Feb. 13, 1945. R. CALTABIANO 2,369,531

SHOES AND OUTSOLES THEREFOR

Filed Oct. 6, 1942

FIG. 1

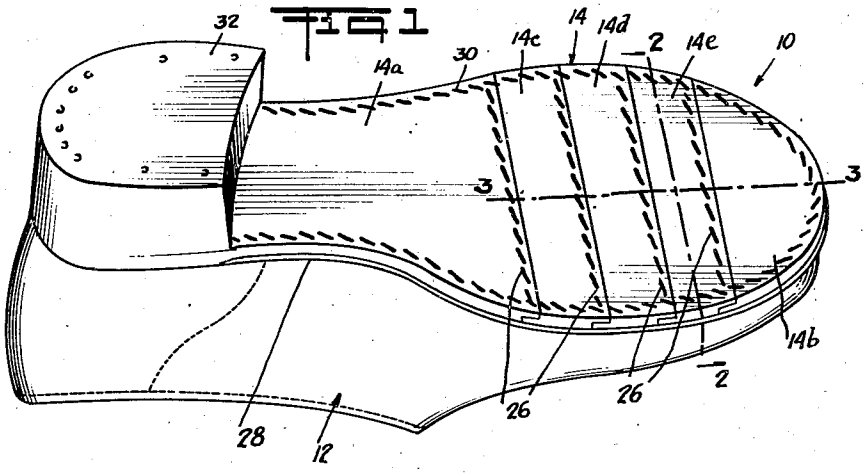


FIG. 2

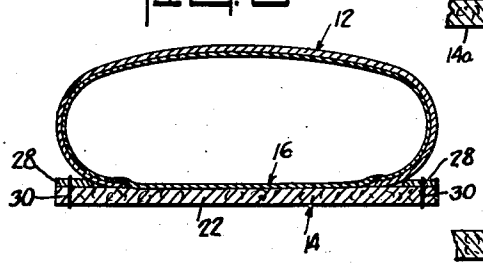


FIG. 3

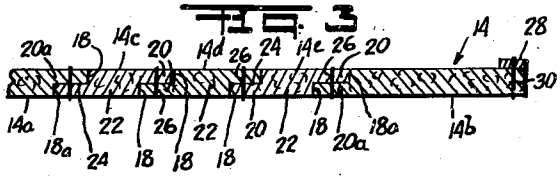


FIG. 4

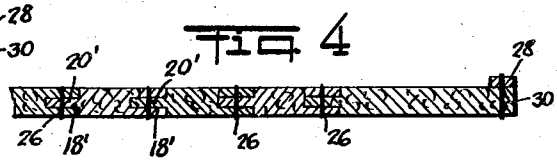


FIG. 5

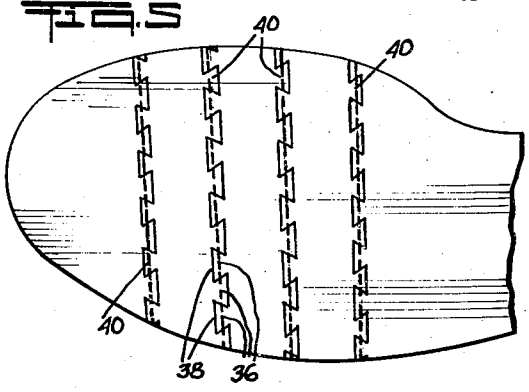


FIG. 6

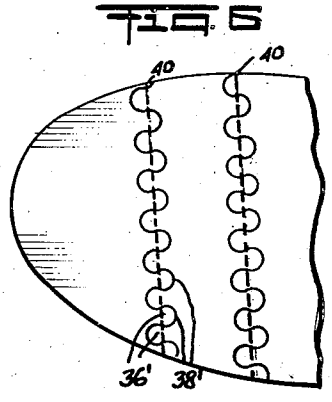
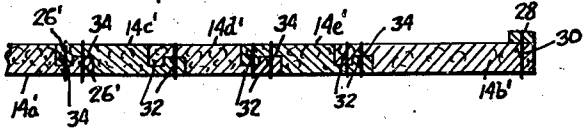


FIG. 7



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SHOE AND OUTSOLE THEREFOR

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3 Claims. (Cl. 36—31)

This invention relates to shoes and to outsoles therefor.

One object of the invention is to provide a shoe with a leather outsole which is formed of a plurality of leather sections which are disposed edge to edge in outsole-defining relation, said sections being formed of sole-leather of the final thickness of the outsole and being assembled in the outsole in such a way as to prevent the passage of moisture through the sole at the joints between the sections.

Another object is the provision of an outsole which is flexible in the portion thereof forwardly of the ball line, which can be comparatively stiff in the shank portion thereof, and which can be formed in such a way as to utilize pieces of leather otherwise too small for forming an outsole or which might otherwise be wasted.

A further object is to provide an outsole of the above indicated sectional construction with a mock welt which is stitched or otherwise effectively secured to the top of the outsole at the peripheral edge thereof and which aids in securing the sole sections to each other.

A yet further object is generally to provide an outsole adapted to result in the economic use of leather in the manufacture thereof.

The above and other objects, features and advantages of the invention will be more fully explained in the following description with reference to the accompanying illustrative drawing.

In the drawing:

Fig. 1 is a bottom perspective view of a shoe embodying the present invention;

Fig. 2 is a cross sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a longitudinal sectional view of the outsole on the line 3—3 of Fig. 1;

Fig. 4 is a view similar to Fig. 3, showing a modification;

Figs. 5 and 6 are fragmentary bottom views of other forms of outsoles;

Fig. 7 is a view similar to Fig. 3 showing a further form of the invention.

Referring to the drawing in detail, there is shown, in Fig. 1, a shoe 10 provided with an upper 12 and with a sectional outsole 14 embodying the present invention. Said upper may be of any suitable construction or style for men, women or children and may be formed of any suitable materials. As here shown, the shoe is of a well known cemented construction, the outsole, the upper and the insole 16 being adhesively secured together, all as well known to shoe manufacturers, but it will be understood that the shoe can be made in accordance with any other suitable shoe manufacturing method, for example McKay and Goodyear welt. As the present invention is concerned more particularly with the construction of the outsole 14, the latter will now be more specifically described.

Outsole 14 is formed of sole leather and comprises, as here shown, the end sections 14*a*, and 14*b* and the intermediate sections 14*c*, 14*d*, and 14*e*, all of said sections consisting of strips of sole leather preferably of the thickness of the finished outsole, disposed widthwise of the sole with their opposite side edges in adjacent side by side relation. Each of said intermediate sections is provided with cut-out portions at its opposite side edges providing at each side edge a recess 18 and a lateral projection or tongue 20, extending continuously for the full length of the section, i. e., for the full width of the shoe. The end sections 14*a* and 14*b* are provided at their forward and rear edges, respectively, with recesses 18*a* and tongues 20*a*. When said sections are assembled in adjacent side by side relation, the adjacent tongues of adjacent sections fit in the adjacent recesses of the adjacent sections, the adjacent tongues of adjacent sections overlapping each other. The tongues and recesses are preferably dimensioned so that the free edge of the tongue lies close to or abuts the vertical edge of the recess in which the tongue fits and so that the combined thickness of the overlapping tongues is equal to the full thickness of the intermediate portion 22 of the section, which is preferably the full thickness of the outsole. In this form of the invention the forward edge of the end section 14*a* is disposed substantially at the ball line but it will be understood that the sole may be composed of a larger number of the narrower sections and that the latter may be disposed in the shank and heel portions of the outsole instead of being provided, as here shown, only in the part of the sole forwardly of the ball line. Also, it will be understood that the outsole may terminate at its rear end in the region of the forward part of the shank of the shoe, as in the case of a half sole.

The sections of the outsole are secured together in edge to edge relation by rubber cement or other suitable adhesive applied at the surfaces of the recesses and tongues, as indicated at 24, thereby providing waterproof joints between said sections, and the overlapping tongues are also preferably stitched together by lines of stitching 26 passing through said overlapped portions.

After the outsole sections are secured together,

the outsole is rounded, and thereafter the mock welt **28**, consisting preferably of a leather strip, is secured to the top of the outsole at the peripheral edge thereof by a line of stitching **30** extending from a point at the rear of the shank at one side of the sole, forwardly to and around the forward end of the sole, and rearwardly to a similar point at the opposite side of the sole. Then the outsole is attached to the upper and to the insole in accordance with the selected shoe-manufacturing method. The shoe heel **32** is then applied and the shoe is thereafter finished in the usual way.

The sectional construction of the outsole described above may be varied. In the form illustrated in Fig. 7, the construction is similar to that shown in Figs. 1 and 3, differing from the latter in the provision of the tongues with transversely extending lips **32** which fit in grooves **34** in the adjacent ends of adjacent sections, respectively, forming an interlocked joint between adjacent sections. Said lips and grooves extend for the full width of the outsole. The securement of the adjacent edge portions of adjacent sections in this form of the outsole is preferably substantially as described above, rubber cement being applied at the joints, for rendering them waterproof, and the overlapping tongues being stitched together. As here shown, however, the overlapped adjacent tongues are preferably secured together by two lines of stitching as indicated at **26'**. In Fig. 7, the end sections are indicated at **14***a'* and **14***b'* and the intermediate sections are indicated at **14***c'*, **14***d'* and **14***e'*. It will be understood that after these sections are secured together, the outsole may be treated in substantially the same way as described above in reference to outsole **14** and that a mock welt **28** is preferably attached to the outsole as described above.

The outsole illustrated in section in Fig. 4 is also of the same construction as outsole **14** except that the recesses and tongues are disposed intermediate the thickness of the strips provided therewith, the recesses being indicated at **18'** and the tongues being indicated at **20'**. The securement of the sections by rubber cement and stitching is substantially as described above, the stitching being indicated at **26**.

As shown in Fig. 5, the outsole sections are provided with interfitting tongues and grooves **36** and **38**, respectively, providing dove-tailed joints between adjacent sections, and lines of stitching **40** extend widthwise of the sole for securing the adjacent edge portions of adjacent sections to each other. The joints may be waterproofed by applying rubber cement to the vertical edge surfaces of said tongues and grooves which extend preferably for the full thickness of the sole. The construction shown in Fig. 6 is the same as in Fig. 5 except in the rounded contour of the tongues **36'** and the grooves **38'**.

While I have shown and described the preferred embodiment of my invention, it will be understood that the latter may be embodied otherwise than as herein shown or described. Accordingly, I do not wish to be limited to the invention as herein specifically illustrated or described except to the extent which may be required by the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is.

1. An outsole for a shoe, said outsole comprising a shank part formed in a single piece and a forward part comprising a plurality of leather strips of the thickness of the outsole disposed in adjacent side by side relation widthwise of the outsole and extending from one side edge of the outsole to the opposite side edge thereof whereby said forward part is more flexible than said shank part, lines of stitching running widthwise of the outsole and passing through the adjacent marginal side edge portions of adjacent strips for securing said strips together in said side by side relation in the outsole, the outer surfaces of said strips forming the tread surface of said forward part of the outsole, the rear edge of said forward part abutting the forward edge of said shank part, means securing said forward part to said shank part, and a welt-simulating strip positioned over the peripheral marginal edge of said shank and forward parts of the outsole at the top thereof and concealing the joint between said parts and the joints between said strips at the top marginal edge of the outsole.

2. In a shoe having an upper, an outsole secured thereto, said outsole comprising a shank part extending in one piece from the heel to the ball line of the shoe and a forward part extending from the ball line to the front end of the shoe, said shank and forward parts being secured together in abutting edge to edge relation, said forward part being more flexible than said shank part and comprising a plurality of strips each extending widthwise of the outsole from one side edge to the opposite side edge thereof and disposed in abutting edge to edge relation, the outer surfaces of said strips forming the tread surface of said forward part of the outsole, and lines of stitching running widthwise of the outsole and securing adjacent strips to each other at the joints therebetween.

3. In a shoe having an upper, an outsole secured thereto, said outsole comprising a shank part extending in one piece from the heel to the ball line of the shoe and a forward part extending from the ball line to the front end of the shoe, said shank and forward parts being secured together in abutting edge to edge relation, said forward part being more flexible than said shank part and comprising a plurality of strips each extending widthwise of the outsole from one side edge to the opposite side edge thereof and disposed in abutting edge to edge relation, the outer surfaces of said strips forming the tread surface of said forward part of the outsole, and lines of stitching running widthwise of the outsole and securing adjacent strips to each other at the joints therebetween, the rear edge of said forward part abutting the forward edge of said shank part, means securing said forward part to said shank part, and a welt-simulating strip positioned over the peripheral marginal edge of said shank and forward parts of the outsole at the top thereof and concealing the joint between said parts and the joints between said strips at the top marginal edge of the outsole.

ROBERT CALTABIANO.