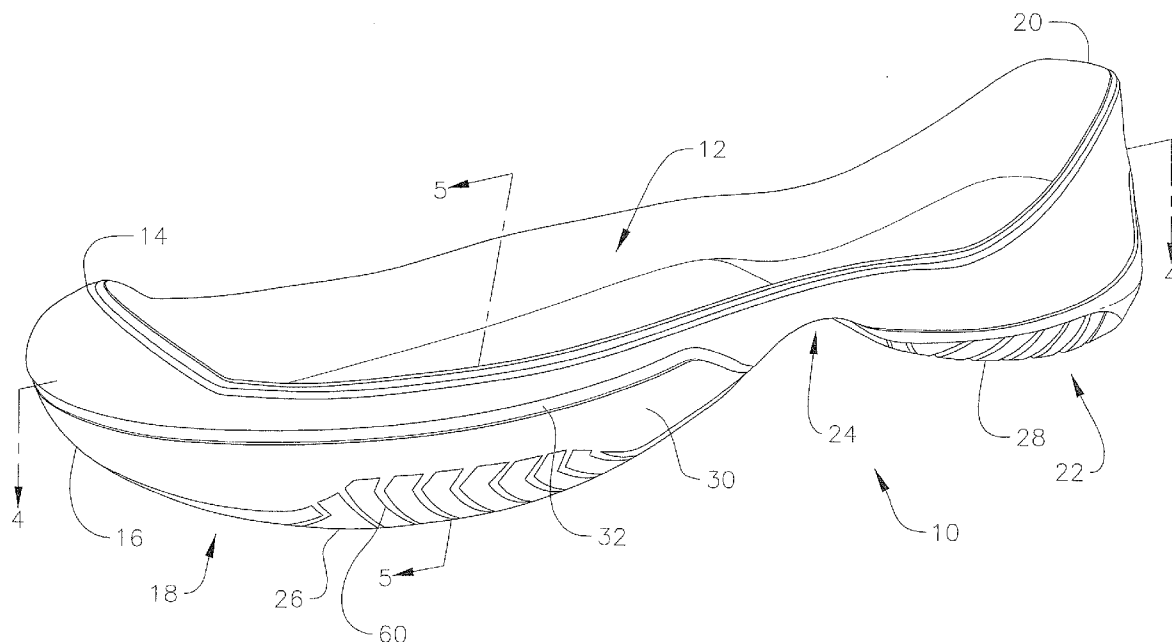


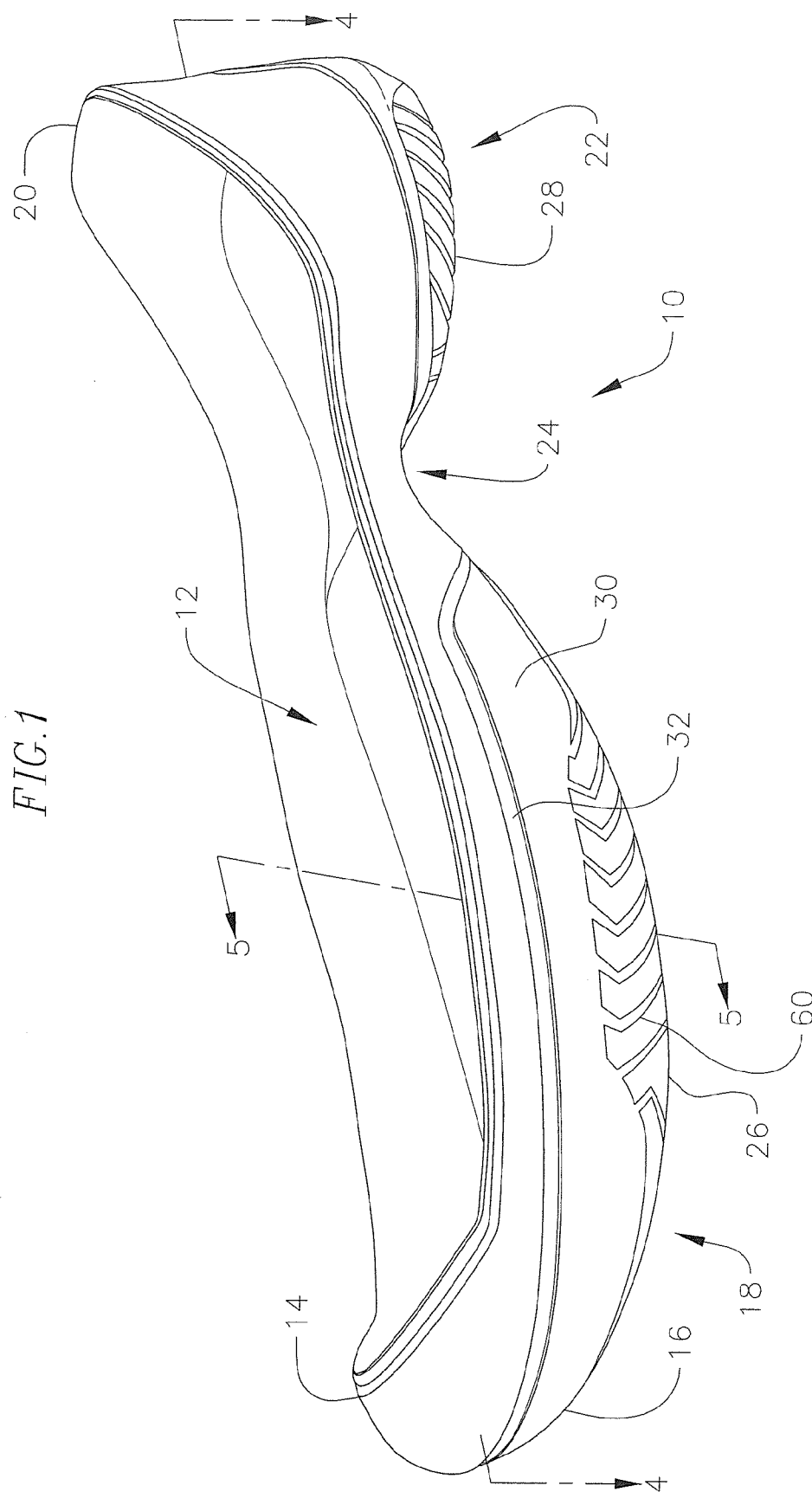


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Opie et al.(10) **Pub. No.: US 2012/0124865 A1**(43) **Pub. Date: May 24, 2012**(54) **COURT SHOE COVER****Publication Classification**(76) Inventors: **Steve Opie**, Arlington, MA (US);
Marianne Kay, Rancho Santa Fe,
CA (US)(51) **Int. Cl.**
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A43B 13/14 (2006.01)(52) **U.S. Cl.** **36/73**(21) Appl. No.: **13/296,140**(57) **ABSTRACT**(22) Filed: **Nov. 14, 2011****Related U.S. Application Data**(60) Provisional application No. 61/413,369, filed on Nov.
12, 2010.

A shoe cover for a court shoe. The shoe cover has an upper region with a toe cap, a mid-shoe region, and a heel cup. The upper region has sidewalls with expansible zones formed therein. The expansible zones are either generally thin and flexible areas that allow deformation of the upper to accommodate a court shoe to be engaged therewith, or are accordion-like. The shoe cover further includes a sole with an expansion zone formed therein.





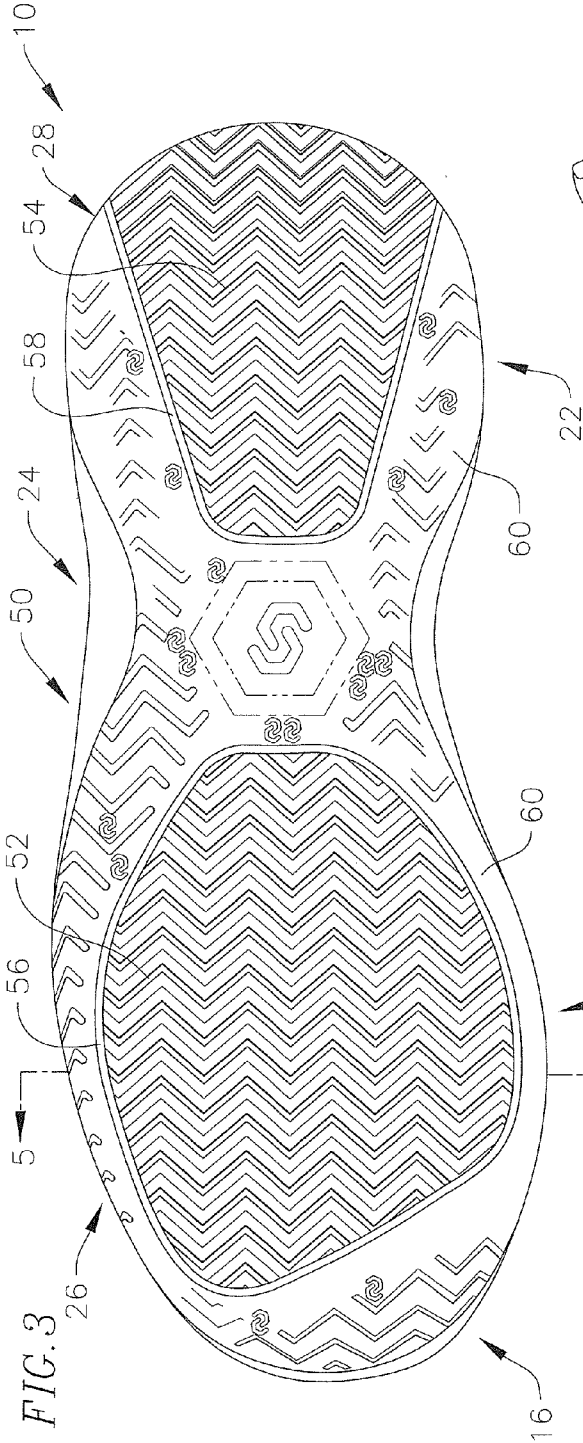


FIG. 4

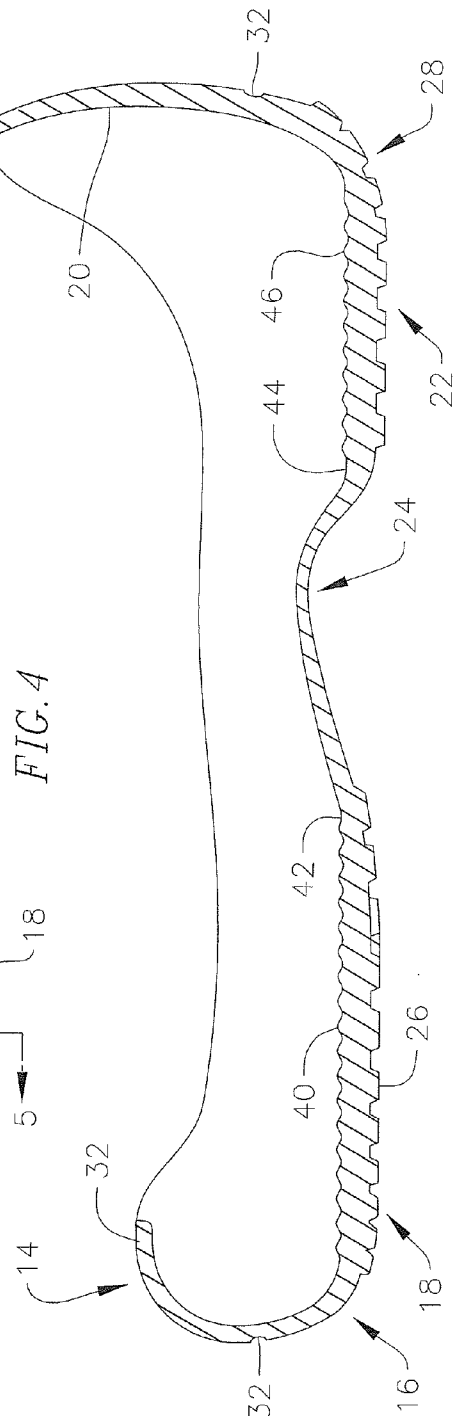


FIG. 5

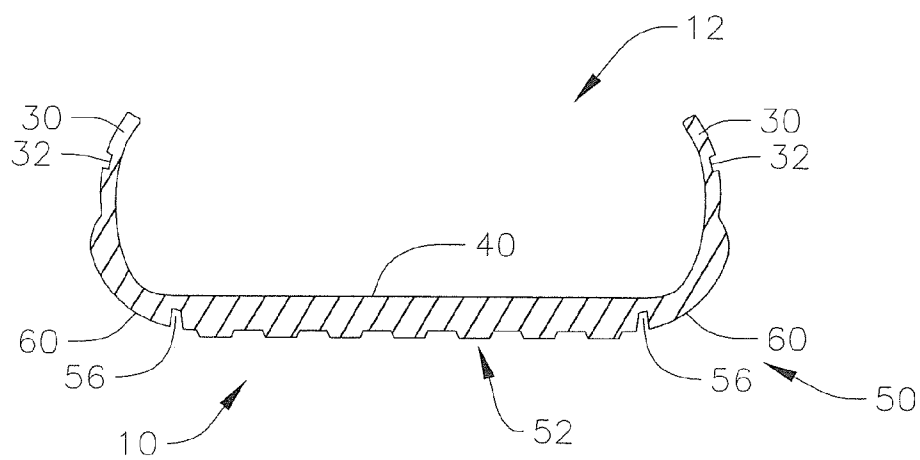
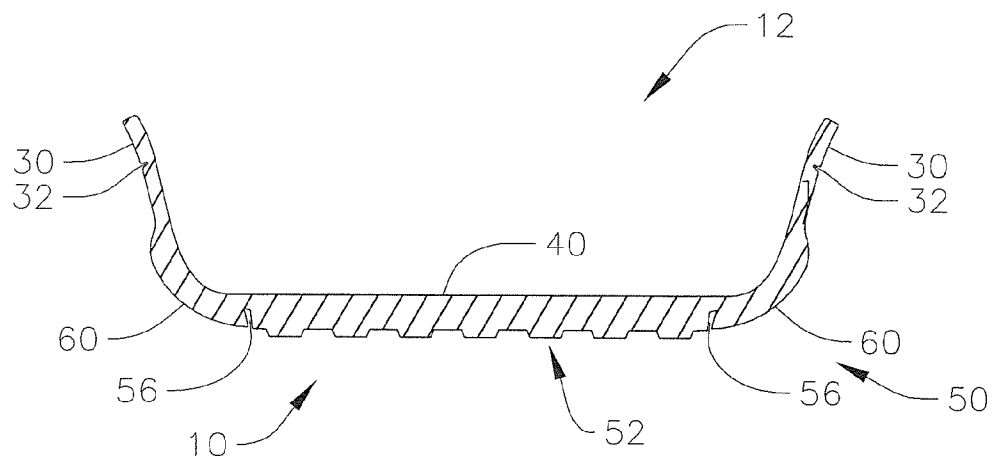
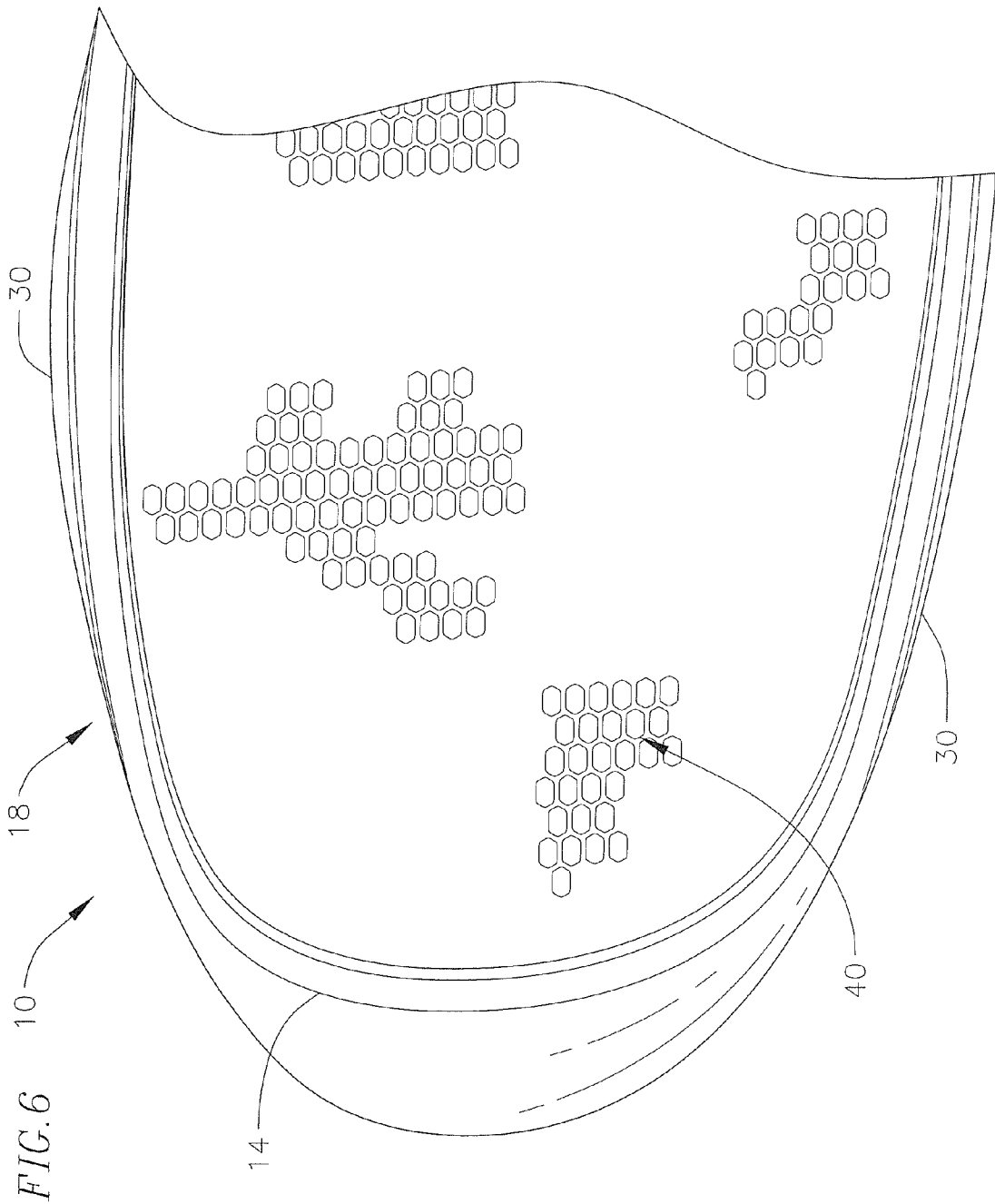
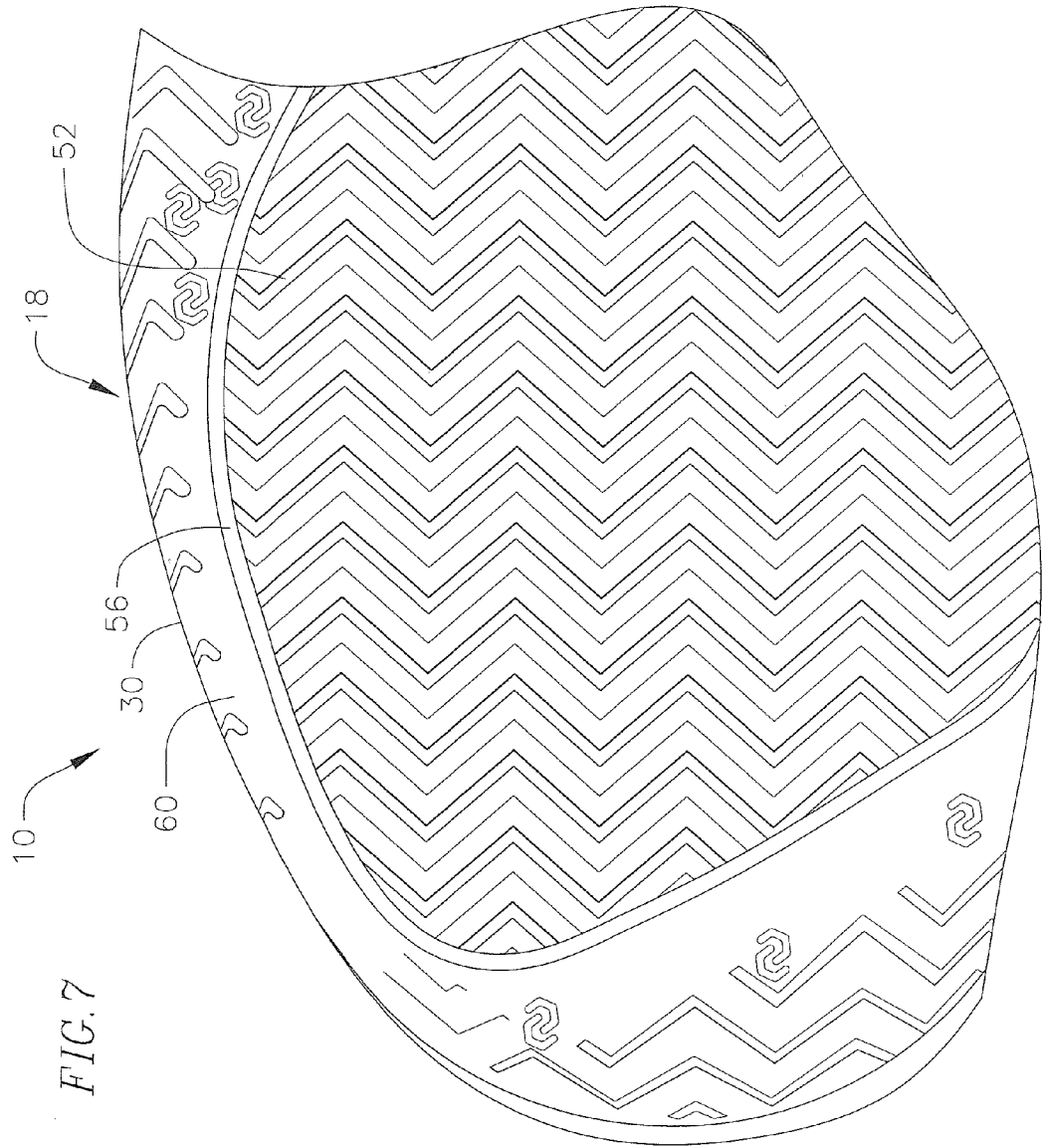
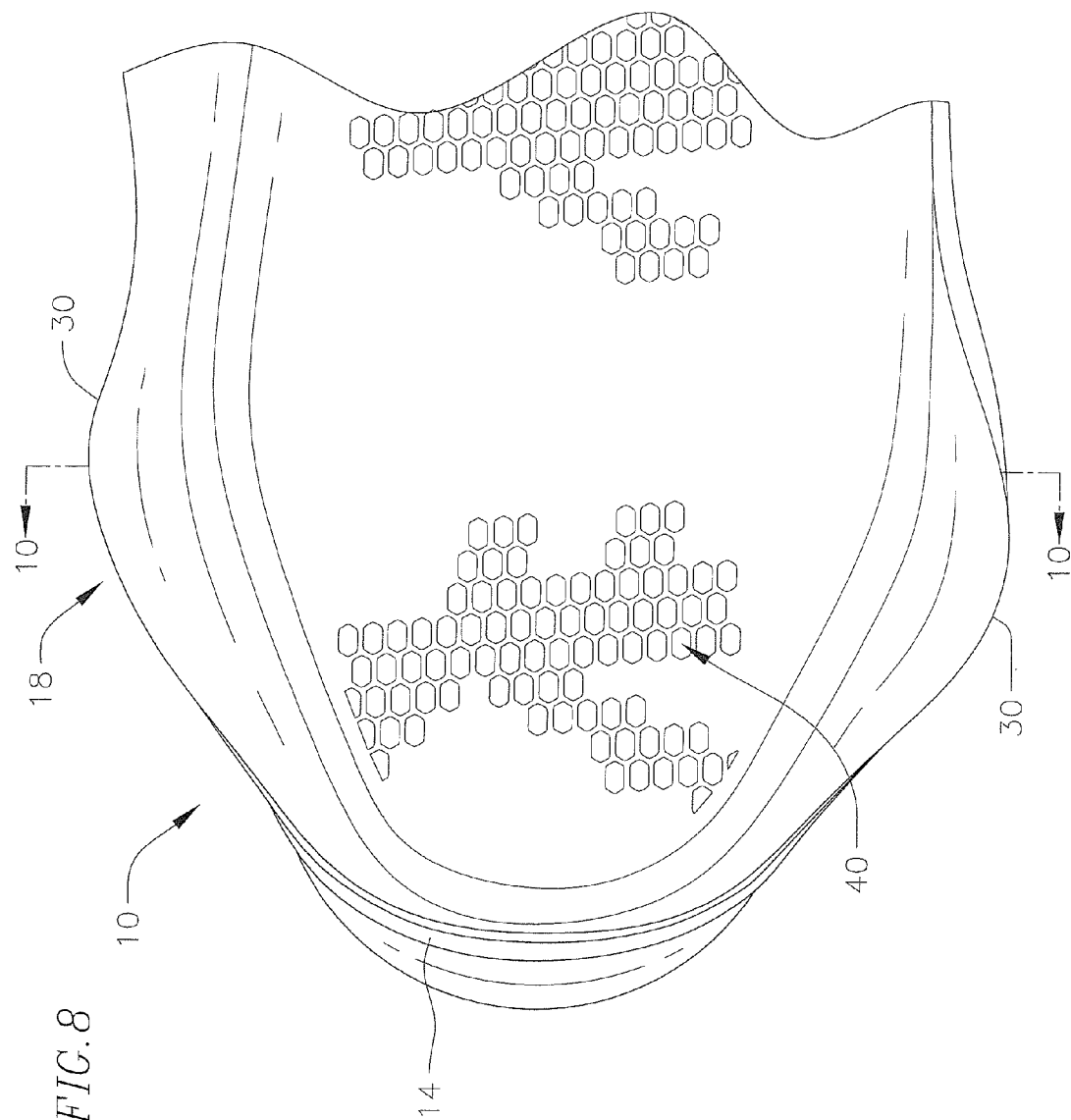


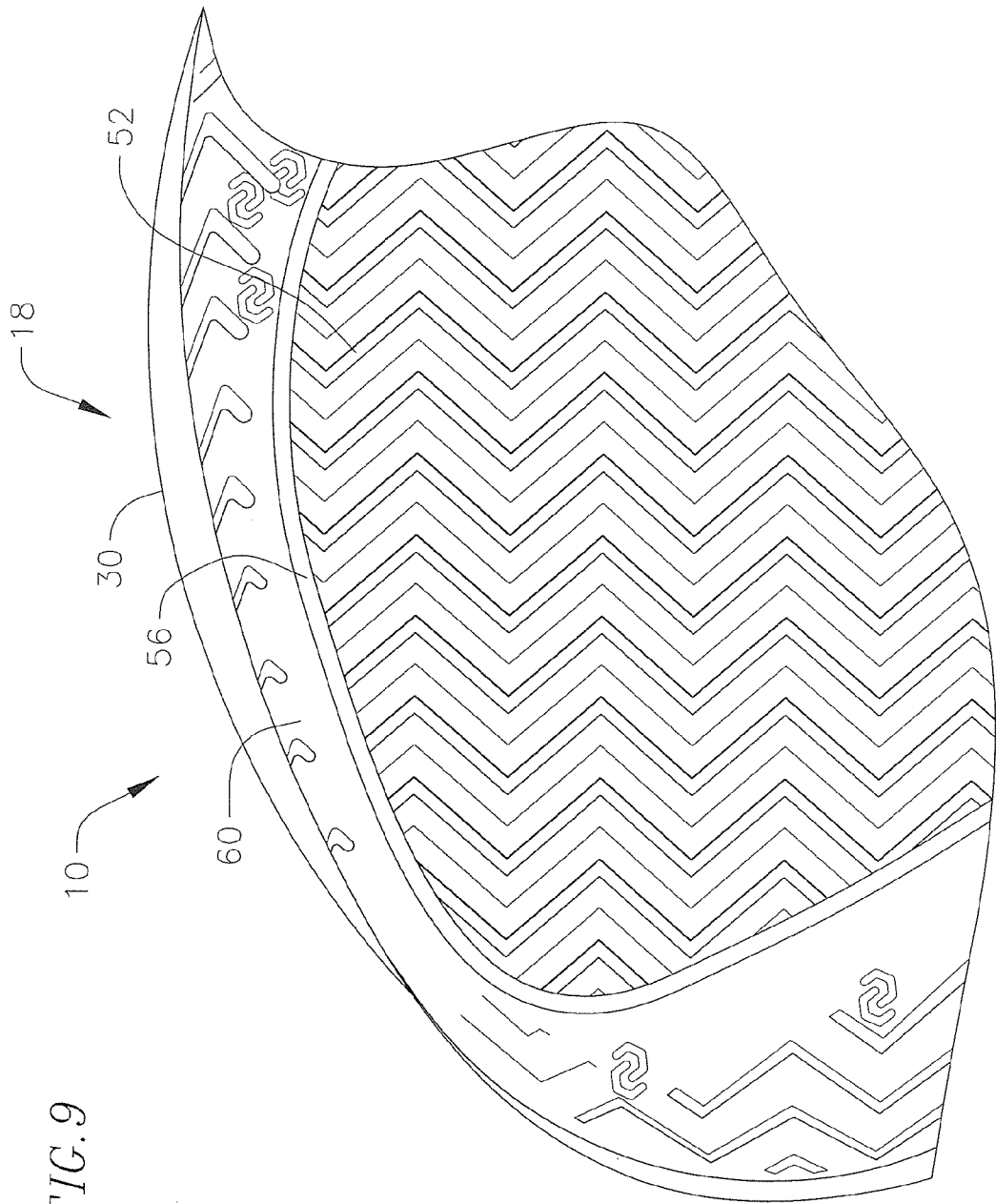
FIG. 10











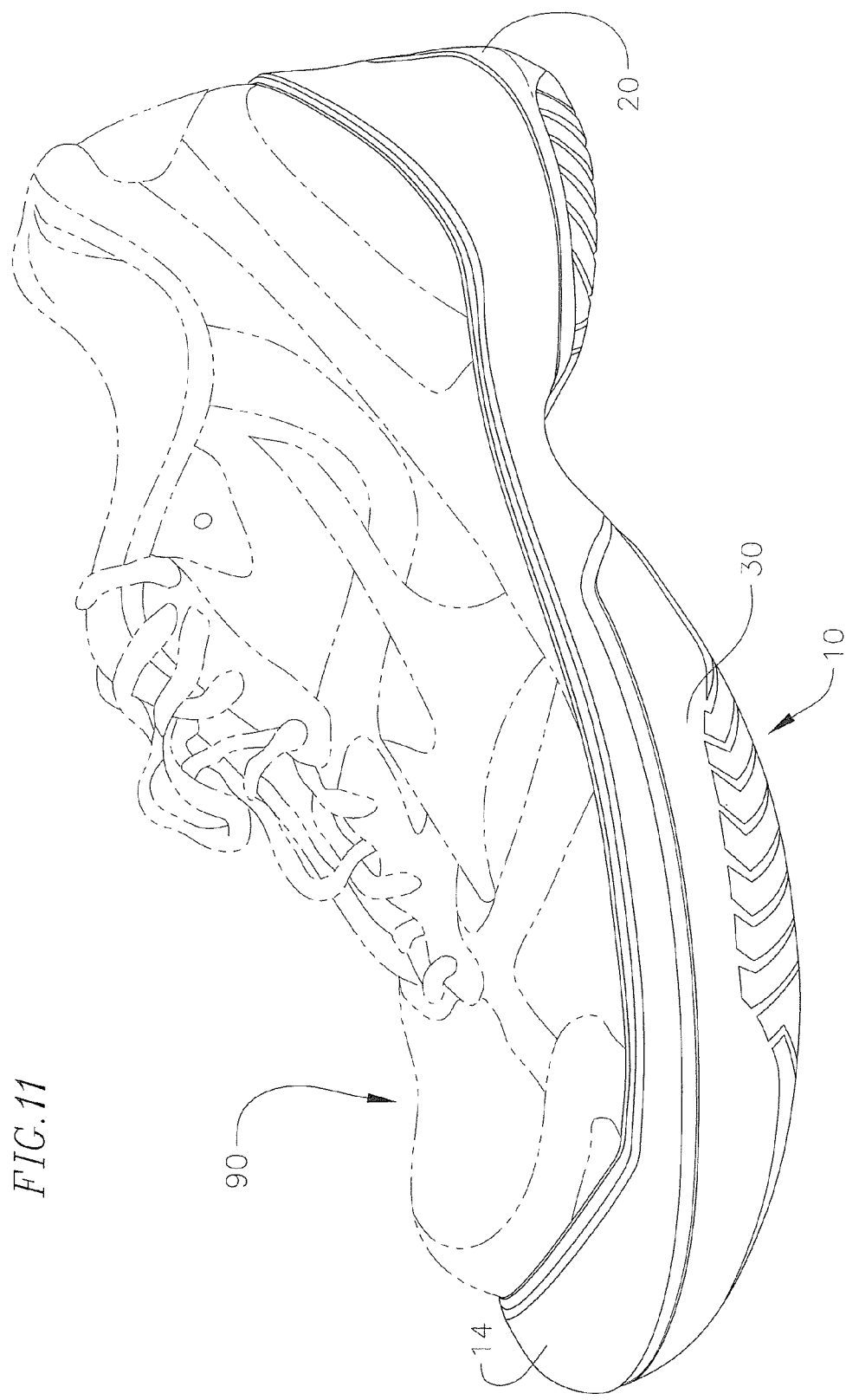


FIG. 12
PRIOR ART

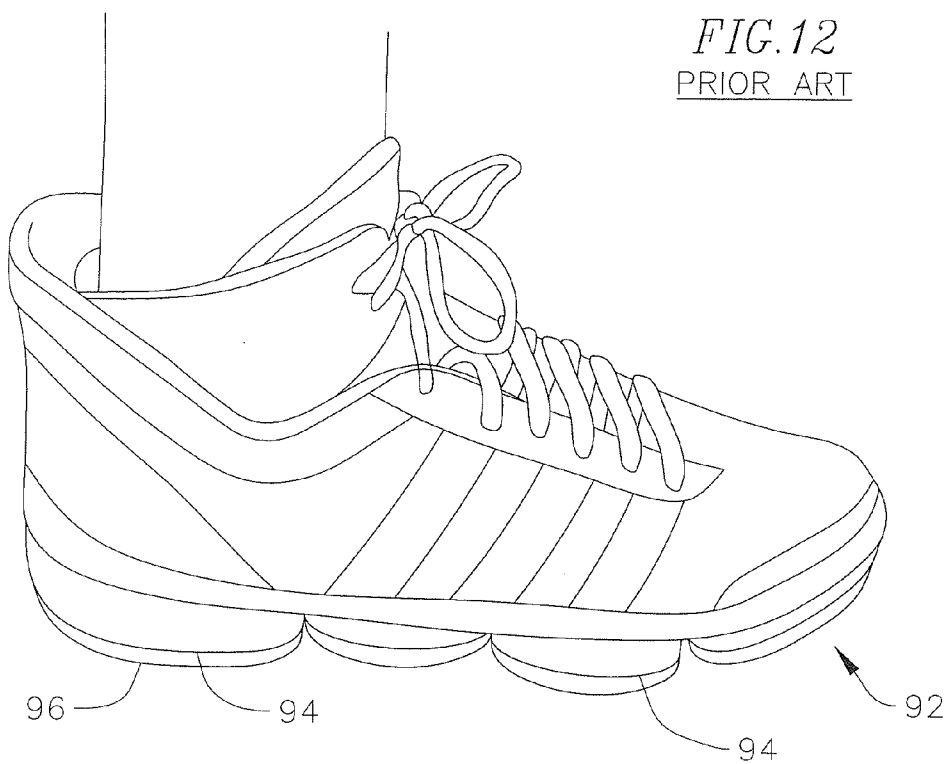
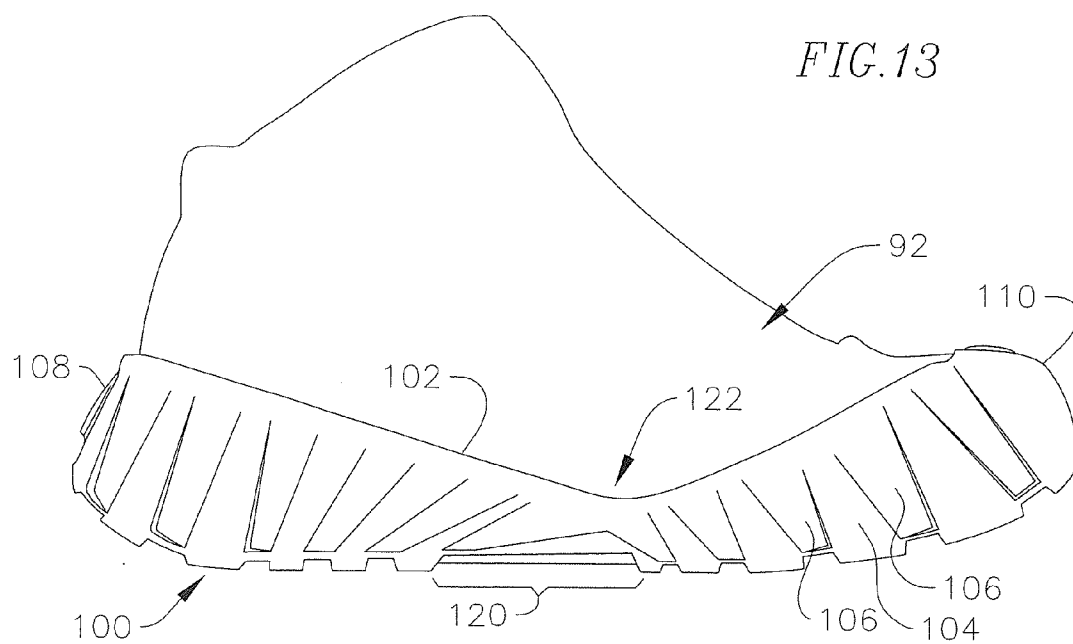


FIG. 13



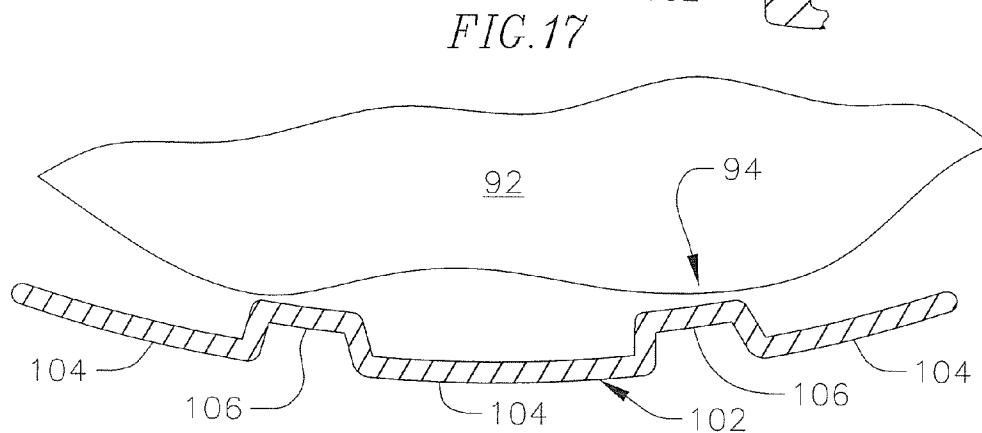
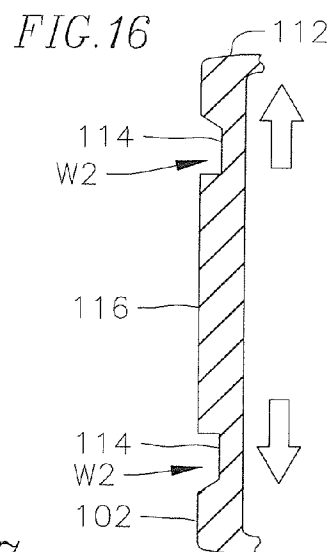
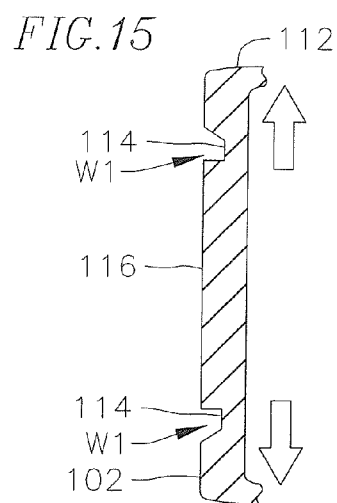
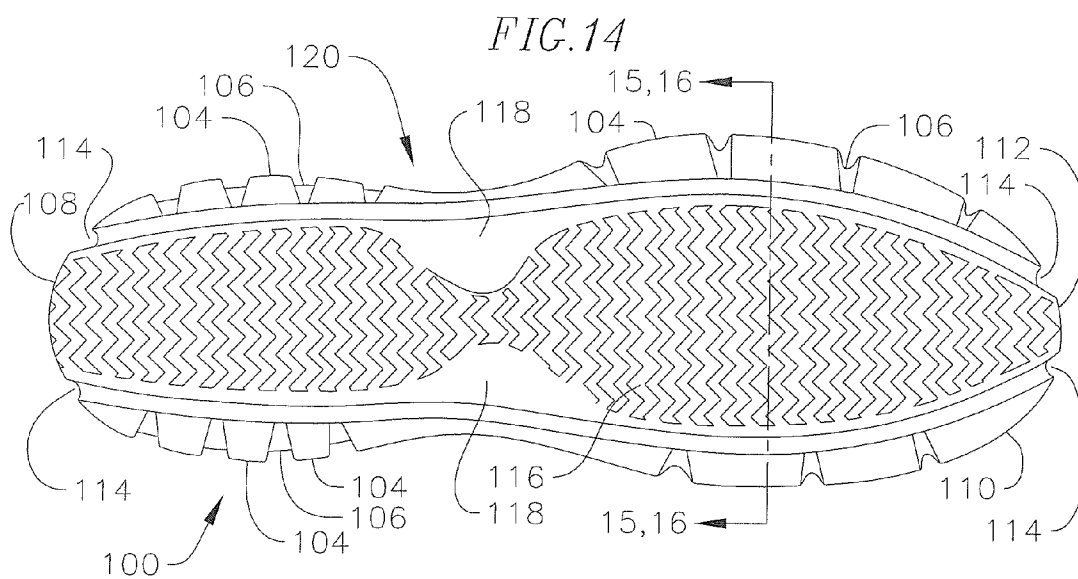


FIG. 18

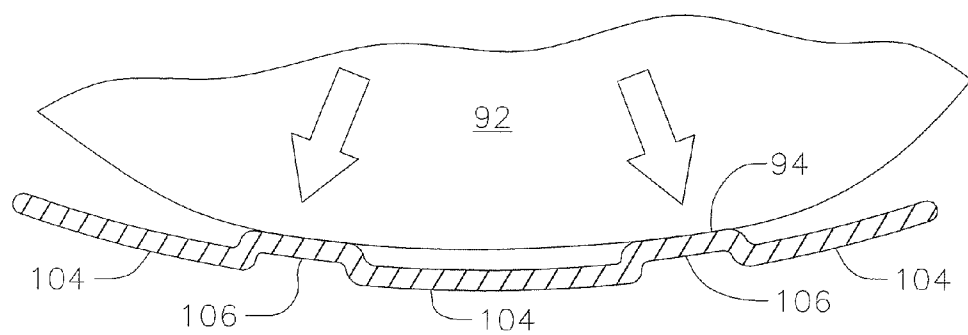


FIG. 19

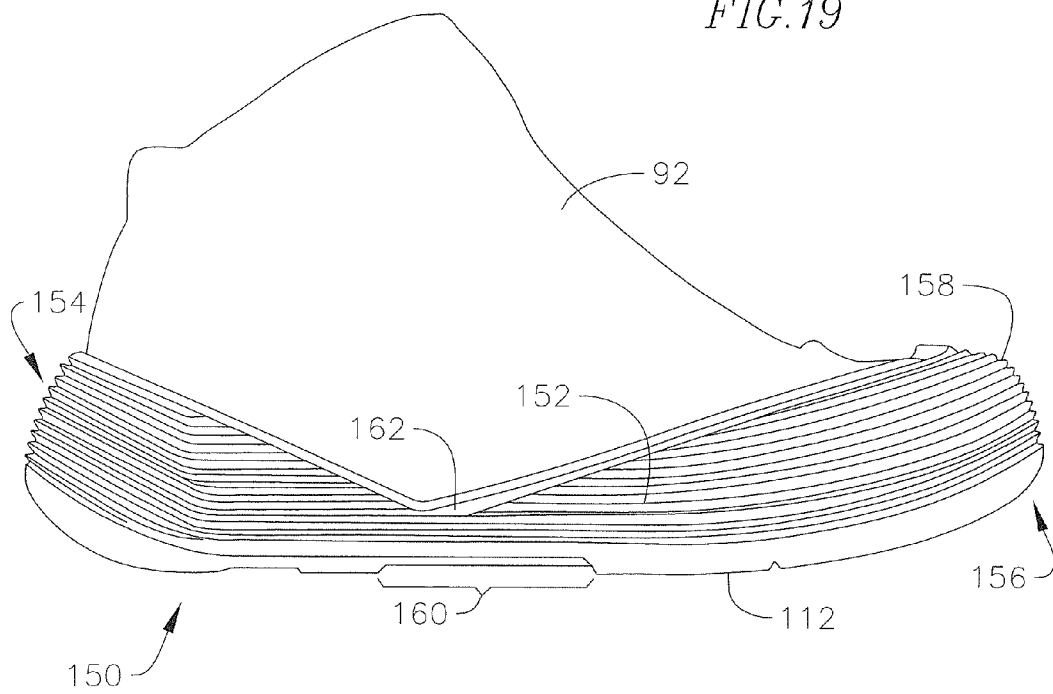


FIG. 20

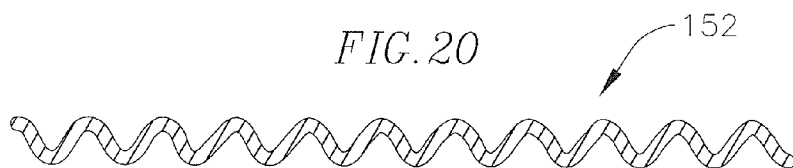


FIG. 21

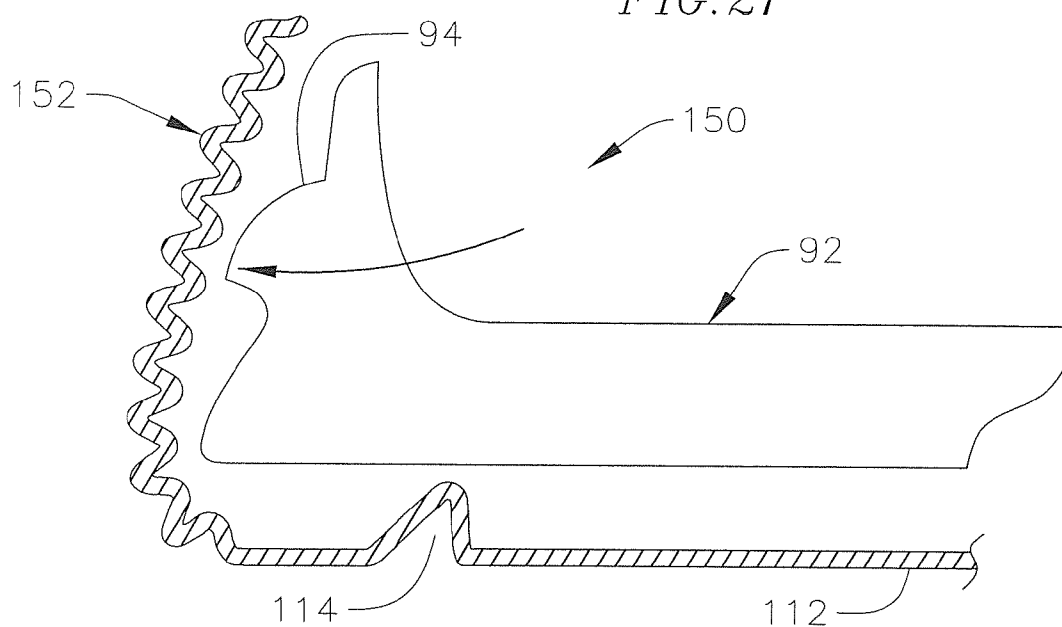
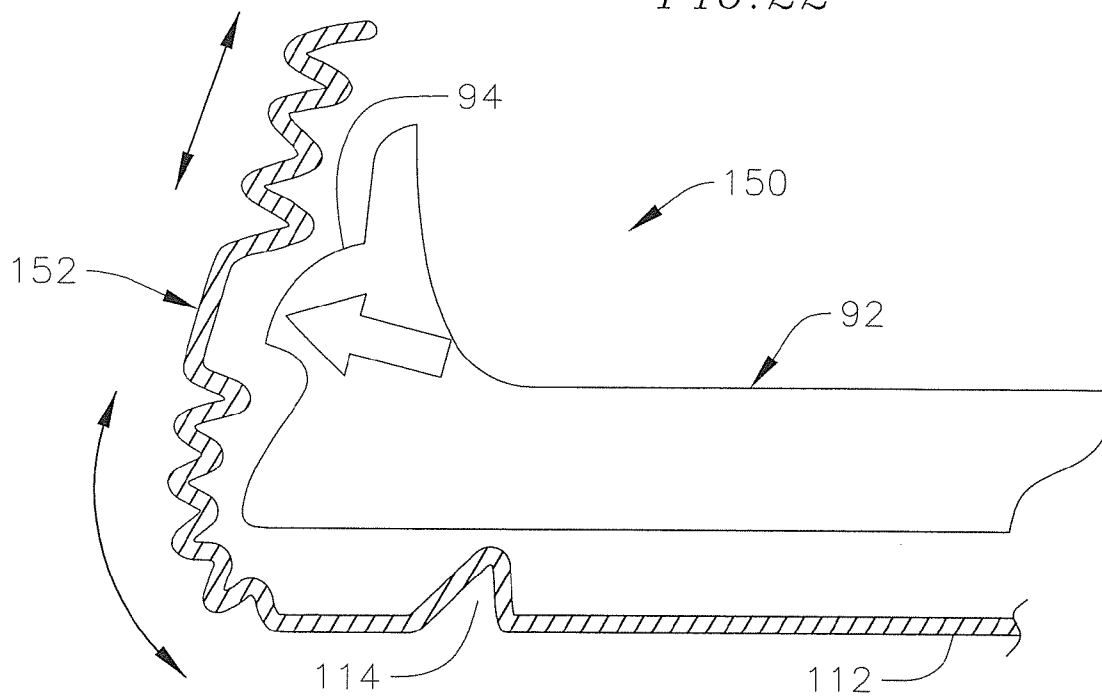


FIG. 22



COURT SHOE COVER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to and the benefit of U.S. Provisional Application No. 61/413,369, filed Nov. 12, 2010, the content of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] Shoes for use on court surfaces, such as for use on tennis courts, indoor and outdoor basketball courts, volleyball courts, racquetball and handball courts and the like, have generally flat outsoles and often have narrow slits and opening formed thereon to enhance their friction and slip resistance with ground surfaces. This is key since the relatively flat outsoles of court shoes allow a court shoe wearer to quickly start and stop, jump, and change directions without slipping and while maintaining good control.

[0003] It is therefore important to keep the outsole clean, debris-free, and also to preserve the condition of the outsole from undue wear and tear that can occur from walking on the streets. While some athletes only wear their court shoes when on a court and remove them when they leave the court, if the athlete forgets to bring another pair of shoes or is in a rush to begin a game or a workout, this can be problematic.

[0004] Therefore, it would be desirable to provide a shoe cover for court shoes that can be quickly and easily donned and removed from the court shoes, that is lightweight, that accommodates a wide variety of court shoe styles and sizes, and which is comfortable to wear.

SUMMARY OF THE INVENTION

[0005] The invention provides a shoe cover that is designed to be quickly and easily donned and removed from the court shoes, is lightweight and accommodates a wide variety of court shoe styles and sizes, and which is comfortable to wear and is stylish.

[0006] The shoe cover is formed from resilient stretchable material, such plastic, natural rubber, and/or silicone rubber, and combinations thereof. In order to fit a wide variety of court shoe styles and sizes, the shoe cover includes zones where the materials is thinner, is contoured to permits greater flexibility and stretchability, or includes accordion-like expansion areas. One such region is a midsole region in the generally vicinity of the arch region of the shoe, which region permits the court shoe cover to stretch longitudinally in order to accommodate different shoe lengths. During the wearing of the shoe cover over a court shoe, there is less floor contact in the mid-shoe cover region than in the ball portion or the heel portion of the shoe cover, and therefore less need for wear resistance in the mid-shoe cover region. Hence, the arch region of the midsole region in particular can be made thinner and more flexible than the ball portion or the heel portion of the shoe cover. Court shoes tend to have greater variation in their widths in their forefoot ball area than compared to, for example, the midfoot region or heel region. In order to better fit a variety of different court shoe widths, the forefoot ball region of the court shoe cover preferably includes width adjustment features, such as sides, interface regions in the sole, and/or the sole and sides having accordion-like bellows, and/or one or more areas of thinned and/or more stretchable material compared to the other material of the forefoot ball

region. This/these features will allow the sides of the court shoe cover in the ball portion of the court shoe cover to shift outwardly and expand away from each other and widen in response to court shoes having different widths slipped into the court shoe cover. None of, some of, or all of these features can be included in the heel portion and the mid-shoe region of the court shoe cover as desired.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a side view of an exemplary embodiment of a court shoe cover of the invention.

[0008] FIG. 2 is a top view of the exemplary embodiment of the court shoe cover of FIG. 1.

[0009] FIG. 3 is a bottom view of the exemplary embodiment of the shoe cover of FIG. 1.

[0010] FIG. 4 is a longitudinal cross sectional view of the exemplary shoe cover through view lines 4-4 of FIG. 1.

[0011] FIG. 5 is a cross sectional view of the exemplary shoe cover through view lines 5-5 of FIG. 1.

[0012] FIG. 6 is a top view of the forefoot portion of the exemplary embodiment of the shoe cover of FIG. 1 in its unexpanded state.

[0013] FIG. 7 is a bottom view of the forefoot portion of the exemplary embodiment of the shoe cover of FIG. 1 in its unexpanded state.

[0014] FIG. 8 is a top view of the forefoot portion of the exemplary embodiment of the shoe cover of FIG. 1 in an expanded state with sidewalls bowed out.

[0015] FIG. 9 is a bottom view of the forefoot portion of the exemplary embodiment of the shoe cover of FIG. 1 in an expanded state with sidewalls bowed out.

[0016] FIG. 10 is a cross sectional view of the exemplary shoe cover through view lines 10-10 of FIG. 8 in its widened state.

[0017] FIG. 11 is a side view of the exemplary embodiment of the shoe cover of FIG. 1 with an exemplary court shoe engaged therewith.

[0018] FIG. 12 is a side view of a prior art basketball shoe with protrusions extending laterally outwardly from its soles.

[0019] FIG. 13 is a diagrammatic side view showing another exemplary embodiment of a shoe cover of the invention with the outline of a shoe fitted therein.

[0020] FIG. 14 is a bottom plan view of the sole of the exemplary shoe cover of FIG. 13.

[0021] FIG. 15 is a diagrammatic view showing a lateral cross-sectional view of the sole of the shoe cover of FIG. 13 before it is expanded.

[0022] FIG. 16 is a diagrammatic view showing a lateral cross-sectional view of the sole of the shoe cover of FIG. 13 while being expanded.

[0023] FIG. 17 is a diagrammatic view showing a longitudinal cross-sectional view of a section of the sidewall of the shoe cover of FIG. 13 with a shoe inserted in the shoe cover, but without exerting sufficient pressure on the sidewall to cause the sidewall to be substantially moved outwardly.

[0024] FIG. 18 is a diagrammatic view showing a longitudinal cross-sectional view of a section of the sidewall of the shoe cover of FIG. 13 with a shoe inserted in the shoe cover, with the shoe exerting sufficient pressure on the sidewall to cause the sidewall to be moved outwardly.

[0025] FIG. 19 is a diagrammatic side view showing yet another embodiment of an exemplary shoe cover of the invention with the outline of a shoe fitted therein.

[0026] FIG. 20 is a diagrammatic view showing the accordion-like pattern of the material forming the sidewalls, toe cap and heel cup of the shoe cover of the invention.

[0027] FIG. 21 is a diagrammatic view showing how interaction between a shoe fit in the shoe cover causes the accordion-like material to stretch to accommodate the shoe.

[0028] FIG. 22 is another diagrammatic view showing how interaction between a shoe fit in the shoe cover causes the accordion-like material to stretch to accommodate the shoe.

DETAILED DESCRIPTION OF THE INVENTION

[0029] FIGS. 1-3 are a side view, a top view, and a bottom view, respectively, of an exemplary embodiment of a shoe cover 10 of the invention. FIG. 4 is a longitudinal cross sectional view of the exemplary shoe cover of FIG. 1 through view lines 4-4. FIG. 5 is a cross sectional view of the exemplary shoe cover through view lines 5-5 of FIG. 2.

[0030] The shoe cover 10 has an upper opening 12 through which a shoe 90 (shown in FIG. 11) can be engaged with the shoe cover 10. A toe cap 14 is provided at a front 16 of the forefoot portion 18 of the shoe cover 10 and a heel cup 20 is provided at the rear of a heel portion 22 of the shoe cover 10. In a mid-cover region 24 of the shoe cover 10, which generally coincides with an arch area of the shoe to be fitted in the shoe cover 10, the mid-cover region 24 arches up above a bottom level 26 of the forefoot portion 18 and a bottom level 28 of the heel portion 22. The material forming the mid-cover region 24 is preferably made thinner and more flexible than in the forefoot portion 18 and the heel portion 22. Thus, when a shoe is placed in the shoe cover, the combination of pushing down on the arched up mid-cover region 24 and the provision of thinner and more flexible material in the mid-cover region provides for enhanced longitudinal stretchability of the cover in order to accommodate different lengths of shoes and to permit easy donning and removal of shoes from the shoe cover 10. The shoe cover 10 has side walls 30 that extend between the front 16 of the shoe cover 10 to the heel cup 20 on both a medial side M and a lateral side L of the shoe cover 10. The sidewalls 30 can, if desired, also made thinner and more flexible in the mid-cover region 24 of the shoe cover 10 for added stretchability of the shoe cover 10. To provide for additional flexibility of the sidewalls 30, one or more flex relief grooves 32 can be formed on the sidewalls 30. Such flex relief grooves 32, can for example, comprise grooves on the sidewalls 30 where the sidewall material is thinner to allow the sidewall 30 to more easily flex outwardly in response to force placed inwardly the sidewalls, such as the placement of a wide forefoot portion of a shoe in the shoe cover 10.

[0031] As best shown in FIG. 4, which is a cross-sectional view of the shoe cover 10 through view lines 4-4 of FIG. 1, the toe cap 14 can also be made of thinner material so that there is greater stretchability in the toe cap 14. On the inside of the shoe cover 10, a grip pattern 40 may preferably be formed on an top surface 42 of the forefoot portion 18 of the shoe cover, and likewise, a grip pattern 44 may preferably be formed on an top surface 46 of the heel portion 28 of the shoe cover 10. This grip pattern 40 and 44 can help maintain the shoe in position inside the shoe cover 10 without sliding around, and may also aid in rubbing and cleaning the bottom of the sole of shoes fitting into the shoe cover 10. As can best be seen, the material forming the shoe cover 10 is thinner, and thus more flexible, in the toe cap 14 and the mid-cover region 24 compared to that in the forefoot portion 18, the heel portion 22,

and/or the heel cup 20. This thinner material permits the shoe cover 10 to a bigger variety of different shoes to be fit therein.

[0032] Turning back to FIG. 3, a bottom 50 of the shoe cover 10 is shown. It has, on the bottom of its forefoot portion 18, a patterned region 52 is formed thereon. The bottom of the heel portion 22 likewise has a patterned region 54 formed thereon. The patterned regions 52 and 54 can, for example, comprise repeating herringbone patterns of ridges and valleys, and provide good grip with a floor surface and also good durability. However, other patterns can be employed. In the forefoot region 18, the patterned region 52 is surrounded by a groove 56. In the heel portion 22, the patterned region 54 can likewise be surrounded by a groove 58. In the case of the groove 56 around the patterned region 52, it provides more stretchable area to allow the forefoot region of expand outwardly to accommodate a greater variety of shoe shapes and sizes, as will be explained further below.

[0033] FIG. 5 is a cross-sectional view through view lines 5-5 of the shoe cover 10 of FIG. 1, and shows the shoe cover 10 in its unexpanded state. The bottom 50 of the forefoot portion 18 has a patterned region 52 surrounded by the groove 56. Outlying the patterned region 52 is a sole rim 60 which extends laterally outwardly from the groove 56 and extends up and merges into the sidewall 32. For extra scuff protection, etc., a pattern can be formed on the outside of the sole rim 60. The sole rim 60 is also shown in FIGS. 1 and 3.

[0034] FIG. 6 is a top view of the forefoot portion 18 of the shoe cover 10 of FIG. 1 in an unexpanded state without its sidewalls 30 bowed out, and FIG. 7 is a bottom view of the forefoot portion 18 of the shoe cover 10 of FIG. 7. As can be seen, the groove 56 remains undistorted. The patterned region 52 and sole rim 60 are separated by the groove 56 with the sole rim extending onto the sidewall 30.

[0035] FIG. 8 is a top view of the forefoot portion of the shoe cover 10 of FIG. 1 in an expanded state with its sidewalls 30 bowed out, and FIG. 9 is a bottom view of the forefoot portion 18 of the shoe cover 10 of FIG. 7. As can be seen, the groove 56, which has thinner material, permits the sole rim 60 and sidewall 30 to stretch and pivot in order to provide for a widening effect of the forefoot portion 18.

[0036] FIG. 10 is a cross-sectional view through view lines 10-10 of the shoe cover 10 of FIG. 8 and show the shoe cover 10 in its expanded state. The forefoot portion 18 has the patterned region 52 surrounded by the groove 56. Outlying the patterned region 52 is the sole rim 60 which extends laterally outwardly from the groove 56 and extends up and merges into the sidewall 30. For extra scuff protection, etc., a pattern can be formed on the outside of the sole rim 60. As can be seen, the groove 56, which has thinner material, allows the sole rim 60 and sidewalls 30 to stretch and pivot outwardly to provide for a widening effect to fit shoes of different widths. The more flex relief grooves 32 also allow portions of the sidewall 30 to flex and better accommodate the shoe.

[0037] FIG. 11 is a side view of the exemplary embodiment of the shoe cover 10 of FIG. 1 with a shoe 90 engaged therewith. The toe cap 14, heel cup 20, and sidewalls 30 will stretch and hold around the shoe 90 to retain the shoe cover 10 in place and permit shoes of various lengths and widths to be fit together with the shoe cover 10.

[0038] FIG. 12 is a side view of an prior art basketball shoe 92 with protrusions 94 extending laterally outwardly from its sole 96.

[0039] FIG. 13 is a diagrammatic side view showing another embodiment of an exemplary shoe cover 100 of the

invention with the outline of a shoe 92 fitted therein. The shoe cover 100 has expansible sidewalls 102 that preferably extend around the medial and lateral sides of the shoe cover and have adjacent ridges 104 and cut ins 106 formed therein. If desired, the adjacent ridges 104 and cut ins 106 can be provided partially on the heel cup 108 portion of the shoe cover 100. The shoe cover 100 has a toe cap 110. The shoe cover 100 can preferably be made from resilient material such as stretchable plastic, rubber, silicone, etc. that will return to its pre-stretched shape after it is no longer under tension. The side wall 102 dips down lower in a mid-sole region 122 of the shoe cover 110.

[0040] FIG. 14 is a bottom plan view of the sole 112 of the exemplary shoe cover 100 of FIG. 13. Two grooves 114 are formed on the bottom of the sole 112 and extend from the toe cap 110 back to the heel cup 108 of the shoe cover 100. The grooves 114 generally enclose a patterned outsole region 116, and outside the grooves lie the spaced apart ridges 104 and cut ins 106. The sole 112 preferably has areas 118 in the mid-shoe cover region 120 that are thinner and more stretchable than other portions of the sole 112. This, plus having the sidewall 122 being lower in the mid-shoe cover region 120 (as best shown in FIG. 13), allows the shoe cover 100 to stretch lengthwise, particularly in the mid-shoe cover region 120.

[0041] Turning next to FIGS. 15 and 16, there are shown diagrammatic lateral cross-sectional views of the sole 112 of the shoe cover of FIG. 13 before and after it is expanded, respectively. As can be seen in FIG. 15, before the shoe cover 100 expands widthwise, the grooves 114 have a first narrower width W1. If a shoe with a wide width is placed in the shoe cover 100, the sidewalls 102 are forced apart and this causes the thinner material in the grooves 114 to stretch to width W2 as shown in FIG. 16, to accommodate shoes of various widths.

[0042] FIG. 17 is a diagrammatic view showing a longitudinal cross-sectional of the sidewall 102 of the shoe cover 100 of FIG. 13 with a shoe 92 inserted in the shoe cover, but without its outer edges or protrusions 94 exerting sufficient pressure on the side walls 102 (e.g., the cut ins 106 or ridges 104) to cause the sidewalls 102 to be substantially stretch outwardly. FIG. 18 is a similar view as FIG. 17, but with protrusions 94 of the shoe 92 exerting substantial force on the sidewall 102 such as to cause it cut ins 106 and ridges 108 to flatten and stretch out, which thereby creates more room in the shoe cover 100 to fit the shoe 92.

[0043] FIG. 19 is a diagrammatic side view showing yet another embodiment of an exemplary shoe cover 150 of the invention with the outline of a shoe 92 fitted therein. The shoe cover 150 has expansible sidewalls 152 that preferably extend around the medial and lateral sides of the shoe cover 150 and also extends around a heel cup 154, and the front of the shoe 156 including the toe cap 158. The expansible sidewalls 152 preferably dips down 162 in a mid-shoe cover region 160 of the shoe cover 150. The material of the expansible sidewalls 152 can be formed with a series of generally parallel ridges and valleys in an accordion-like manner, as shown in FIG. 20, which is an exemplary cross-sectional view perpendicular to the direction of the ridges and valleys. The shoe cover 150 is made from resilient material such as stretchable plastic, rubber, silicone, etc. that will return to its pre-stretched shape when it is not under tension. The sole 112 can be formed in the same manner as the shoe cover 100 of FIG. 14 and have the same features, e.g., including the longitudinal stretchability of the stretchable areas 118 and have the grooves 114 formed

therein for width stretchable of the shoe cover. However, instead of having the spaced apart ridges 104 and cut ins 106 that extend above the sole 112, the sidewalls 152 are as shown in FIG. 19.

[0044] FIGS. 21 and 22 are diagrammatic views showing how interaction between a shoe 92 fit in the shoe cover 150 causes the accordion-like side wall material 152 to stretch to accommodate the shoe 92. In FIG. 21, a protrusion 94 on a shoe 92 has yet to push on the inside of the sidewall 152. In FIG. 22, the protrusion 94 has pushed the sidewall 152 out, and the accordion-like sidewall 152 expands outwardly and upwardly to accommodate the shoe 92. Also, while the groove 114 foamed in the bottom of the sole 112 is not shown as being expanded in FIG. 22, depending on how tight the shoe 92 fits in the shoe cover 150, the groove 114 can expand as diagrammatically shown in FIGS. 15 and 16.

[0045] Although the sidewalls in the embodiments described herein are shown with a more or less uniform pattern of parallel ridges and valleys, they can be irregular in distribution, can vary in size and placement, e.g., with more stretchability provided in areas where there is greater need for stretchability, etc. Moreover, the openable or stretchable accordion-like system of sidewall can be oriented vertical, horizontal or at an angle to the sole. In addition to the accordion-pattern, it is also contemplated to include one or more opening in the sidewalls to provide for air flow in the shoe covers and also to provide for greater stretchability where it is desired.

[0046] The material of the shoe covers, besides being formed uniformly of the same material, can be formed with different materials and/or materials having different properties, e.g., different hardness, stretchability ratings, etc.

[0047] Although preferred embodiments of the present invention have been described, it should not be construed to limit the scope of the invention. In addition, those skilled in the art will understand that various modifications may be made to the described embodiments. Moreover, to those skilled in the various arts, the invention itself herein will suggest solutions to other tasks and adaptations for other applications. It is therefore desired that the present embodiments be considered in all respects as illustrated and not restrictive.

What is claimed is:

1. A shoe cover for a court shoe, comprising:
 - an upper region with a toe cap, a mid-shoe region, and a heel cup, the upper region having sidewalls with expansible zones formed therein; and
 - a sole.
2. The shoe cover of claim 1, wherein the sole has an expansion zone formed therein.
3. The shoe cover of claim 2, wherein the expansible zones formed in the sole comprises areas on the sole that are thinner in the mid-sole region compared to a ball area of the sole or a heel area of the sole.
4. The shoe cover of claim 1, wherein the expansible zones formed in the sole comprises a mid-sole region of the sole that arches up and is formed of highly stretchable material that is more stretchable than the area of the sole in a ball portion of the sole or a heel portion of the sole.
5. The shoe cover of claim 1, wherein the expansible zones on the upper comprises the sidewalls formed in a generally accordion-like manner.

6. The shoe cover of claim 5, wherein the sidewalls formed in a generally accordion-like manner comprise a series of longitudinally oriented and ridges and valleys.

7. The shoe cover of claim 5, wherein the sidewalls formed in a generally accordion-like manner comprise a series of generally vertically oriented and ridges and cut ins.

8. The shoe cover of claim 1, wherein the sole has an expansible zone formed therein.

9. The shoe cover of claim 8, wherein the expansible zone formed in the sole comprises at least one generally longitudinal groove formed on the bottom of the sole.

10. The shoe cover of claim 8, wherein the expansible zone formed in the sole comprises two spaced apart generally longitudinal grooves formed on the bottom of the sole, with each groove adjacent to one longitudinal side edge each of the sole.

11. The shoe cover of claim 1, wherein the sidewalls in the mid shoe region of the upper region is generally narrower and more stretchable than are the sidewalls in a ball portion of the shoe cover or a heel portion of the shoe cover.

12. A shoe cover for a court shoe, comprising:

an upper region with a toe cap, a mid-shoe region, and a heel cup, the upper region having sidewalls with expansible zones formed therein, the expansible zones comprising generally accordion-like bellows; and
a sole with an expansion zone formed therein.

13. The shoe cover of claim 12, wherein the generally accordion-like bellows comprise a series of longitudinally oriented and ridges and valleys.

14. The shoe cover of claim 12, wherein the generally accordion-like bellows comprise a series of generally vertically oriented and ridges and cut ins.

15. The shoe cover of claim 12, wherein the expansible zone formed in the sole comprises at least one generally longitudinal groove formed on the bottom of the sole.

16. The shoe cover of claim 12, wherein the expansible zone formed in the sole comprises two spaced apart generally longitudinal grooves formed on the bottom of the sole, with each groove adjacent to one longitudinal side edge each of the sole.

17. The shoe cover of claim 12, wherein the expansible zones formed in the sole comprises areas on the sole that are thinner in the mid-sole region than compared to a ball area of the sole or a heel area of the sole.

18. The shoe cover of claim 12, wherein the expansible zones formed in the sole a mid-sole region of the sole that arches up and is foamed of highly stretchable material that is more stretchable than the area of the sole in a ball portion of the sole or a heel portion of the sole.

19. The shoe cover of claim 12, wherein the sidewalls in the mid shoe region of the upper region is generally narrower and more stretchable than are the sidewalls in a ball portion of the shoe cover or a heel portion of the shoe cover.

20. A shoe cover for a court shoe, comprising:

an upper region with a toe cap, a mid-shoe region, and a heel cup, the upper region having sidewalls with expansible zones formed therein, the expansible zones comprising generally thinner and flexible areas that allow deformation of the upper to accommodate a court shoe to engage therewith; and

a sole with an expansion zone formed therein.

21. The shoe cover of claim 20, wherein the expansible zone formed in the sole comprises areas on the sole that are thinner in the mid-sole region compared to a ball area of the sole or a heel area of the sole.

22. The shoe cover of claim 20, wherein the expansible zone formed in the sole comprises a mid-sole region of the sole that arches up and is formed of highly stretchable material that is more stretchable than the area of the sole in a ball portion of the sole or a heel portion of the sole.

* * * * *