Aug. 14, 1945. G. SUPPLE 2,381,937

BOOTS AND SHOES AND OUTSOLES THEREFOR

Filed June 5, 1943

Fig. 1

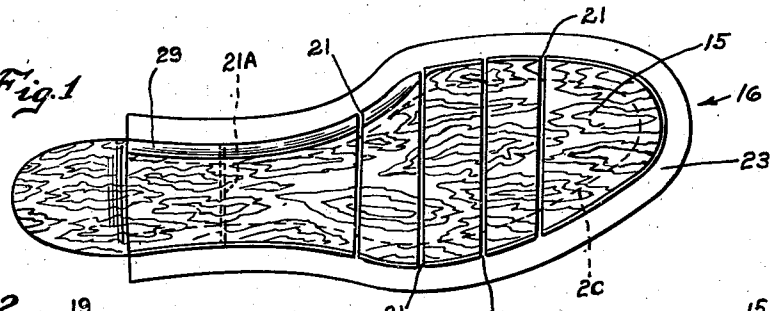


Fig. 2

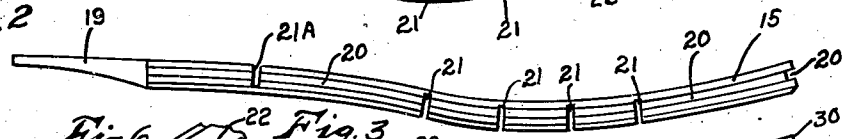


Fig. 5

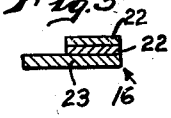


Fig. 6

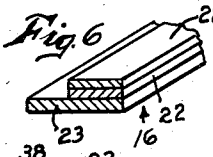


Fig. 3

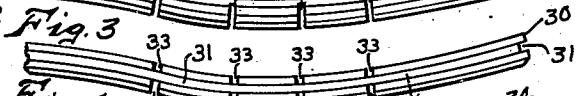


Fig. 4

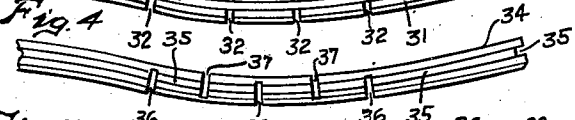


Fig. 12

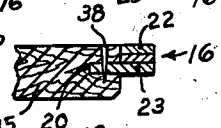


Fig. 7

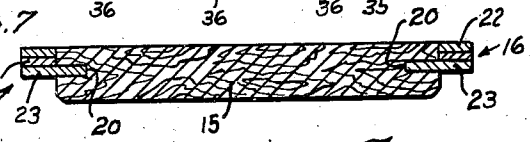


Fig. 8.

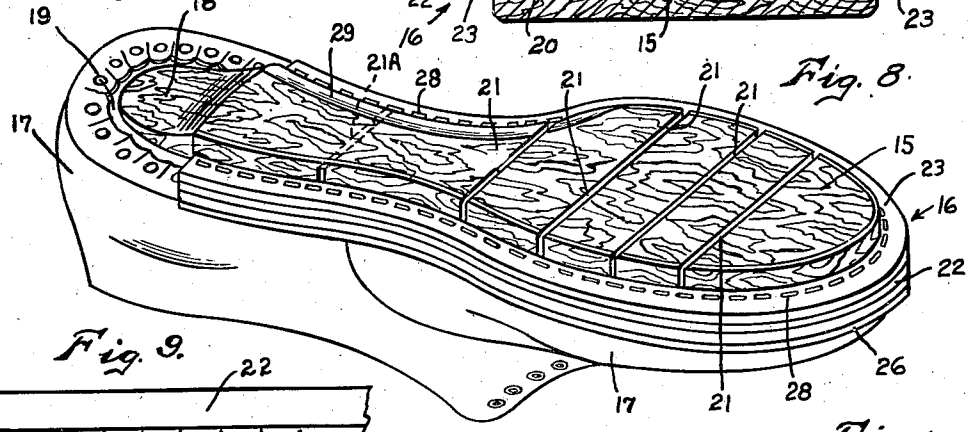


Fig. 9.

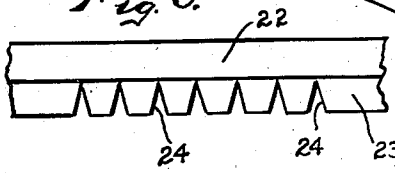


Fig. 10.

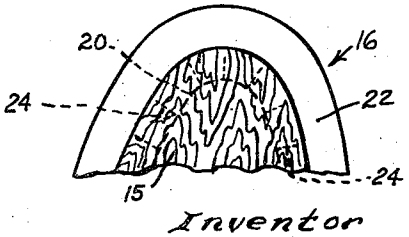
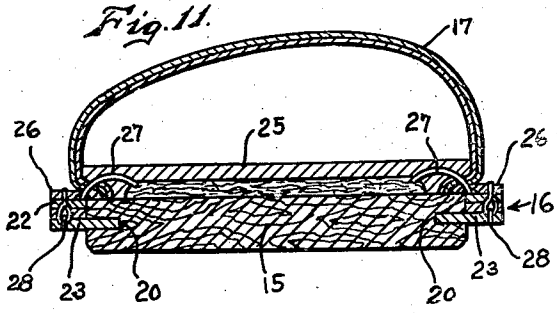


Fig. 11.



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his Attorney

Patented Aug. 14, 1945 2,381,937

UNITED STATES PATENT OFFICE

2,381,937

BOOT AND SHOE AND OUTSOLE THEREFOR

Gilbert Supple, Waban, Mass.

Application June 5, 1943, Serial No. 489,772

23 Claims. (Cl. 36—33)

The present invention relates to boots and shoes and more particularly, but not exclusively, to boots and shoes provided with outsoles characterized by the fact that their main portion consists of some material which has good wearing qualities but is unsuited for permanent attachment to an upper construction by standard means, of which stitching is one example, and further characterized by the incorporation of structure by which standard attaching means may be employed.

Outsole constructions as described above are disclosed and claimed in my co-pending application Serial No. 482,913, filed on April 13, 1943, and broadly speaking comprise the combination with an outsole body, of welting outstanding from the lateral margin portion of the body and forming a lateral extension thereof, this welting having the same function as the marginal portion of a leather outsole, for example, in receiving stitching or other means for permanent attachment of the outsole construction to an upper. By reason of such construction special outsole attaching machinery is not required, thereby permitting shoe manufacturers to employ in the production of such shoes the same attaching equipment now used for shoes having leather outsoles, and these outsole constructions may be incorporated by standard methods in boots and shoes generally, among these being the Goodyear and other welt types and also the McKay, Littleway, and stitchdown types, and variants thereof, and also cemented types.

The outsole constructions disclosed in my said co-pending application are illustrated for exemplary purposes only as having their main or body portions made of wood, and while the invention of said application is not limited in its scope to the use of wood body portions, the employment of wood is convenient because of its cheapness, availability, and durability. But where wood outsole bodies are of solid construction there is a limit to their longitudinal flexibility, and while shoes manufactured with wooden outsole bodies according to the invention of my said co-pending application have been found satisfactory in many respects, it is desired that they be rendered more flexible.

It is therefore the principal object of the present invention to improve the invention disclosed and claimed in my said co-pending application by providing that the outsole bodies employed, when made of wood or other relatively stiff material, shall have a longitudinal flexibility approaching that of a leather outsole.

To the accomplishment of this object and of such others as will appear hereinafter, the various features of the present invention reside in certain constructions, combinations, and arrangements of parts described in this specification and set forth in the appended claims which possess advantages readily apparent to those skilled in the art.

The various features of the present invention will be readily understood from reading this specification with reference to the accompanying drawing, which drawing illustrates the best physical embodiments of the invention at present known to the inventor, and in which:

Fig. 1 is a view in underside plan showing one type of welted outsole unit made in accordance with the present invention;

Fig. 2 is a view in right side elevation of the body portion of the outsole unit shown in Fig. 1;

Fig. 3 is a view in right side elevation in detail of the body portion of an outsole unit, this view corresponding to Fig. 2 but showing a different arrangement of transverse cuts;

Fig. 4 is a view in right side elevation in detail of the body portion of an outsole unit, this view also corresponding to Fig. 2 but showing a third arrangement of transverse cuts;

Fig. 5 is an enlarged view in end sectional elevation of one type of welting construction which may be used in outsole units made in accordance with the present invention;

Fig. 6 is a detail view in perspective of the welting construction shown in Fig. 5;

Fig. 7 is a view in sectional elevation of an outsole unit embodying the body portion shown in any of Figs. 2, 3, or 4 and the welting construction shown in Figs. 5 and 6;

Fig. 8 is a view in perspective of the outsole unit of Fig. 1 stitched to a welt shoe which has been lasted;

Fig. 9 is a detail view in plan of the Figs. 5–6 welting construction, a portion of the wide strip being notched to facilitate attachment to the toe area of an outsole body portion;

Fig. 10 is a detail view in plan of the Fig. 1 outsole construction, showing the notched or Fig. 9 portion of the welting construction in position along the toe area of the outsole body portion;

Fig. 11 is a view in sectional elevation of a Goodyear welt shoe in which is incorporated the outsole unit shown in Figs. 1 and 7; and

Fig. 12 is a detail view in sectional elevation of the outsole unit shown in Fig. 7, but with

auxiliary means for securing the welting construction to the outsole body portion.

One type of outsole unit prepared in accordance with the present invention is illustrated variously in Figs. 1–2, 5–8, and 11, and comprises basically an outsole body portion 15 to the lateral margin portion of which there is secured in outstanding relationship a welting construction 16. For purposes of disclosure only, the outsole body 15 is shown as made of wood and the welting construction 16 is herein described as made of leather, but it will be understood that other materials may be used for these parts and that the present invention is not limited to the employment of these particular materials.

The outsole body 15 is cut from some suitable wood, of which maple and birch are two examples, with the grain running either crosswise or lengthwise, as may be desired, and the body has a general curvature (Fig. 2) corresponding to that of the bottom surface of a shoe upper 17 (Fig. 8) when lasted. The shape of the body 15 as used in a given shoe is generally that of the shank and forepart of a standard leather outsole that would otherwise be used in such a shoe, but the body 15 is smaller than such an outsole, being preferably not larger than the shank and forepart of an insole (cf. Fig. 11). At the rear of its shank portion the body 15 may be provided with a rearwardly tapering tongue 18 (Figs. 1–2 and 8) as is the case of the outsole bodies shown in my said co-pending application, this tongue being adapted to engage the heel portion 19 of an insole (Fig. 8) and lie within the overlasted margin of the quarter when the outsole is laid. The tongue 18 is concealed by a heel (not shown) which may be of any suitable construction and may be applied in any standard manner, attention being called to the fact that since the tongue 18 lies within the overlasted margin of the quarter, securing means such as nails which may be driven through the curved margin of the heel will not strike the tongue 18 and crack it.

The forward terminus of the tongue 18 is substantially at the breast line of the heel which would be used in a finished shoe, and extending along the shank and forepart of the body 15 from one side of this breast line to its other side is a horizontally disposed, lateral groove 20 (Figs. 1–2, 7, and 10–12.) This groove may be about one quarter inch deep, one ninth of an inch high, and may be located substantially one eighth of an inch from the top surface of the body 15, although I wish to point out that these dimensions are exemplary only and are not critical or essential to the practice of the present invention. Preferably the groove 20 is located nearer to the top surface of the body 15 than to its tread surface.

As so far described the outsole body 15 corresponds to those shown in my said co-pending application, and therefore lacks the desired maximum longitudinal flexibility which it is the principal object of the present invention to provide. To effect this provision, and referring to Figs. 1–2 and 8, the body 15 may be provided with one or more transverse cuts 21 which are of appreciable width, being preferably one sixteenth of an inch or more wide, and which are illustrated merely for disclosure purposes as being four in number. One of the cuts 21 extends across the body 15 slightly to the rear of the ball area; i. e., along the general line of flexion which would appear in a leather outsole during walking, and preferably there are at least two more cuts in the forepart ahead of the cut first mentioned, with a further cut at its rear, located at the merging of the forepart and the shank of the body 15. Preferably, although not necessarily, each of the cuts 21 extends from the tread surface of the body 15 upwardly to a level above the top surface of the groove 20, and with this construction it will be seen that an outsole body is provided which has segmental tread portions and which is much more flexible longitudinally than would be the case if the cuts 21 were omitted since the cuts permit divergence of the segments during longitudinal flexing of the outsole body as in walking.

The welting construction 16 which is used with the outsole body 15 may be laminated, and as shown in Figs. 5–6 in particular comprises narrow strips 22, herein shown as two in number only for disclosure purposes, which are secured together in superimposed flatwise relationship, and a strip 23 which is preferably substantially twice as wide as the strips 22 and is secured to the bottom face of the lowermost one. Each of the strips 22 and 23 may be made by scarfing together a number of separate pieces, as is well understood, and the strips 22 and 23 are secured together by a preferably waterproof adhesive. The strip 23 is preferably of good quality material and when made of leather preferably has a grain lower face. The strips 22, however, may be made of splits of cheaper leather when leather is used, and for this purpose offal may be employed. As shown in Figs. 5 and 6, the laminated strips 22 are overlaid on the wide strip 23 so that on one side the welting construction 16 as a whole presents a vertical outer wall, with preferably about one half the width of the strip 23 extending freely beyond the other side or inner wall of the strips 22.

As shown in Fig. 7, the height of the groove 20 and the thickness of the strip 23 are substantially the same, and the surfaces of the groove 20 extending inwardly from the lateral margin of the body 15 are substantially as deep as the width of the extending or free portion of the strip 23. The welting construction 16 is assembled with the outsole body 15 by forcing the extending or free portion of the strip 23 into the groove 20 until the lateral margin of the body 15 is engaged by the adjacent or inner wall formed by the laminated strips 22, a suitable and preferably waterproof adhesive being first applied to the groove 20 and to the portion of the body lateral margin thereabove, or to those surfaces of the welting construction 16 which engage the body 15 in the assembly, or to both the body and the welting construction. Upon the setting of the adhesive the welting may be given such trimming as may be necessary.

The welting construction 16 may be prepared initially in continuous form with a length being cut therefrom for assembly with a given outsole body, or the welting construction 16 may be initially prepared in individual lengths for individual outsole bodies. In either event it is desirable to form notches 24 (Fig. 9) along at least that part of the free portion of the strip 23 which curves around the toe area of the body 15 so that the strip 23 will not buckle and cause difficulty in inserting it in the groove 20. Preferably, although not necessarily, the notches 24 are of such angularity as to be closed (Fig. 10) when the welting construction 16 is assembled with the body 15. It will also be understood that the use of notches 24 is not confined to the toe area and that their angularity may vary with different curved areas of different outsole bodies.

In the finished outsole unit shown in Fig. 7 the top surface of the body 15 and the top surface of the welting construction 16 are at substantially the same level, but the tread surface of the body 15 is lower than the bottom surface of the welting construction 16, thereby causing the tread surface of the outsole unit as a whole to be entirely of the material of the body 15 with no portion of the welting construction 16 contacting a surface upon which the outsole unit may rest when incorporated in a shoe. The extent to which the tread surface of the body 15 extends below the welting construction 16 may vary with different shoes and different longitudinal flexibility needs, the particular dimensional difference shown and described being merely by way of illustration and not of limitation. As indicated in Figs. 1–2, 7–8, and 11, the edge of the tread surface of the body 15 is preferably bevelled to prevent chipping during wear.

Consideration of the structure above described will show that there is provided an outsole unit comprising a body portion made of a material, shown merely illustratively as wood, which although having good wearing qualities is unsuited for attachment to a shoe upper construction by standard piercing means such as stitching, nails, screws, pegs, or the like but which when welted as above described may be so attached because the welting, outstanding from the lateral margin portion of the body and comprising a lateral extension thereof, provides a locus for receiving such piercing means in the usual manner. Further consideration of the structure above described will show that the relative stiffness resulting from using an outsole body of solid construction, as in my said co-pending application, is counteracted and overcome by reason of the transverse cuts 21 which extend sufficiently near the top surface of the body 15 as to permit movement of the connected body segments formed thereby relatively to each other and as a consequence longitudinal flexing of the outsole unit as a whole in approximation to such flexing as is exhibited by an outsole made of leather.

For illustrative purposes only the upper or closed ends of the transverse cuts 21 are shown in Fig. 2 as extending to a level above the top surface of the groove 20, and this arrangement permits maximum movement of the body segmental portions relatively to each other in a construction of this type. The cuts 21 need not be as high as shown in Fig. 2, however, and may terminate at the groove 20 or at a point below the groove, but it will be apparent that such lesser depths of cut will give less longitudinal flexibility of the outsole body. But whether the cuts 21 extend upwardly to the extent shown in Fig. 2 or to a lesser extent, the presence of the welting strip 23 which spans the cuts and is adhesively secured in the groove 20 and to the segmental portions serves to reinforce the upper portion of the body 15 and thus counteracts any tendency for it to crack during flexing. It will also be noted that since none of the cuts 21 extends all the way through the vertical thickness of the body 15, a waterproof construction is provided, there being no passage through the body 15 through which liquid can pass.

Since the outsole body 15 has the general curvature (Fig. 2) of the bottom surface area of a shoe upper 17 (Fig. 8) when lasted, the outsole unit will conform to that bottom surface area, and the longitudinal flexibility of the outsole unit facilitates such conformation. Where necessary, the shank portion of the body 15 may be provided with a downwardly extending transverse cut 21A (Figs. 1–2) to facilitate engagement of the shank portion of the body with the shank portion of a lasted upper. Adhesive may be applied to the bottom of the upper and to the outsole unit before sole laying, and if the material of the body 15 has a surface porosity comparable to that of leather, no special treatment is necessary to prepare the outsole unit for sole laying. If, however, the surface porosity is less, it may be desirable to roughen the top surface of the body 15 or to prepare it previously with a top layer of porous material such as fabric (not shown), or with strips thereof, which will provide sufficient porosity for the adhesive so that adherence of the outsole unit to the bottom of the upper is maintained during the subsequent permanent attaching operation.

That the outsole unit above described may be incorporated by standard attaching means in shoes of standard construction will be at once apparent from inspection of Fig. 11. In this drawing an outsole unit such as shown in Figs. 1 and 7 is incorporated in a Goodyear welt shoe. The upper 17 with its lining, an insole 25, and a strip of Goodyear welt 26 are secured together by the usual inseam stitch 27, and the outsole unit is permanently attached to the welt 26, and therefore to the shoe upper construction as a whole, by a lockstitch 28 applied in the usual manner and passing through the welt 26 and the main or body portion of the welting construction 16. Since it may be desired to locate the lockstitch 28 rather near the lateral margin of the outsole body 15, the inner edge of the shank and rear forepart portions of the outsole body 15 may be rounded off as indicated at 29 in Figs. 1 and 8, it having been found desirable to do this in the practice of the present invention to prevent the needle of the sewing machine from striking the body at these points and being rendered inoperative or breaking.

Instead of providing an outsole body 15 with a groove 20 and transverse cuts 21, an outsole body 30 may be provided which is identical with the body 15 so far as edge bevelling, shape, and the presence of a corresponding groove 31 are concerned but which has a different arrangement of transverse cuts. Referring to Fig. 3, the body 30 is provided with transverse cuts 32 which correspond in location to the cuts 21 but which extend upwardly from the tread surface to the bottom surface of the groove 31, and the body 30 is also provided with transverse cuts 33 which are superimposed over the cuts 32 and extend downwardly from the top surface of the body 30 to the upper surface of the groove 31. This construction is likewise waterproof since there is no cut extending all the way through the vertical thickness of the body 30, and the presence of the cuts 33 above the cuts 32 permits maximum relative movement of the connected segments of the body 30 formed by the cuts, the uncut or continuous portion of the body lying inwardly of the groove 31 serving as the pivot point for this segmental movement, and the segmental portions above the groove converging during divergence of the segmental tread portions. The outsole body shown in Fig. 3 is assembled with the welting construction 16 in the same manner as above described for assembling it with the body 15, and it will be appreciated that the portion of the welting strip 23 which spans the cuts and is adhesively secured

in the groove 31 and to the segmental portions formed by the cuts functions to reinforce the upper portion of the body 30 and so counteracts any tendency for it to crack during flexion. By reason of the cuts 33 being superimposed over the cuts 32, the segmental portions above the groove 31 have substantially the same area as the corresponding segmental portions below the groove. The body 30 may be provided with a shank cut like the cut 21A in Figs. 1 and 2.

Instead of forming a grooved outsole body with transverse cuts 21 as shown in Figs. 1 and 2, or 32 and 33 as shown in Fig. 3, an alternative flexible construction may be employed. To this end an outsole body 34 may be provided identical in shape with the bodies 15 and 30 and provided with a groove 35 identical with the grooves 20 and 31 and with a bevelled tread surface edge. In transversely cutting the body 34, however, a number of cuts 36 are made in the tread portion, extending upwardly from the tread surface preferably to a level above the upper surface of the groove 35, and between each successive pair of these cuts 36 the body 34 is provided with a cut 37 which extends downwardly from the top surface of the body to a point preferably below the bottom surface of the groove 35 but above the tread surface of the body. This construction also provides a longitudinally flexible body construction which permits convergence and divergence of the upper and tread segmental portions, respectively, and which is waterproof since there is no cut which extends all the way through the vertical thickness of the body. The welting construction 16 may be incorporated with the body 34 in the same manner as above described for making the outsole unit of Figs. 1 and 7. Here again the portion of the welting strip 23 which spans the cuts and is adhesively secured in the groove and to the segmental portions formed by the cuts functions to reinforce the upper portion of the body 34 and so counteracts any tendency for it to crack during flexion. The body 34 may be provided with a shank cut like the cut 21A in Figs. 1 and 2.

In the above-described outsole unit constructions reliance is placed upon adhesive to maintain the free or inwardly extending portion of the welting strip 23 in the grooves 20, 31, and 35 and therefore secured to the outsole bodies 15, 30, and 34, respectively, during manufacturing operations and subsequent wear. Should it be desirable, however, to provide auxiliary means for securing the welting construction to the outsole bodies, means such as nails, screws, pins, staples, pegs, or the like may be used, depending upon the particular construction and the material of which the bodies are made. Preferably the outsole body is drilled to receive such auxiliary means so that there will be no danger of splitting, as when the material of the body is wood, and only a few such additional securing means need be employed in any one outsole unit, if employed at all, since their function is auxiliary only. In Fig. 12 a pin 38 is shown extending through the upper margin of the outsole body 15, through the portion of the welting strip 23 secured in the groove 20, and into the lower margin of the body. Preferably, although not necessarily, drilling when used does not go through the body, and where only one pin or other means is used at each side of a body segment that pin is preferably located intermediate the two adjacent body cuts.

For purposes of disclosure only the outsole unit of Figs. 1 and 7 has been illustrated herein as incorporated in a Goodyear welt shoe. Since the construction of outsole units having the bodies 30 and 34 is the same as that shown in Figs. 1 and 7 so far as a cross sectional view through an uncut portion of the body is concerned, it will be apparent that outsole units employing the bodies 30 and 34 may also be incorporated in a Goodyear welt shoe in precisely the same manner as shown in Fig. 11 and described above. But the present invention is not limited to Goodyear welt construction, since the lateral extension of the unit as a whole which is formed by the welting construction 16 permits the incorporation of outsole units according to the present invention by standard means, including cement, in other types of shoe constructions. That this is true will be readily apparent from inspection of the following drawings in my said co-pending application: Fig. 10 (McKay); Fig. 11 (McKay welt); Fig. 12 ("American" welt); Fig. 17 (Littleway); Fig. 18 (Littleway welt); Fig. 20 (pre-welt); Fig. 24 (single-sole stitchdown); Fig. 25 (two-sole stitchdown); Fig. 26 (three sole stitchdown); and Fig. 30 (Littleway side staple lasted). In each of these drawings in my said co-pending application the welting constructions corresponding to the welting construction 16 herein disclosed have the same function and functional location as those of said welting construction 16.

The above disclosures do not exhaust the possibilities of different types of welted outsoles which may be made in accordance with the present invention to provide longitudinal flexibility greater than that provided by the welted outsoles disclosed in my said co-pending application. The welting construction shown herein may be cut and/or molded from a single piece of material or made with more or fewer than the particular number of laminae shown, and both the welting construction and the outsole bodies herein shown may be modified as shown in my said co-pending application, or otherwise, so far as the attachment of the welting construction to the outsole bodies is concerned. It is not necessary that a given outsole body be associated with only one piece of welting construction, however made, since two or more pieces of any one such construction may be used with a given outsole body, and the entire welting construction along a toe area portion may be a "dutchman." The tongue 18 may be omitted, or an outsole body may be provided with a heel portion as well as a shank and forepart and the entire body welted all the way around. Likewise, permanent outsole attaching means other than stitching, as illustrated, may be employed for attaching the outsole units to a shoe, examples of such other means being nails, staples, screws, pegs, or the like, and cement. It is also not necessary that an outsole body be in one piece, since an equivalent outsole body may have two or more pieces secured together by suitable cement or otherwise. The portion of the welting extending inwardly from the laminated strips as shown may be held between several such pieces, their marginal spacing being equivalent to the lateral body groove, or a groove may be formed in one of such pieces or the component parts of a groove formed in more than one so as to provide a groove when the pieces are secured together. In any of these alternative or multi-piece constructions it will be apparent that welting may be attached to one of the pieces, for example, before assembling or

securing together all of the body pieces. Nothing herein explained is to be interpreted as limiting the present invention in the scope of its application to use in connection with the particular structures whch have been selected herein for purposes of explanation and illustration. The particulars of construction herein set forth are well suited to the physical embodiments of the invention shown, but the invention is not limited to these particulars and it is to be understood that they may be variously modified within the skill of the artisan without departing from the true scope of the actual invention, characterizing features of which are set forth in the following claims which intentionally use generic terms that are inclusive of various modifications.

What is claimed as new is:

1. In an outsole construction for boots and shoes, the combination with an outsole body having segmental tread portions spaced apart at least at the opposite sides of the body and at least one surface extending inwardly from the lateral margin of the body, of welting outstanding from the lateral margin portion of the body and secured to said surface, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

2. In an outsole construction for boots and shoes, the combination with an outsole body having segmental tread portions spaced apart at least at the opposite sides of the body and at least one surface extending inwardly from the lateral margin of the body, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured to said surface and to said segmental portions, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

3. In an outsole construction for boots and shoes, the combination with an outsole body having segmental tread portions spaced apart at least at the opposite sides of the body, of welting outstanding from the lateral margin portion of the body, the top surface of the welting and the top surface of the body being at substantially the same level and a portion of said welting being secured to said segmental tread portions, said welting including its top surface forming a lateral extension of said body and said extension including said top surface being of substantial width so as to be adapted to underlie and flatwise engage portions of a shoe upper and receive means for permanently attaching said extension to said engaged upper portions.

4. In an outsole construction for boots and shoes, the combination with an outsole body having a lateral marginal groove and segmental tread portions spaced apart at least at the opposite sides of the body, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove and to said segmental portions, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

5. In an outsole construction for boots and shoes, the combination with an outsole body having segmental tread portions spaced apart at least at the opposite sides of the body and at least one surface extending inwardly from the lateral margin of the body, of welting outstanding from the lateral margin portion of the body, the top surface of the welting and the top surface of the body being at substantially the same level and a portion of the welting being secured to said surface and to said segmental portions, said welting including its top surface forming a lateral extension of said body and said extension including said top surface being of substantial width so as to be adapted to underlie and flatwise engage portions of a shoe upper and receive means for permanently attaching said extension to said engaged upper portions.

6. An outsole construction for boots and shoes having, in combination, an outsole body provided with at least one transverse cut of appreciable width formed in its tread portion and extending upwardly toward its top surface, said cut extending from one side of the body to the other, and welting outstanding from the lateral margin portion of the body and spanning the cut, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

7. An outsole construction for boots and shoes having, in combination, an outsole body provided with at least one surface extending inwardly from its lateral margin and with a plurality of transverse cuts of appreciable width formed in its tread portion and extending upwardly at least to said surface, at least one of said cuts extending from one side of the body to the other, and welting outstanding from the lateral margin portion of the body, a portion of the welting being secured to said surface and spaning the cuts, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

8. In an outsole construction for boots and shoes, the combination with an outsole body having at least one surface extending inwardly from its lateral margin and segmental portions extending above said surface and spaced apart at least at the opposite sides of the body, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured to said surface and to said segmental portions, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain under portions.

9. In an outsole construction for boots and shoes, the combination with an outsole body having at least one surface extending inwardly from its lateral margin, a plurality of tread-surfaced segmental portions extending below said surface and spaced apart at least at the opposite sides of the body, and a plurality of segmental portions extending above said surface, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured to said surface, said welting forming a lateral extension of said body and said extension being of substan-

tial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

10. In an outsole construction for boots and shoes, the combination with an outsole body having at least one surface extending inwardly from its lateral margin, a plurality of tread-surfaced segmental portions extending below said surface and spaced apart at least at the opposite sides of the body, and a plurality of segmental portions extending above said surface, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured to said surface and to said segmental portions, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

11. In an outsole construction for boots and shoes, the combination with an outsole body having at least one surface extending inwardly from its lateral margin, of welting outstanding from the lateral margin portion of the body with a portion of the welting secured to said surface, the body having segmental portions above and below said surface and said segmental portions being appreciably spaced to permit the convergence of those above the surface upon the divergence of those below the surface during longitudinal flexing of the outsole body, and a portion of the welting being secured to said segmental portions.

12. In an outsole construction for boots and shoes, the combination with an outsole body having a lateral marginal groove, of welting outstanding from the lateral margin portion of the body with a portion of the welting secured in said groove, the body having segmental portions above and below the groove and said segmental portions being appreciably spaced to permit the convergence of those above the groove upon the divergence of those below the groove during longitudinal flexing of the outsole body, and the portion of the welting located in the groove being secured to said segmental portions.

13. An outsole construction for boots and shoes having, in combination, an outsole body provided with a top surface, with at least one surface extending inwardly from its lateral margin and with a plurality of tread-surfaced, spaced segments connected together by the material of the body extending thereabove, the body also being provided with a plurality of segments extending downwardly from its top surface and connected together by the material of the body extending therebelow, the body also being provided with welting outstanding from its lateral margin portion, and a portion of the welting being secured to said surface and to said segments.

14. In an outsole construction for boots and shoes, the combination with an outsole body having a lateral marginal groove, a plurality of tread-surfaced segmental portions extending below said groove, and a plurality of segmental portions extending above said groove, said upper and lower segmental portions being substantially co-areal, respectively, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove.

15. In an outsole construction for boots and shoes, the combination with an outsole body having a lateral marginal groove, a plurality of tread-surfaced segmental portions extending below the groove, and a plurality of segmental portions extending above the groove, said upper and lower segmental portions being substantially co-areal, respectively, of welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove and to said segmental portions.

16. An outsole construction for boots and shoes having, in combination, an outsole body provided with a lateral marginal groove and with at least one transverse cut of appreciable width formed in its tread portion and extending upwardly to the groove, said body also having at least one transverse cut of appreciable width formed in its upper portion and extending downwardly to the groove in superimposition with respect to the tread portion cut, and welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove and spanning at least the second named cut.

17. An outsole construction for boots and shoes having, in combination, an outsole body provided with a lateral marginal groove and with a plurality of transverse cuts of appreciable width formed in its tread portion and extending upwardly to the groove, said body also having at least one transverse cut of appreciable width formed in its upper portion and extending downwardly to the groove in superimposition with respect to a tread portion cut, and welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove and spanning at least the second named cut.

18. An outsole construction for boots and shoes having, in combination, an outsole body provided with a lateral marginal groove and welting outstanding from the lateral margin portion of the body, the tread portion of the body having a plurality of upwardly extending transverse cuts of appreciable width and the upper portion of the body having at least one downwardly extending transverse cut of appreciable width, the upper transverse cut being located between two of the tread portion transverse cuts, and a portion of the welting being secured in the groove.

19. An outsole construction for boots and shoes having, in combination, an outsole body provided with a lateral marginal groove, said body having a plurality of transverse cuts of appreciable width formed in its tread portion and extending upwardly at least to the groove, said body also having at least one transverse cut of appreciable width formed in its upper portion between two of the cuts in the tread portion and extending downwardly at least to the groove, and welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in the groove and spanning the cuts.

20. An outsole construction for boots and shoes having, in combination, an outsole body provided with a lateral marginal groove, said body having a plurality of transverse cuts of appreciable width formed in its tread portion and extending upwardly at least to the groove, said body also having a plurality of transverse cuts of appreciable width formed in its upper portion and extending downwardly at least to the groove, the upper and lower cuts being arranged in staggered relation longitudinally of the body, and

welting outstanding from the lateral margin portion of the body, a portion of the welting being secured in said groove and spanning the cuts.

21. An outsole construction for boots and shoes having, in combination, an outsole body having at least one surface extending inwardly from its lateral margin, and welting outstanding from the lateral margin portion of the body with a portion of the welting secured to said surface, the body having tread-surfaced segmental portions extending downwardly below said surface and spaced apart at least at the opposite sides of the body, a portion of said welting being secured to said segmental portions, said welting forming a lateral extension of said body including its segmental portions and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

22. An outsole construction for boots and shoes having, in combination, an outsole body having a lateral marginal groove, and welting outstanding from the lateral margin portion of the body with a portion of the welting being secured in said groove, the body having tread-surfaced segmental portions extending downwardly below said groove and spaced apart at least at the opposite sides of the body, a portion of said welting being secured to said segmental portions, said welting forming a lateral extension of said body including its segmental portions and said extension being of substantial width so as to be adapted to engagingly underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

23. An outsole construction for boots and shoes having, in combination, an outsole body having a lateral marginal groove and at least one transverse cut of appreciable width formed in its tread portion and extending upwardly toward its top surface, said cut extending from one side of the body to the other, and welting outstanding from the lateral margin of the body and spanning the cut with a portion of said welting being secured in said groove, said welting forming a lateral extension of said body and said extension being of substantial width so as to be adapted to underlie portions of a shoe upper and receive means for permanently attaching said extension to said underlain upper portions.

GILBERT SUPPLE.

CERTIFICATE OF CORRECTION.

Patent No. 2,381,937. August 14, 1945.

GILBERT SUPPLE.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 5, second column, line 63, claim 8, for the word "under" read --upper--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 6th day of November, A. D. 1945.

Leslie Frazer

(Seal) First Assistant Commissioner of Patents.