

[54] **FOOTWEAR**

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[21] Appl. No.: **100,235**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 813,140, April 3, 1969, Pat. No. 3,548,521.

[52] U.S. Cl. **36/2.5 W, 36/58.5**

[51] Int. Cl. **A43b 23/28**

[58] Field of Search **36/2.5 R, 2.5 W, 44, 58.5, 36/42, 76 R**

[56]

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Primary Examiner—Patrick D. Lawson

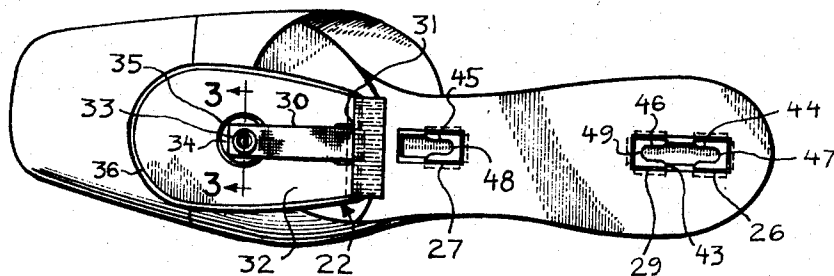
Attorney—Abbott Spear

[57]

ABSTRACT

Footwear is disclosed with parts for attaching upper sections, heels, and layers of material to the sole and for making them detachable.

48 Claims, 51 Drawing Figures



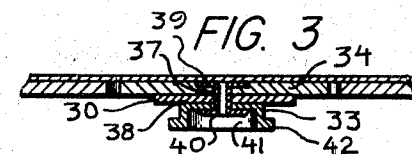
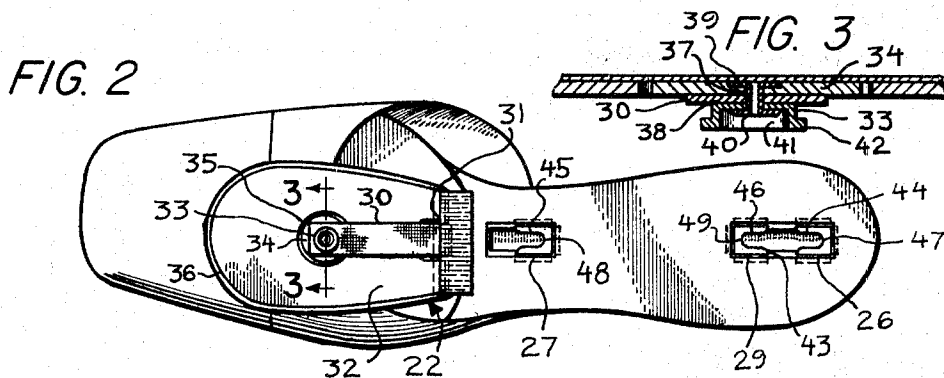
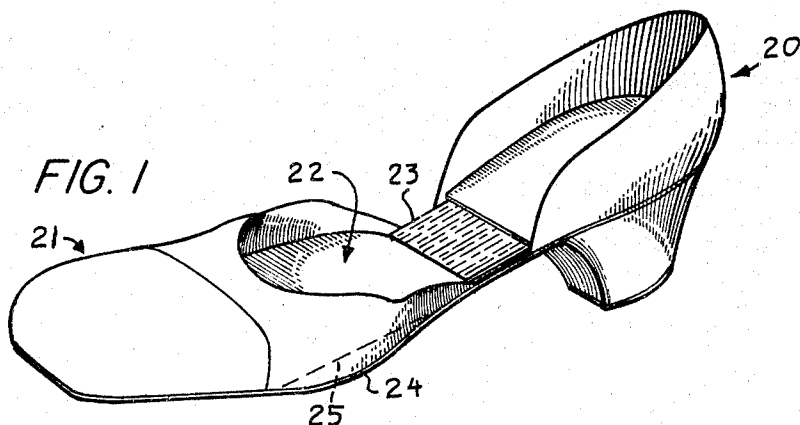


FIG. 5

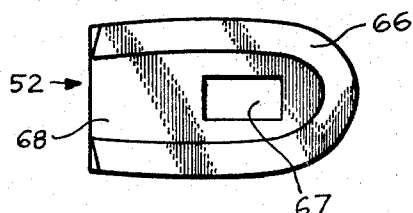


FIG. 4

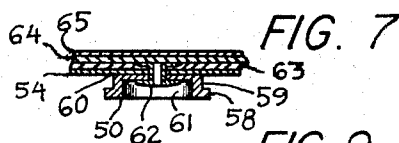
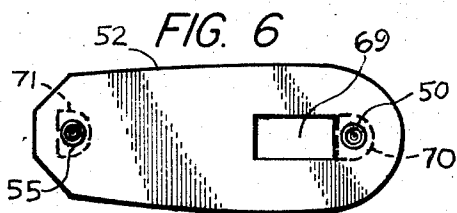
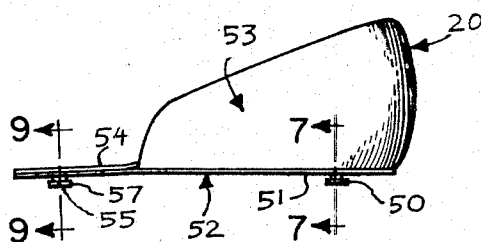


FIG. 8

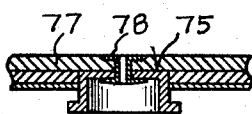
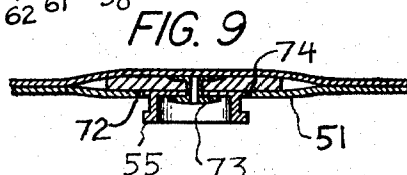


FIG. 10



INVENTOR

Maxwell Sachs

FIG. 11

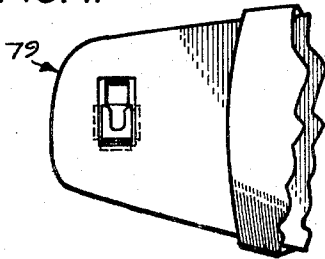


FIG. 12

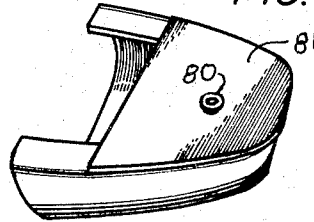


FIG. 13

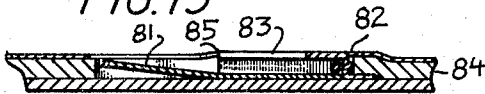


FIG. 14

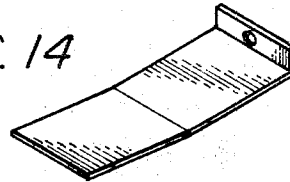


FIG. 15

FIG. 16

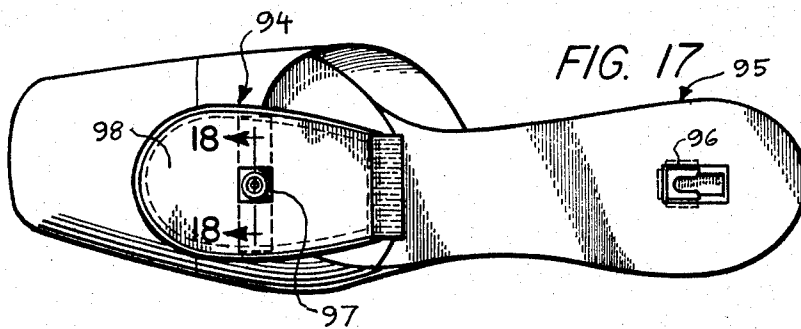
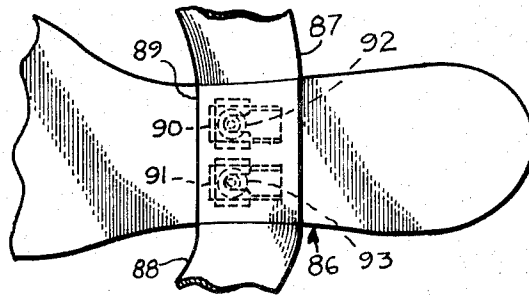
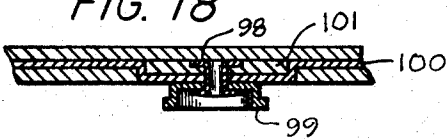


FIG. 18



INVENTOR

Wayne S. Sack

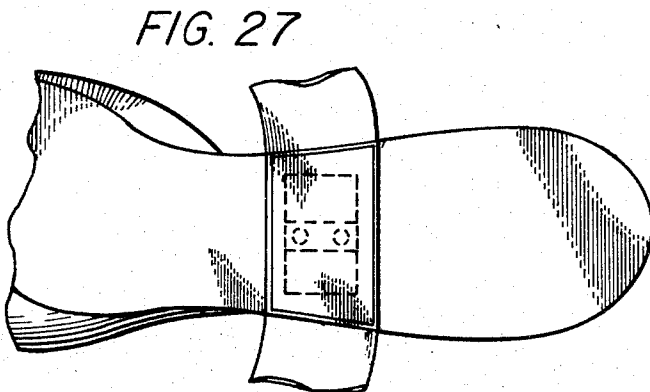
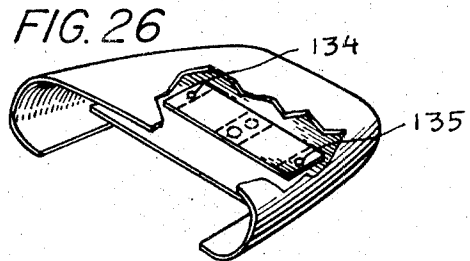
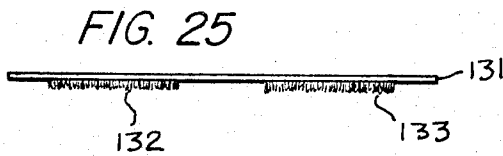
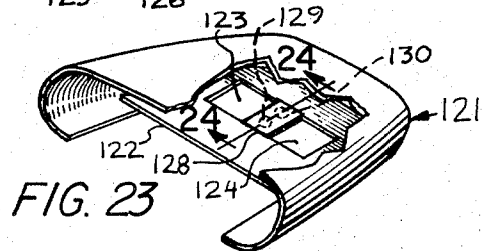
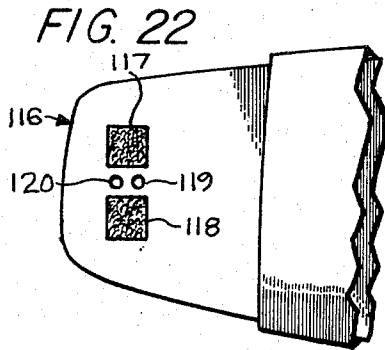
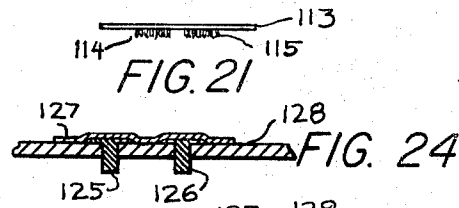
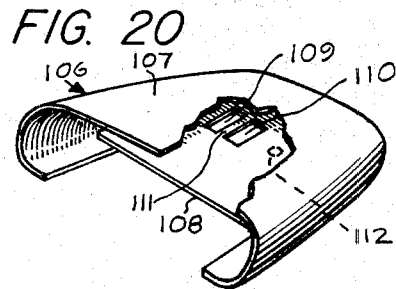
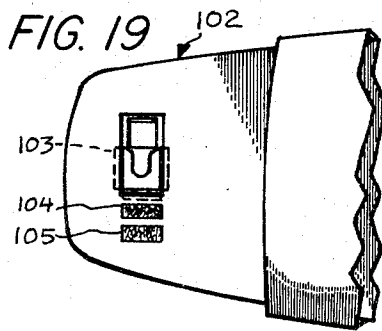
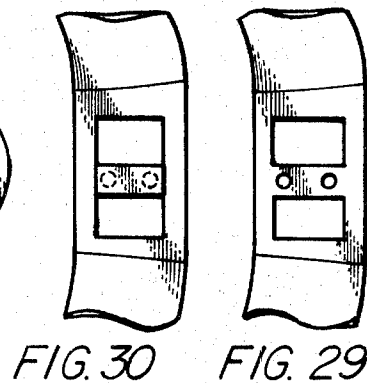


FIG. 28



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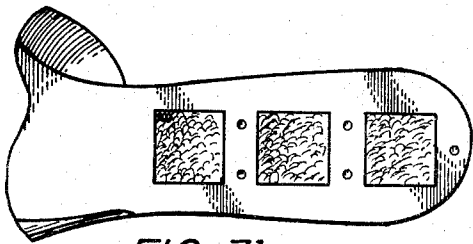


FIG. 31

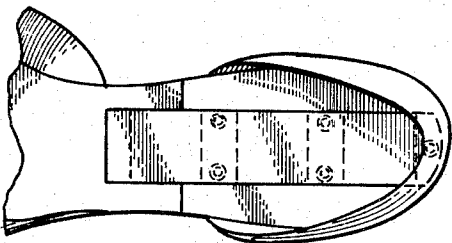


FIG. 32

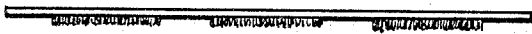


FIG. 33

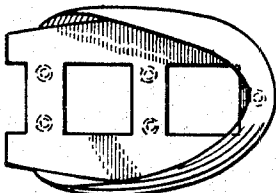


FIG. 34

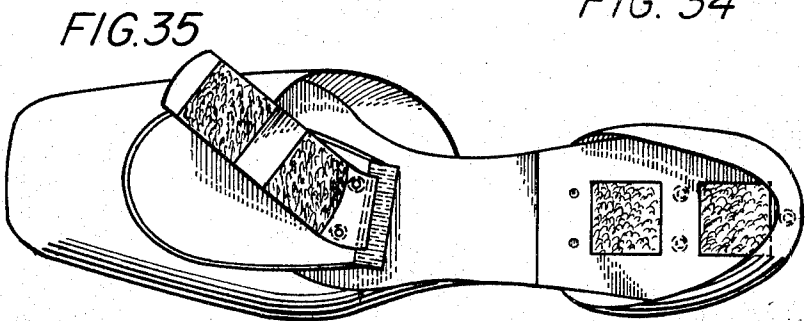


FIG. 35

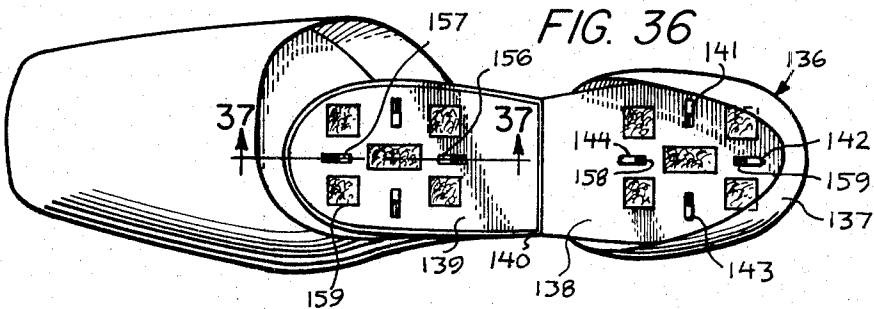


FIG. 36

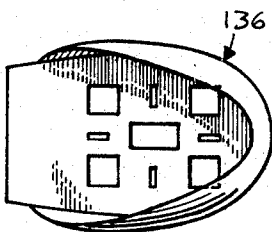


FIG. 39

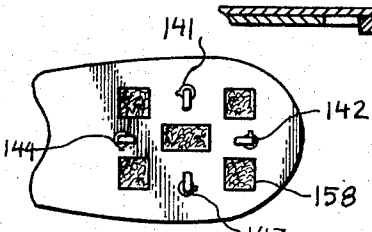


FIG. 38

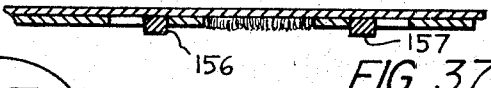


FIG. 37

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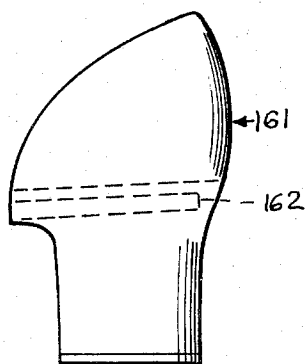


FIG. 50

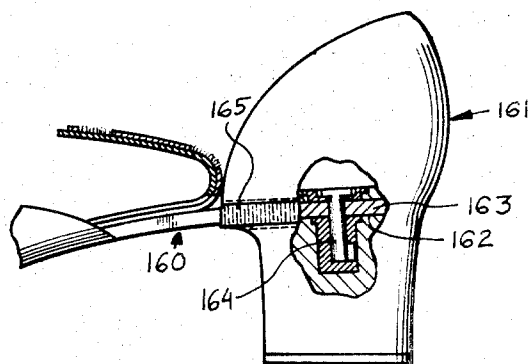


FIG. 51

INVENTOR

Marion L. Lach

FOOTWEAR

The present application is a continuation-in-part of my co-pending application Ser. No. 813,140, filed Apr. 3, 1969 now U.S. Pat. No. 3,548,521.

My invention pertains to footwear and to parts thereof, including sole, heel, and upper sections, and means for imparting variability so as to afford improvement in fit and appearance as well as to provide convenience and adaptability in use.

Application Ser. No. 813,140 was based on the following earlier applications: Ser. No. 717,064, filed Mar. 11, 1968; Ser. Nos. 758,179 and 758,178, filed Aug. 12, 1968; Ser. No. 618,683, filed Feb. 27, 1967; Ser. Nos. 601,215, 601,216, 601,217, and 600,872, filed Dec. 12, 1966; Ser. Nos. 562,051, 562,056, and 562,053, filed June 13, 1966; Ser. No. 417,686, filed Dec. 11, 1964; Ser. No. 414,159, filed Nov. 27, 1964; Ser. No. 284,288, filed May 5, 1963; Ser. No. 306,418 and No. 306,416, filed Aug. 30, 1963; Ser. No. 129,891, filed Aug. 7, 1961; Ser. No. 137,945, filed Sept. 18, 1961; Ser. No. 37,907, filed June 22, 1960; Ser. No. 755,156, filed Aug. 15, 1958; and Ser. No. 679,887, filed Aug. 23, 1957.

In accordance with the invention, the general objectives are obtained by providing an article of footwear in which upper sections and heels are detachably attached to sole sections and means are employed to maintain said parts in desired attached positions and to release them from said positions as desired. Slidable attachments, resilient sections and movable sections as well as other features are employed.

The features of my invention apply to every kind of footwear of every kind. Details, such as the construction of the sole, can vary. For instance, a sole may have a single layer in some footwear while in other footwear a sole may consist of an outersole, innersole, shank tuck, and heel tuck all cemented together. My invention applies to all types.

In the drawings:

FIG. 1 is an isometric view of a shoe in accordance with the invention;

FIG. 2 is a top plan view of the shoe of FIG. 1 with the heel area section of upper removed and the layer of material detached at the rear;

FIG. 3 is a section taken approximately along the line 3—3 of FIG. 2;

FIG. 4 is a side view of a detachable heel area section similar to that of FIG. 1;

FIG. 5 is a bottom view of the heel area section of FIG. 4 with the attaching layer removed;

FIG. 6 is a bottom view of the attaching layer of FIG. 4;

FIG. 7 is a section along the line 7—7 of FIG. 4;

FIG. 8 is an enlarged side view of the attaching part shown in FIG. 7;

FIG. 9 is a section showing an attaching part in accordance with the invention with a top flange positioned in an aperture in the bottom layer and connected to a piece of stiff material;

FIG. 10 is a section showing an attaching part in accordance with the invention connected to a stiff tuck at an upper level;

FIG. 11 is a top plan view of the toe area of a sole similar to that of the shoe of FIG. 2 showing a socket depressed in the sole and with the detachable toe upper section removed;

FIG. 12 is an isometric view of a detachable toe section similar to that removed from the toe area of FIG. 11;

FIG. 13 is a sectioned side view showing a flat spring connected with a socket, similar to that of FIG. 11, depressed in the sole, in accordance with the invention;

FIG. 14 is an isometric enlarged view of the flat spring of FIG. 13;

FIG. 15 is a side view of a spring similar to the spring of FIG. 14 but with a curve in its rising section;

FIG. 16 is a top plan view of a section of sole showing a section of upper with a sole portion attached to the sole in the shank area with attaching parts in accordance with the invention;

FIG. 17 is a top plan view of a shoe showing a sole layer with an elastic section with a detachable rear part in accordance with the invention;

FIG. 18 is a section along the line 18—18 of FIG. 17;

FIG. 19 is a top plan view of a toe area of the sole with upper section removed and with contact-locking material in accordance with the invention;

FIG. 20 is an isometric view of a detachable toe section similar to that removed from FIG. 19;

FIG. 21 is a side view enlarged of a section of flexible material with contact-locking material for use with the toe sections of FIGS. 19 and 20;

FIG. 22 is a top plan view of a toe area of a sole in accordance with the invention with contact-locking material and with apertures;

FIG. 23 is an isometric view of a detachable toe section for attachment to the toe area of FIG. 22;

FIG. 24 is an enlarged section along the line 24—24 of FIG. 23;

FIG. 25 is an enlarged side view of a flexible layer with contact-locking material for use with the toe sections of FIGS. 22 and 23;

FIG. 26 is an isometric view of a detachable toe section similar to that of FIG. 23 with a flexible layer connected to it;

FIG. 27 is a top plan view of a shank section of upper with a sole portion detachably attached to the shank area of the sole in accordance with the invention;

FIG. 28 is an enlarged section of the flexible layer of FIG. 27;

FIGS. 29 and 30 are top plan views of detachable shank sections similar to that of FIG. 27 with alternative arrangements of attaching parts;

FIG. 31 is a top plan view of the rearward part of a sole with contact-locking material and apertures in accordance with the invention;

FIG. 32 is a top plan view of the sole of FIG. 31 with a detachable heel area section of upper with sole portion attached with a flexible strip in accordance with the invention;

FIG. 33 is a side view enlarged of the flexible strip of FIG. 32;

FIG. 34 is a top plan view of the detachable heel area section of upper with sole portion of FIG. 33;

FIG. 35 is a top plan view of a shoe with a layer of material with rear part detachable in accordance with the invention;

FIG. 36 is a top plan view of a shoe with a detachable heel area section with locking parts in accordance with the invention;

FIG. 37 is a section along the line 37—37 of FIG. 36;

FIG. 38 is a top plan view of the heel area of the sole of FIG. 36 with detachable heel area section removed;

FIG. 39 is a top plan view of the detachable heel area section of FIG. 36 removed from the shoe;

FIG. 40 is an enlarged isometric view of one of the locking parts shown in FIG. 38;

FIG. 41 is an enlarged section of the locking part of FIG. 40 detachably attached to the sole;

FIGS. 42 and 43 are enlarged isometric views of attaching parts similar to that detachably attaching the locking part to the sole in FIG. 41;

FIG. 44 is a top plan view of a toe section with parts for detachably attaching a sole area upper section with sole portion to the sole similarly to the attaching parts of FIG. 38;

FIG. 45 is an isometric view of a detachable toe section for attachment to a toe area similar to that of FIG. 44;

FIG. 46 is a top plan view of a rear sole area showing a detachable shank section of upper positioned on the sole with attaching parts similar to that shown in FIGS. 44 and 45;

FIG. 47 is a top plan view of the detachable shank area section of upper with sole portion attached thereto of FIG. 46 removed from the sole;

FIG. 48 is a top plan view of the rear area of a sole;

FIG. 49 is a top plan view of a detachable heel area section for attachment to the sole of FIG. 48 in accordance with the invention.

FIG. 50 is a side view of the heel area section of FIG. 49 indicating a slot in accordance with the invention;

FIG. 51 is a side view partially sectioned of a heel area section similar to FIG. 50 partially sectioned to show the rear of the innersole inserted in the slot.

The shoe illustrated by FIG. 1 includes a generally indicated detachable heel area section 20, a generally indicated detachable toe section 21, and a generally indicated layer of material 22 including elastic material 23 detachable at the rear and bridging an area of the sole forwardly and rearwardly of the juncture 24 between the ball and the shank as indicated by the dotted line 25, thus causing the shoe to flex and assisting in keeping heel area section 20 in place on the sole.

FIG. 2 shows the shoe of FIG. 1 with the heel area section 20 of FIG. 1 removed from attachment to the sockets 26 and 27 which are depressed in the sole, and with the generally indicated layer of material 22 detached from the socket 29. At 30 is shown a ribbon attached to the layer 22 at 31 and resting against the underside of heel section 32 of layer 22, with an attaching part 33 attached to the ribbon 30 and to a piece of stiff material 34 positioned in an aperture 35 in the under layer 36 of heel section 32. The heel section 32 can be lifted away from the ribbon 30 while the ribbon 30 is being attached to or detached from the socket 29.

FIG. 3 shows an enlarged section along the line 3—3 of FIG. 2 with the attaching part 33 attached to the ribbon 30 and the stiff material 34 by connecting part 37 which passes up through a hole in the top surface 38 of the attaching part 33 and through a hole in the ribbon 30 and the stiff material 34 with wider portions 39 and 40 at each end of the connecting part 37. The attaching part 33 is shown as having a hollow core 41 and a flange 42 projecting out to each side in its lower portion, and to have no flange projecting out from its top

surface 38 which rests against the ribbon 30, thus eliminating the catching on the edge 43 of the open end of socket 29 which would be caused by a top flange on attaching the ribbon to the socket. The absence of a top flange sitting on top of the socket also reduces the upward projection of the ribbon. The piece of stiff material 34 which rests in the aperture 35 helps to prevent the ribbon from being cut by the wider top 39 of the connecting part 37 and also acts as a buffer against sharp bending of the top 39 as a result of the angle of pull on the ribbon as the shoe is flexed and unflexed in walking. The sockets 26, 27, and 29, all depressed in the sole, are shown to have slots 44, 45, and 46 respectively in their top surfaces, with slot 46 opening toward the rear of the sole and slots 26 and 27 opening forwardly, and with their respective closed ends 47, 48, and 49 being at the other end of each socket.

FIG. 4 shows a side view of the heel area section 20 removed from the shoe. The attaching part 50 is shown to be attached to the bottom layer 51 of the generally indicated sole portion 52, and to have no flange where the top surface of its shank contacts the bottom surface of the bottom layer 51 of the sole portion 52 attached to the generally indicated upper portion 53. The bottom layer 51 and a top layer 54 are shown to extend forward, with the bottom layer having an attaching part 55 attached to it and extending downward from its underside. The heel area section fits snugly to the sole in the heel area. For that reason it is highly desirable for the attaching part 50 to have no flange projecting below the sole portion 52 to catch at the edge of the opening of slot 47 of socket 26, and it is highly desirable to avoid having a flange which would lift the central part of the sole portion 52 higher above the socket relative to the sides of sole portion 52 and result in a tendency of the heel area section 20 to rock a bit. The forward attaching part 55 does not preset the same problem. The layer can be lifted a bit. The lower part of the fastening part can consequently be made long enough to rest on the innersole and keep the flange high enough so that it does not catch on the edge of the top of the socket as it enters the slot. This permits alternatives in design of the attaching part in the forward area. The flange top of the attaching part 55 is here shown positioned in an aperture 56 in bottom layer 52 and attached to stiff material 57.

FIGS. 5 and 6 will be discussed after FIG. 7.

FIG. 7 shows an enlarged section along the line 7—7 of FIG. 4. The attaching part 50 is shown to have a bottom flange 58 projecting out at right angles to vertical round straight smooth-surfaced shank 59, a flangeless top 60, and a hollow core 61. The shank of the connecting part 62 is shown to pass up through a hole in the center of the top 60 of the attaching part 50, and through a hole in the bottom layer 51 and a hole in a section of stiff material 63. The connecting part 62 is shown to be wider at each end, one end being at the top of the hollow core 61 of the attaching part 50 and pressing against the under surface of the top 60 of the attaching part 50, and the other end being indented into stiff material 63. At 64 is a layer of stiff material and at 65 a covering layer of material.

FIG. 5 is a bottom view of the generally indicated sole layer 52 of FIG. 4 with the bottom layer 51 removed. At 66 is shown the lasting allowance for the

upper 53 of FIG. 4. At 67 is shown a hole in the stiff tuck 68 for the passage of the attaching part 33 of FIG. 2 to be attached to the socket 29.

FIG. 6 is a bottom view of the bottom layer 51 of FIG. 4, with the hole 69 corresponding to the hole 67 of FIG. 5, and the attaching parts 50 and 55 of FIG. 4, with dotted lines 70 and 71 indicating pieces of stiff material to which the attaching parts 50 and 55 are attached.

FIG. 8 is a side view enlarged of the attaching part 50 shown in FIG. 7. The attaching part 50 is shown to have no top flange and can be used in place of the attaching part 33 of FIG. 3, and in the place of the attaching part 55 of FIG. 6, as well as for the use shown as the attaching part 50 of FIG. 4.

FIG. 9 shows a section enlarged along the line 9—9 of FIG. 4, showing the top flange 72 of attaching part 55 raised into an aperture in bottom layer 51 so that no part of the top flange 72 projects below layer 51. Connecting part 73 is shown fastening attaching part 55 to stiff material 74.

FIG. 10 is a sectional view of a variation in the attachment of an attaching part in the position of attaching part 50 of FIG. 4. The top 75 of attaching part 76 is shown raised up to the bottom of the stiff tuck 77 corresponding to the tuck 68 of FIG. 5 and fastened to tuck 77 by connecting part 78.

FIG. 11 shows a toe section generally indicated at 79 with a socket depressed in it for attachment of toe area section of upper with sole portion attached thereto such as shown in FIG. 12 with a fastening part 80 attached to the sole portion 81. Fastening part 80 can be similar to attaching part 50 of FIGS. 4 and 8, or to 55 of FIG. 9, with similar attachments.

FIG. 13 is a section showing a flat spring 81 attached to the rear end 82 of socket 83 depressed in sole section 84 and rising higher as it leaves the opening end 85 of the socket and moves into the depressed area in front of the socket, thus affording resiliently yielding resistance to the removal of an attaching part from the socket.

FIG. 14 is an enlarged isometric view of the spring of FIG. 13, and FIG. 15 is a side view of a similar spring with a particular kind of curve.

FIG. 16 shows a shank and heel area part of a sole 86 with a shank area section including upper portions 87 and 88 attached to sole portion 89 which is detachably connected to sockets 90 and 91 by fastening parts 92 and 93 which are similar to part 50 of FIGS. 4 and 8 or part 55 of FIG. 9.

FIG. 17 shows a shoe with a generally indicated layer of material 94 attached forwardly to the generally indicated sole 95 in the heel area of which socket 96 is depressed. Layer 94 includes an elastic section. An attaching part 97 is attached to the heel section 98 of layer 94 in the manner shown in FIG. 18.

FIG. 18 is an enlarged section along the line 18—18 of FIG. 17. Connecting part 98 attaches fastening part 99 to heel section 98 in a manner similar to those previously described herein. Both of said parts are similar to fastening parts previously described herein. Flexible material 100 helps to reinforce the attachment of the stiff material 101 to the heel section 98.

FIG. 19 shows a generally indicated toe section 102 of a sole with a socket 103 depressed therein, and with

sections 104 and 105 of contact-locking material attached to the sole.

FIG. 20 shows a generally indicated toe area section 106 including upper 107 with a sole portion 108 attached thereto. At 109 and 110 are holes with stiff material 111 between them. Dotted circle 112 indicates an attaching part attached to sole portion 108 and extending down from it.

FIG. 21 shows a flexible layer 113 with contact-locking material 114 and 115, designed to pass through holes 109 and 110 of FIG. 20 for locking with materials 104 and 105 of FIG. 19 when the toe area section 106 is positioned on toe section 102 with the attaching part 112 in the socket 103 and the flexible layer 113 is positioned over the holes 109 and 110. The contactlocking material, holding down stiff material 111 opposes movement of sole portion 108 which would move attaching part 112 out of socket 103.

FIGS. 22, 23, 24, 25, and 26 are best discussed together. FIG. 22 shows a generally indicated toe section 116 with contact-locking material 117 and 118 and holes 119 and 120. FIG. 23 shows a generally indicated toe area section 121 with sole portion 122 attached. FIG. 24 is an enlarged section along the line 24—24 of FIG. 23, showing the stiff parts 125 and 126 passing through holes 120 and 130 of stiff material 128 and held in that position by material 127. FIG. 25 shows a layer of flexible material with contact-locking material 132 and 133. When toe area section 121 is attached to toe section 116, the stiff parts 125 and 126 will enter holes 119 and 120 and guide the positioning when attaching and will prevent the slipping which may occur with contact-locking material, particularly of the loop-and-hook variety; the contact-locking material 132 and 133 will pass through holes 123 and 124 to attach detachably to contact-locking material 117 and 118 and hold down stiff material 128, thus detachably attaching toe area section 23 to toe section 22. FIG. 26 shows the toe section 121 with the flexible layer positioned over the holes and the stiff parts attached to the flexible layer passing through holes 129 and 130. Holes 134 and 135 are for use with a button-hook type of implement when lifting flexible material 131 when detaching the toe area section from the toe section. The flexible material, permitting gradual lifting at an angle, enables the contact-locking material to be separated from its locking position far more readily than if it were attached to the stiff material of the toe area section. In the latter case the pull could cause bending and damage to the toe area section. This type of use of flexible material is also advantageous with other types of fastening parts for similar detachable attachment.

FIGS. 27, 28, 29, and 30 illustrate the construction of FIGS. 22 through 26 as applied to the detachable attachment of a shank area section to the shank area of a sole. In FIG. 30 the stiff guide parts are shown attached to the flexible layer.

FIGS. 31, 32, 33, and 34 illustrate the detachable attaching techniques of FIGS. 22 through 30 as applied to a detachable heel area section. In each of these cases the flexible layer with contact-locking material can have one of its ends attached to the sole portion.

FIGS. 36 through 47 can best be discussed together. FIG. 36 shows a shoe with a detachable heel area sec-

tion detachably attached thereto and generally indicated at 136 with upper section 137 with sole portion 138 attached thereto and a covering layer 139 attached to the sole at 140 forwardly of the sole portion 138. FIG. 37 is a section along the line 37—37 of FIG. 36 with the covering layer turned down in covering position. FIG. 38 shows the heel area of the sole with the heel area section 136 removed. FIG. 39 shows the heel area section 39 when detached from the sole. Attaching parts 141 through 144 are illustrated in enlarged form by generally indicated part 145 in FIG. 40. FIGS. 42 and 43 illustrate in enlarged form generally indicated sockets 146 and 147 for imbedding in the sole to attach detachably the attaching part 145. The channel 148 in FIG. 42 allows the locking nib 150 to turn 180 degrees, and the channel when the part 145 is positioned in the socket 146, and channel 149 in FIG. 43 allows the locking nib 150 to turn 90 degrees. FIG. 41 is an enlarged section showing a socket 151 similar to sockets 146 and 147 imbedded in a sole with the flange 152 locked between two sole layers. A attaching part 153 is shown positioned in the socket. Part 153 is similar to part 145 except that it has a T-shaped top 154 instead of an L-shaped top as shown in FIG. 40 at 155. The locking parts can be merely turned to lock or can be removed from the sockets entirely. The nib 156 in FIG. 42 and the nib 157 in FIG. 43 are to prevent the socket from turning, by positioning the nib in a channel. In FIG. 36 the attaching parts are shown in locked position holding down the sole portion 138. The blocks 156 and 157 in FIGS. 36 and 37 are for positioning in holes 158 and 159 respectively in the sole portion 138 to prevent the attaching parts 144 and 142 from turning from their locked position to a position over the holes 158 and 159. The contact-locking material at 158 and 159 will detachably lock to each other when the heel area section 136 is in position on the innersole heel area and the covering part is turned down. In combination with the other sections of contact-locking material, this will keep the covering part down on the sole portion. FIGS. 44 and 45 illustrate the same detachable attaching technique for toe area sections, ad FIGS. 46 and 47 illustrate it for shank area sections.

FIGS. 48 through 51 can best be discussed together. FIG. 48 shows a generally indicated rear sole layer section 160 with a covering piece 170 turned back. FIG. 49 shows a top plan view of a generally indicated heel area section 161. FIG. 50 shows a side view of heel area section 161 with dotted lines 162 indicating a slot for entrance of the rear of sole section 160 of FIG. 48. FIG. 51 shows a side view of heel area section 161 partially sectioned to show the rear part 163 of sole section 160 positioned in the slot 162 with detachable locking part 164 maintaining sole layer section 163 positioned in the slot 162. As is apparent from the drawings the section 163 is detachable from the slot. At 165 is shown elastic material in the event that it is desired to curve the sole layer outward at that point. The elastic material is optional. Normally the sole layer section inserted in the slot would be an innersole section. The slot arrangement assures proper positioning, simplifies attaching procedure and adds security to the attachment to the innersole, or other sole layer, of heels and upper sections in combination or separately. It permits a versatile detachability.

From the foregoing it will be seen that footwear in accordance with the invention will be improved in variability, functioning, comfort, and adaptability as well as other features.

I claim:

1. In an article of footwear, a sole having heel, shank, ball and toe sections, and a layer of material extending over the insole area of said sole from a position forwardly of the junction between the shank and ball sections to a position rearwardly of said junction and being attached to said sole at each of said positions, said layer being detachable from said sole at said rearward position of attachment, the attaching parts for said rearward detachable attachment including a socket depressed in said sole and having a slot in its top surface, said slot having an open end and a closed end, and an attaching part attached to material connected to said layer, said part being detachably attached to said socket, a resilient section yieldably resisting the removal of said attaching part from said socket, the upper area of said attaching part having a top surface resting against the underside of said material connected to said layer, said upper area being without any flange which extends below the underside of said material connected to said layer, said attaching part having a shaft extending downward from said top surface, a flange extending out from the lower part of said shaft, said flange extending under the top of said socket on each side of said slot.

2. The article of claim 1 and a flange extending out from said upper area and positioned in the material of said layer with no part of said flange being lower than the bottom material of said layer.

3. The article of claim 1 in which said layer includes an elastic section between said positions of attachment and is shorter between said positions than the underlying portion of said sole.

4. The article of claim 1 in which the core of said shaft has a hollow area which is open at the bottom of said shaft and which extends up to the underpart of said top surface, said top surface having a hole in its central area, a connecting part passing up through said hole and attaching part to material connected with said layer.

5. The article of claim 3 in which said attaching connection passing up thru said hole is attached to a portion of stiff material resting against said material connected to said layer.

6. The article of claim 5 in which said material connected to said layer is positioned between said top surface of said attaching part and said stiff material.

7. The article of claim 1 in which said vertical shaft is round and has a uniform diameter between said underside of said material connected to said layer and the top of said flange which extends out from said lower part of said shaft, said top of said flange extending out at right angles to said shaft.

8. The article of claim 1 in which a part connected to said top surface of said attaching part is attached to a portion of stiff material resting against said material connected to said layer.

9. The article of claim 8 in which the material connected to said layer is between said top surface of said attaching part and said stiff material.

10. In an article of footwear, a sole including heel, shank, and toe areas, a section including a sole portion with upper portion attached thereto, said sole portion being detachably attached to said sole in at least one of said areas, the attaching parts for said detachable attachment including a socket depressed in said sole and having a slot in its top surface, said slot having an open end and a closed end, both of said ends being located in said area of attachment, and an attaching part detachably attached to said socket and attached to material of said sole portion, the upper area of said attaching part having a top surface resting against the underside of said material of said sole portion, said part having a shaft extending downward from said top surface, a flange extending out from the lower part of said shaft, said flange extending under the top of said socket on each side of said slot, said upper area of said attaching part being without any flange which extends below the bottom of said sole portion.

11. The article of claim 10 in which the core of said shaft section of said attaching part has a hollow area which is open at the bottom of said part and which extends upward inside said attaching part, said top surface of said attaching part having a hole in its central area, and an attaching connection having one end in said hollow core and having a shaft passing up through said hole and attaching said attaching part to said material of said sole portion.

12. The article of claim 10 in which an attaching connection with a smaller diameter than said top surface of said attaching part extends up from the central area of said top surface and attaches said attaching part to said material of said sole portion, said material of said sole portion having a hole through which said attaching connection passes.

13. The article of claim 12 in which a piece of stiff material is positioned above said material of said sole portion, said stiff material having a hole, said attaching part passing up through said hole and attaching said stiff material together with said material of said sole portion to said attaching part.

14. The article of claim 10 in which said material of said sole portion is stiff material.

15. The article of claim 10 in which said top surface of said attaching part is positioned at a level higher than the level of the bottom surface of the bottom layer of material of said sole portion.

16. In an article of footwear, a sole including heel, shank, ball and toe areas, a section including a sole portion with upper portion attached thereto, said sole portion being detachably attached to said sole in at least one of said areas, the attaching parts for said detachable attachment including a socket depressed in said sole and having a slot in its top surface, said slot having an open end and a closed end, a flat spring extending from a position on the area of said sole between the sides of said socket to a position outside the open end of said socket, said spring extending upward to a gradually higher position as it extends from said open end of said socket in a direction away from said open end.

17. The article of claim 16 in which said spring is attached to said socket at said closed end.

18. In an article of footwear, a sole including heel, shank, and toe areas, a section including a sole portion

with upper portion attached thereto, said sole portion being detachably attached to said sole in at least one of said areas, the attaching parts for said detachable attachment including contact-locking material detachably connecting said sole portion and a portion of said sole, one of said portions having an aperture, and a stiff part connected to the other of said portions and projecting into said aperture.

19. The article of claim 18 in which said contact-locking material includes complementary sections connected with said sole and said sole portion and being detachable from and detachably re-attachable to each other.

20. The article of claim 18 in which said stiff part is connected to said sole portion and extends into an aperture in said sole.

21. The article of claim 19 in which said stiff part is connected to said sole portion and extends into an aperture in said sole.

22. In an article of footwear, a sole including heel, shank, and toe areas, a section including a sole portion with upper portion attached thereto, said section resting on said sole in at least one of said areas, said sole portion having at least two apertures with material between them, a layer of flexible material extending over said apertures and over said material between said apertures, contact-locking material detachably attaching said flexible material to said sole under said apertures.

23. The article of claim 22 in which said material of said sole portion which extends between said apertures is stiff.

24. The article of claim 22 in which said contact-locking material includes complementary sections attached to said flexible layer and to said sole and detachably attached to each other.

25. The article of claim 22 and a stiff part extending between said sole portion and a portion of said sole, said stiff part being connected to one of said portions and extending into an aperture in the other of said portions.

26. The article of claim 24 and a stiff part extending between said sole portion and a portion of said sole, said stiff part being connected to one of said portions and extending into an aperture in the other of said portions.

27. The article of claim 25 in which said stiff part is connected to said sole portion and extends into an aperture in said sole.

28. The article of claim 26 in which said stiff part is connected to said sole portion and extends into an aperture in said sole.

29. The article of claim 25 in which said stiff part is connected to said flexible layer and passes through a hole in said sole portion and into said sole.

30. The article of claim 26 in which said stiff part is connected to said flexible layer and passes through a hole in said sole portion and into said sole.

31. In an article of footwear, a sole including heel, shank, and toe areas, a section including a sole portion with upper portion attached thereto, contact-locking material detachably connecting said sole portion and a portion of said sole in at least one of said areas, and a part connected to one of said portions extending in the direction of the other of said portions and into a part

connected to said other of said portions, said parts in combination opposing sliding of said sole portion relatively to said sole.

32. In an article of footwear, a sole having heel, shank, ball and toe sections, and a layer of material extending over the insole area of said sole from a position forwardly of the junction between the shank and the ball sections to a position rearwardly of said junction and being attached to said sole at each of said positions, said layer including elastic material between said positions, said layer being detachable from said sole at said rearward position of attachment, the attaching means for said rearward detachable attachment including a section of contact-locking material and a stiff part attached to said layer of material and extending downward therefrom, said sole having an aperture and said stiff part extending into said aperture.

33. The article of claim 26 in which the contact-locking material includes complementary sections attached to said layer and to said sole, said complementary sections being detachably attached to each other.

34. In an article of footwear, a sole including heel, shank and toe areas, a section including an upper portion with sole portion attached thereto, said sole portion being detachably attached to said sole in at least one of said areas, said sole portion having an aperture, a part attached to said sole and having a portion extending up through said aperture, said part including a portion extending horizontally over a part of said sole portion adjacent to said aperture and holding said sole portion down on said sole, said horizontal part being movable to a position over said aperture.

35. In an article of footwear a sole layer including heel, shank, and toe sections, a heel area section including a heel and material forming a horizontal slot positioned on and joined to the top of said heel, said slot opening forwardly and being formed by material above, below, on each side, and to the rear, said heel area section forming a single unit, said heel section of said sole layer being positioned in said slot, and an attachment maintaining said heel section in said slot.

36. The article of claim 35 in which said heel section of said sole layer is detachable from said heel area section and able to slide into and out of said slot when not attached.

37. The article of claim 35 and a section of upper joined to said heel area section to form a single unit with said heel area section.

38. The article of claim 36 and a section of upper joined to said heel area section to form a single unit attachable to and detachable from said sole layer as a single unit.

39. In an article of footwear a sole layer including heel, shank, and ball sections, a heel area section including an upper portion with a sole portion attached

thereto, a lower layer spaced from said sole portion, material connecting said sole portion and said lower layer at the sides and rear, said connecting material together with said sole portion and said lower layer forming a slot, said heel section of said sole layer being positioned in said slot, and a part maintaining said heel section of said sole layer in said slot.

40. The article of claim 39 in which said heel section of said sole layer is detachable from said heel area section and able to slide into and out of said slot when not attached.

41. In an article of footwear, a sole layer with upper attached thereto forwardly of the heel area, a heel area section including an upper portion with a sole portion attached thereto, said sole portion resting on the heel section of said sole layer and being detachably attached thereto, material extending from the sides of said sole portion down the outside of each side of said heel section of said sole layer and under said heel section of said sole layer on each side.

42. The article of claim 1 in which said upper area of said attaching part is without any top flange.

43. The article of claim 10 in which said upper area of said attaching part is without any top flange.

44. The article of claim 10 in which said sole portion includes a stiff layer, said attaching part being attached to said stiff layer.

45. In an article of footwear, a sole including heel, shank, and toe areas, a section including a sole portion with upper portion attached thereto, said section resting on said sole in at least one of said areas, said sole portion having at least two apertures with material extending between them, a layer of flexible material extending over said apertures and over said material between said apertures, attaching parts detachably attaching said flexible material to said sole under said apertures, said flexible material having unattached material extending beyond at least one of said apertures.

46. The article of claim 45 and said flexible material having unattached material extending beyond at least one of said apertures.

47. The article of claim 22 and said flexible material having unattached material extending beyond at least one of said apertures.

48. In an article of footwear, a sole layer with upper attached thereto forwardly of the heel areas, a heel area section including an upper portion with a sole portion attached thereto, said sole portion resting on the heel section of said sole layer, material extending from said heel area section down the outside edge of said sole layer and under said sole layer, said material helping to maintain the position of said heel area section relative to said sole layer, said heel area section being attached to said sole layer.

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