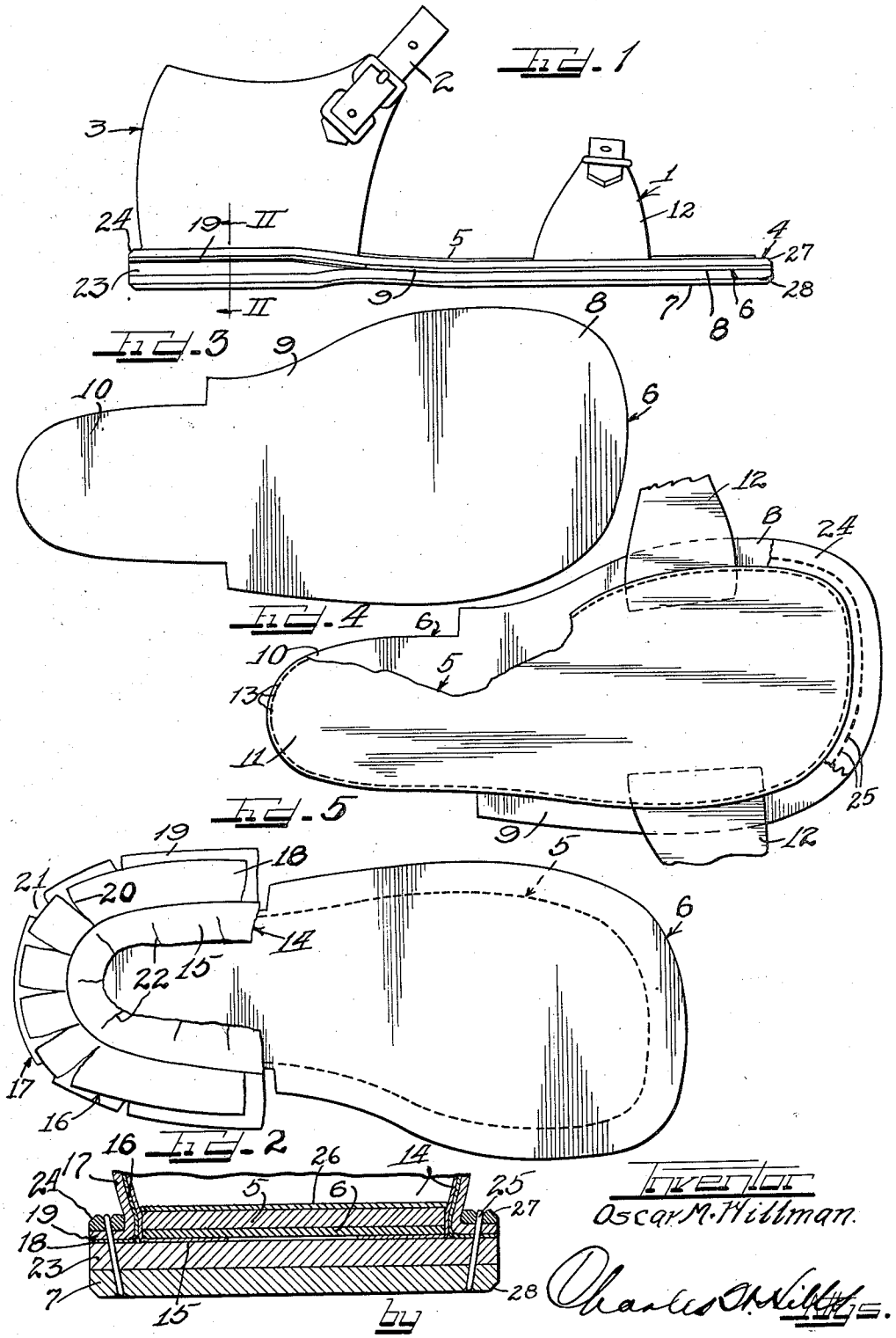
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SHOE

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SHOE

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1 Claim. (Cl. 36—11.5)

This invention has to do with shoes and is more particularly concerned with sandals although, as will appear, the principles of the invention are applicable to other types of shoes.

The invention is concerned more particularly with an improvement in the sole structure and the connection of the upper to the sole structure.

It is an object of the invention to provide a shoe construction including a middle sole wherein a portion of the middle sole is positioned within the confines of a portion of the upper.

It is another object of the invention to provide a shoe structure wherein the heel portion of a middle sole is confined within the quarter.

Another object of the invention includes the provision of a special shoe construction which inhibits spreading of the bottom portions of the quarter at the heel.

Another object of the invention involves the provision of a sandal type of shoe with an improved attachment for a sandal strap.

In carrying out the invention in practice, a middle sole is formed with its heel portion reduced so as to be substantially flush with the heel portion of the insole. The sandal strap may be in two pieces secured opposite each other by the stitching or other means securing the insole to the middle sole. The lining of the quarter is lasted under the heel portion of the middle sole, and the counter and leather or other surface material of the quarter is flanged outwardly and stitched or otherwise secured to the outsole. The flanged portion forms substantially a continuation of the unreduced margin of the middle sole, which margin is stitched or otherwise secured to the underlying margin of the outsole. By means of these stitchings, a trim strip or rand is secured over the quarter flange and marginal portion of the middle sole, and thereafter, if necessary, the outer edge of the shoe is trimmed.

With this structure, one or more heel lifts may be employed without disturbing the manner of securement of the quarter.

If desired, the lining of the upper, such as the quarter, may be cement lasted or otherwise secured to the middle sole. Likewise, the manner of securement of other parts may be varied without departing from the principles of the invention.

Further objects and advantages of the invention will appear as the description proceeds.

This invention (in a preferred form) is illustrated in the accompanying drawing and hereinafter more fully described.

Figure 1 is an outer side elevation of a right shoe constructed in accordance with the invention.

Figure 2 is an enlarged fragmentary sectional view taken substantially as indicated by the line II—II in Figure 1.

Figure 3 is a top plan view of the middle sole employed in the shoe of Figure 1.

Figure 4 is a fragmentary top plan view showing the middle sole superposed by an insole and other parts of the shoe.

Figure 5 is a bottom plan view of the shoe of Figure 1, just prior to application of the heel lift, outsole and trim strip or rand.

Referring now more particularly to the drawing, it will be observed that the shoe chosen for illustrative purposes takes the form of a child's sandal, having a ball strap 1 and an ankle strap 2 attached to a quarter 3, secured at the upper part of the sole structure designated generally at 4.

The sole structure embodies essentially an insole 5, a middle sole 6 and an outsole 7. The insole is of a form corresponding with the interior of a shoe. The middle sole, throughout the forepart 8 and shank 9 thereof, has substantially the same size and shape as the outsole so as to afford a protective edge beyond the upper, but the heel portion 10 of the middle sole is reduced to substantially the size of the heel portion 11 of the insole 5 and is confined within the outturned quarter.

The strap 1 is preferably in the form of separate strap parts 12, which are positioned appropriately at the ball and sandwiched between the insole 5 and middle sole 6, preferably before the members 5 and 6 are connected. Thereafter, by means of stitching or the like as shown at 13 at the margin of the insole 5, these are secured together. Viewed as in Figure 4, only the marginal portion of the middle sole at the forepart 8 and shank 9 is then visible.

This unit comprising the insole, middle sole and strap parts 12 is placed on the bottom of a last with the insole against the last, and the quarter assembly 3 placed about the sides of the heel of the last with the lower edge of the quarter assembly projecting beyond the heel end of the middle sole. The quarter assembly may have any suitable number of layers of leather, cloth or other desired material. The lining 14 is folded inwardly over the exposed face of the heel portion 10 of the middle sole as shown at 15, where

it is preferably cemented in place, although if desired, stitching, stapling, nails or other suitable means may be employed for the purpose.

The adjacent bottom portions of the counter 16 and quarter outer layer 17 are parted from the inturned flange portion 15 of the lining 14 so as to be flanged outwardly at 18 and 19, respectively. Because of the curvature of the heel portions, the flanges 18 and 19 are slitted as at 20 and 21, respectively, at their curved portions to permit said flanges to have a substantially flat shape. This may be resorted to in connection with the inturned portion 15, although it may not be necessary since the lining 14 is quite thin and flexible so that it may readily be turned inwardly against the middle sole 6 by folding or pleating at suitable places as shown at 22.

The flange 18 is formed with its exposed edge substantially flush with the unexposed edge of the lasted inturned portion 15 of the lining 14.

After the inturned portion 15 of the lining 14 is lasted to the exposed face of the middle sole 6, the outsole 7, to the upper side of which a heel lift 23, if desired, has been cemented or otherwise suitably secured, is cemented to the exposed part of the middle sole 6 and the inturned portion 15 of the lining 14, and also to the exposed surface of the counter flange 18. In the exaggerated view shown in Figure 2, a space appears between the heel lift 23, the inner edge of the inturned portion 15 of the lining and the middle sole 6. In practice, however, due to the "give" of the materials, such space is substantially nonexistent.

The flange portions 18 and 19 now afford substantially a continuation of the margin of the middle sole rearwardly of the shank portion of the same. The structure at this point may be removed from the last, and a preferably leather strip 24 constituting a welt is placed over the outwardly projecting marginal portion of the middle sole and the flange 19 so as to closely embrace the edge of the forepart of the insole and the outside of the strap 1 and quarter 3. This strip 24 is secured in place by a circuitous line of stitching 25 which passes through the strip 24, flanges 19 and 18, the margin of the lift 23 and the margin of the outsole 7, at the heel of the shoe, and also through the margin of the middle sole at the shank and forepart of the shoe.

With the trimming of the edges of the flanges 18 and 19, the shoe is completed.

The component insole, middle sole, lift and outsole members and the welt strip may be made of leather or any desired composition. While various means may be made use of in fastening the various parts together, stitching and cementing at the places indicated herein has been found to produce a very satisfactory shoe from the standpoint of neatness and durability as well as from the standpoint of ease and low cost of manufacture.

The layers of the quarter 3 may be of any desired material. Cloth or leather may be found suitable for the lining and outer layer.

While the invention is illustrated and described in connection with a child's sandal, it will be appreciated that it may be embodied in the manufacture of any kind of shoe including an adult's shoe, whether it be of the sandal or of another type of shoe. The invention, moreover, is not limited to the securement of the quarter, by the means and in the manner specified, but rather contemplates the employment of the same means and method in the securement of other parts of the upper.

If desired, instead of flanging the lining inward over the exposed surface of the middle sole, the middle sole, instead of being marginally reduced at the heel, could at that point be flanged upward and the lining of the upper could be secured by cement or otherwise to the exposed face of the portion so flanged. However, the structure above described is the preferred form.

With this construction, the number of thicknesses through which the heel stitching must pass is reduced by the omission of the heel flange portion of the middle sole, without detracting from the strength, durability and neatness of the shoe. Moreover, with this construction spreading of the bottom of the upper is precluded, so that proper side support for the sides and rear of the heel of the foot is afforded.

A sock lining 26 for the heel and, if desired, for the remainder of the tread of the foot may be provided.

If desired, the upper outer edge of the strip 24 and the lower edge of the outsole 7 may be beveled as shown at 27 and 28, respectively.

The last may remain in the shoe until after the shoe is completely finished, if desired.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore, do not purpose limiting the patent granted hereon otherwise than necessitated by the prior art.

I claim as my invention:

Shoe construction including an outsole, an insole, and a middle sole; a quarter; said middle sole having a heel portion confined within said quarter and having a shank and forepart projecting beyond the corresponding parts of the insole for securement to the outsole; means for attaching the middle sole to the insole; sandal strap means secured in place between the insole and middle sole by the means attaching the insole to the middle sole; and said outsole being secured to said middle sole including the said projecting parts thereof by means independent of the means securing the strap means between said insole and said middle sole.

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