

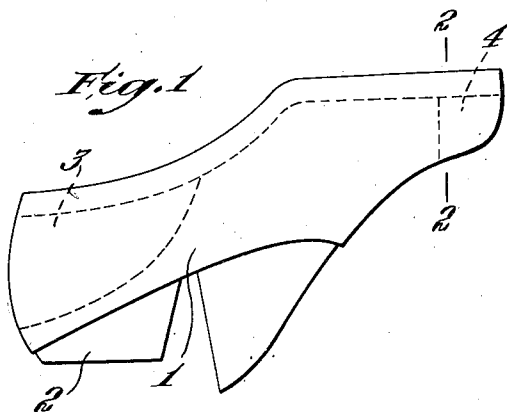
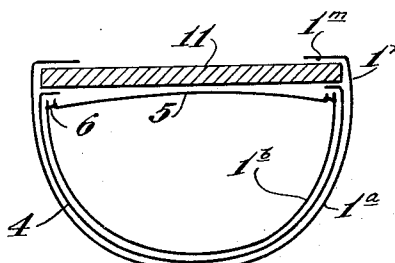
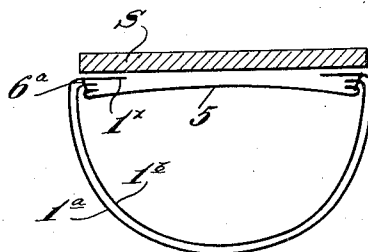
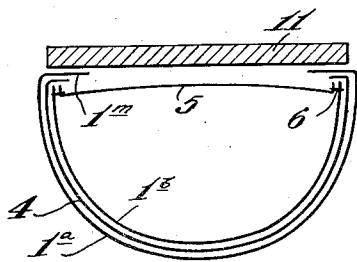
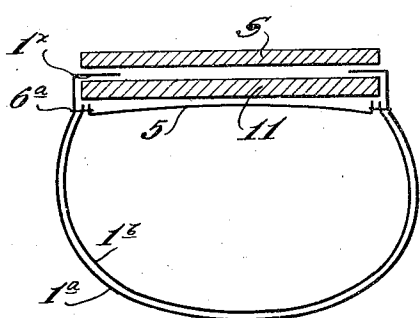
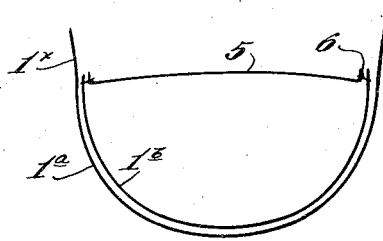
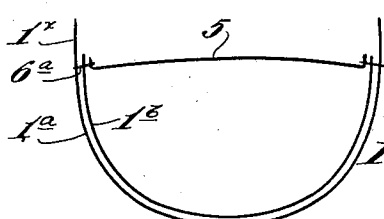
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2,422,684

FORCE LASTED SHOE

Original Filed Sept. 22, 1943



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UNITED STATES PATENT OFFICE

2,422,684

FORCE LASTED SHOE

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23, 1945, Serial No. 595,330

5 Claims. (Cl. 36—19.5)

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This invention relates to the manufacture of footwear, and while in certain aspects it is of broader utility, it is more particularly concerned with the manufacture of the so-called "slip-lasted," "California," "platform" or "force-lasted" type. This application is a division of the co-pending application Serial No. 503,336 filed September 22, 1943.

In this type of shoe the usual stiff inner sole is omitted and replaced by a thin, soft and flexible element (commonly termed the "sock lining" in this type of shoe) customarily of textile fabric and which is stitched directly to the upper prior to lasting. A middle sole, usually comprising a thick, soft and cushion-like element, semi-sole or "platform" is cemented to the under side of the sock lining, and an outer sole is cemented to the under surface of the middle sole. The upper includes an integral skirt portion, "extension" or "wrapper" of flexible material which continues downwardly from approximately the level of the sock lining, and either covers and protects the edges of the middle sole (being interposed between the middle and outer soles), or is lasted-in directly over the sock lining and concealed by the middle sole.

Hitherto it has been customary to sew the wrapper to the lower margin of the upper, the sewing stitches passing through all of the various constituent plies (including the outer element and lining) of the upper. Since this sewed seam which permanently unites the several plies of the upper is substantially at the level of the last bottom, it is impossible to dispose a moulded flanged counter or toe box between the lining and the outer element of the upper.

One of the objects of the present invention is to provide a novel shoe embodying the recognized economies of force lasting, but which comprises a toe box or a counter or both, and to provide a novel method of making such a shoe.

As above noted, it is customary to make the wrapper as a separate element which is united to the lower portion of the upper proper by a sewed seam, but in accordance with the present invention, it is contemplated that this wrapper (whether or not a moulded counter or box toe be employed) may be integral with the outer member of the upper, thereby eliminating the external shoulder which occurs at the junction of the upper and wrapper in prior shoes of this type. By this novel arrangement hereby provided, the shoe is made to appear more nearly like shoes lasted according to conventional methods. These and other objects and advantages of

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the invention will be pointed out more fully in the following detailed description and by reference to the accompanying drawings wherein:

Fig. 1 is a side elevation of a lasted upper made in accordance with the present invention, prepared for the application of the usual sole and heel.

Fig. 2 is a transverse diagrammatic section, to larger scale, through the toe end of the shoe, for example, in the plane of line 2—2 of Fig. 1, the last being omitted;

Fig. 3 illustrates a modification of the structure shown in Fig. 2;

Fig. 4 is a view showing the upper and sock lining assembled directly with a sole member;

Fig. 5 is a view similar to Fig. 4 but showing a construction which includes a middle sole and an outer sole;

Fig. 6 is a transverse diagrammatic section of the upper and sock lining of Figs. 2 and 3; and Fig. 7 is a similar transverse diagrammatic section of the upper and sock lining of Figs. 4 and 5.

Referring to the drawings the numeral 1 designates the upper of a shoe, shown in Fig. 1 as mounted upon a last 2, the upper including a moulded counter 3 and a toe box or stiffener 4.

In accordance with one procedure, as illustrated in Fig. 2, the upper comprises an outer element 1^a which may be of leather, fabric or the like, and a lining 1^b. The lining 1^b is secured by the stitched inseam 6 to the margin of a sock lining 5. This sock lining may be of any suitable material but is usually quite thin as compared with the conventional insole and is of textile fabric or the like. As illustrated in Fig. 6, the inseam stitches do not pass through the outer element 1^a of the upper.

After the sock lining and upper lining have been united by the inseam stitches, the last 2 is forced into the upper. Since the lining 1^b and the outer element 1^a are not connected at their lower edges it is readily possible to insert stiffener elements between these parts of the upper at the toe or heel end or both. For example, a moulded toe box 4 may be inserted at the toe of the shoe, for instance by turning back the outer element 1^a of the upper, so as to expose the forward end of the lasted lining, and, after the toe box has been put in position and cemented to the lining and preferably externally coated with adhesive, the outer element 1^a may be turned down so as to cover the toe stiffener. Likewise at the heel end of the shoe a moulded counter, of more or less conventional type if desired, may be introduced between the outer element 1^a and the lining of

the upper. In accordance with this invention the wrapper is an integral portion of the outer element 1^a of the upper. Thus the outer element 1^a is furnished with the integral skirt portion 1^x designed to constitute the wrapper. As shown in Fig. 2, an end stiffener member 4 has been introduced between the outer element 1^a and the lining 1^b, with its flange overlying the in-seam 6. The middle or cushion sole or platform 11 has been put in place and the marginal portion 1^m of the integral wrapper 1^x has been lasted-in over the bottom of the middle sole. In Fig. 3 a slight modification is illustrated wherein the marginal portion 1^m of the integral wrapper 1^x is lasted-in directly over the sock lining and over the in-seam and the middle sole 11 is applied so as to conceal this lasted-in portion of the wrapper. This in-lasting of the marginal portion of the wrapper may be performed in any desired manner, but is accomplished very readily by the employment of a lasting machine such as that disclosed in the patent to Kamborian No. 2,251,285, dated August 5, 1941. After the middle sole has thus been applied and the margin of the wrapper wiped or lasted-in, an outer sole (not shown) may be secured by adhesive to the under surface of the middle sole 11, the outer sole concealing the marginal portions 1^m of the wrapper.

A further modification employing such an integral wrapper as that just described is shown in Figs. 4 and 7. In these views the in-seam stitches at 6^a extend through the margin of the sock lining 5, the upper lining 1^b and the outer element 1^a of the upper, the integral wrapper 1^x projecting beyond this in-seam. After the last has been inserted in the upper, the wrapper portion 1^x is lasted inwardly as illustrated in Fig. 5. Preferably sufficient stress is exerted to draw the in-seam 6^a inwardly over the bottom of the last so that when the sole member S is applied the in-seam stitches are concealed. Obviously the upper lining may be omitted, and the outer element 1^a may be marked to indicate the proper location of the seam 6^a.

In Fig. 5, the lining 1^b and the outer element of the upper are shown as united to the sock lining by the in-seam 6^a. A middle sole 11 overlies the in-seam and is secured to the sock lining and the marginal portion 1^x of the outer element 1^a is arranged as a wrapper to conceal the edge of the middle sole 11 and with its edge portion underlying the middle sole and concealed by the outer sole S.

While the term "forced-lasted" has herein been adopted as an accurate and convenient designation, it is to be understood that this term signifies any shoe or article of footwear of the so-called "California," "platform," "slip-lasted" or similar type.

While certain desirable embodiments of the invention have been illustrated and the mode of making the several modified structures has been described by way of example, it is to be understood that the invention is not necessarily limited to the precise arrangements or procedures thus disclosed, but is to be regarded as broadly inclusive of any and all modifications falling within the scope of the appended claims.

We claim:

1. A force lasted shoe of the kind having a sock lining, a multi-ply upper comprising a lining and an outer element, a heel stiffener flanged at its lower edge, and a sole member, characterized in that the margin of the sock lining is secured to the lower edge of the lining only of

the upper at the heel portion of the shoe, that the sole member is secured to the bottom surface of the sock lining and extends over the secured edges of the sock lining and the lining of the upper, that the outer element of the upper has an integral extension which constitutes a wrapper that extends beyond the secured edges of the sock lining and the lining of the upper and is lasted in against the bottom surface of the sole member whereby the edge of the sole member is covered and concealed by such extension and that the heel stiffener is inserted between the lining and the outer element of the upper with its flange bearing against the secured edges of the sock lining and the lining of the upper.

2. A force lasted shoe of the kind having a sock lining, a multi-ply upper comprising a lining and an outer element, a toe stiffener flanged at its lower edge, and a cushion sole, characterized in that the margin of the sock lining is secured to the lower edge of the lining only of the upper at the heel and toe portions of the shoe, and extends over the secured edges of the sock lining and the lining of the upper, that the outer element of the upper has an integral extension which constitutes a wrapper that extends beyond the secured edges of the sock lining and the lining of the upper and is lasted-in over said secured edges upon the bottom surface of the cushion sole whereby the edge of the cushion sole is covered and concealed by said extension and that the toe stiffener is inserted between the lining and outer element of the upper with its flange bearing against the secured edges of the sock lining and the lining of the upper.

3. A force lasted shoe of the kind having a sock lining, a multi-ply upper comprising a lining and an outer element, and toe and heel stiffeners flanged at their lower edges, and a sole member characterized in that the margin of the sock lining is secured to the lower edge to the lining only of the upper at the heel and toe portions respectively of the shoe, that the sole member is secured to the bottom surface of the sock lining and extends over the secured edges of the sock lining and the lining of the upper and that the outer element of the upper is unattached to the sock lining and has an integral extension which constitutes a wrapper that extends beyond the secured edges of the sock lining, that the lining of the upper is lasted-in over the side edges of the sole member upon the bottom surface thereof and that the toe and heel stiffeners are interposed between the lining and the outer element of the upper at the toe and heel portions respectively of the shoe with their flanges bearing against the secured edges of the sock lining and the lining of the upper.

4. A force lasted shoe of the kind having a sock lining, a multi-ply upper comprising a lining and an outer element, an end stiffener flanged at its lower edge and a sole member characterized in that the margin of the sock lining is secured to the lower edge of the lining only of the upper at the heel portion of the shoe, that the outer element of the upper is unattached to said sock lining and has an integral extension which constitutes a wrapper and extends beyond the lower edge of the lining of the upper, that the stiffener is inserted between the lining and outer element of the upper with its flange bearing against the secured edges of the sock lining and the lining of the upper, that the sole member is

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secured to the bottom surface of the sock lining and to the flange of the stiffener and that the wrapper extension of the outer element of the upper is lasted-in over the side edge of the sole member upon the bottom surface thereof.

5. A force-lasted shoe of the kind having a sock lining, a multi-ply upper comprising a lining and an outer element, an end stiffener flanged at its lower edge and a sole member, characterized in that the margin of the sock lining is secured to the lower edge of the lining only of the upper, that the outer element of the upper at the heel portion of the shoe is unattached to said sock lining and has an integral extension which constitutes a wrapper and extends beyond the lower edge of the lining of the upper, that the stiffener is inserted between the lining and outer element of the upper with its flange

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bearing against the secured edges of the sock lining and the lining of the upper, that the sole member is secured to the bottom surface of the sock lining, and that the wrapper extension of the outer element of the upper is lasted-in over the flange of the stiffener and about the edge of the sole member.

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WILFRED T. TRACY.

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The following references are of record in the file of this patent:

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