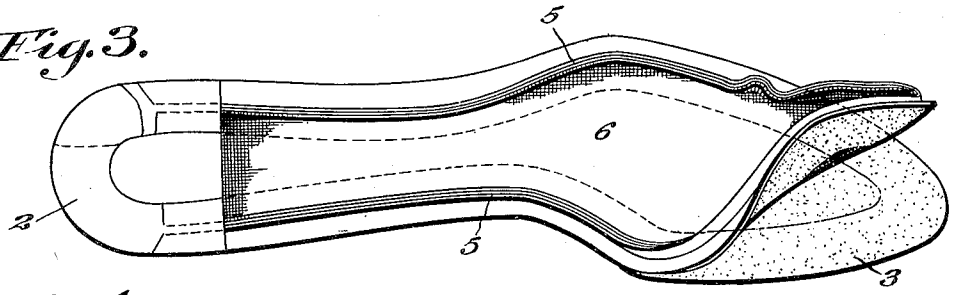


Fig. 4.

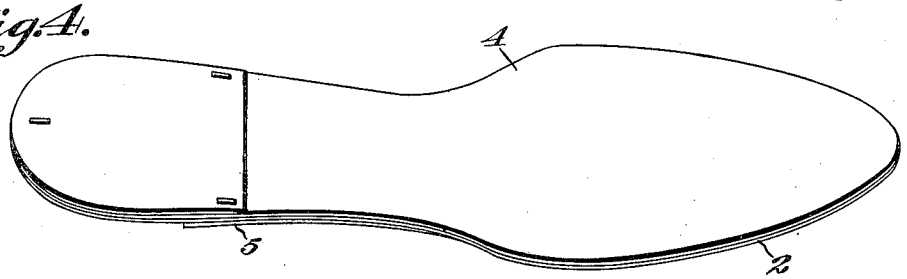
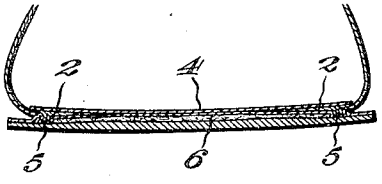


Fig. 5.



INVENTOR

Charles L. Laible,

BY

Wood & Wood,

ATTORNEYS

Patented Jan. 14, 1936 2,027,737

UNITED STATES PATENT OFFICE

2,027,737

SHOE

Charles L. Laible, Fort Thomas, Ky.

Application August 17, 1933, Serial No. 685,575

4 Claims. (Cl. 12—142)

This invention relates to improvements in the manufacture of shoes of welt construction and in particular to the method of making and the construction of an inner sole.

In the manufacture of welt shoes, it is a common practice after an outsole is blanked for a given size of shoe to marginally reduce the same by bevelling the flesh side of the leather sole piece usually by skiving or cutting a continuous rand or strip from the sole of bevel or wedge shape in cross section. The rand, owing to the advent, universally of solid heels in the manufacture of shoes as rubber or covered wooden heels, is more or less recognized as waste, while previously the rand was largely used to fill the gap between the sole and heel lifts.

It is the purpose of the present invention to utilize the rand cut from the outer sole in the structure of an insole as a marginal member of sole outline containing the inseam lip to which the upper and welt are stitched in the regular course of shoe manufacture. It is, therefore, an object of the invention to provide a composite insole of one or plural layers marginally bound by a rand cut from one side and marginally of an outer sole piece, the rand being marginally formed with an inseam lip for attaching the upper and welt of the shoe.

Another object of the invention is to marginally skive or cut a rand from an outer sole blank, and utilize the rand as an inseam stay for the upper and welt of a shoe.

Other features and advantages relate to the method of making the insole as utilizing the rand cut from an outsole as an element of the characteristics of an insole for providing an inseam lip.

Figure 1 is a top plan view of the flesh side of an outer sole blank, marginally reduced, the rand or strip cut therefrom shown thereabove in plan and in an offset relation thereto.

Figure 2 is a plan view of the improved insole illustrating the rand marginally applied upon a layer or pattern of insole outline, and the margin of the rand channelled from a heel breast line forwardly for forming an inseam lip.

Figure 3 is a top plan view of the improved insole, illustrating the forward or toe end thereof, as partially removed from a temporary pattern.

Figure 4 is a plan view of the finished insole of the reverse side from that shown in Figure 3.

Figure 5 is a cross section through the fore part of a shoe with the improved insole in its position within the shoe.

Referring to the drawing, 1 indicates a conventional outsole blank of leather material cut to an appropriate outline pattern for a definite size and style of shoe, and which has been marginally reduced by bevelling the fibre or flesh side of the sole piece with a skiving or cutting tool or machine, cutting therefrom a rand or strip 2 of bevel or wedge shape in cross section.

The cut, usually, and as shown in Figure 1, is started at one edge from the heel end of the outsole blank, continuing forwardly along one edge, thence around the toe and rearwardly along the other side and about the heel to and slightly beyond the point of starting. This method of reducing the outsole is a common expediency in shoe making.

The rand 2 as a split band of outsole outline or configuration, is marginally fitted upon a temporary base or pattern 3, or it may be permanently applied and cemented to a layer 4 as a sock lining cut to insole pattern with the butt edge of the rand outward in alignment and registration with the edge of the pattern or layer and the feathered edge of the rand inward.

The rand, after it has been applied to a suitable base, is marginally channelled from approximately the heel breast line forwardly and around the toe end, and the lip 5 formed thereby is turned up at an angle, to an upstanding position. A layer of duck or other pliable fabric material 6 is applied within the boundary of the lip, and the margins of the layer are lapped and cemented to the inner side of the lip 5 as a reinforcement thereto with the body portion of the layer cemented to the rand within the boundary of the lip connecting the inner edges of the rand, and provide a means for holding the rand or lipped inseam strip to the determined inner sole pattern.

When the rand is preliminarily applied to a temporary pattern base 3 as a support for fitting the same to the pattern outline of an insole and for channelling, and after the duck or fabric layer has been cemented to the rand, the layer and rand as a unit are ripped or removed from the temporary pattern base 3 whereupon it has the characteristics and is employed in the manufacture of a shoe as an insole and the shoe fabricated in the regular course of manufacture, that is, the insole unit, formed either of rand 2 and connecting layer 6 or rand 3, connecting layer 6 and sock lining layer 4, is secured to the bottom of the last, the shoe upper lasted thereto in the usual manner, and the upper and welt stitched to the inseam lip 5 which

is trimmed as required before laying the outsole.

The shoe processing, therefore, with the use of the improved inner sole, is without departure from the general methods now employed, but with the use of an insole of the present invention, a material reduction in the cost of manufacture is obtained and a relatively more pliable and flexible shoe is produced, the material of an outer sole blank serving both for outer sole and inner sole. As the highest grade or quality of leather material is usually employed for the outer sole and, with the cutting from the outer sole, used in forming the inseam lipped margin of an inner sole to which the welt and upper are stitched, a higher quality of product is employed without added cost and a utilization of what may be considered as waste is incorporated in the shoe in a highly advantageous manner.

In applying the rand to a layer of pliable fabric-like material which furnishes a surface finished layer for the inside of the shoe, the use of a special sock lining is eliminated, thereby effecting an additional reduction in cost and labor in the manufacture of the shoe.

The intermediate portion of the insole within the line of the inseam lip being composed of only two layers, results in the production of a very comfortable and flexible shoe. It is obvious that a departure in the method or orderly relation of the steps as heretofore outlined, may be readily made, as for instance, the outsole blank may be marginally channelled for forming the inseam lip before the rand is cut from the outer sole. The lip could be upturned and the duck layer cemented marginally to the outer sole before the rand is cut, but for many patterns of outsole it may possibly be more advantageous to fit the rand about a layer or pattern due to the difference in outline dimension and design between outer sole and inner sole to meet their relative requirements for the same shoe. The rand can be easily fitted about any outline of insole pattern and as shown in Figure 2, the feathered edges of the rand along the shank portion overlap one another, giving increased rigidity or stiffness and thickness to that portion of the insole and a better support to the arch of the foot as well as a more durable protective covering for a metallic stiffener usually inserted along such portion and between the outer sole and inner sole.

As the outer sole is usually of the highest grade leather stock, and with the inseam lip formed upon the rand cut from such leather stock, it is feasible to eliminate the duck layer **6** when the rand is secured upon a sock lining layer. The marginal extremity of the duck layer is not necessarily required to reinforce the inseam lip, although its use as a layer is of advantage for a protective covering of the sock lining layer when a filler containing a bituminous adhesive is employed between the inner sole and outer sole to prevent soil to the finished surface of the sock lining layer. The layers being very pliable, readily accommodate themselves to the contour of any cushion or metatarsal pad or button inserted in the shoe between the inner and outer sole, and do not materially interfere with the resiliency of such pad so that a better cushioning effect is obtained than is possible with any insole heretofore employed.

In Figure 4, the upper side of the insole for the heel area is provided with a stiffener layer **7** cut from a sheet of press or fiber board material and stapled in place. This layer may also extend to include the shank area to add rigidity and strength to the heel end of the insole.

Having described my invention, I claim:

1. The method of making shoes consisting in reducing a leather outsole by paring a skiving marginally from one surface thereof, the skiving corresponding in outside outline to that of the outsole, securing the skiving upon the bottom side of a sock lining layer, turning up an inseam lip on said skiving from the heel breast line forwardly, applying a layer of fabric material upon said sock lining layer and inner margins of the skiving within the boundary of the inseam lip, lapping and securing the edges of said layer of fabric material upon the inner sides of the inseam lip, securing a shoe upper to the inseam lip and later securing the outsole as reduced to the bottom of the shoe.

2. The method of making shoes consisting in reducing a leather outsole by paring a skiving marginally from one surface thereof, the skiving corresponding in outside outline to that of the outsole, securing the skiving upon the bottom side of a sock lining layer, turning up an inseam lip on said skiving from the heel breast line forwardly, securing a shoe upper to the inseam lip and later securing the outsole as reduced to the bottom of the shoe.

3. The method of making shoes consisting in reducing a leather outsole by paring a skiving, wedge shape in cross section, marginally from one surface of the outsole, the skiving corresponding in outsole outline to that of the outsole, temporarily securing the skiving upon a base of an insole pattern, turning up an inseam lip on said skiving from the heel breast line forwardly, temporarily applying a layer of fabric material upon said base and securing the same to the inner margins of the skiving within the boundary of the inseam lip, lapping and securing the edges of said layer of fabric upon the inner sides of the lip, removing the skiving and layer of fabric as an insole unit from the base, securing an upper to the inseam lip of said insole unit and later securing the outsole as reduced to the bottom of the shoe.

4. The method of making shoes consisting in reducing a leather outsole by paring a skiving, wedge shape in cross section, marginally from one surface of the outsole, the skiving corresponding in outside outline to that of the outsole, temporarily securing the skiving upon a pliable layer of an insole pattern, turning up an inseam lip on said skiving from the heel breast line forwardly, temporarily applying a layer of fabric material upon said pliable layer and securing the same to the inner margins of the skiving within the boundary of the inseam lip, lapping and securing the edges of said layer of fabric upon the inner sides of the lip, securing an upper to the inseam lip of said insole unit and later securing the outsole as reduced to the bottom of the shoe.

CHARLES L. LAIBLE.