Feb. 12, 1946. R. MALING 2,394,707

FOOTWEAR

Filed Dec. 8, 1944 2 Sheets-Sheet 1

Fig. 1.

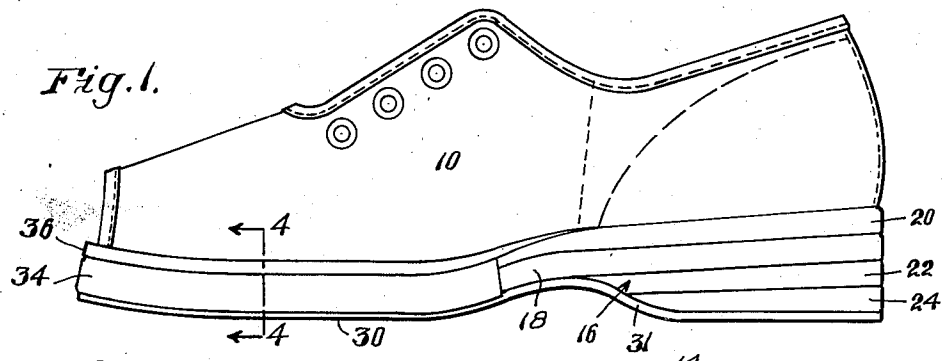


Fig. 2.

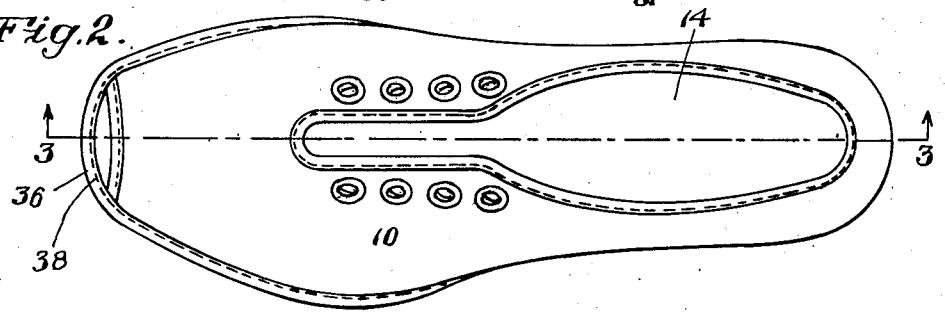
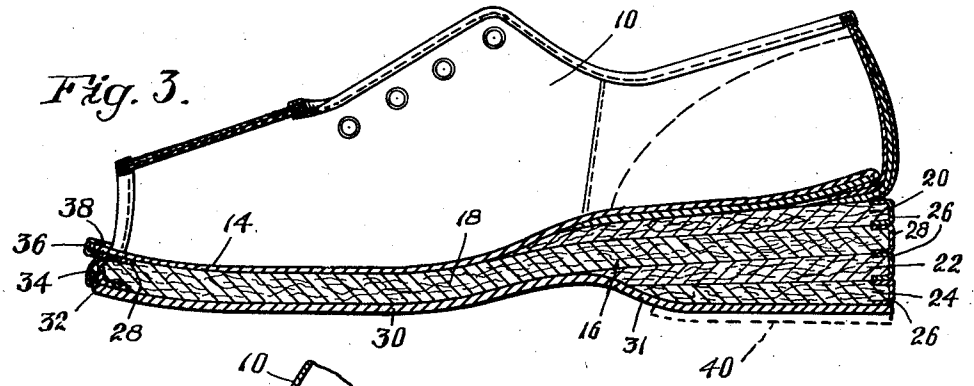


Fig. 3.



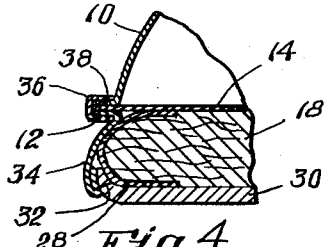


Fig. 4.

INVENTOR.

Roy Maling

BY his Atty.

John R. McKenna

Feb. 12, 1946. R. MALING 2,394,707

FOOTWEAR

Filed Dec. 8, 1944 2 Sheets-Sheet 2

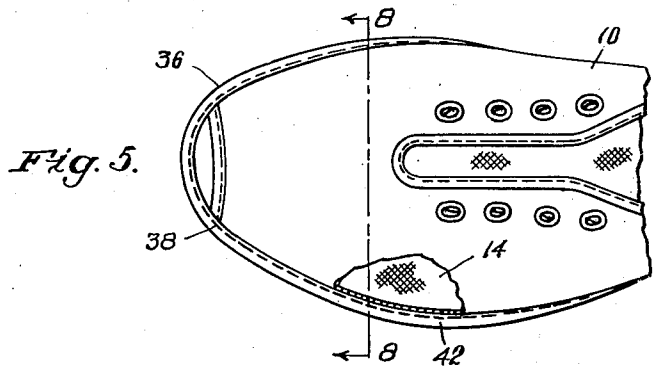


Fig. 5.

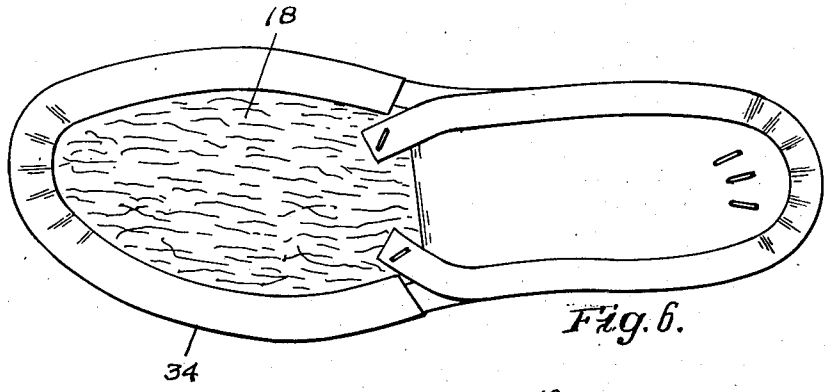


Fig. 6.

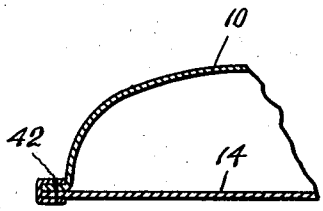


Fig. 7.

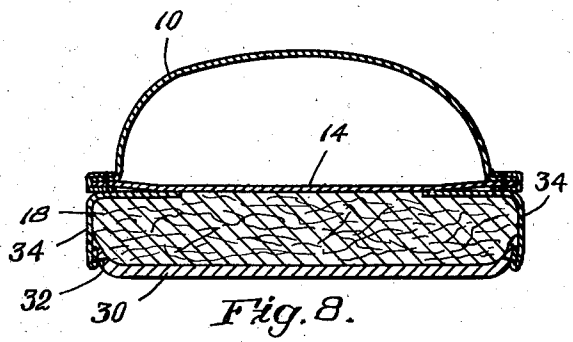


Fig. 8.

INVENTOR.
Roy Maling
BY his Atty.
John A. McKenna

Patented Feb. 12, 1946 2,394,707

UNITED STATES PATENT OFFICE

2,394,707

FOOTWEAR

Roy Maling, West Roxbury, Mass.

Application December 8, 1944, Serial No. 567,156

6 Claims. (Cl. 36—16)

This invention relates to improvements in footwear and more especially to shoes and slippers of the general type having a forepart of upper which is stitched to a sock-lining or flexible insole element all around the forepart while the upper is free of a last, after which a last is inserted preparatory to lasting of the rear part of the upper and the placing thereon of the base structure in secured relation to the upper. In particular, the invention provides such a shoe or slipper which can have a soft-sole and lightly flexible forepart and a relatively stiff and stable rear part providing adequate and effective support for the arch and heel in use of the article.

It is an object of the invention to provide a shoe or slipper structure having the forepart of upper stitched to the edge of a sock lining all around the forepart and having the raw stitched edges of upper and sock lining concealed by a binding strip turned over said edges and stitched thereto in a projecting relation, simulating a welt, a platform and heel base unit being secured below the sock lining and upper with the said binding visible all around the plane of their cleavage at the forepart of the article.

Another object is to provide a shoe or slipper structure having a soft-sole tread element facing the under side of a platform element and having a binding strip secured to the soft-sole element and turned over the edges of the forepart of the platform, the stitch line of said soft-sole element and its binding strip being drawn out of the tread plane of the article at its forepart.

Still another object is to provide a soft-sole forepart in a shoe or slipper in which the soft-sole tread element is secured to the forepart of a platform element only by a binding strip on the soft-sole element, and said platform and soft-sole element both are secured to a pre-stitched forepart of upper only by the same said binding strip on the soft-sole element.

A further object is to provide a pre-stitched slip-lasted forepart of shoe upper with a soft-sole tread element associated therewith, and a platform element loosely encased between said forepart of upper and said soft-sole tread element.

It is, moreover, my purpose and object generally to improve upon prior shoe and slipper constructions.

In the accompanying drawings:

Figure 1 is a side elevation of a shoe embodying features of my invention;

Figure 2 is a top plan view thereof;

Figure 3 is a longitudinal medial cross-sectional view on line 3—3 of Figure 2;

Figure 4 is a fragmentary sectional view on line 4—4 of Figure 1;

Figure 5 is a top plan of the forepart of a modified construction embodying features of my invention;

Figure 6 is a top plan view of the platform and heel unit used in the shoe structure of Figure 5;

Figure 7 is a fragmentary cross-sectional view showing the upper, sock lining and binding strip all stitched together prior to association with a base structure; and

Figure 8 is a cross-sectional view on line 8—8 of Figure 5, showing the upper structure of Figure 7 cemented to a platform and heel unit like that of Figure 6.

Referring to the drawings, the embodiment of my invention as shown in Figs. 1–4 comprises an upper 10 whose forepart is stitched as at 12 all around the forepart edge to a sock lining 14, or other suitably flexible insole element, prior to insertion of a last in the upper. The edges of the upper and sock lining are brought together as best seen in Fig. 4 with their raw edges exposed, enabling the stitching at 12 to be accomplished quickly and easily just around the forepart, leaving the rear part of the sock lining free of the upper so that a last conveniently may be slipped into the forepart between the unattached rear parts of upper and sock lining, after which said rear part of the upper may be positioned over the rear part of the last and be regularly lasted to the rear part of the sock lining.

According to the invention, a platform and heel unit indicated generally at 16 is pre-formed by association and securement together of a full length platform element 18 and one or more heel lift elements which may be lift laminations 20, 22 and 24 as shown, or may be any other unitary type of heel element such as a solid wedge heel lift arranged above or below the platform element 18 or a unitary Cuban or other heel arranged under the platform element.

In the drawings, the heel lifts are pre-formed matted fibre laminations having their marginal edges bound with fabric strips 26, the lift 20 extending into the shank region of the shoe and contributing shank curvature. The platform element 8, as shown, similarly is of matted fibre with its marginal edges bound as at 28.

It is a feature of the invention that a soft-sole tread element 30 covers the under surface of the platform element 18 throughout its forepart area, and has preliminarily stitched thereto, as at 32, all around its forepart edges a binding strip 34 of fabric or other suitable flexible material. This stitching at 32 may be accomplished while the soft-sole tread element is free of the platform, the binding strip 34 being laid against the marginal edges of the tread element on its side which will be exposed, and stitched in a usual manner.

Assuming that a last has been slipped into the pre-stitched forepart of upper 10, and that the rear part of the upper has been lasted as previously described, the platform and heel unit 16 may be laid in place, after which the soft-sole

tread element 30, with its attached binding strip 34, is laid over the forepart of the platform and the binding strip 34 is turned over the forepart of the platform element 18 so that its marginal edge may be superimposed upon the under side of the pre-stitched edges of the upper and sock lining, as best seen in Figs. 3 and 4. The binding strip 34 is drawn tight to provide a smooth and tight tread surface, and also to draw the stitch-line at 32 a little over the edges of the platform thereby to bring the binding strip 34 well out of the tread plane. A binding strip 36 next is lead over the exposed raw edges of the upper, sock lining and binding strip 34, and all are stitched together as at 38 all around the forepart, thereby to effect securement of the platform forepart and its soft-sole tread element to the upper and sock lining with the edge binding strip 36 simulating a welt approximately in the place of cleavage between the platform and the sock lining.

With the above described forepart structure, no cement or other securement between the platform and its tread element or between these elements and the sock lining and upper, are required beyond the stitches 38. Obviously, however, cement may be employed between the platform and the sock lining and between the platform and its soft-sole tread element. However, a more flexible and generally soft and comfortable forepart is attained by eliminating all cement at the forepart.

The rear part of the platform and heel unit may be cemented or otherwise secured in place below the lasted rear part of the upper, thereby to provide a relatively stiff and stable shank and heel structure capable of providing adequate and effective support for a foot in use of the shoe.

The soft-sole tread element 30 has an integral rearwardly extending strip 31 which effectively may be cemented in facing relation to the under surfaces of the platform and heel unit. It may constitute the wearing surface for the heel, or a top lift 40 may be provided as shown in dotted outline in Fig. 3.

In the form of my invention shown in Figs. 5–8, the soft-sole tread element 30 has the same binding strip 34 stitched thereto as at 32, but the binding strip 34 in this case is turned over the forepart edges of the platform 18 and cemented or otherwise secured to the upper marginal surface of the platform prior to association of the platform with the upper. With this construction, the platform and heel unit with the soft-sole tread element 30 secured thereon may be completely assembled prior to placing it against the upper, and the unit throughout both forepart and rear part preferably is cemented in place. Also in this modification, the stitched edges of the forepart of the upper and the sock lining are preferably bound as at 42 prior to insertion of a last in the upper and this binding simulates a welt above the platform all around the forepart similar to the effect in the first described form.

I claim as my invention:

1. An article of footwear comprising an upper, a sock lining, and a full length platform element, said upper, around its forepart only, being stitched to the forepart of the sock lining, and the rear part of the upper being lasted to the rear part of the sock lining, said platform element being secured to the lasted rear part of the upper by cement, a flexible tread element facing the full area of the forepart of the platform and having a flexible binding strip secured to the marginal edge of the tread element all around its forepart, and drawn over the edge of the platform and stitched to the edges of said forepart of the upper and said sock lining, all three of said stitched edges being covered by a binding strip to simulate a welt visibly projecting at the juncture of said platform and upper.

2. An article of footwear comprising an upper and a sock lining stitched together only around their foreparts and having the rear part of the upper lasted over upon and secured to the under marginal region of the sock lining, a platform and heel unit cemented at its rear part to said lasted rear part of the upper and its sock lining, the forepart of said platform and heel unit being within a flexible tread unit of which a tread sheet faces the under area of the forepart of the platform and a flexible binding strip secures the tread sheet on the platform, said binding strip being secured to the stitched-together upper and sock lining approximately all around the forepart of the article.

3. An article of footwear comprising an upper and a sock lining having their edges superimposed upon each other and stitched together only around the foreparts thereof and having the rear part of the upper lasted over upon and secured to the under marginal region of the sock lining, a platform and heel unit comprising a full length platform element and a flexible tread element facing the full area of the forepart of the platform element including marginal means turned over the forepart edges of the platform element and secured to the upper marginal regions of the platform element all around its forepart, said platform and heel unit being cemented to the upper and sock lining throughout the full area thereof, and the said stitched-together edges of the upper and sock lining around the forepart having a covering binding strip secured thereover and simulating a welt between the upper and the platform and heel unit at its forepart.

4. An article of footwear comprising an upper and sock lining unit and a platform and heel unit secured together by cement, said upper and sock lining unit comprising an upper and a sock lining having their forepart edges superimposed upon each other and covered with a binding strip and secured by stitching passing through said edges and the binding strip, the rear part of the upper being lasted over upon and secured to the under marginal region of the sock lining, and said platform and heel unit comprising a full length platform element and a flexible tread element facing the full under area of the forepart of the platform element and having a marginal extension strip turned over the edges of the platform element and secured to its upper marginal region all around the forepart, said tread element having an integral rearward extending part facing the under surfaces of said platform and heel unit throughout approximately the full area of rear part of the article.

5. An article of footwear comprising an upper and sock lining stitched together only around their forepart edges and having the rear part of the upper lasted over upon and secured to the under marginal region of the sock lining, and a platform and heel unit comprising a full length platform element and a flexible tread element cradling the forepart of the platform element, said tread element extending over the full area of the under surface of the forepart of the platform element and having a marginal extension

extending over the forepart edges of the platform element and stitched to said stitched-together forepart edges of the upper and sock lining, there being a binding strip covering the stitched-together edges of upper, sock lining and marginal extension of tread element around the forepart of the article and simulating a welt.

6. An article of footwear comprising an upper, a platform and heel unit and a flexible tread element, said tread element being suspended from the forepart edges of the upper, and the forepart of said platform and heel unit being loosely cradled in said suspended forepart of the tread element and being cemented at its rear part to the upper, there being an integral rearward extension of the tread element cemented in facing relation to under surfaces of the rear part of the platform and heel element.

ROY MALING.