May 28, 1946. T. M. MANAHAN 2,401,089

SHOE CONSTRUCTION

Filed June 7, 1944

Fig. 1.

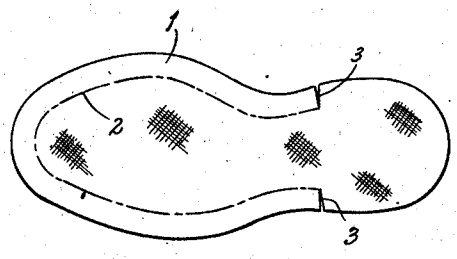


Fig. 2.

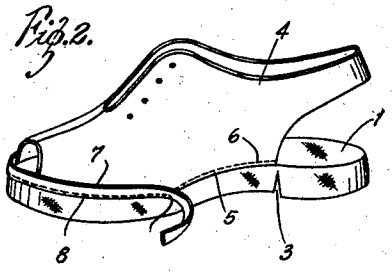


Fig. 3.

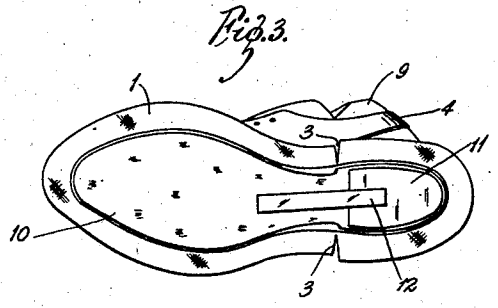


Fig. 4.

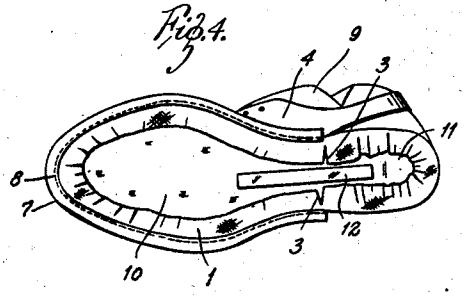


Fig. 5.

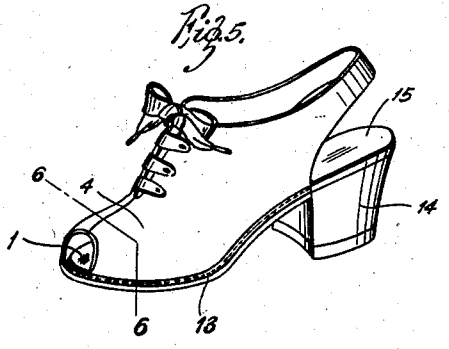
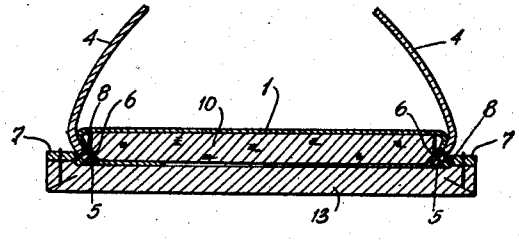


Fig. 6.



INVENTOR:
THOMAS M. MANAHAN,

By Knigland Rogers & Ezell

ATTORNEYS.

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SHOE CONSTRUCTION

Thomas M. Manahan, St. Louis, Mo., assignor to International Shoe Company, St. Louis, Mo., a corporation of Delaware

Application June 7, 1944, Serial No. 539,087

7 Claims. (Cl. 36—17)

This invention relates to shoes, and more particularly to an improved shoe construction which can be made by the "slip-lasted" method.

One of the objects of the invention is to produce an improved shoe which will be light in weight, flexible on the foot of the wearer, neat in appearance and economical to manufacture.

Another object is to so construct a shoe that it can be made by the "slip-lasted" method and have its sole attached by the conventional Goodyear stitching method.

A further object is to produce a welt type of shoe by an improved method of construction.

Other objects of the invention will become apparent from the following description taken in connection with the accompanying drawing showing a shoe and the method by which it is constructed.

In the drawing:

Fig. 1 is a top view of the sock lining employed in making the shoe;

Fig. 2 is a view showing how the upper, the sock lining and the welting are secured together;

Fig. 3 is a bottom view showing how the bottom filler is embodied in the shoe, together with the heel reenforcement and the shank piece;

Fig. 4 is another bottom view similar to Fig. 3, but showing the marginal portion of the sock lining cemented over the filler;

Fig. 5 is a perspective view of the completed shoe; and

Fig. 6 is an enlarged sectional view showing details, said view being taken on the line 6—6 of Fig. 5.

Referring to the drawing in detail, and first to Fig. 1, there is shown a sock lining piece 1 which is died out from a suitable piece of fabric which may be reenforced by a backing sheet if such is desired. This sock lining is of larger size than the size of the shoe of which it is to form a part. The top surface of the sock lining is shown in the figure, and upon this surface is placed a guide line shown by the dashed line 2. The sock lining is also provided with two cuts 3, which will be at the forward part of the heel section of the sock lining, that is at a line which will be at the breast line of the heel of the shoe when the shoe is completed.

As shown in Fig. 2, the upper 4 of the shoe, which is made from suitable died out pieces of material sewed together, has its lower marginal portion adjacent its lower edge 5 stitched to the sock lining at the guide line 2 by means of stitching 6. The size of the upper together with the guide line at which the upper is stitched to the sock lining will determine the size of the shoe. After the upper is stitched to the sock lining, a welting 7 is next sewed by stitches 8 to both the upper and the sock lining, this stitching being slightly above the stitching 6 employed to secure the upper to the sock lining. The welting is of fairly narrow width, and the stitching 8 is adjacent to the edge which is arranged to be substantially flush with the lower edge 5 of the upper.

After the sock lining and the upper, plus the welting, have been stitched together, the shoe is slipped over a last 9, shown in Figs. 3 and 4. The bottom surface of the sock lining has now applied thereto, by a suitable cement, a filler member 10. This filler is of a size to be within and have its edge spaced slightly from the stitching 6 and 8 employed in sewing the upper and the welting to the sock lining. The filler may be of any suitable material such as a fibre material or a yieldable material, as, for example, a composition of cork, if it is desired to produce a cushion sole type of shoe. On the bottom side of the filler there is provided a heel reenforcement piece 11 and a shank piece 12. With the bottom of the shoe now in the condition as shown in Fig. 3, the marginal portion of the sock lining and the bottom surface of the filler have adhesive applied thereto, and then the marginal portion of the sock lining is pulled over the edge of the filler and secured to the bottom surface thereof. Due to the fact that the filler is of such a size that its peripheral edge adjacent the sock lining is spaced slightly inwardly of the stitches 6 and 8, the lower marginal portion of the upper and the welting will be turned inwardly at the time the sock lining is pulled over the filler in a manner such that the welting will extend outwardly from the edge of the filler, thus presenting the relationship shown in Figs. 4 and 6. When the welting is in this position, it is ready to have the outsole 13 stitched thereto. The cuts 3 in the sock lining insure that there will be no puckering or unevenness of the sock lining at the juncture of the heel portion with the forward portion to which the upper and welting have been stitched.

The laying of the outsole 13 is performed by the conventional method of Goodyear outsole laying, which may embody the use of suitable cement for securing the outsole to the bottom surface of the filler and the exposed marginal portion of the sock lining, and also the bottom surface of the welting. The outsole is then stitched to the welting by a Goodyear lock stitch which extends into the outsole as far as the channel which is cut around the edge of the out-

sole. The outsole and welting are next edge trimmed, and the heel 14 applied in a conventional manner. If desired, a heel pad 15 can also be used to cover the heel end of the sock lining and a heel attaching screw if employed. The shoe is now complete as shown in Fig. 5.

The type of shoe shown by way of example is the open toe and open heel style, but it is to be understood that other styles of shoes can be made by the method of construction shown and described. The improved shoe construction results in a shoe which is very light weight and extremely flexible on the foot of the wearer. The shoe can be economically manufactured, since all of the parts are sewed together, which operation does not require highly skilled workers. By sewing the upper to the sock lining at a predetermined line, and also sewing the welting to the upper and the sock lining, the shoe can be constructed as to size without the necessity of lasting the upper to an insole, as is common practice.

What is claimed is:

1. In a shoe construction, a sock lining, an upper having its lower marginal portion secured in overlying relation to the sock lining at a substantial distance from the edge of the sock lining, a welting secured in overlying relation to the upper adjacent its lower edge and extending outwardly, the sock lining marginal portion extending beyond the welting, a filler positioned on the bottom of the sock lining and of a size to lie within the outline defined by the welting and the secured marginal portion of the upper, the marginal portion of the sock lining beyond the lower edge of the upper being turned over and secured to the bottom surface of the filler, and an outsole stitched to the outwardly extending portion of the welting, and overlying the marginal portion of the sock lining.

2. In a shoe construction, a filler member, a sock lining piece overlying the filler member and having its marginal portion turned over the edge of the filler member and secured to the bottom surface of said member, an upper having its marginal edge stitched to the sock lining at the part thereof which is turned over the edge of the filler member, a welting positioned in overlying relation to the upper closely adjacent its stitched marginal edge and being stitched to the upper, and an outsole stitched to the welting outwardly of its stitching employed in securing the welting to the upper.

3. In a method of making a shoe which comprises stitching the lower marginal edge portion of an upper and a welting to a sheet of material shaped in the general form of the bottom of a shoe but of a size greater than the size of the shoe to be made in order to provide a marginal portion extending beyond the upper and welting, said welting overlying the upper and having a portion free of the shoe upper inwardly of its lower marginal edge, positioning a filler member on the bottom of the sheet, pulling the marginal portion of the sheet together with the stitched part of the upper and the welting over the edge of the filler to thereby place the free portion of the welting in a position to extend outwardly from the upper in a lateral direction, securing the marginal portion of the sheet to the bottom of the filler, and then stitching an outsole to the welting.

4. In a method of making a shoe which comprises stitching the lower marginal portion of an upper to a sock lining piece with said lower marginal portion turned outwardly in overlying relation to the top surface of the sock lining, said sock lining being of a size to have a substantial marginal portion extending beyond the lower marginal edge of the upper when stitched thereto, stitching a welting to the upper and sock lining, providing a filler of a size slightly smaller than the outline of the upper and welting and cementing it to the bottom of the sock lining, pulling the marginal portion of the sock lining over the edge of the filler and cementing it to the bottom surface of said filler, and then stitching an outsole to the welting outwardly of the stitching for securing the welting to the upper.

5. In a method of making a shoe which comprises providing a sock lining piece of a size larger than the shoe to be made and having inwardly extending cuts separating its forward and heel portions, an open heel upper, a welting, a filler, an outsole and a heel, stitching the lower marginal edge portion of the upper and the welting to the sock lining piece inwardly of its marginal edge and forwardly of its cuts, said welting being placed to overlie the upper and have a portion free of the upper inwardly of the edge of the upper, inserting a last into the upper, securing the filler member to the bottom surface of the sock lining, pulling the marginal portion of the sock lining piece over the edge of the filler to thereby place the free portion of the welting in a position to extend outwardly of the upper, cementing all the marginal portion of the sock lining piece to the bottom surface of the filler, stitching the outsole to the outwardly extending welting, and attaching the heel to the heel portion of the filler and sock lining piece.

6. In a shoe construction, a sock lining, an upper, a welt, and a stiffening member, the sock lining and upper being larger than the stiffening member to provide marginal portions extending beyond the member, stitching separately joining the sock lining margin and the upper margin together, additional stitching joining the welt and the sock lining, the marginal edge of the sock lining being turned around the edge of the stiffening member and under the bottom thereof, and cement attaching the turned under portion to the bottom surface of the filler.

7. In a method of making a pre-welt shoe, comprising the steps of stitching a welt, an upper, and a sock lining together, around the sock lining adjacent the part to be at the edge of the completed shoe but inside the marginal edge of the sock lining, with a stiffener below the sock lining, applying a last into the parts, drawing the marginal edge of the sock lining beyond the stitching, around the edge of and over the bottom of a stiffener, and there securing it, said drawing of the sock lining causing the welt to project from the edge of the shoe, and attaching a sole to the bottom of the parts thus made.

THOMAS M. MANAHAN.