May 14, 1940. J. F. MARSHALL 2,200,579

SHOE CONSTRUCTION AND METHOD OF MAKING SAME

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FIG. 1.

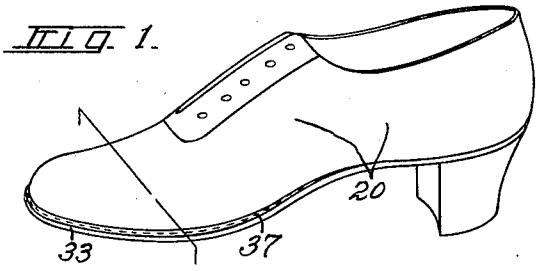


FIG. 2.

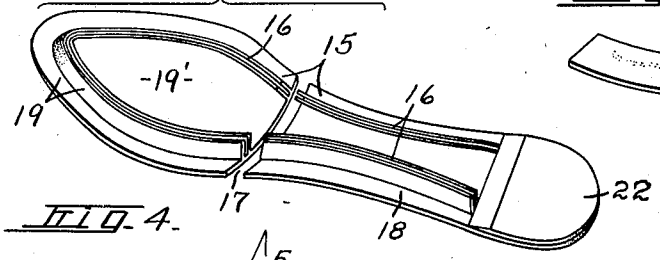


FIG. 3.



FIG. 4.

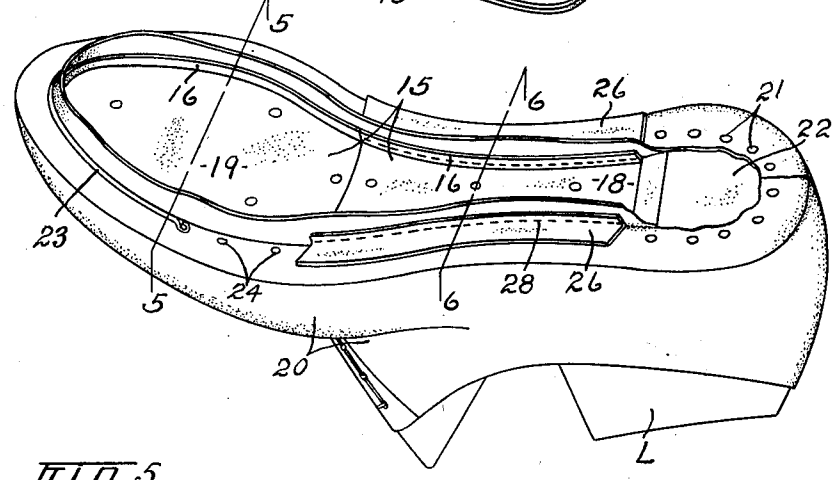


FIG. 5.

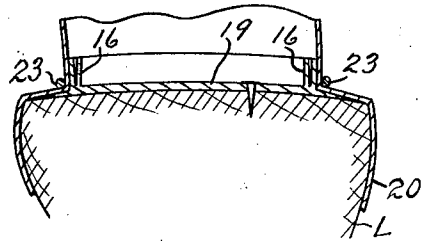
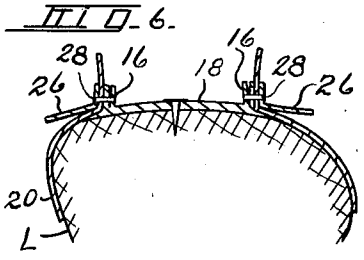


FIG. 6.



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FIG. 7.

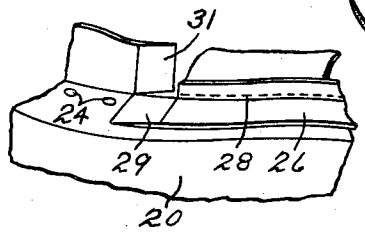


FIG. 8.

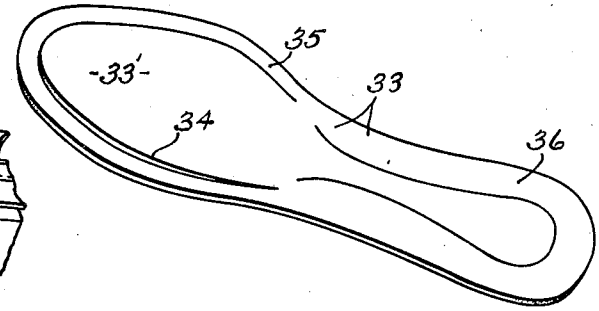


FIG. 9.

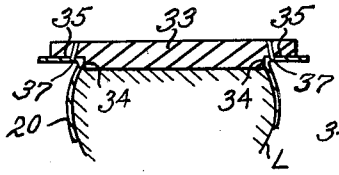


FIG. 10.

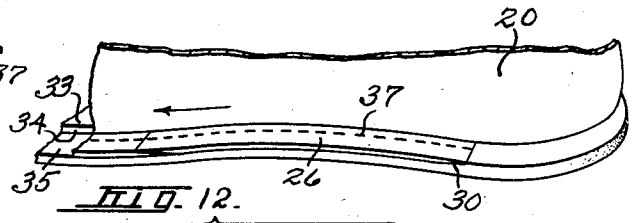


FIG. 12.

FIG. 11.

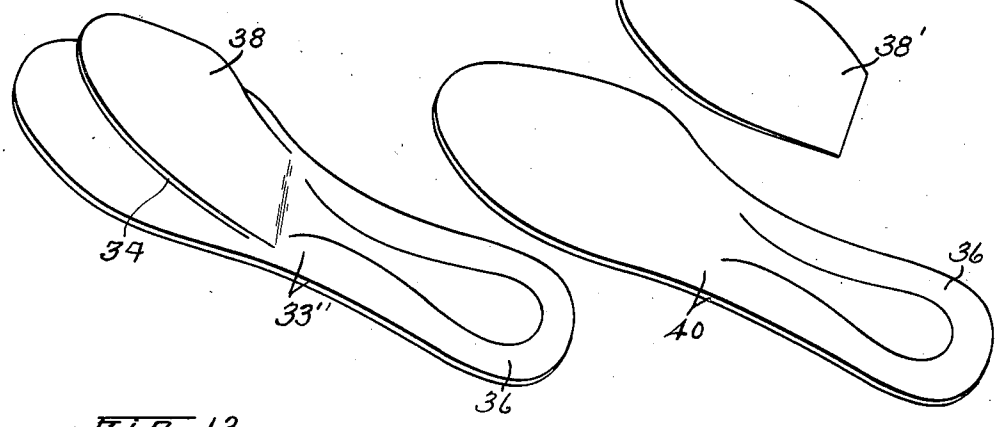
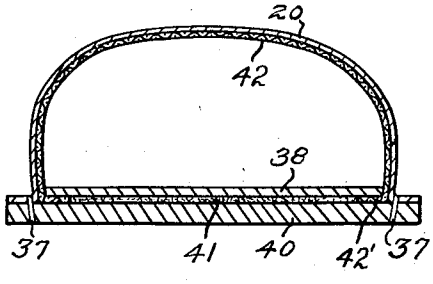


FIG. 13.



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SHOE CONSTRUCTION AND METHOD OF MAKING SAME

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FIG. 14.

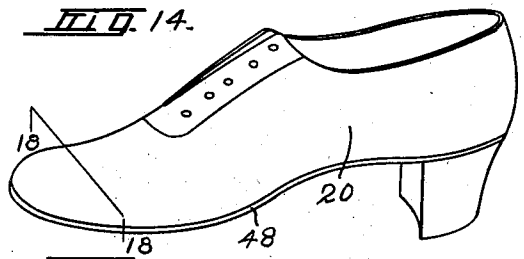


FIG. 15.

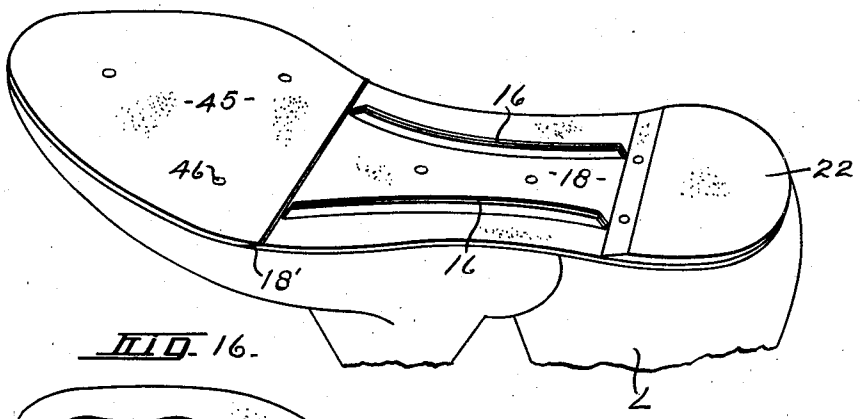


FIG. 16.

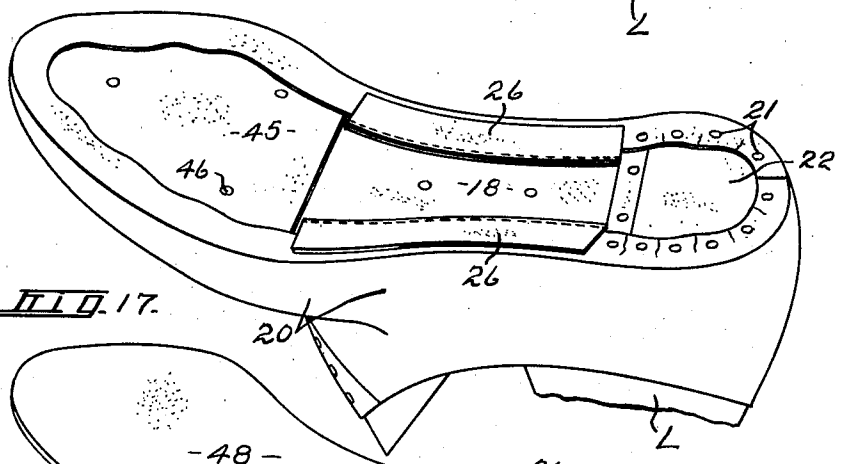


FIG. 17.

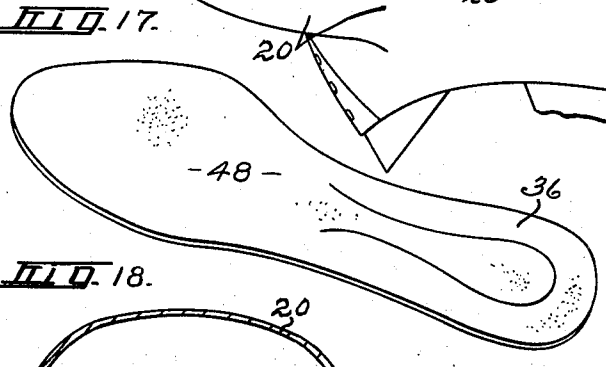
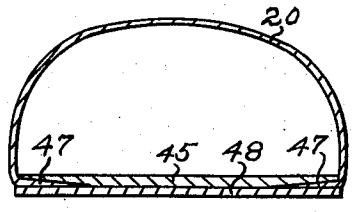


FIG. 18.



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Patented May 14, 1940 2,200,579

UNITED STATES PATENT OFFICE

2,200,579

SHOE CONSTRUCTION AND METHOD OF MAKING SAME

James F. Marshall, Auburn, N. Y.

Application July 2, 1938, Serial No. 217,283

6 Claims. (Cl. 12—142)

This invention relates to an improved shoe structure and to the method of making the same.

The main object of the invention is to produce a high class, durable shoe which will maintain its form and provide the maximum degree of comfort for the user.

More specifically, this invention contemplates the production of a shoe having a rigid rear construction adapted to hold the shoe in its proper shape and at the same time provide the shoe with a forepart which is unusually pliable and light. The substantially rigid heel and shank portion of the shoe affords maximum support and control for the foot while the forward pliable portion of the shoe provides for maximum comfort and ease when walking. The ease in which the forward part of the shoe may be flexed also provides for a minimum amount of movement of the heel portion of the shoe with respect to the heel of the foot, and thereby substantially eliminates the usual rubbing action of the shoe on the heel of the stocking.

In carrying out the above mentioned object, I utilize the conventional welt shoe construction for the heel and shank portions of the shoe and a stitched down construction for the forepart of the shoe. In combining these two shoe structures, I have produced, insofar as I am aware, a new method of manufacturing shoes.

A further advantage obtained by my novel method resides in the shoe upper being maintained on the last until the shoe is completely finished, thus producing a shoe which conforms to the shape, size and width of the last.

Other objects and advantages pertaining to the form and relation of the parts of the shoe structure and to the method of making the same will more fully appear from the following description taken in conjunction with the accompanying drawings, in which:

Figure 1 is a perspective view of a shoe embodying the various features of this invention.

Figure 2 is a perspective view of an inner sole used in the construction of the shoe shown in Figure 1.

Figure 3 is a perspective view of one of the welt members used in the construction of my novel shoe.

Figure 4 is a perspective view showing a portion of the shoe mounted on a last and representing the shoe as it appears during an intermediate stage in the construction thereof, the shoe and last being shown in an inverted position.

Figures 5 and 6 are detail cross sectional views taken substantially on lines 5—5 and 6—6, respectively, Figure 4.

Figure 7 is a detail prespective view showing a section of the shoe structure shown in Figure 4 at one side thereof and illustrating the manner of cutting a lower edge portion of the shoe upper and a welt member for arranging them in overlapping relation with each other.

Figure 8 is a perspective view of one form of outer sole used in my novel shoe construction.

Figure 9 is a detail transverse sectional view illustrating the manner of stitching the outer sole directly to the forward or toe portion of the shoe upper.

Figure 10 is a perspective view of a section of the heel portion of a shoe illustrating the manner of stitching the adjacent portions of the shoe upper and welt to the outer sole.

Figure 11 is a perspective view illustrating a modified form of outer sole.

Figure 12 is a perspective view illustrating a still further modified form of outer sole.

Figure 13 is a transverse sectional view through the toe portion of a finished shoe provided with a lining and an outer sole constructed in the manner shown in either Figure 11 or Figure 12.

Figure 14 is a perspective view similar to Figure 1 illustrating a modified form of shoe structure.

Figure 15 is a perspective view of a shoe last showing the rear section 18 of the inner sole applied to the rear portion of the bottom of the last and an auxiliary or slip sole applied to the forward portion of the bottom of the last as used in the construction shown in Figure 14.

Figure 16 is a perspective view illustrating the last with the inner sole and auxiliary sole sections shown in Figure 15 having a shoe upper associated therewith.

Figure 17 is a perspective view of the outer sole utilized with the shoe structure shown in Figure 14.

Figure 18 is a transverse sectional view through the forward portion of the shoe taken substantially on line 18—18, Figure 14.

In producing my novel shoe construction, the shoe upper, comprising a pair of complementary outer quarter sections secured together by a back seam may be constructed and assembled in any well-known conventional manner. Further, I preferably utilize an inner sole constructed in the conventional manner for producing a shoe of the standard welt construction with the ex-

ception that the forward portion of the inner sole is severed from the rear portion thereof. In other words, the inner sole 15 is constructed in substantially the manner illustrated in Figure 2 of the drawings. It will be noted that the inner sole illustrated in this figure has its outer or bottom surface provided with the usual stitching rib 16 arranged in inward spaced relation from the marginal edge of the sole and which extends from the forward side of the heel portion of the sole forwardly around the toe portion. This inner sole 15, however, instead of being a single unitary member as in the conventional welt shoe structure, is severed, as at 17, intermediate its ends to provide a rear portion 18 adapted to extend from substantially the ball portion of the last rearwardly over the heel section thereof and a forward section 19 adapted to extend from substantially the ball portion of the last forwardly over the toe portion thereof.

The inner sole 15 is secured to the last in the usual manner by tacks or the like so that the rear section 18 and forward section 19 form the equivalent of one continuous member, as indicated in Figure 4. After the inner sole 15 has been secured to the last, the shoe upper 20 is next assembled with a counter (not shown) and tacked to the heel of the inner sole portion 18 by one or more tacks 21. A heel segment or seat 22 may, as indicated in Figures 2 and 4, be placed over the outer or under portion of the heel of the inner sole 15 beneath the marginal heel portion of the shoe upper 20 prior to the tacking of the shoe upper to the insole and to the last.

The next step in the construction of the shoe consists in lasting the shoe upper to the last. If it is desired to use a toe box without a lining, the toe box is inserted in the upper over the toe portion of the last prior to the pulling and stretching of the shoe upper over the last.

It will be understood that the lasting of the shoe upper may be accomplished in any desired manner but, preferably, this is performed in the usual way by tightly stretching the toe portion of the shoe upper over the last and bending the marginal or lower edge portion of the upper inwardly and forming the same tightly around the rib 16 of the inner sole, said rib acting as a guide to determine the position of the inturned lower edge of the shoe upper in the same manner in which this rib is utilized when forming the standard welt shoe structure. The side lasting is next accomplished by securing the sides of the shoe upper from the ball to the breast of the heel to the last by driving tacks, staples or the like through the shoe upper and inner sole into the last.

The next step in the lasting operation is the flatbed lasting whereby the toe portion of the shoe upper is secured by wire 23 and tacks 24 or other suitable means to the corresponding portion of the last. The wire 23 forces the lower edge of the shoe upper into close contact with the rib 16, as shown in Figure 5, and this rib coacts with the wire to hold the shoe upper stretched over the toe of the last. The last step in the lasting operation is known as heel seat lasting which comprises driving the tacks 21 through the portion of the heel section of the upper which overlies the bottom of the last.

After the lasting operation has been completed, the next step in the construction of the shoe is known as in-seaming. This consists in stitching the welt, inner sole and adjacent portions of the shoe upper to each other. In this instance, the welt 26 is composed of two pieces, each of which is adapted to extend from approximately the breast of the heel to the ball of the last or thereabout, as illustrated in Figure 4. In other words, each welt piece 26 is substantially equal to or slightly greater in length than the corresponding ribs 16 provided on the rear section 18 of the inner sole.

The welt 26, shoe upper and the rear section 18 of the inner sole are secured together as by stitches 28 passing through the welt strips adjacent the inner longitudinal edge thereof, the adjacent inturned edge portion of the shoe upper and the base of the rib 16 of the rear section 18, as shown in Figures 4 and 6. After the shoe upper, welt and inner sole are thus secured together, the upper is trimmed along the in-seam 28 in the conventional manner so this portion of the shoe adjacent the in-seam is of minimum thickness.

The next step in the construction of my novel shoe consists in skiving both ends of the welt pieces 26, as indicated at 29 and 30, Figures 7 and 10, after which the lower edge portions of the shoe upper adjacent the forward ends of the welt 26 are skived, as indicated at 31, Figure 7. The skiving of the forward end of the welt 26 positioned at the inner side of the shoe and the adjacent edge portion of the shoe upper is the reverse of that of the forward end of the welt and the adjacent edge portion of the shoe upper positioned at the outer side of the shoe. This is for the purpose of arranging the skived portion of the welt at one side of the shoe over the adjacent skived portion of the shoe upper, while at the other side of the shoe the skived portion of the welt is arranged beneath the adjacent skived portion of the upper so as to enable the stitching machine to readily pass over these overlapping portions of the welt and shoe upper.

All tacks and other temporary fastening means are next pulled out of the shoe structure and the last, the heel tacks 21 of course remaining as a permanent structure of the shoe. The forward or toe portion of the shoe upper is then pulled back from over the toe portion of the last, after which the forward section 19 of the inner sole 15 is removed from the last and may be discarded or used as a guide in connection with other rear sections 18 as desired. The forward portion of the shoe upper is then returned to its normal position over the toe of the last after which the shoe is in condition to have the outer sole secured thereto.

This outer sole 33 is of novel construction in that it is provided with a shoulder 34 extending from substantially the ball of the sole forwardly around the toe in spaced relation to the marginal edge of the sole. The shoulder 34, in this instance, is formed by cutting away a portion of the inner marginal surface of the sole to form a marginal channel or recess 35. The shoulder 34 is formed so as to define a space 33' of substantially the same contour and area as the inner sole forward section 19. In other words, the space between the shoulder 34 at opposite sides of the sole is slightly less than the corresponding distance between opposite sides of the last L, as shown in Figure 9, so that the major portion of the shoulder lies inside the marginal edge of the last when the sole is applied to the shoe upper. The rear portion of the sole 33 is skived in the usual manner, as at 36, along the marginal edge portion thereof to reduce the apparent thickness of the shank of the shoe. The height of the

shoulder 34 is substantially equal to the thickness of the lower marginal edge of the corresponding portion of the shoe upper.

Before the sole 33 is applied to the shoe upper, the space between the rib 16 on the rear section of the inner sole is substantially filled with a suitable material such as a cork composition, rubber or the like to provide a cushion extending from the heel seat 22 to the ball of the last or, in other words, to the forward end of the rear section 18 of the inner sole. After the cushion material has been applied to the shoe, the usual metal shank stiffener (not shown) is placed over the cushion material and secured in position by driving a tack through a hole provided in the metal shank stiffener and into the inner sole.

The outer sole is next prepared to be attached to the shoe upper by first applying a coating of cement to the back portion of the inner surface of the sole from the ball rearwardly and also along the marginal portion 35 of the inner surface of the sole from the shoulder 34 outwardly. The central portion 33' of the sole defined by the shoulder 34 is not covered with cement when there is to be no lining placed thereover, inasmuch as the stocking of the user comes in direct contact with this portion of the sole.

The bottom edge of the forward portion of the shoe upper, which extends upwardly from the shoulder 34, is turned outwardly and the lower exposed surface thereof, the lower exposed surface of the welt members 26 and the filler and metal shank piece are then coated with cement. After the cement has become partially dry the outer sole 33 is placed over the shoe upper, mounted on the last and is temporarily secured in position by first securing the heel portion thereof to the inner sole section 18 by means of a tack.

When positioning the outer sole over the last, the portion of the shoulder 34 at the outer side of the sole is arranged in substantial alignment with the corresponding side of the last while the portions of the shoulder 34 at the toe and at the opposite or inner side of the sole is spaced inwardly a relatively short distance from the corresponding edges of the last. After the sole has been temporarily secured to the shoe structure on the last, the sole is next subjected to the action of a shank press to bond the outer sole to the welting and to give the outer sole the general contour of the shank portion of the last. The marginal portion of the outer sole is then tightly pressed into contact with the cemented lower edge of the shoe upper and into tight engagement with the shoulder 34. This may be accomplished by hand or by the use of a stitch-down laster machine. The shoe structure is then subjected to the action of a sole-laying machine which conforms the outer sole to the contour of the entire bottom of the last in the usual manner. The outer edge of the upper may then be trimmed so as to conform substantially to the contour of the outer sole. The shoe may then be placed in a suitable stitching machine, such as a regular Goodyear stitcher, and the outer sole secured to said welt members and to that edge portion of the shoe upper which extends around the toe from the forward end of one of the welt members 26 to the forward end of the other welt member.

The stitches, as 37, for securing the outer sole to the shoe upper, coact with the cement to firmly hold the shoe upper into close contact with the shoulder 34 at the junction of said shoulder with the marginal recess portion 35. It will now be obvious that inasmuch as the outline of the shoulder 34 corresponds substantially to the outline of the rib 16 formed on the forward section 19 of the inner sole 15, the forward portion of the shoe upper will be drawn into and maintained in substantially the same position and form it was given when originally stretched on the last and into contact with the rib 16.

This stitching of the sole to the shoe upper is usually accomplished by beginning the stitching operation at the rear end of the welt member positioned at the inner side of the shoe and then stitching forwardly, passing from the forward end of the welt to the adjacent portion of the turned-out edge of the shoe upper, and thence around the toe to the forward end of the welt member at the outer side of the sole, and then to the rear end of said latter welt member.

In order that the stitching machine will readily pass from the welt member positioned at the inner side of the shoe to the adjacent portion of the marginal edge of the shoe upper, the skived forward end of this welt member is arranged to extend over the adjacent skived portion of the marginal edge of the upper, as clearly illustrated in Figure 10. In order that the stitching machine will readily pass from the marginal edge of the shoe upper positioned at the outer side of the shoe on to the adjacent portion of the welt member, the welt and marginal portion of the shoe upper are arranged in the reverse order, that is, the marginal portion of the shoe upper is arranged to extend over the forward skived end of the adjacent welt member.

From this point on to the complete finishing of the shoe, the trimming of the marginal edge of the outer sole of the shoe upper and the welt members and the attachment of the heel etc., is accomplished in the conventional manner of forming a standard welt constructed shoe and it is, therefore, believed unnecessary to further illustrate or describe the remaining steps in the construction of this shoe.

It will be obvious that various changes may be made in the construction and method of procedure of the shoe thus far described. For instance, the outer sole 33, instead of being secured to the shoe upper by stitching, may be secured entirely thereto by the use of cement. Furthermore, if desired, the forward portion of the outer sole lying within the space defined by the marginal shoulder 34 may be covered with a suitable stocking lining which may be secured in place by cement or other suitable means. The marginal edge of the stocking lining may be extended beyond the shoulder 34 over the marginal edge portion 35 of the sole. In addition to the above, the forward section 19 of the inner sole may be dispensed with altogether. This is particularly true when using a machine for lasting the forepart of the shoe upper inasmuch as the lower edge of the shoe upper is engaged by the temporary fastening elements at a predetermined position with respect to the edge of the last, and these fastening elements may be used to determine the position of the inner edge of the fold when turning the lower edge of the upper outwardly.

Also, it will readily be understood that different methods or structures may be employed for producing the outer sole and the shoulder 34. One of such methods is illustrated in Figure 11 of the drawings. In the structure shown in this

figure, the sole 33'', like the sole 33 shown in Figure 8, is composed of relatively thick leather or other suitable material and has the inner marginal surface thereof skived or cut away to form the shoulder 34.

After the shoulder 34 has thus been formed, the portion of the sole defined by the shoulder 34 is severed from the remaining portion of the sole, with the possible exception of the rear end thereof, by the use of a suitable knife blade. This provides an auxiliary sole 38 in the form of a pad or flap, which is permanently attached to the sole at the inner end thereof adjacent the ball of the sole. When the outer sole is constructed with the pad or flap 38, as shown in Figure 11, the sole is prepared for fastening to the shoe upper by coating the rear portion of the sole and the marginal edge thereof with cement in the same manner as hereinbefore described for the sole as constructed in Figure 8.

After the sole has been positioned over the shoe last and the portion of the shoe carried thereby, and the heel portion of the sole is secured to the upper by tacking, the forward or toe portion of the outer sole is bent outwardly away from the last leaving the tongue or flap portion 38 in engagement with the adjacent portion of the shoe upper. A suitable filler or cushion material 41, Figure 13, may then be placed on the outer surface of the tongue or flap 38 so that when the forward portion of the outer sole is returned to its normal position, this filler will be positioned between the outer sole and the flap 38 to provide a resilient cushion beneath the foot while walking. The filler also affords an insulation which protects the foot, to a greater or less degree, from unpleasant sensations while walking over rough or pebbly surfaces. After the outer forward portion of the outer sole has been returned to its normal position, the same may be secured to the marginal edge of the forward portion of the shoe upper and to the welt members either by stitching or by cementing in the manner hereinbefore described.

In Figure 12, I have illustrated a still further modification of an outer sole structure. The outer sole 40 shown in this figure is adapted more particularly to be constructed from relatively thin material, in which case the sole is of substantially the same thickness throughout the length thereof, with the exception of the rear portion which has the marginal edge thereof skived, as at 36, in the usual manner.

In order to provide this sole 40 with a shoulder 34, I form an auxiliary sole 38' in the form of a pad or flap which is adapted to extend from the ball of the sole forwardly and has substantially the same contour as the pad or flap 38 shown in Figure 11 or the portion 33' of the sole 33 defined by the shoulder 34 of the sole shown in Figure 8. This auxiliary sole 38' may be fixedly secured to the inner surface of the sole 40 in substantially symmetrical relation therewith either by stitching or by cementing. If it is desired to place a cushion material 41 between the sole member 38' and the adjacent portion of the outer sole 40, this, of course, may be readily accomplished before the flap 38' is secured to the sole.

In addition to the above, the sole structure shown in Figures 11 and 12 are also particularly adapted to be used in a shoe wherein a lining is provided for the toe portion of the shoe upper. This lining, as 42, shown in Figure 13, is, of course, secured to the shoe upper prior to the mounting thereof on the last. The lining 42, which usually extends around the heel portion of the shoe upper, may be secured to said heel portion by the heel tacks 21 and to the welt members 26 by the in-seam stitching 28 in the conventional manner.

It will thus be seen that the lower marginal edges of the forward portion of the lining will not be secured in place until after the outer sole has been mounted on the shoe upper. During the mounting of the outer sole in position, the marginal edges 42' of the lining are bent inwardly so as to extend over the outer surface of the flap or pad 38 or 38', as illustrated in Figure 13. In other words, the marginal edge portion 42' of the lining will be arranged between the outer sole 40 and the flap 38 or 38' and be secured in place to said sole by cement or other suitable means.

In Figure 13, I have illustrated a cushion, as 41, placed between the outer sole 40 or 33'' and the inner flap or pad 38 or 38'. It will be understood, however, that the cushion 41 may be eliminated if it is desired to do so. However, when using the cushion 41, it is preferable that the edge portions of the cushion and the inturned marginal edge of the lining be abutted against each other, as shown in Figure 13, or be skived and be formed in overlapping relationship so as to produce a substantially uniform thickness throughout the entire cross sectional area of the forward portion of the shoe between the stitches 37.

The shoe structure shown in Figures 14 to 18 of the drawings maintains a substantially rigid shank and heel portion while providing a pliant, flexible forward portion the same as in the structure shown in the remaining figures of the drawings. In this shoe structure, the outer sole is secured to the shoe upper by means of cement only, the stitchings 37 being eliminated. In the structure of the shoe shown in Figure 14, I utilize the rear inner sole section 18 which is secured to the shank and heel portion of the last in the manner shown in Figure 15. In place of the forward section 19 of the inner sole, I substitute an auxiliary or slip sole 45 which is temporarily secured to the corresponding bottom portion of the last by tacks 46. The forward portion of the inner sole section 18 is preferably skived, as at 18' Figure 15, and the rear edge of the auxiliary sole 45 is arranged in overlapping relation therewith so as to form a substantially continuous surface throughout the interior of the completed shoe from the heel to the toe portion thereof.

The welt members 26 and the shoe upper 20 are secured to the last and to the rear inner sole section 18 in the manner hereinbefore described for the shoe structure shown in Figure 1 and as illustrated in Figure 16 of the drawings. Instead of the forward portion of the shoe upper being aligned with the guide rib 16 associated with the forward inner sole section 19, as shown in Figure 4, the lower edge of this portion of the shoe upper is folded inwardly to lie flat over the adjacent marginal portion of the auxiliary sole 45.

When securing the shoe upper to the auxiliary sole 45 the inner surface of the lower edge of the shoe upper and the marginal lower exposed surface of the auxiliary sole are each provided with a coating of cement and, after the cement has partially dried, the lower edge portion of the shoe upper is pressed into tight engagement with the corresponding portions of the auxiliary or slip sole. The shoe structure is then in the form

illustrated in Figure 16 and ready for the outer sole to be applied thereto.

The outer sole, as illustrated in Figure 17 of the drawings, is a substantially flat member having a uniform thickness throughout the entire cross sectional area thereof with the exception of the rear portion of the sole which has the inner marginal portion thereof skived, as at **36**, in the manner and for the purpose described above for the sole **33** shown in Figure 8. The lower exposed bottom surface of the inturned lower edge of the shoe upper extending over the forward portion of the last is then skived from the outer edges of the last inwardly to provide the shoe upper with a tapered surface. This exposed skived surface is then roughened by any suitable means and coated with suitable cement. The inner surface of the sole **48** is then treated with a coating of cement and, after these coatings of cement have partially dried, the sole is placed over the bottom portion of the shoe structure and initially secured thereto by a heel tack in the conventional manner. The sole **48** is then subjected to the action of a sole-laying machine which firmly presses the sole into engagement with the adjacent portions of the shoe upper, welt members **26** and conforms the sole to the contour of the entire bottom of the last. After the sole has thus been secured to the shoe structure on the last, the marginal portion of the outer sole may be trimmed in the usual manner and the heel attached in position before removing the shoe structure from the last.

When the shoe is constructed in the manner shown in Figures 14, 15 and 16, a cross section of the forward portion of the shoe will appear substantially as illustrated in Figure 18 with the in-turned marginal lower edges **47** of the shoe upper positioned intermediate corresponding edges of the auxiliary or slip sole **45** and the outer sole **48**. If it is desired to insert a cushion member, as **41** shown in Figure 13, between the auxiliary sole **45** and the outer sole **48**, this may be readily accomplished just prior to the securing of the outer sole to the shoe structure on the last by securing the cushion to the lower exposed surface of the auxiliary sole **45** and marginal portion **47** of the shoe upper. The intermediate portion of the shoe structure will then have an appearance substantially like that of the shoe structure shown in Figure 13 of the drawings.

Although I have shown and partiiularly described the preferred embodiments of my invention and method of constructing the same, it is obvious that other forms and methods may be used without departing from the spirit of the invention as set forth in the appended claims.

I claim:

1. A shoe structure comprising a shoe upper, a supporting structure therefor including a pair of relatively short welt members secured to the lower edges of the shank portions only of the shoe upper, and an outer sole having the forward portion thereof connected directly to the lower edge of the forward portion of the shoe upper and intermediate side portions thereof connected directly to said welt members, the forward ends of the welt members and the portions of the lower edges of the shoe upper adjacent thereto being extended outwardly from the side of the upper adjacent thereto in overlapping relationship with each other, and means including stitches extending across said overlapping portions of the welt and lower edges of the shoe upper for securing the sole to said shoe upper.

2. A shoe structure comprising a shoe upper having its lower edges severed substantially midway between the front and rear ends thereof to provide forward and rearward portions, the rearward portions of said lower edge being turned inwardly toward each other and the forward portions of said lower edges being turned outwardly away from each other, a pair of relatively short welt members secured to said rear lower edge portions, an outer sole, and means securing the outer sole to the welt members and to said forward portions of the lower edge of the shoe upper.

3. A shoe construction comprising a shoe upper, an inner sole section for the heel and shank portions only of the shoe, said inner sole having a sewing rib at opposite sides thereof extending along the shank of the shoe, a pair of welt members of substantially the same length as said sewing ribs, the shank portion of the shoe upper, said welt members and the inner sole section being secured together by an in-seam, an outer sole, and means including stitches connecting the outer sole directly to the welt members and to the lower edge of the shoe upper arranged forwardly of said welt members.

4. The method of constructing a shoe comprising the steps of providing an inner sole having a rib extending from the breast of the heel forwardly around the toe portion thereof, severing said inner sole transversely at substantially the ball of the sole to form forward and rearward sections, securing said sections to a last in abutting relation with each other, lasting a preformed shoe upper to the last with the lower edge thereof turned inwardly, utilizing said rib of the forward inner sole section for determining the position of the adjacent portion of the inturned edge of the shoe upper, providing a pair of relatively short welt members, securing said welt members, the rear section of the inner sole and the adjacent inturned edge of the shoe upper to each other by an in-seam, removing said forward section of the inner sole from the last and turning the lower edge of the shoe upper arranged forwardly of the welt members outwardly, and then securing an outer sole directly to the welt members and to said out-turned lower edge of the shoe upper.

5. In a shoe structure of the class having flexible ball and toe portions and relatively rigid shank and heel portions, in combination, an inner sole extending only from substantially the ball of the shoe rearwardly, a shoe upper having its lower edge at opposite sides thereof severed substantially in alignment with the forward end of the inner sole to provide said edge with forward and rearward portions, the rearward portion of said lower edge being turned inwardly from the side of the upper adjacent thereto and the forward portion of said lower edge being turned outwardly from the side of the upper adjacent thereto, a pair of welt members arranged at opposite sides of the shoe upper between substantially the location of the breast of the heel of the shoe and the forward end of the inner sole and secured to the adjacent portions of the inturned edge of the shoe upper, an outer sole, and means securing said outwardly turned portions of the shoe upper and the welt members directly to corresponding portions of the outer sole adjacent thereto.

6. The method of constructing a shoe comprising the steps of providing an inner sole having a rib extending from the breast of the heel forwardly around the toe portion thereof, severing said inner sole transversely at substantially the ball of the sole to form forward and rear-

ward sections, securing said sections to a last in abutting relation with each other, lasting a preformed shoe upper to the last with the lower edge thereof turned inwardly, utilizing said rib of the forward inner sole section for determining the position of the adjacent portion of the inturned edge of the shoe upper, providing a pair of relatively short welt members, securing said welt members, the rear section of the inner sole and the adjacent inturned edge of the shoe upper to each other by an inseam, removing said forward section of the inner sole from the last, severing the lower edges of the shoe upper substantially in alignment with the forward end of the rear section of the inner sole to provide the lower edge of the shoe upper with a forward portion, turning said forward portion of the lower edge of the shoe upper outwardly, and then securing an outer sole directly to the welt members and to said outturned lower edge of the shoe upper.

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