

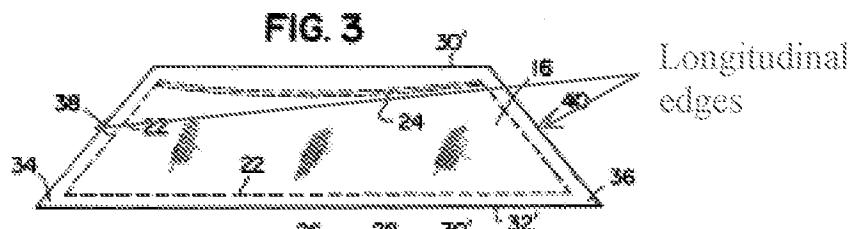
portions of the knit configuration may have a rib structure, which is designed to provide greater elasticity / extensibility than portions of the knit configuration without rib structures.

J. First (Longitudinal) and Second (Vertical) Edges and Seams

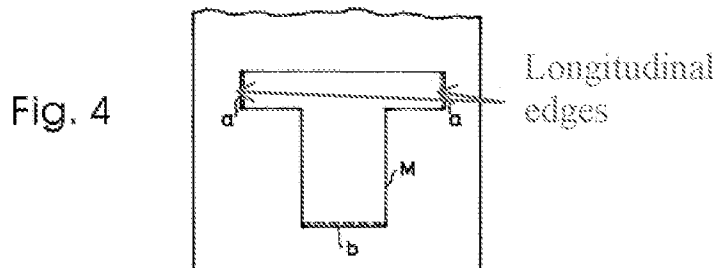
1. First (Longitudinal) Edges Formed when the Textile Element is Removed from the Surrounding Textile Structure

187. Castello, Fujiwara, and Nishida describe that the knitted textile structure includes longitudinal edges that are formed when the knitted textile element is removed from the surrounding knitted textile structure.

188. For example, Castello describes that “[t]he collar sides 38, 40 can be cut either by shears or any other known cutting device such as a paper cutter or a slicing machine (not shown). The sides 38, 40 can also be cut or burned by using a heating element on a device such as a paper cutter which is attached to the blade of the cutting knife at the edge thereof. In this manner, the edges could be fused or singed prior to sewing to help eliminate frayed edges which sometimes may result from cutting, especially when employing synthetic yarns.” Castello, 5:8-17; FIGS. 3 (reproduced below), 2, 4, 5.



189. Likewise, Fujiwara describes that “the cutting at locations of the garments such as sleeves and a hemline is such that cutting lines are located completely inward of the stitched part as shown by dotted lines a and b. As a result, at these portions at the sleeve and the hemline or base, the upper and lower layers of the fabric are separated, thereby providing openings at the sleeves and the hemline, which allows portions of human body (arm and body) to be passed through the openings.” Fujiwara, 6:22-30; FIG. 4 (reproduced below).

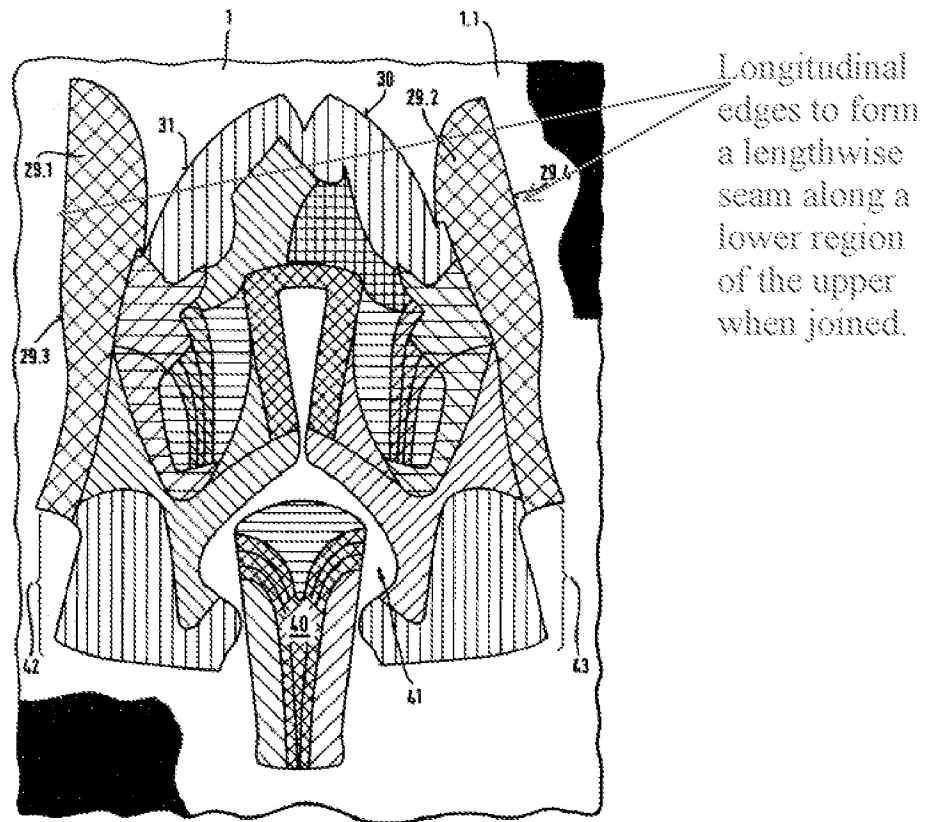


190. Nishida likewise shows longitudinal edges 29.3 and 29.4 in FIG. 4 (reproduced below), as illustrated in the attached claim chart for claim 6 of the ‘749 patent. “With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one

another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; *see also* 4:22-30; 6:5-41; 6:47-54; FIGS. 3-4.

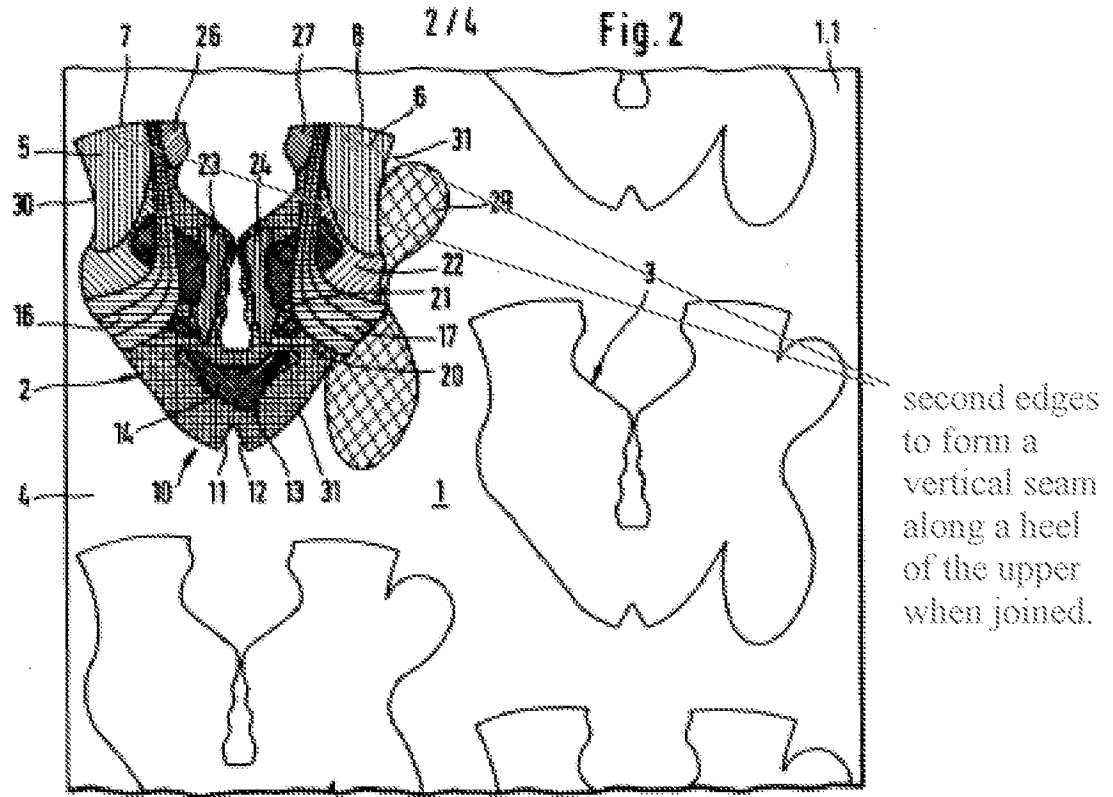
2. Joining the First (Longitudinal) Edges to Define at least a Portion of a Void for Receiving a Foot and/or to Form a Seam that Extends along a Lower Region of an Upper

191. As part of converting the layout into a shoe upper, Nishida describes joining longitudinal edges 29.3 and 29.4 in FIG. 4 to define at least a portion of a void for receiving a foot, as well as to form a seam that extends along a lower region of an upper. “[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; *see also* 4:22-30; 5:3-13; 6:5-41; FIGS. 3, 4 (reproduced below).



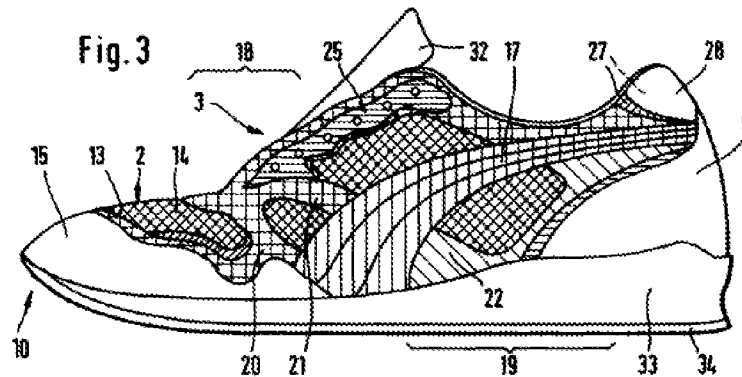
3. Joining Second (Vertical) Edges to Form a Seam that Extends Vertically along a Heel Region of an Upper

192. Nishida also discloses joining a second pair of edges as part of converting the layout into a shoe upper, in which the joined edges form a second seam that extends vertically along a heel region of the upper, as illustrated in the attached claim chart for claim 8 of the '598 patent. "After cutting out layout 2 from the web of material 1, the edges 7 and 8 are stitched together and a heel seam thus is formed. Then, heel counter 9, represented in FIG. 3, is applied, for example, glued and/or stitched, to adjacent areas 5 and 6." Nishida, 3:31-36; *see also* 4:9-11; 6:5-41; FIGS. 2 (reproduced below), 4.



K. Combining the Textile Element Into Footwear Components

193. Nishida describes “*stitching parts of the layout* of the cut-out unit on provided seams *to form an upper of the shoe shaped part . . .*” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; *see also* Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced below).



L. Apertures Formed in the Textile Element

194. The Nike patents describe apertures in one of three ways:

- (1) “[T]he u-shaped area becomes *an aperture* in textile element 40 and effectively forms ankle opening 36” (‘598 patent, 6:24-25);
- (2) “The air-permeability of textile element 40” may also vary in the different areas. Third texture 48” is formed to include *a plurality of apertures* that extend through textile element 40”. The *apertures* may be formed by omitting stitches at specific locations during the wide-tube circular knitting process, and the *apertures* facilitate the transfer of air between the void within upper 20 and the area outside of upper 20” (‘598 patent, 9:46-53); and
- (3) “Lace 131 extends through *a plurality of apertures* formed in textile element 140. The *apertures* may be formed by omitting stitches at specific locations.” (‘598 patent, 10:15-18).

195. With respect to the first type of “ankle opening” aperture, Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. *See* Nishida, FIGS. 1-5.

196. With respect to the second type of “air-permeability” apertures, Nishida discloses that the “type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a ***net-like woven or knitted structure***.” Nishida, 3:49-52 (emphasis added); *see also* 3:43-52; 3:66-4:5; 6:25-31.

197. With respect to the third type of “lace hole” apertures, Nishida describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Thus, Nishida explains that “the lacing areas 23 and 24 *can be made dimensionally stable* in corresponding manners, especially *if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied*.” Nishida, 4:1-5 (emphasis added). Nishida thus recognizes that (a) the lacing strips are optional and may not be applied; (b) that the net-like structure may itself then be used or (c) if no lacing strips are applied and the net-like structure is used, then the lacing areas can be further stabilized via an embroidery. Nishida, 4:31-38. However, if the additional

lacing strips and embroidery are not added, the textile element still includes the net-like structure in the lacing area.

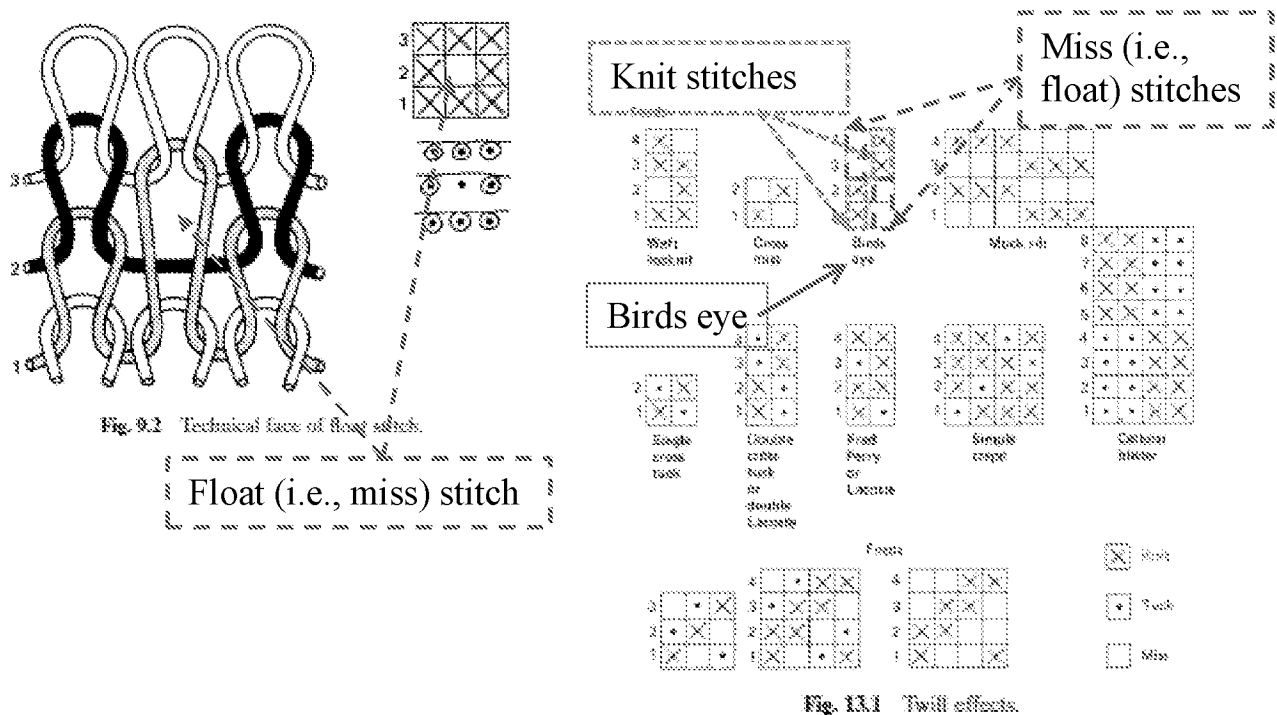
198. Furthermore, Fujiwara describes forming apertures by omitting stitches at specific locations, such as is described by the ‘598 patent as the mechanism for forming the “air permeability” and the “lace hole” apertures. For example, Fujiwara suggests that the interknitted stitches that form the outline M of the textile element may be formed with a birds eye or eyelet stitching. Fujiwara, 5:65-6:11; 6:43-62; 7:21-24. Specifically, Fujiwara states that “FIGS. 3A and 3B illustrate schematically in a course direction knitting diagrams at yarn feeders in groups A and B, respectively at the stitched part of the fabric. At the yarn feeder in the group A, the yarn 14 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated. In the example shown in FIG. 3A, *the integrated fabric* is of a so-called rib stitch in a rib stitch arrangement between the dial and cylinder needles 10 and 12. However, in a jacquard arrangement (not shown) of the dial and cylinder needles 10 and 12, *it is possible that another desired stitching, such as birds eye, eyelet, circular rib or interlock may be employed*. In the similar way, at the yarn feeder in the group B in FIG. 3B, the yarn 16 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated.

Similarly, *any of stitching such as bird's eye, eyelet*, circular rib or interlock *may also be employed.*” Fujiwara, 5:57-6:7 (emphasis added); FIGS. 3A, 3B.

199. A skilled person at least as of March 3, 2004 would have understood how a birds eye stitch is formed, and that it forms apertures in the knitted textile by omitting stitches. Spencer provides extrinsic evidence to support this understanding. Spencer explains that the definition of a birds eye stitch is a combination of knit and miss stitches. Spencer, p. 146; FIG. 13.1 (reproduced below). Spencer explains that the definition of “a *miss stitch* [is that it] would always be *floating freely on the technical back*.” Spencer, p. 94 (emphasis added). Likewise, Spencer explains that the same definition applies to a float stitch: “[i]n FIG. 9.2, the *float stitch* shows the *missed yarn floating freely on the reverse side of the held loop*. (This is the *technical back* of single-jersey structures but is the inside of rib and interlock structures.)” Spencer, p. 92 (emphasis added); FIG. 9.2 (reproduced below). In short, the terms “miss stitch” and “float stitch” are interchangeable.

200. Spencer goes on to explain that a float stitch “is produced when a needle (M) holding its old loop fails to receive the new yarn that passes, as a float loop, to the back of the needle and to the reverse side of the resultant stitch, joining together the two nearest needle loops knitted from it.” Spencer, p. 92. As a result, the float (or miss) stitch forms an aperture in the textile fabric in each specific

location where “the missed yarn float[s] freely on the reverse side of the held loop.” Spencer, p. 92. In other words, the skilled person would have understood Fujiwara’s suggestion of using a birds eye stitch to form at least a portion of the interknitted outline M would produce apertures by omitting stitches in specific locations within the knitted textile element.



M. The Skilled Person Would Have Been Motivated to Combine Castello, Fujiwara, and Nishida.

201. Castello’s explicit statement that “[b]y employing the method of the present invention, all of these features can be combined if so desired and knit simultaneously on one circular knitting machine (not illustrated) such as a TJI or Links & Links machine to thereby far outproduce any existing flat machine” and

that “the method of the present invention also eliminates the need for patterns for use when cutting inasmuch as knitting cutting guide lines 20 are knit directly into the tubular knitted cloth 10 during the knitting operation” would have suggested to a person of ordinary skill in the relevant art at least as of March 3, 2004 that Castello recognized early the benefits of being able to use wide-tube circular knitting machines to produce a web containing textiles with complex stitch configurations, which are removed from the web and incorporated into finished garments. Thus, Castello’s process could be used with any circular knitting process where the knitted textile element includes a variety of textile features and or where the knitted textile element is removed from a larger knitted textile structure. With this understanding, the skilled person would have been motivated to modify Castello’s process to incorporate additional computerized advances in independent needle selection with a double layer circular knitting machine, such as the type described in Fujiwara, for independent needle selection at both the dial and cylinder needles as a way to increase the options for combining even more features simultaneously in a knitted textile element. Fujiwara, 6:44-45; 6:56-62. Furthermore, the skilled person would have been motivated to use Castello’s process to produce textile elements for all types of clothing, including forming textile elements to be incorporated into footwear as described in Nishida. Nishida,

Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3.

202. Moreover, the skilled person would have found Nishida's process of producing textile elements to be analogous art to Castello's and Fujiwara's processes, as all three processes are directed to methods of simultaneously forming textile elements within a surrounding textile structure using programmable and/or computerized single needle selection technology, removing the textile elements, and incorporating the textile elements into a wearable item. Nishida, Abstract; 1:10-18; 1:40-2:37; 2:40-47; 3:6-52; 3:59-4:5; 4:12-60; 5:3-26; 5:63-6:2; 6:36-38; FIGS. 1-3; Castello, Abstract; 1:35-2:21; 2:42-52; 3:34-5:44; 6:35-58; 7:1-9; 7:23-25; 8:17-19; FIGS. 1, 2A, 2-5; Fujiwara, 1:58-3:18; 3:45-48; 3:59-5:11; 5:42-6:62; 7:25-37; FIGS. 1, 4, 6, 7.

203. Additionally, Castello, Fujiwara, and Nishida are directed to reducing costs associated with producing textile elements using the latest advances in knitting technology. Castello states that "[t]he present invention resides in a novel method of fabricating knitted collars on circular knitting machines which results in a far greater production capability at resulting cost savings over that presently possible on flat machines." Castello, 1:39-43.

204. Fujiwara similarly states that "according to the method invention, an article or garment can be obtained from a fabric without or substantially without

necessitating any sewing process, which otherwise is essential, thereby reducing a production cost of an article or garment from a fabric.” Fujiwara, 3:13-18.

“[S]ewing is a bottleneck from the view point of increase in an production efficiency as well as of decrease in a production cost” such that “there has heretofore been a strong requirement as to a development in a garment making by which any sewing is not necessary.” Fujiwara, 1:30-35.

205. Nishida likewise states that a “process is used by which such shoe uppers can be produced in a timesaving and efficient manner” with “only a small number of individual parts that have to be produced separately and applied to the upper later” over conventional methods that generate expensive cutting waste. Nishida, Abstract, 2:45-47. “It is of further advantage in the process according to the present invention that the individual patterns or partial patterns already can be produced *directly* in the production of the web of material in the desired shoe size, by which the cutting waste can be still further limited, since the individual patterns or partial patterns in the provided size can directly adjoin one another.” Nishida, 2:27-33 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or knitted type of individual areas or contours, the type of fiber or yarn and/or the color can be selected almost at will.” Nishida, 2:40-45. As a result, the person of ordinary skill in the relevant art at least

as of March 3, 2004 would have found that Castello, Nishida, and Fujiwara are directed to solving a similar problem: expensive and time consuming production of textile components.

206. In view of the substantial similarities between the methods described in Castello, Fujiwara, and Nishida, and the specifics of the various stitch configurations for the interknitted outline M in Fujiwara, a person of ordinary skill in the relevant art would certainly have been motivated to modify Castello's method to include the additional features described by Fujiwara and Nishida to produce a textile element for use in a shoe upper, as well as to produce a shoe incorporating such a textile element.

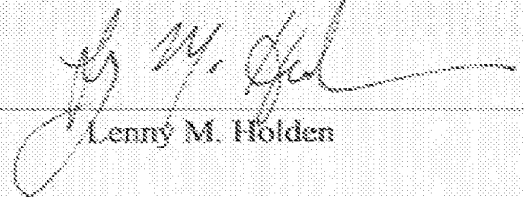
207. The combination of Castello, Fujiwara, and Nishida is nothing more than combining "prior art elements according to known methods to yield predictable results" and/or the "[u]se of known technique[s] to improve similar devices (methods, or products) in the same way." *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C). This is particularly the case where "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421.

208. It is therefore my opinion that Castello, Fujiwara, and Nishida together teach and render obvious claims 1-13 of the '598 patent and claims 1-9, 11-19, and 21 of the '749 patent.

XI. SUMMARY

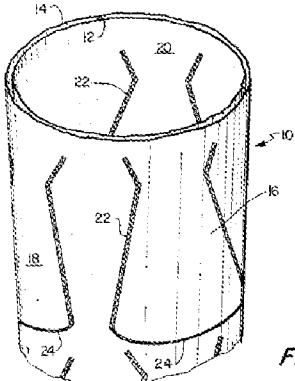
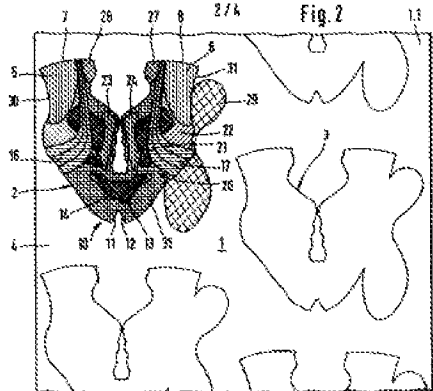
209. I note that my analysis is continuing and that I may modify or supplement my conclusions as I receive additional information. I declare under penalty of perjury that the foregoing Declaration is true and correct.

Dated: April 19, 2016



Lenny M. Holden

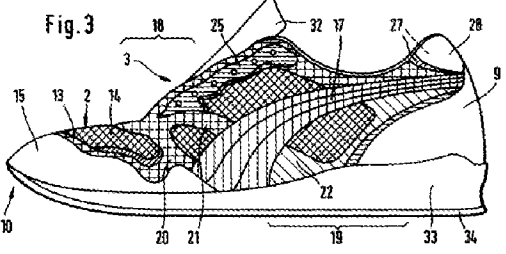
DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>[1A] A method of manufacturing an article of footwear, the method comprising steps of:</p>	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2.</p>
<p>[1B] mechanically-manipulating a yarn with a circular-knitting machine to form a cylindrical textile structure;</p>	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 2:22-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6. “The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added); FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p> <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-</p> <div style="text-align: right;">  <p style="text-align: right;">FIG. 1</p> </div> <div style="text-align: right;">  <p style="text-align: right;">Fig. 2</p> </div>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p> <p>“As can be seen, <i>any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1</i>. For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); <i>see also</i> 2:40-41; 4:53-54; 5:64-65.</p> <p>“<i>[O]nly just those parts of the web of material</i> are produced in the necessary quality, thickness, multilayers or the like <i>which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part</i>. The <i>remaining area of the web of material</i> in contrast can consist of a simple, lightweight or inexpensive material quality, which <i>holds together only the patterns or areas of such patterns in the web of material</i> after their completion.” Nishida, 2:12-20 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
<p>[1C] removing at least one textile element from the textile structure; and</p>	<p>“The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i>. As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired.” Reed, 3:12-19 (emphasis added). “As indicated previously, once the knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed by cutting along the outline</i> formed by the interconnecting stitches represented by the X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p>

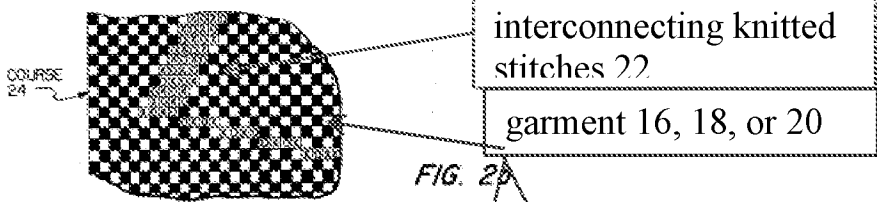
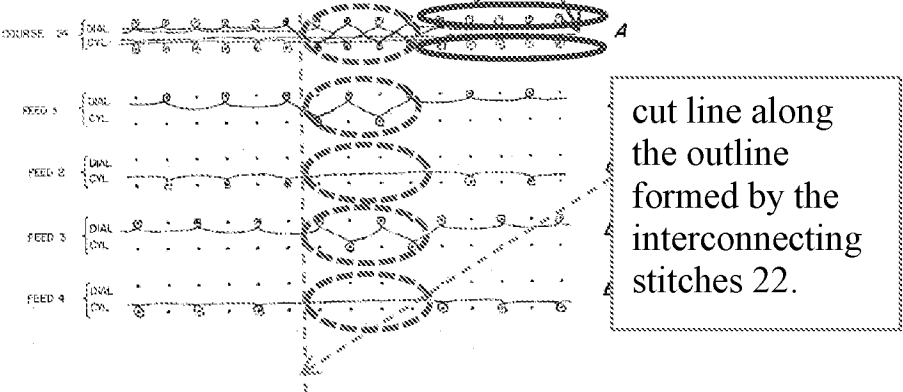
DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>
<p>[1D] incorporating the textile element into an upper of the article of footwear.</p>	<p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part . . .</i>” Nishida, 6:36-38 (emphasis added); <i>see also</i> Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 
<p>[2] The method recited in claim 1, wherein the step of mechanically-manipulating includes utilizing a wide-tube circular knitting machine.</p>	<p>“An example of a <i>circular knitting machine</i> which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60 (emphasis added); <i>see also</i> Abstract; 1:58-64.</p> <p>“Around the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18, 20.” Reed, 3:5-7; FIGS. 1-2.</p>
<p>[3] The method recited in claim 1, wherein the step of mechanically-manipulating includes forming a texture in the cylindrical textile</p>	<p>“The garments 16, 18 and 20 are <i>outlined</i> by a plurality of interconnecting knitted stitches 22 and 24.” Reed, 3:8-9 (emphasis added). “The outline seam 24 is formed from two sets of X's and O's which are offset in the wale axes by four wales. The degree of wale offset <i>to form the desired outline</i> is a matter of design and thus not critical.” Reed, 4:42-45 (emphasis added). “[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
structure with a shape of the textile element.	<p>severed by cutting along <i>the outline formed by the interconnecting stitches</i> represented by the X's and O's." Reed, 5:67-6:3 (emphasis added).</p> <p>"[I]n the production of a web of material, both <i>the patterns or partial patterns in the form of layouts of the shoe upper</i> and the patterns or partial patterns in the form of a sole part, <i>are produced by</i> a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by <i>a textile production process inside the web of material . . .</i>." Nishida, 1:50-56 (emphasis added); <i>see also</i> Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2.</p>
[4] The method recited in claim 1, wherein the step of mechanically manipulating includes forming the textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a	<p>"The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i>" Reed, 5:3-18 (emphasis added); FIGS. 3A-3E.</p> <p>"[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's." Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
surface of the textile element.	<div><p>FIG. 25</p><p>cut line along the outline formed by the interconnecting stitches 22.</p></div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.” Reed, 3:61-4:9.</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, areas 26 and 27 are produced in a configuration, color or style that is different from the other areas.” Nishida, 4:6-9 (emphasis added).</p> <p>“Layout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another</p>

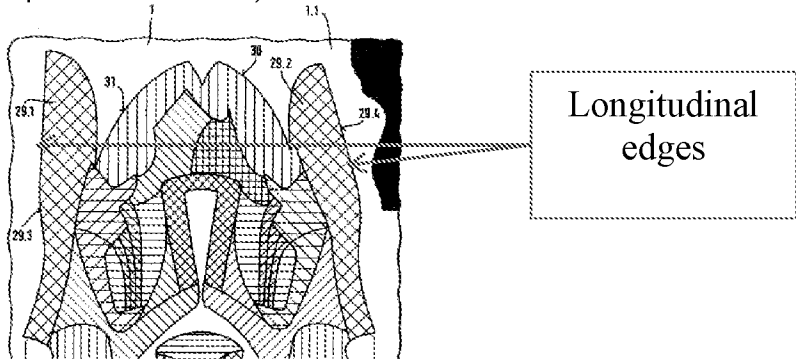
DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like”</p> <p>Nishida, 3:15-25. “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the color <i>can be selected almost at will</i>.” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 3:15-26; 3:47-48; 4:12-28; 4:48-55; 5:56-6:2.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, Silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i>, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p>
[5] The method recited in claim 1, wherein the step	<p>“Still another object is to provide a method for producing a <i>plurality of garments</i> formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added). “As can be</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>of mechanically manipulating includes forming at least two textile elements in the cylindrical textile structure.</p>	<p>seen, the knitted structure 10 includes (around its circumference) a <i>plurality of finished garments</i> which need only be severed from the structure 10 and turned inside out if a hidden seam is desired.” Reed, 3:15-19 (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 3:5-7; 3:58-60; 4:68-5:2; FIG. 1.</p> <p>“The web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.” Nishida, 3:9-12; <i>see also</i> Abstract; 1:47-2:5; 2:11-25; 2:40-2:47; 3:6-26; 3:43-52; 3:59-4:5; 4:47-60; 5:64-65; FIGS. 1-3.</p>
<p>[6] The method recited in claim 1, wherein the step of mechanically manipulating includes forming apertures in the textile element.</p>	<p>Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. <i>See Nishida</i>, FIGS. 1-5.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, Silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.” Nishida, 3:43-52 (emphasis added); <i>see also</i> 3:66-4:5; 6:25-31.</p> <p>Nishida also describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Thus, Nishida explains that “the lacing areas 23 and 24 <i>can be made dimensionally stable</i> in corresponding manners, especially <i>if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.</i>” Nishida, 4:1-5 (emphasis added).</p>
<p>[7] The method</p>	<p>“With the embodiment according to FIG. 4, a sole part section</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

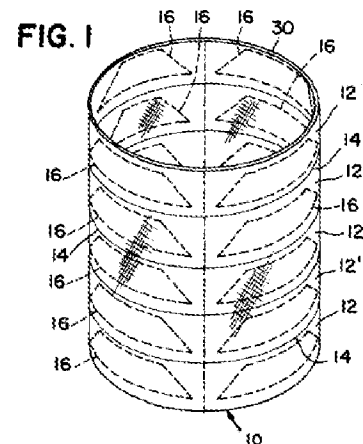
CLAIM	GROUND 1
<p>recited in claim 1, wherein the step of incorporating includes securing a first pair of edges of the textile element to each other to form a first seam that extends along a lower region of the upper.</p>	<p>29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. <i>In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.</i>” Nishida, 5:3-13; FIG. 4 (reproduced below).</p>  <p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; <i>see also</i> 4:22-30; 6:5-41; FIGS. 3-4.</p>
<p>[8] The method recited in claim 7, wherein the step of incorporating further includes securing a second pair of edges of the textile element to each other to form a second seam that extends along a heel region of the</p>	<p>“After cutting out layout 2 from the web of material 1, the edges 7 and 8 are stitched together and a heel seam thus is formed. Then, heel counter 9, represented in FIG. 3, is applied, for example, glued and/or stitched, to adjacent areas 5 and 6.” Nishida, 3:31-36; <i>see also</i> 4:9-11; 6:5-41; FIGS. 2, 4.</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX A

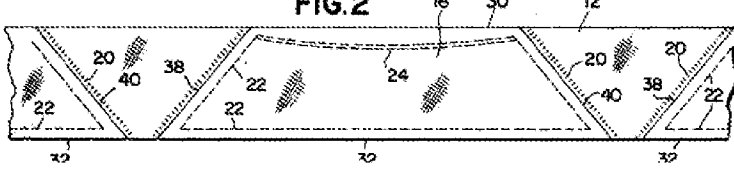
CLAIM	GROUND 1	
upper.		
[9A] A method of manufacturing an article of footwear, the method comprising the steps of:	<i>See Appendix A, claim 1A.</i>	
[9B] mechanically-manipulating a yarn with a wide-tube circular knitting machine to form a textile structure having an outline of at least one textile element;	<i>See Appendix A, claims 1B, 2, 3.</i>	
[9C] removing the textile element from the textile structure;	<i>See Appendix A, claim 1C.</i>	
[9D] incorporating the textile element into an upper of the article of footwear.	<i>See Appendix A, claim 1D.</i>	
[10] The method recited in claim 9, wherein the step of mechanically-manipulating includes forming a texture in the cylindrical textile structure with a shape of the textile element.	<i>See Appendix A, claim 3.</i>	
[11] The method recited in claim 9, wherein the step of mechanically manipulating includes forming the textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the textile element.	<i>See Appendix A, claim 4.</i>	
[12] The method recited in claim 9, wherein the step of incorporating includes securing a first pair of edges of the textile element to each other to form a first seam that extends along a lower region of the upper.	<i>See Appendix A, claim 7.</i>	
[13] The method recited in claim 12, wherein the step of incorporating further includes securing a second pair of edges of the textile element to each other to form a second seam that extends along a heel region of the upper.	<i>See Appendix A, claim 8.</i>	

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

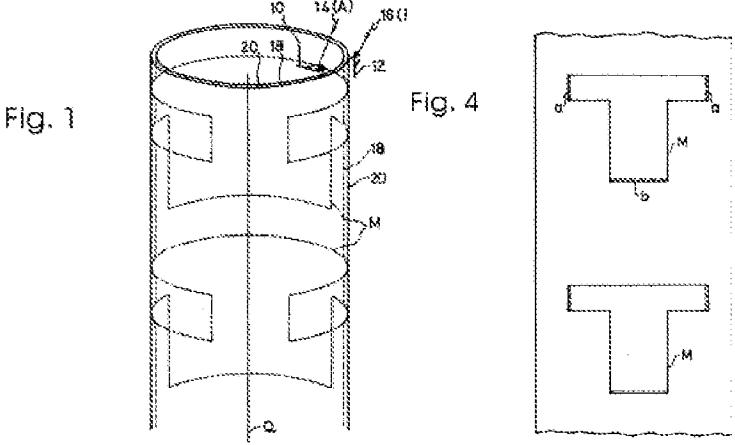
CLAIM	GROUND 2
<p>[1A] A method of manufacturing an article of footwear, the method comprising steps of:</p>	<p>“The present invention resides in a novel method of fabricating knitted collars on circular knitting machines” Castello, 1:39-40; <i>see also</i> Abstract; 1:35-2:4; 3:34-4:10; 4:22-5:44; 6:35-58; 7:1-5; FIGS. 1, 2A, 2-5.</p> <p>“FIG. 1 illustrates schematically a formation of a circular knitted fabric as a first embodiment of the present invention, from which fabric a garment such as a sweater is obtained without necessitating any subsequent sewing process.” Fujiwara, 3:45-48; <i>see also</i> 1:58-3:18; 3:59-4:65.</p> <p>See Appendix A, claim 1A regarding Nishida.</p>
<p>[1B] mechanically-manipulating a yarn with a circular-knitting machine to form a cylindrical textile structure;</p>	<p>“In utilizing the method of the present invention, circular machines having either Jacquard cards, or pattern wheels or drums or any other known suitable mechanical means of needle selection can be used. For purposes of illustration, a Jacquard type machine with cards, such as a TJI or Links and Links machine will be described.” Castello, 1:43-49.</p> <p>“After a suitable sketch has been prepared on the graph paper showing the desired collar shape, design, color, mock fashion marks, etc., knitting machine cards (or some equivalent system) are then punched or otherwise prepared in conventional manner and set up on the machine to thereby automatically control the machine stitches to knit the tubular cloth 10 with the layers 12, 12', the separating threads 14 and the collar construction 16 knitted therein.” Castello, 3:59-67; <i>see also</i> 3:34-45; 3:68-4:55; 5:18-44; FIGS. 1, 2 (reproduced at right and below).</p>



DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
	<p style="text-align: center;">FIG. 2</p>  <p>“The method of the present invention also eliminates the need for patterns for use when cutting inasmuch as <i>knitting cutting guide lines 20 are knit directly into the tubular knitted cloth 10 during the knitting operation.</i>” Castello, 4:39-42 (emphasis added). A knitted, indented, circular or straight fold <i>crease mark 24 can be knit directly into the tubular cloth 10 during the knitting operation.</i> Castello, 4:53-55.</p> <p>“In other words, it is desirable that the circular knitting machine is the one that, at each thread feeding position, is provided with a computer controlled pattern control mechanism. Namely, for practicing the present invention, it is desirable that the circular knitting machine is of a so-called double knitting type by which an independent needle selection control is obtained at each thread feeder not only for the cylinder needles but also for the dial needles. Such a type of a circular knitting machine is, for example, available from Fukuhara Industrial Trading Co., Ltd., Osaka, Japan under the trade name of V-LEC4D.” Fujiwara, 4:12-21.</p> <p>“According to the present invention, the circular knitted fabric is constructed by an inner and outer layers, which are separate with each other and which are knitted by the dial and cylinder needles, respectively. The inner and outer layers are, along an outline of an article or a garment, connected with each other by using a stitching construction using both of the dial and cylinder needles.” Fujiwara, 2:31-37; <i>see also</i> 1:58-3:18; 4:66-5:7; FIGS. 1, 4 (reproduced below); FIGS. 6, 7.</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
	<div style="text-align: center;">  </div> <p>“The <i>progress of the knitting causes a circular knitted fabric</i> of a substantially hose shape <i>to be produced, which has closed stitched lines M as repeated patterns in the continuous length of the fabric.</i>” Fujiwara, 6:12-15 (emphasis added).</p> <p>See Appendix A, claim 1B regarding Nishida.</p>
<p>[1C] removing at least one textile element from the textile structure; and</p>	<p>“After the tubular cloth 10 has been knit by the machine (not shown), the draw threads 14 are pulled to separate the cloth into a plurality of individual layers 12, 12'. The layers are then cut along the knitted cut guide lines 20 to produce a plurality of individual collars 16, each having cut sides 38, 40.” Castello, 3:67-4:4; <i>see also</i> 4:38-45; 4:67-5:17.</p> <p>“As a result, when the fabric is cut outwardly along the outline while the stitched parts are at least partially left, a garment can be obtained, which has a front and back bodies, which are connected along the outline M.” Fujiwara, 5:7-11; <i>see also</i> 1:58-3:18; 6:12-42; 7:21-37.</p> <p>See Appendix A, claim 1C regarding Nishida.</p>
<p>[1D] incorporating the textile element into an upper of the article of footwear.</p>	<p>See Appendix A, claim 1D.</p>
<p>[2] The method recited in claim 1, wherein the step of mechanically-</p>	<p>“Referring again to FIG. 5, I show a sketch which may be employed in conjunction with an <i>eight-cut</i> L.H. circular machine having 64 levers per automat. Assuming twelve automats, the machine could be programmed to knit three</p>

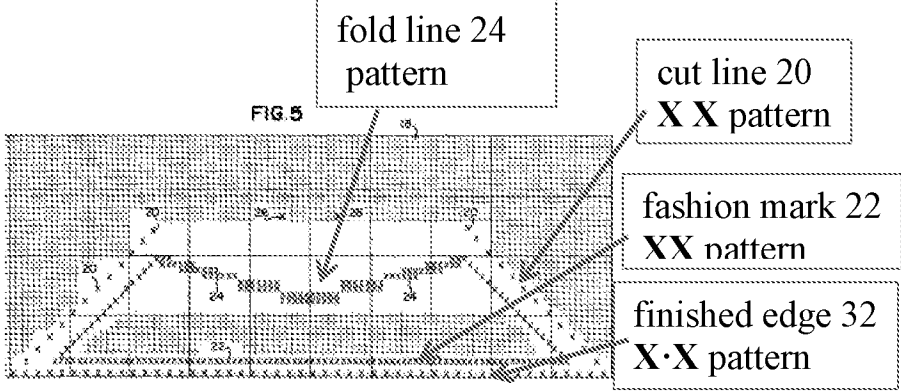
DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
manipulating includes utilizing a wide-tube circular knitting machine.	collar constructions 16 per layer 12. In the illustration shown, 768 needles would be employed less approximately 10 needles on each side of the gate on automats one and twelve.” Castello , 5:18-25 (emphasis added); <i>see also</i> Abstract; 1:35-53; 1:47-64; 3:34-39; 4:23-38.
[3] The method recited in claim 1, wherein the step of mechanically-manipulating includes forming a texture in the cylindrical textile structure with a shape of the textile element.	<p>“The method of the present invention also eliminates the need for patterns for use when cutting inasmuch as knitting cutting guide lines 20 are knit directly into the tubular knitted cloth 10 during the knitting operation. The only cutting required is along the sides 38, 40 of the collar which have the cutting guide lines 20 already knit directly in the fabric. Mock fashion marks 22 can be knit along the sides 38, 40 and the bottom edge 32' of the collar in any desired design or pattern by employing conventional knitting procedures. The bottom edge 32' of the collar need not be additionally sewn inasmuch as this is a knitted finished edge which remains after pulling the draw thread 14 and so requires no additional operations.” Castello, 4:38-52; <i>see also</i> 1:68; 2:45-50; 3:50-58; 4:2-4; 4:11-12; 4:22-33; 4:67-5:17; 5:35-44; FIG. 5.</p> <p>“In FIG. 1, a closed phantom line M indicates, in a very schematic manner, an outline of a sweater as a garment wherein one of the inner and outer layers 18 and 20 becomes one side (front body) of the sweater while the other of the inner and outer layers 18 and 20 becomes the other side (back body) of the sweater. Along the outline M of a necessary width, the inner and outer tubular layers 18 and 20 are connected or stitched with each other, so that the both of the layers 18 and 20 are integrated.” Fujiwara, 4:66-5:7. “The stitching between the inner and outer layers along the outline M is obtained by knitting by using both of the dial needles 10 and the cylinder needles 12.” Fujiwara, 5:11-13; <i>see also</i> 2:34-37; 3:62-4:5; 5:20-41; 6:12-22; 7:21-32; FIGS. 1, 4, 6, 7.</p> <p>See Appendix A, claim 3 regarding Nishida.</p>
[4] The method recited in claim 1, wherein the step	“[A]s seen in FIG. 5, a graph 18 is first laid out in accordance with practices well known to those skilled in the art to show features such as peripheral knitted cutting guide lines 20,

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
<p>of mechanically manipulating includes forming the textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the textile element.</p>	<p>knitted fashion marks 22, knitted neck fold lines 24 and knitted guide marks 26, 28. The guide marks 26, 28 serve as guides to aid sewing machine operators when the collar is being affixed to the remainder of the garment.” Castello, 3:51-58; FIG. 5.</p> <p>“[A] collar construction 16 can be produced on a single circular knitting machine having an integral knitted fold crease 24, knitted sewing guide marks 26, 28, mock fashion marks 22 and any desired Jacquard color designs (not illustrated) <i>The fashion marks 22 may be knitted in conventional manner spaced apart in any desired stitch pattern, such as by Jacquard patterns.</i> The fashion marks 22 may be knit continuously about the periphery of the collar.” Castello, 4:23-33 (emphasis added); FIG. 5. “[M]ore or fewer fashion marks 22 can be provided, <i>more or fewer collar fold marks 24 (knitted as reversed jersey)</i> can be knit, <i>more or fewer stripes, various colors, patterns (not illustrated)</i> can be programmed into the circular knitting machine.” Castello, 5:35-44 (emphasis added); FIG. 5.</p> <p>“[T]he top and bottom edges 30, 32 of each layer 12, 12’ are finished, knitted edges which remain after separation of the layers by pulling the draw threads 14 and can serve as the top and bottom edges respectively, 30’, 32’ of each individual collar 16 without further sewing or other operations.” Castello, 4:4-10; FIG. 5.</p> <p>“[C]ircular neck fold line 24 of jersey stitches . . . create[s] a collar that lays naturally on the back of the neck without ‘hiking’ up or down to thereby enhance the beauty and utility of the collar. The fold 24 remains permanent even after washing or dry cleaning inasmuch as it is knitted directly into the fabric and thus reduces pressing costs in the finished garment.” Castello, 4:53-63; <i>see also</i> 1:43-49; 1:54-68; 2:12-21; 2:42-52; 3:34-58; 4:34-5:7; 5:13-17.</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
	 <p>See Appendix B, claim 1B regarding Fujiwara; see Appendix A, claim 4 regarding Nishida.</p>
<p>[5] The method recited in claim 1, wherein the step of mechanically manipulating includes forming at least two textile elements in the cylindrical textile structure.</p>	<p>“The tubular fabric is designed to produce a plurality of vertically juxtaposed layers, each having a height equal to the height of the collar being produced. A <i>plurality of collars</i>, for example, four are knitted in each layer.” Castello, 1:59-63; <i>see also</i> 1:65-68; 3:34-49; 3:59-4:4; FIGS. 1, 2A.</p> <p>“The progress of the knitting causes a circular knitted fabric of a substantially hose shape to be produced, which has closed stitched lines M as <i>repeated patterns</i> in the continuous length of the fabric. The fabric is cut along the longitudinal cut line Q in FIG. 1. As a result, a continuous length of a fabric having closed stitched lines M as <i>repeated patterns</i> as shown in FIG. 4 is obtained. Then, the fabric is subjected to a cutting along the stitching line M, while the stitched parts are at least partly remained.” Fujiwara, 6:12-20 (emphasis added); FIGS. 1, 4, 6, 7.</p> <p>See Appendix A, claim 5 regarding Nishida.</p>
<p>[6] The method recited in claim 1, wherein the step of mechanically manipulating includes forming apertures in the</p>	<p>“FIGS. 3A and 3B illustrate schematically in a course direction knitting diagrams at yarn feeders in groups A and B, respectively at the stitched part of the fabric. At the yarn feeder in the group A, the yarn 14 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated. In the example shown in FIG. 3A, the <i>integrated fabric</i> is of a so-called rib</p>

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

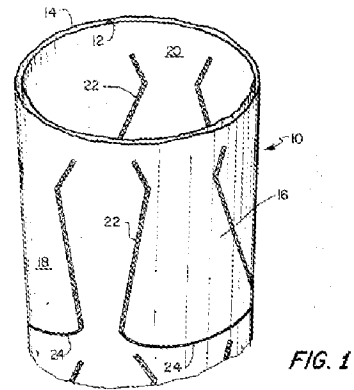
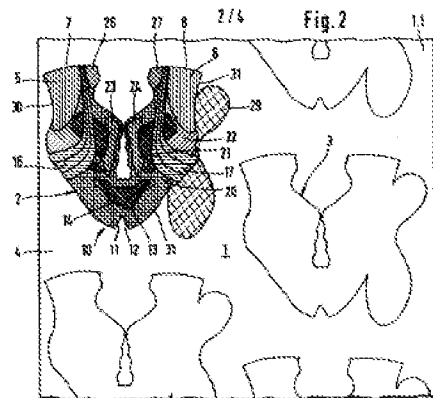
CLAIM	GROUND 2
textile element.	<p>stitch in a rib stitch arrangement between the dial and cylinder needles 10 and 12. However, in a jacquard arrangement (not shown) of the dial and cylinder needles 10 and 12, <i>it is possible that another desired stitching, such as birds eye, eyelet, circular rib or interlock may be employed.</i> In the similar way, at the yarn feeder in the group B in FIG. 3B, the yarn 16 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated. Similarly, <i>any of stitching such as bird's eye, eyelet, circular rib or interlock may also be employed.</i>" Fujiwara, 5:57-6:7 (emphasis added); FIGS. 3A, 3B; <i>see also</i> 6:43-62; 7:21-24.</p> <p>See Appendix A, claim 6 regarding Nishida.</p>
[7] The method recited in claim 1, wherein the step of incorporating includes securing a first pair of edges of the textile element to each other to form a first seam that extends along a lower region of the upper.	See Appendix A, claim 7.
[8] The method recited in claim 7, wherein the step of incorporating further includes securing a second pair of edges of the textile element to each other to form a second seam that extends along a heel region of the upper.	See Appendix A, claim 8.
[9A] A method of manufacturing an article of footwear, the method comprising the steps of:	See Appendix B, claim 1A.
[9B] mechanically-manipulating a yarn with a wide-tube circular knitting machine to form a textile structure having an outline of at least one textile element;	See Appendix B, claims 1B, 2, 3.
[9C] removing the textile element from the textile structure;	See Appendix B, claim 1C.
[9D] incorporating the textile element into an upper of the article of footwear.	See Appendix B, claim 1D.
[10] The method recited in claim 9, wherein the step of mechanically-manipulating includes forming a texture in the cylindrical textile structure with a shape of the textile element.	See Appendix B, claim 3.
[11] The method recited in claim 9, wherein the step of mechanically manipulating includes forming the textile element to include a first area and a second area with a unitary	See Appendix B, claim 4.

DECLARATION OF LENNY HOLDEN - 598 PATENT
APPENDIX B

CLAIM	GROUND 2
construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the textile element.	
[12] The method recited in claim 9, wherein the step of incorporating includes securing a first pair of edges of the textile element to each other to form a first seam that extends along a lower region of the upper.	<i>See Appendix B, claim 7.</i>
[13] The method recited in claim 12, wherein the step of incorporating further includes securing a second pair of edges of the textile element to each other to form a second seam that extends along a heel region of the upper.	<i>See Appendix B, claim 8.</i>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

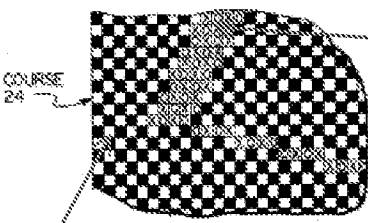
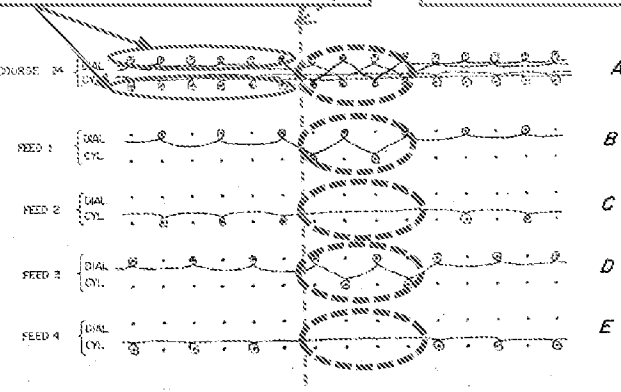
CLAIM	GROUND 1
<p>[1A] A method of manufacturing an article of footwear, the method comprising:</p>	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2.</p>
<p>[1B] simultaneously knitting a textile element with a surrounding textile structure,</p>	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 2:22-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6.</p> <p>“The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added); FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p> <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-</p>



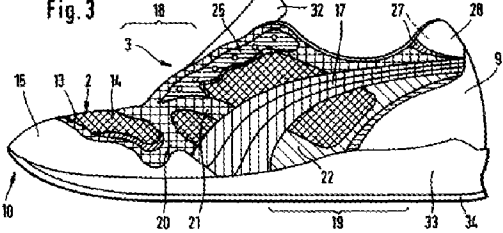
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	<p>18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p> <p>“As can be seen, <i>any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1</i>. For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); <i>see also</i> 2:40-41; 4:53-54; 5:64-65.</p> <p>“<i>[O]nly just those <u>parts of the web of material</u> are produced</i> in the necessary quality, thickness, multilayers or the like <i>which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part</i>. The <i>remaining <u>area of the web of material</u></i> in contrast can consist of a simple, lightweight or inexpensive material quality, which <i>holds together only the patterns or areas of such patterns in the web of material</i> after their completion.” Nishida, 2:12-20 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
<p>[1C] the knitted textile element having at least one knitted texture that differs from a knitted texture in the surrounding knitted textile structure;</p>	<p>“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i>” Reed, 5:3-18 (emphasis added); FIGS. 3A-3E. “[O]nce the</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	<p>knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's." Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p> <div style="text-align: center;">  <p style="text-align: right;">FIG. 2a</p> </div> <div style="text-align: center;">  <p style="text-align: center;">FIG. 3</p> </div> <p>See Appendix C, claim 1B regarding Nishida.</p>
<p>[1D] removing the knitted textile element from the surrounding knitted textile structure; and</p>	<p>"The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i>. As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired." Reed, 3:12-19 (emphasis added). "As indicated previously, once the knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed by cutting along the outline</i> formed by the interconnecting stitches represented by the X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams." Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16;</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	<p>3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p> <p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>
<p>[1E] incorporating the textile element into an upper of the article of footwear.</p>	<p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part . . .</i>” Nishida, 6:36-38 (emphasis added); <i>see also</i> Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 
<p>[2] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile structure includes simultaneously knitting a plurality of textile elements.</p>	<p>“Still another object is to provide a method for producing a <i>plurality of garments</i> formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added). “As can be seen, the knitted structure 10 includes (around its circumference) a <i>plurality of finished garments</i> which need only be severed from the structure 10 and turned inside out if a hidden seam is desired.” Reed, 3:15-19 (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 3:5-7; 3:58-60; 4:68-5:2; FIG. 1.</p> <p>“The web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.” Nishida, 3:9-12; <i>see also</i> Abstract; 1:47-2:5; 2:11-25; 2:40-2:47; 3:6-26; 3:43-52; 3:59-4:5; 4:47-60; 5:64-65; FIGS. 1-2.</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
<p>[3] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile includes knitting an outline of the knitted textile element.</p>	<p>“The garments 16, 18 and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24.” Reed, 3:8-9 (emphasis added). “The outline seam 24 is formed from two sets of X’s and O’s which are offset in the wale axes by four wales. The degree of wale offset to form the desired outline is a matter of design and thus not critical.” Reed, 4:42-45 (emphasis added). “[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X’s and O’s.” Reed, 5:67-6:3 (emphasis added).</p> <p>“[I]n the production of a web of material, both the patterns or partial patterns in the form of layouts of the shoe upper and the patterns or partial patterns in the form of a sole part, are produced by a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by a textile production process inside the web of material” Nishida, 1:50-56 (emphasis added); see also Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2; 4-5.</p>
<p>[4] The method of claim 3, wherein the outline has the shape and proportion of the knitted textile element.</p>	<p>See Appendix C, claim 3.</p>
<p>[5] The method of claim 1, wherein the knitted textile element has a substantially planar configuration upon removal from the surrounding knitted textile structure.</p>	<p>“If the present process is used to preform an exterior decorative fabric having a lining or inner-lining or interfacing attached thereto, the severed sections must be assembled and seamed by standard practices. By providing the lining or interfacing already attached to the section, a substantial amount of time is saved in measuring, marking and cutting the original fabric and lining or interlining as well as stitching them together.” Reed, 6:10-17; FIGS. 1, 4-6; <i>see also</i> 3:61-4:3.</p> <p>Nishida, FIGS. 1-2, 4-5.</p>
<p>[6] The method of claim 1, wherein the</p>	<p>“Clothing in the garment industry is generally made by superimposing one fabric over another, <i>cutting it into panels</i> to conform to the shape of the individual according to current</p>

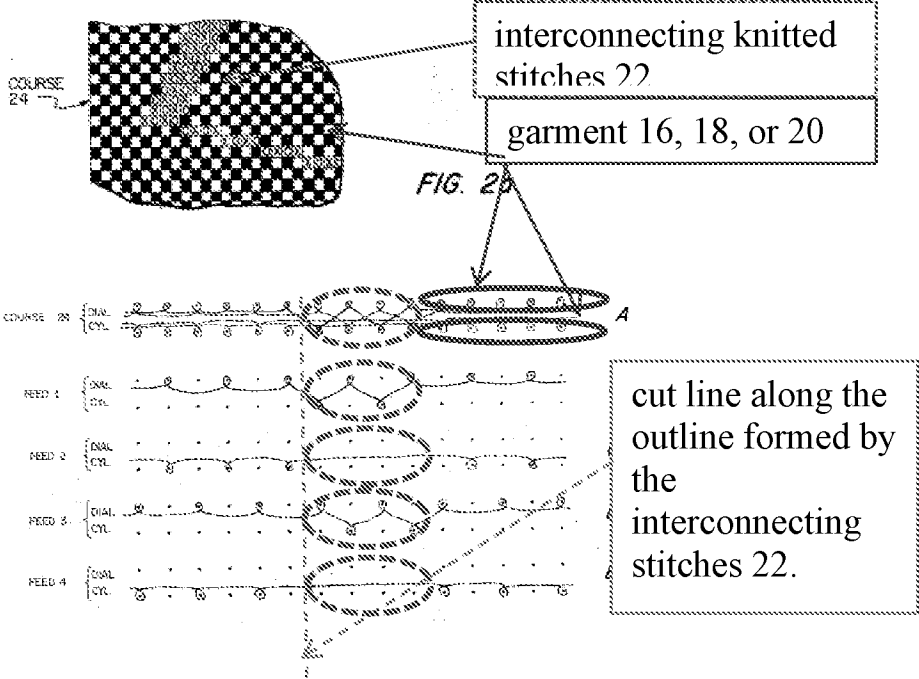
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
<p>knitted textile element includes longitudinal edges formed when the knitted textile element is removed from the surrounding knitted textile structure.</p>	<p>fashion, seaming along the <i>outer edges of the panel</i> and attaching various parts, by stitching to form seams, until a complete garment is formed.” Reed, 1:13-19. “As can be seen, the knitted structure 10 includes (around its circumference) a plurality of finished garments which need only be severed from the structure 10 and turned inside out if a hidden seam is desired. Only a minimum amount of additional sewing is required to form hems and attach various decorative ornaments to complete a finished garment.” Reed, 3:15-21; FIGS. 2, 3, 4, 5, 6 (reproduced below); <i>see also</i> 6:12-13.</p> <div data-bbox="532 695 1198 1157" data-label="Image"> <p style="text-align: center;">Longitudinal edges</p> </div> <p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; FIG. 4 (reproduced above).</p> <p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	sole part.” Nishida , 6:47-54; <i>see also</i> 4:22-30; 6:5-41; FIGS. 3-4.
[7] The method of claim 6, wherein the longitudinal edges are joined together to define at least a portion of a void for receiving a foot.	See Appendix C, claim 6 regarding Nishida.
[8] The method claim 1, wherein the knitted textile element has a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type.	<p>“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i>” Reed, 5:3-18 (emphasis added); FIGS. 3A-3E. “[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X’s and O’s.” Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	<div></div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.” Reed, 3:61-4:9.</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, areas 26 and 27 are produced in a configuration, color or style that is different from the other areas.” Nishida, 4:6-9 (emphasis added).</p> <p>“Layout 2 is divided into different individual parts or areas,</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
	<p>which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25. “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the color <i>can be selected almost at will</i>.” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 3:15-26; 3:47-48; 4:12-28; 4:48-55; 5:56-6:2.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, Silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure</i>.” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i>, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p>
[9] The method of claim 1, wherein	<p>“An example of a <i>circular knitting machine</i> which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

CLAIM	GROUND 1
simultaneously knitting a textile element with a surrounding textile structure includes utilizing a wide-tube circular knitting machine.	(emphasis added); <i>see also</i> Abstract; 1:58-64. “Around the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18, 20.” Reed , 3:5-7; FIGS. 1-2.
[11] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile structure includes forming the knitted textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the knitted textile element.	See Appendix C, claim 8.
[12] The method of claim 1, wherein incorporating the knitted textile element into the article of footwear includes securing edges of the knitted textile element to form a seam that extends along a lower region of an upper and securing the upper to a sole structure.	<p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. <i>In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.</i>” Nishida, 5:3-13 (emphasis added); <i>see also</i> 4:22-30; 6:5-41; 6:47-54; FIGS. 3-4.</p> <p>“Finally, before or after cutting out of layout(s) 2, a tongue 32 (FIG. 3) is applied in the forefoot area. After the production of shoe upper 3, an insole and/or a midsole, optionally, is additionally applied or molded on.” Nishida, 4:39-42.</p> <p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part . . .</i>” Nishida, 6:36-38 (emphasis added).</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

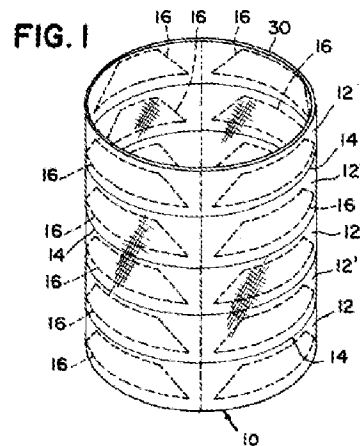
CLAIM	GROUND 1
	<p>“Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.”</p> <p>Nishida, 4:43-46; FIG. 3; <i>see also</i> Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26.</p>
[13A] A method of manufacturing an article of footwear, the method comprising:	See Appendix C, claim 1A.
[13B] knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure,	See Appendix C, claims 1B, 2.
[13C] the first knitted textile element located within a first portion of the knitted textile structure, the second knitted textile element located within a second portion of the knitted textile structure,	See Appendix C, claim 2.
[13D] varying at least one of the types of stitches or the types of yarns in the knitted textile structure to impart a texture to the first and second knitted textile elements different from a texture of the knitted textile structure extending between the first and second portions;	See Appendix C, claim 1C.
[13E] removing the first and second knitted textile elements from the knitted textile structure;	See Appendix C, claim 1D.
[13F] incorporating at least one of the first and second knitted textile elements into the article of footwear.	See Appendix C, claim 1E.
[14] The method of claim 13, wherein knitting a first textile knitted element simultaneously with a surrounding knitted textile structure includes knitting an outline of the first knitted textile element.	See Appendix C claim 3.
[15] The method of claim 13, wherein the first and second textile knitted elements have substantially planar configurations upon removal from the surrounding knitted textile structure.	See Appendix C, claim 5.
[16] The method of claim 13, wherein the first knitted textile element includes longitudinal edges formed when the first knitted textile element is removed from the surrounding knitted textile structure.	See Appendix C, claim 6.
[17] The method of claim 16, wherein the longitudinal edges	See Appendix C,

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX C

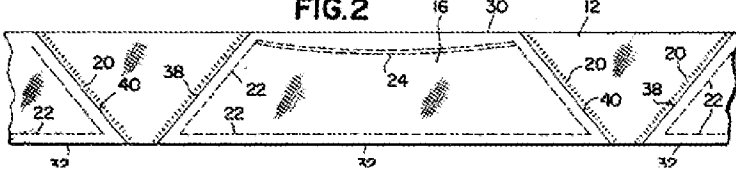
CLAIM	GROUND 1
are joined together to define at least a portion of a void for receiving a foot.	claim 7.
[18] The method of claim 16, wherein incorporating the first knitted textile element into the article of footwear includes securing the longitudinal edges of the first knitted textile element to form a seam that extends along a lower region of an upper.	See Appendix C, claim 12.
[19] The method of claim 13, wherein knitting the first and second knitted textile elements simultaneously with a surrounding knitted textile structure includes utilizing a wide-tube circular knitting machine.	See Appendix C, claim 9.
[21] The method of claim 13, wherein knitting the first knitted textile element simultaneously with a surrounding knitted textile structure includes forming the first knitted textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the first knitted textile element.	See Appendix C, claim 8.

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

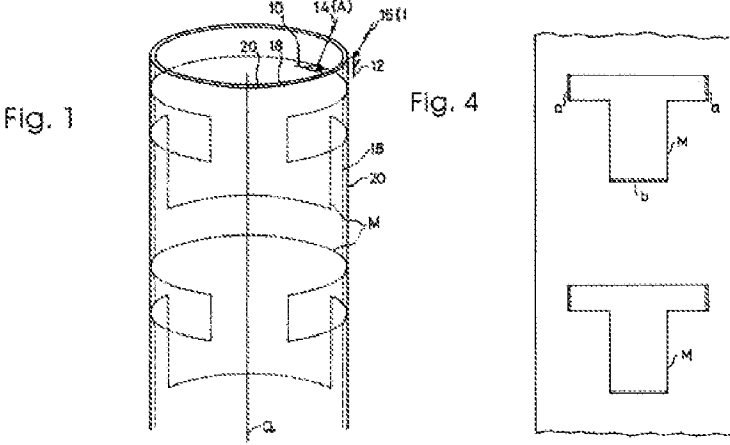
CLAIM	GROUND 2
<p>[1A] A method of manufacturing an article of footwear, the method comprising:</p>	<p>“The present invention resides in a novel method of fabricating knitted collars on circular knitting machines” Castello, 1:39-40; <i>see also</i> Abstract; 1:35-2:4; 3:34-4:10; 4:22-5:44; 6:35-58; 7:1-5; FIGS. 1, 2A, 2-5.</p> <p>“FIG. 1 illustrates schematically a formation of a circular knitted fabric as a first embodiment of the present invention, from which fabric a garment such as a sweater is obtained without necessitating any subsequent sewing process.” Fujiwara, 3:45-48; <i>see also</i> 1:58-3:18; 3:59-4:65.</p> <p>See Appendix C, claim 1A regarding Nishida.</p>
<p>[1B] simultaneously knitting a textile element with a surrounding textile structure,</p>	<p>“In utilizing the method of the present invention, circular machines having either Jacquard cards, or pattern wheels or drums or any other known suitable mechanical means of needle selection can be used. For purposes of illustration, a Jacquard type machine with cards, such as a TJI or Links and Links machine will be described.” Castello, 1:43-49.</p> <p>“After a suitable sketch has been prepared on the graph paper showing the desired collar shape, design, color, mock fashion marks, etc., knitting machine cards (or some equivalent system) are then punched or otherwise prepared in conventional manner and</p> <p>set up on the machine to thereby automatically control the machine stitches to knit the tubular cloth 10 with the layers 12, 12', the separating threads 14 and the collar construction 16 knitted therein.” Castello, 3:59-67; <i>see also</i> 3:34-45; 3:68-4:55; 5:18-44; FIGS. 1, 2 (reproduced at right and below).</p>



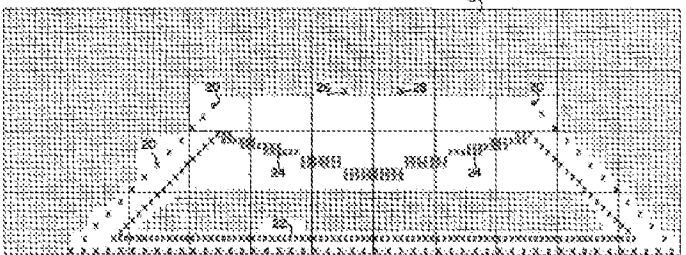
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p style="text-align: center;">FIG.2</p>  <p>“The method of the present invention also eliminates the need for patterns for use when cutting inasmuch as <i>knitting cutting guide lines 20 are knit directly into the tubular knitted cloth 10 during the knitting operation.</i>” Castello, 4:39-42 (emphasis added). A knitted, indented, circular or straight fold <i>crease mark 24 can be knit directly into the tubular cloth 10 during the knitting operation.</i> Castello, 4:53-55.</p> <p>“In other words, it is desirable that the circular knitting machine is the one that, at each thread feeding position, is provided with a computer controlled pattern control mechanism. Namely, for practicing the present invention, it is desirable that the circular knitting machine is of a so-called double knitting type by which an independent needle selection control is obtained at each thread feeder not only for the cylinder needles but also for the dial needles. Such a type of a circular knitting machine is, for example, available from Fukuhara Industrial Trading Co., Ltd., Osaka, Japan under the trade name of V-LEC4D.” Fujiwara, 4:12-21.</p> <p>“According to the present invention, the circular knitted fabric is constructed by an inner and outer layers, which are separate with each other and which are knitted by the dial and cylinder needles, respectively. The inner and outer layers are, along an outline of an article or a garment, connected with each other by using a stitching construction using both of the dial and cylinder needles.” Fujiwara, 2:31-37; <i>see also</i> 1:58-3:18; 4:66-5:7; FIGS. 1, 4 (reproduced below); FIGS. 6, 7.</p>

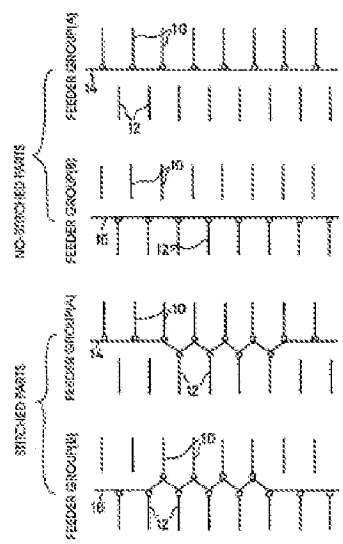
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<div style="text-align: center;">  </div> <p>“The <i>progress of the knitting causes a circular knitted fabric</i> of a substantially hose shape <i>to be produced, which has closed stitched lines M as repeated patterns in the continuous length of the fabric.</i>” Fujiwara, 6:12-15 (emphasis added).</p> <p>See Appendix C, claim 1B regarding Nishida.</p>
<p>[1C] the knitted textile element having at least one knitted texture that differs from a knitted texture in the surrounding knitted textile structure;</p>	<p>“[K]nitting [a] <i>tubular cloth of rib type links and links stitches</i> . . . and forming a plurality of juxtaposed tubular strips each having a top and a bottom defining the collar height . . . knitting a plurality of fold crease lines in a plurality of said tubular strips to define fold lines for the knitted collars . . . <i>knitting jersey stitches to define the fold crease lines from the rib type stitch tubular cloth.</i>” Castello, 7:5-9; 7:23-25; 8:17-19 (emphasis added).</p> <p>“<i>A knitted, indented, circular or straight fold crease mark 24 can be knit directly into the tubular cloth 10 during the knitting operation.</i> I prefer to employ a generally circular neck fold line 24 of jersey stitches as illustrated to thereby create a collar that lays naturally on the back of the neck without "hiking" up or down to thereby enhance the beauty and utility of the collar. The fold 24 remains permanent even after washing or dry cleaning inasmuch as it is knitted directly into the fabric and thus reduces pressing costs in the finished garment.” Castello, 4:53-63 (emphasis added); <i>see also</i> 1:43-49; 1:54-68; 2:12-21; 2:42-52; 3:34-67; 4:22-52; 4:64-5:7; 5:13-17; 5:35-44; FIG. 5</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p>(reproduced below).</p> <p style="text-align: center;">FIG. 5</p>  <p>“FIGS. 2A and 2B illustrate, in a course direction, schematically, knitting diagrams at yarn feeders in groups A and B, respectively at the non-stitched part of the fabric. At the yarn feeder in the group A in FIG. 2A, the yarn 14 is subjected to a knitting by the dial needle 10, so that an inner tubular layer 18 (FIG. 1) is formed. In this case, the <i>fabric is of basically a plain stitch</i>, wherein the cylinder needle 12 does not take part in knitting operation. Similarly, at the yarn feeder in the group B in FIG. 2B, the yarn 16 is subjected to a knitting by the cylinder needle 12, so that an inner tubular layer 20 (FIG. 1) is formed. In this case, <i>the fabric is, also, of basically a plain stitch</i> (tenjiku), wherein the cylinder needle 10 does not take part in knitting operation. Thus, a separate structure is obtained between the inner and outer layers 18 and 20.” Fujiwara, 5:42-56 (emphasis added) FIGS. 2A, 2B (reproduced below).</p> <p>“FIGS. 3A and 3B illustrate schematically in a course direction knitting diagrams at yarn feeders in groups A and B, respectively at the stitched part of the fabric. At the yarn feeder in the group A, the yarn 14 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated. In the example shown in FIG. 3A, <i>the integrated fabric is of a so-called rib stitch</i> in a rib stitch arrangement between the dial and cylinder needles 10 and 12. However, in a jacquard arrangement (not shown) of the dial and cylinder needles 10 and 12, <i>it is possible that another desired stitching, such as birds eye, eyelet, circular rib or interlock may be employed</i>. In the similar way, at the yarn feeder in the group</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p>B in FIG. 3B, the yarn 16 is subjected to a knitting by both of the dial and cylinder needles 10 and 12, so that the inner and outer layers 18 and 20 are integrated. Similarly, <i>any of stitching such as bird's eye, eyelet, circular rib or interlock may also be employed.</i>" Fujiwara, 5:57-6:7 (emphasis added); FIGS. 3A, 3B (reproduced at right); <i>see also</i> 6:43-62; 7:21-24.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Fig. 2A</p><p>Fig. 2B</p><p>Fig. 3A</p><p>Fig. 3B</p> </div>  </div> <p>See Appendix C, claim 1C regarding Nishida.</p>
<p>[1D] removing the knitted textile element from the surrounding knitted textile structure; and</p>	<p>“After the tubular cloth 10 has been knit by the machine (not shown), the draw threads 14 are pulled to separate the cloth into a plurality of individual layers 12, 12'. The layers are then cut along the knitted cut guide lines 20 to produce a plurality of individual collars 16, each having cut sides 38, 40.” Castello, 3:67-4:4; <i>see also</i> 4:38-45; 4:67-5:17.</p> <p>“As a result, when the fabric is cut outwardly along the outline while the stitched parts are at least partially left, a garment can be obtained, which has a front and back bodies, which are connected along the outline M.” Fujiwara, 5:7-11; <i>see also</i> 1:58-3:18; 6:12-42; 7:21-37.</p> <p>See Appendix C, claim 1D regarding Nishida.</p>

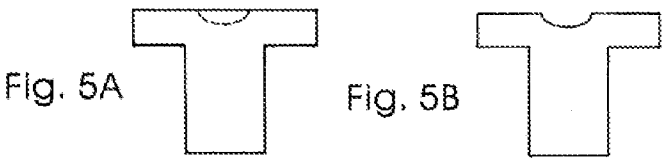
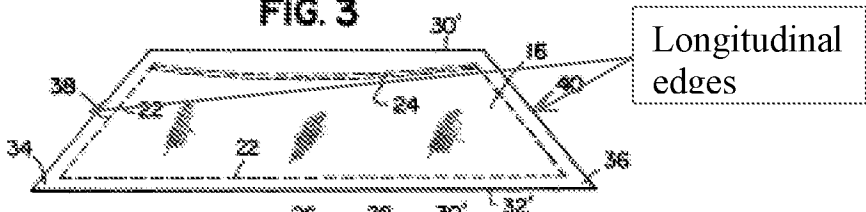
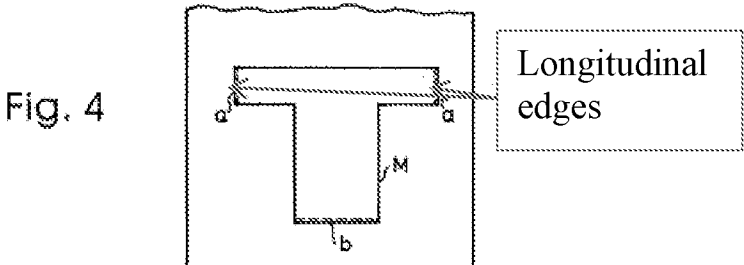
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
[1E] incorporating the textile element into an upper of the article of footwear.	See Appendix C, claim 1E.
[2] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile structure includes simultaneously knitting a plurality of textile elements.	<p>“The tubular fabric is designed to produce a plurality of vertically juxtaposed layers, each having a height equal to the height of the collar being produced. A <i>plurality of collars</i>, for example, four are knitted in each layer.” Castello, 1:59-63; <i>see also</i> 1:65-68; 3:34-49; 3:59-4:4; FIGS. 1, 2A.</p> <p>“The progress of the knitting causes a circular knitted fabric of a substantially hose shape to be produced, which has closed stitched lines M as <i>repeated patterns</i> in the continuous length of the fabric. The fabric is cut along the longitudinal cut line Q in FIG. 1. As a result, a continuous length of a fabric having closed stitched lines M as <i>repeated patterns</i> as shown in FIG. 4 is obtained. Then, the fabric is subjected to a cutting along the stitching line M, while the stitched parts are at least partly remained.” Fujiwara, 6:12-20; FIGS. 1, 4, 6, 7.</p> <p>See Appendix C, claim 2 regarding Nishida.</p>
[3] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile includes knitting an outline of the knitted textile element.	<p>“The method of the present invention also eliminates the need for patterns for use when cutting inasmuch as knitting cutting guide lines 20 are knit directly into the tubular knitted cloth 10 during the knitting operation. The only cutting required is along the sides 38, 40 of the collar which have the cutting guide lines 20 already knit directly in the fabric. Mock fashion marks 22 can be knit along the sides 38, 40 and the bottom edge 32' of the collar in any desired design or pattern by employing conventional knitting procedures. The bottom edge 32' of the collar need not be additionally sewn inasmuch as this is a knitted finished edge which remains after pulling the draw thread 14 and so requires no additional operations.” Castello,</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p>4:38-52; <i>see also</i> 1:68; 2:45-50; 3:50-58; 4:2-4; 4:11-12; 4:22-33; 4:67-5:17; 5:35-44; FIG. 5.</p> <p>“In FIG. 1, a closed phantom line M indicates, in a very schematic manner, an outline of a sweater as a garment wherein one of the inner and outer layers 18 and 20 becomes one side (front body) of the sweater while the other of the inner and outer layers 18 and 20 becomes the other side (back body) of the sweater. Along the outline M of a necessary width, the inner and outer tubular layers 18 and 20 are connected or stitched with each other, so that the both of the layers 18 and 20 are integrated.” Fujiwara, 4:66-5:7. “The stitching between the inner and outer layers along the outline M is obtained by knitting by using both of the dial needles 10 and the cylinder needles 12.” Fujiwara, 5:11-13; <i>see also</i> 2:34-37; 3:62-4:5; 5:20-41; 6:12-22; 7:21-32; FIGS. 1, 4, 6, 7.</p> <p>See Appendix C, claim 3 regarding Nishida.</p>
[4] The method of claim 3, wherein the outline has the shape and proportion of the knitted textile element.	See Appendix D, claim 3.
[5] The method of claim 1, wherein the knitted textile element has a substantially planar configuration upon removal from the surrounding knitted textile structure.	<p>“FIG. 3 is an elevational view of a collar after it has been cut from a knitted layer and sewn prior to use.” Castello, 3:13-14; FIG. 3 (reproduced at right); <i>see also</i> FIGS. 1, 2A, 2-4.</p> <div data-bbox="927 1205 1425 1381" data-label="Image"> </div> <p>“Following cutting each collar construction 16 along the knitted cutting guide lines 20, the sides 38, 40 of collar are then sewn on conventional sewing machines to creat[e] finished sides. . . The collar is then complete and ready to sew into a garment by employing the knitting guide marks 26, 28 as guides.” Castello, 4:11-19.</p> <p>“FIG. 5A shows a half completed garment after cutting along the contour line. Then, cutting is further done at neck portion as shown by dotted line. FIG. 5B shows a garment after the opening at the neck portion is thus created.” Fujiwara, 6:30-34;</p>

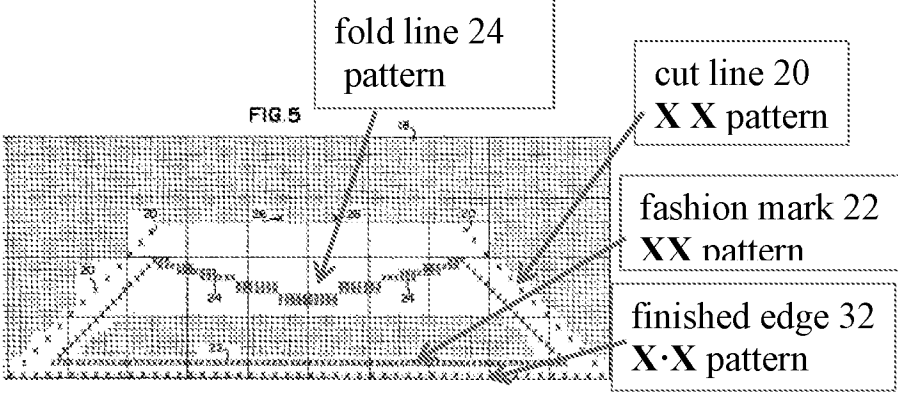
DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p>FIGS. 5A, 5B (reproduced below).</p> <div style="text-align: center;">  </div> <p>See Appendix C, claim 5 regarding Nishida.</p>
<p>[6] The method of claim 1, wherein the knitted textile element includes longitudinal edges formed when the knitted textile element is removed from the surrounding knitted textile structure.</p>	<p>“The collar sides 38, 40 can be cut either by shears or any other known cutting device such as a paper cutter or a slicing machine (not shown). The sides 38, 40 can also be cut or burned by using a heating element on a device such as a paper cutter which is attached to the blade of the cutting knife at the edge thereof. In this manner, the edges could be fused or singed prior to sewing to help eliminate frayed edges which sometimes may result from cutting, especially when employing synthetic yarns.” Castello, 5:8-17; FIGS. 3 (reproduced below), 2, 4, 5.</p> <div style="text-align: center;">  </div> <p>“In this case, the cutting at locations of the garments such as sleeves and a hemline is such that cutting lines are located completely inward of the stitched part as shown by dotted lines a and b. As a result, at these portions at the sleeve and the hemline or base, the upper and lower layers of the fabric are separated, thereby providing openings at the sleeves and the hemline, which allows portions of human body (arm and body) to be passed through the openings.” Fujiwara, 6:22-30; FIG. 4 (reproduced below).</p> <div style="text-align: center;">  </div>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	See Appendix C, claim 6 regarding Nishida.
[7] The method of claim 6, wherein the longitudinal edges are joined together to define at least a portion of a void for receiving a foot.	See Appendix C, claim 7.
[8] The method claim 1, wherein the knitted textile element has a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type.	<p>“[A]s seen in FIG. 5, a graph 18 is first laid out in accordance with practices well known to those skilled in the art to show features such as peripheral knitted cutting guide lines 20, knitted fashion marks 22, knitted neck fold lines 24 and knitted guide marks 26, 28. The guide marks 26, 28 serve as guides to aid sewing machine operators when the collar is being affixed to the remainder of the garment.” Castello, 3:51-58; FIG. 5 (reproduced below).</p> <p>“[A] collar construction 16 can be produced on a single circular knitting machine having an integral knitted fold crease 24, knitted sewing guide marks 26, 28, mock fashion marks 22 and any desired Jacquard color designs (not illustrated) <i>The fashion marks 22 may be knitted in conventional manner spaced apart in any desired stitch pattern, such as by Jacquard patterns.</i> The fashion marks 22 may be knit continuously about the periphery of the collar.” Castello, 4:23-33 (emphasis added); FIG. 5. “[M]ore or fewer fashion marks 22 can be provided, <i>more or fewer collar fold marks 24 (knitted as reversed jersey)</i> can be knit, <i>more or fewer stripes, various colors, patterns (not illustrated)</i> can be programmed into the circular knitting machine.” Castello, 5:35-44 (emphasis added); FIG. 5.</p> <p>“[T]he top and bottom edges 30, 32 of each layer 12, 12’ are finished, knitted edges which remain after separation of the layers by pulling the draw threads 14 and can serve as the top and bottom edges respectively, 30’, 32’ of each individual collar 16 without further sewing or other operations.” Castello, 4:4-10; FIG. 5.</p> <p>“[C]ircular neck fold line 24 of jersey stitches . . . create[s] a collar that lays naturally on the back of the neck without ‘hiking’ up or down to thereby enhance the beauty and utility of</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
	<p>the collar. The fold 24 remains permanent even after washing or dry cleaning inasmuch as it is knitted directly into the fabric and thus reduces pressing costs in the finished garment.” Castello, 4:53-63; <i>see also</i> 1:43-49; 1:54-68; 2:12-21; 2:42-52; 3:34-58; 4:34-5:7; 5:13-17.</p> <div style="text-align: center;">  </div> <p>See Appendix D, claim 1C regarding Fujiwara; See Appendix C, claim 8 regarding Nishida.</p>
<p>[9] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile structure includes utilizing a wide-tube circular knitting machine.</p>	<p>“Referring again to FIG. 5, I show a sketch which may be employed in conjunction with an <i>eight-cut</i> L.H. circular machine having 64 levers per automat. Assuming twelve automats, the machine could be programmed to knit three collar constructions 16 per layer 12. In the illustration shown, 768 needles would be employed less approximately 10 needles on each side of the gate on automats one and twelve.” Castello, 5:18-25 (emphasis added); <i>see also</i> Abstract; 1:35-53; 1:47-64; 3:34-39; 4:23-38.</p>
<p>[11] The method of claim 1, wherein simultaneously knitting a textile element with a surrounding textile structure includes forming the knitted textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to</p>	<p>See Appendix D, claim 8.</p>

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
a surface of the knitted textile element.	
[12] The method of claim 1, wherein incorporating the knitted textile element into the article of footwear includes securing edges of the knitted textile element to form a seam that extends along a lower region of an upper and securing the upper to a sole structure.	See Appendix C, claim 12.
[13A] A method of manufacturing an article of footwear, the method comprising:	See Appendix D, claim 1A.
[13B] knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure,	See Appendix D, claims 1B, 2.
[13C] the first knitted textile element located within a first portion of the knitted textile structure, the second knitted textile element located within a second portion of the knitted textile structure,	See Appendix D, claim 2.
[13D] varying at least one of the types of stitches or the types of yarns in the knitted textile structure to impart a texture to the first and second knitted textile elements different from a texture of the knitted textile structure extending between the first and second portions;	See Appendix D, claim 1C.
[13E] removing the first and second knitted textile elements from the knitted textile structure;	See Appendix D, claim 1D.
[13F] incorporating at least one of the first and second knitted textile elements into the article of footwear.	See Appendix D, claim 1E.
[14] The method of claim 13, wherein knitting a first textile knitted element simultaneously with a surrounding knitted textile structure includes knitting an outline of the first knitted textile element.	See Appendix D, claim 3.
[15] The method of claim 13, wherein the first and second textile knitted elements have substantially planar configurations upon removal from the surrounding knitted textile structure.	See Appendix D, claim 5.
[16] The method of claim 13, wherein the first knitted textile element includes longitudinal edges formed when the first knitted textile element is removed from the surrounding knitted textile structure.	See Appendix D, claim 6.

DECLARATION OF LENNY HOLDEN - 749 PATENT
APPENDIX D

CLAIM	GROUND 2
[17] The method of claim 16, wherein the longitudinal edges are joined together to define at least a portion of a void for receiving a foot.	<i>See Appendix D, claim 7.</i>
[18] The method of claim 16, wherein incorporating the first knitted textile element into the article of footwear includes securing the longitudinal edges of the first knitted textile element to form a seam that extends along a lower region of an upper.	<i>See Appendix D, claim 12.</i>
[19] The method of claim 13, wherein knitting the first and second knitted textile elements simultaneously with a surrounding knitted textile structure includes utilizing a wide-tube circular knitting machine.	<i>See Appendix D, claim 9.</i>
[21] The method of claim 13, wherein knitting the first knitted textile element simultaneously with a surrounding knitted textile structure includes forming the first knitted textile element to include a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the first knitted textile element.	<i>See Appendix D, claim 8.</i>

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ADIDAS AG,
Petitioner,

v.

NIKE, INC.,
Patent Owner.

Case IPR2016-00921
Patent 7,814,598 B2

Mailed: April 25, 2016

Before DAVID SCHMERFELD, *Trial Paralegal*.

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for *inter partes* review in the above proceeding has been accorded the filing date of April 19, 2016.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is limited to setting forth the reasons why the requested review should not be

instituted. Patent Owner may also file an election to waive the preliminary response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012), which is available on the Board's website at <http://www.uspto.gov/PTAB>.

Patent Owner is advised of the requirement to submit mandatory notice information under 37 C.F.R. § 42.8(a)(2) within 21 days of service of the petition.

The parties are encouraged to use the heading on the first page of this Notice for all future filings in the proceeding.

The parties are advised that under 37 C.F.R. § 42.10(c), recognition of counsel *pro hac vice* requires a showing of good cause. The parties are authorized to file motions for *pro hac vice* admission under 37 C.F.R. § 42.10(c). Such motions shall be filed in accordance with the "ORDER Authorizing Motion for *Pro Hac Vice* Admission" in Case IPR2013-00639, Paper 7, a copy of which is available on the Board's website under "Representative Orders, Decisions, and Notices."

The parties are reminded that unless otherwise permitted by 37 C.F.R. § 42.6(b)(2), all filings in this proceeding must be made electronically in the Patent Review Processing System (PRPS), accessible from the Board's website at <http://www.uspto.gov/PTAB>. To file documents, users must first obtain a user ID and password by registering with PRPS. Information regarding how to register with and use PRPS is available at the Board's website.

If there are any questions pertaining to this notice, please contact David Schmerfeld at 571-272-7184 or the Patent Trial and Appeal Board at 571-272-7822.

Case IPR2016-00921

Patent 7,814,598 B2

PETITIONER:

Mitchell G. Stockwell

mstockwell@kilpatricktownsend.com

Vaibhav P. Kadaba

wkadaba@kilpatricktownsend.com

Tiffany L. Williams

tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Banner & Witcoff, Ltd.

& Attorneys for Client 005127

1100 13th St. NW, Ste. 1200

Washington, DC 20005-4051

NOTICE CONCERNING ALTERNATIVE DISPUTE RESOLUTION (ADR)

The Patent Trial and Appeal Board (PTAB) strongly encourages parties who are considering settlement to consider alternative dispute resolution as a means of settling the issues that may be raised in an AIA trial proceeding. Many AIA trials are settled prior to a Final Written Decision. Those considering settlement may wish to consider alternative dispute resolution techniques early in a proceeding to produce a quicker, mutually agreeable resolution of a dispute or to at least narrow the scope of matters in dispute. Alternative dispute resolution has the potential to save parties time and money.

Many non-profit organizations, both inside and outside the intellectual property field, offer alternative dispute resolution services. Listed below are the names and addresses of several such organizations. The listings are provided for the convenience of parties involved in cases before the PTAB; the PTAB does not sponsor or endorse any particular organization's alternative dispute resolution services. In addition, consideration may be given to utilizing independent alternative dispute resolution firms. Such firms may be located through a standard keyword Internet search.

CPR INSTITUTE FOR DISPUTE RESOLUTION	AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION (AIPLA)	AMERICAN ARBITRATION ASSOCIATION (AAA)	WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)	AMERICAN BAR ASSOCIATION (ABA)
Telephone: (212) 949-6490	Telephone: (703) 415-0780	Telephone: (212) 484-3266	Telephone: 41 22 338 9111	Telephone : (202) 662-1000
Fax: (212) 949-8859	Fax: (703) 415-0786	Fax: (212) 307-4387	Fax: 41 22 733 5428	N/A
575 Lexington Ave New York, NY 10022	241 18th Street, South, Suite 700 Arlington, VA 22202	140 West 51st Street New York, NY 10020	34, chemin des Colombettes CH-1211 Geneva 20, Switzerland	1050 Connecticut Ave, NW Washington D.C. 20036
www.cpradr.org	www.aipla.org	www.adr.org	www.wipo.int	www.americanbar.org

If parties to an AIA trial proceeding consider using alternative dispute resolution, the PTAB would like to know whether the parties ultimately decided to engage in alternative dispute resolution and the reasons why or why not. If the parties actually engage in alternative dispute resolution, the PTAB would be interested to learn what mechanism (e.g., arbitration, mediation, etc.) was used and the general result. Such a statement from the parties is not required but would be helpful to the PTAB in assessing the value of alternative dispute resolution to parties involved in AIA trial proceedings. To report an experience with ADR, please forward a summary of the particulars to the following email address: PTAB_ADR_Comments@uspto.gov

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2016-00921
Patent No. 7,814,598

**PATENT OWNER'S MANDATORY NOTICES
PURSUANT TO 37 C.F.R. § 42.8(a)(2)**

Pursuant to 37 C.F.R. § 42.8(a)(2), Patent Owner Nike, Inc. (“NIKE”) hereby submits the following mandatory notices in connection with Petitioner adidas AG’s Petition for *Inter Partes* Review of U.S. Patent No. 7,814,598, Case No. IPR-2016-00921.

I. 37 C.F.R. § 42.8(b)(1): Real Party-In-Interest

The real party-in-interest is Nike, Inc.

II. 37 C.F.R. § 42.8(b)(2): Related Matters

NIKE identifies the following matters that may be deemed related pursuant to 37 C.F.R. § 42.8(b)(2):

- Petition for *Inter Partes* Review of U.S. Patent No. 7,347,011, Case No. IPR-2013-00067;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2016-00920; and
- Petition for *Inter Partes* Review of U.S. Patent No. 8,266,749, Case No. IPR-2016-00922.

III. 37 C.F.R. § 42.8(b)(3): Lead and Back-Up Counsel

NIKE designates the following counsel to transact all business in the United States Patent & Trademark Office associated with the above-captioned Petition for *Inter Partes* Review.

Lead Counsel	Back-up Counsel
Christopher J. Renk	Michael J. Harris
Reg. No. 33,761	Reg. No. 62,957
crenk@bannerwitcoff.com	mharris@bannerwitcoff.com
BANNER & WITCOFF, LTD.	BANNER & WITCOFF, LTD.
10 South Wacker Drive	10 South Wacker Drive
Suite 3000	Suite 3000
Chicago, Illinois 60606	Chicago, Illinois 60606
Telephone: 312-463-5000	Telephone: 312-463-5000
Facsimile: 312-463-5001	Facsimile: 312-463-5001

IV. 37 C.F.R. § 42.8(b)(4): Service Information

Service of all documents may be made on the lead and back-up counsel to the following postal mailing address, with courtesy copies to crenk@bannerwitcoff.com, mharris@bannerwitcoff.com, and bwlitdocket@bannerwitcoff.com:

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

Date: May 10, 2016

Respectfully submitted,

/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on
May 10, 2016, by Express Mail and email directed to the attorneys of record for
Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

A handwritten signature in black ink, appearing to read 'A. Bowling', is written over a horizontal line.

Aaron P. Bowling
Banner & Witcoff, Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

NIKE, Inc.,
Patent Owner.

Case IPR2016-00921
Patent 7,814,598 B2

Before JOSIAH C. COCKS, MICHAEL J. FITZPATRICK, and
JAMES B. ARPIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

adidas AG (“Petitioner”) filed a Petition pursuant to 35 U.S.C. §§ 311–19 to institute an *inter partes* review of claims 1–13 of U.S. Patent No. 7,814,598 B2 (Ex. 1001, “the ’598 patent”).¹ Paper 1 (“Pet.”). Nike, Inc. (“Patent Owner”) did not file a Preliminary Response.² Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review of claims 1–13 of the ’598 patent.

I. BACKGROUND

A. *The ’598 Patent*

The ’598 patent is a divisional of U.S. Patent Application No. 10/791,289, filed on March 3, 2004, now issued as U.S. Patent No. 7,347,011 B2 (“the ’011 patent”) (Ex. 1001 at (62)) and relates to articles of footwear incorporating an upper that is at least partially formed from a textile material (*id.* at col. 1, ll. 18–21). Conventional articles of athletic footwear may include two primary elements: an upper and a sole structure. *Id.* at col. 1, ll. 23–26. The upper may form a void in the interior of the footwear for receiving a wearer’s foot, and the upper may extend over the instep and toe areas, along the medial and lateral sides, and around the heel area of the wearer’s foot. *Id.* at col. 1, ll. 41–46.

In particular, the Specification describes articles of footwear having an upper incorporating a knitted textile element and having a sole structure secured to the upper. *Id.* at col. 3, ll. 27–33. Methods for manufacturing an

¹ Petitioner identifies adidas International B.V.; adidas North America, Inc.; adidas America, Inc.; and adidas International, Inc., as real parties-in-interest. Pet. 1.

² Patent Owner identifies only itself, as a real party-in-interest. Paper 5, 2.

article of footwear include “mechanically-manipulating a yarn with a circular knitting machine, for example, to form a cylindrical textile structure. In addition, the method involves removing at least one textile element from the textile structure, and incorporating the textile element into an upper of the article of footwear.” *Id.* at col. 3, ll. 41–46.

Figure 9 of the '598 patent is reproduced below.

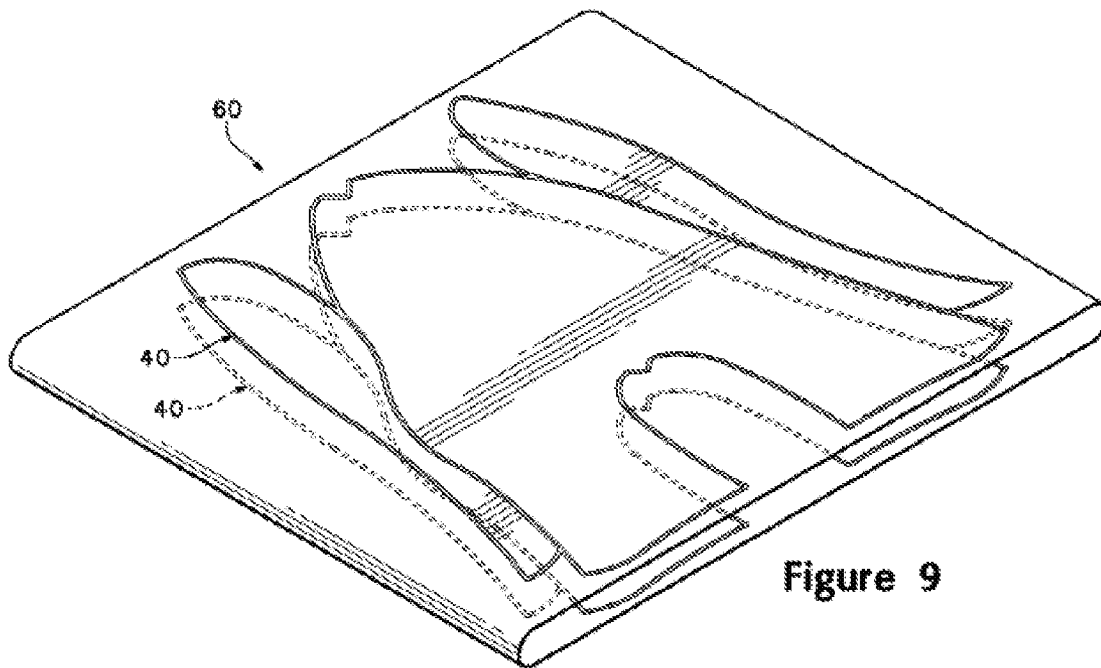


Figure 9 depicts textile structure 60 formed on a circular knitting machine. *Id.* at col. 7, ll. 48–51. For example,

[a] suitable knitting machine for forming textile element 40 is a wide-tube circular knitting machine that is produced in the Lonati Group by Santoni S.p.A. of Italy under the SM8 TOP1 model number. This Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter.

Id. at col. 7, ll. 14–20. As discussed below, the types of stitches that form textile structure 60 may be varied to form an outline of one or more textile

elements 40 on textile structure 60. *Id.* at col. 7, l. 65–col. 8, l. 3. In particular, as depicted in Figure 9, the outlines for at least two textile elements 40 maybe formed on textile structure 60. *Id.* at col. 7, ll. 53–54.

Figure 8 of the '598 patent is reproduced below.

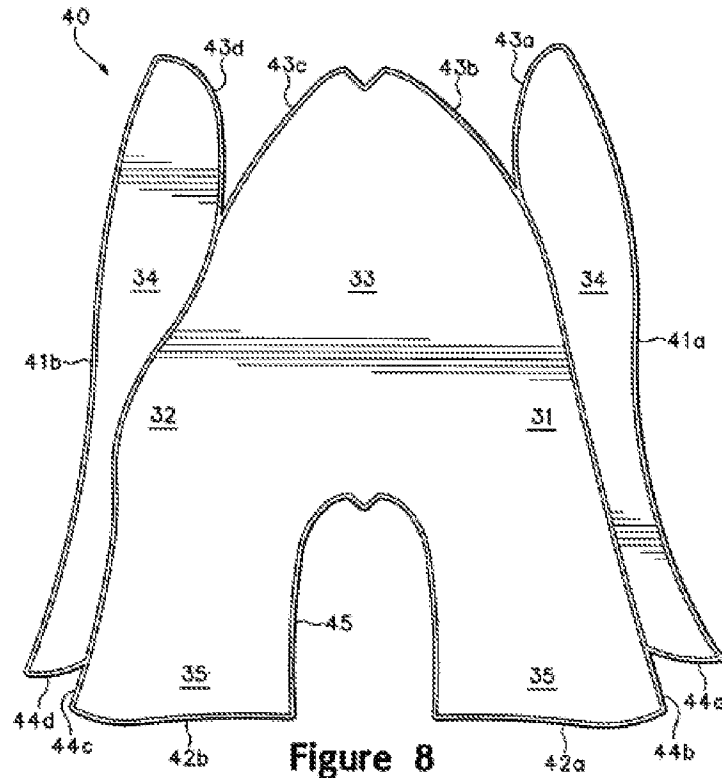


Figure 8 depicts an embodiment of an upper according to the '598 patent. *Id.* at col. 5, l. 59–col. 6, l. 64. “Textile element 40 is a single material element that is formed to exhibit a unitary (i.e., one-piece) construction, and textile element 40 is formed or otherwise shaped to extend around the foot.” *Id.* at col. 5, ll. 40–43; *see also id.* at Figs. 10 (depicting textile element 40'), 11 (depicting textile element 40"). Consequently, textile element 40 is formed, such that portions of the textile element are not joined together with seams or other connections. *Id.* at col. 5, ll. 40–43. Edges 41a–44d are joined together as shown in Figures 3–5 to form seams

51–54, thereby forming at least a portion of a void for receiving the foot. *Id.* at col. 6, ll. 41–50. In contrast, lateral region 31, medial region 32, instep region 33, lower regions 34, and heel regions 35 together have a unitary construction without seams (*id.* at col. 5, ll. 46–58; col. 6, ll. 47–50).

Figure 11 of the '598 patent is reproduced below.

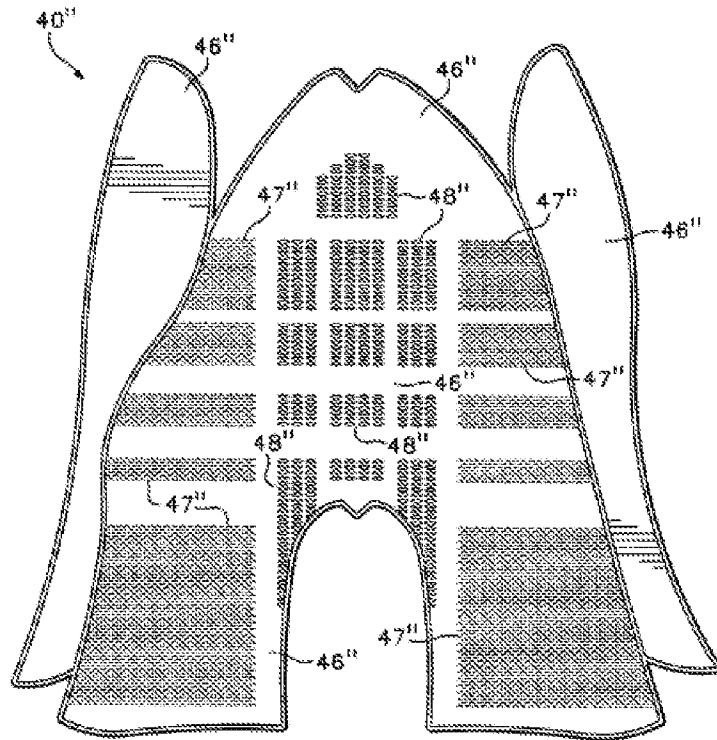


Figure 11

Figure 11 depicts another embodiment of an upper according to the '598 patent. *Id.* at col. 9, l. 29–col. 10, l. 7. Textile element 40'' includes three different areas with three different textures. *Id.* at col. 9, ll. 31–32. First texture 46'' is generally smooth and extends in strips across lateral region 31, medial region 32, and instep region 33 of the upper. *Id.* at col. 9, ll. 32–35. In addition, textile element 40'' includes second texture 47'' and third texture 48''. *Id.* at col. 9, ll. 35–39. Moreover, the Specification of the '598 patent describes that:

The different textures 46"-48" are formed *by merely varying the type of stitch formed* by the wide-tube circular knitting machine at each location of textile element 40". Textures 46"-48" may exhibit aesthetic differences, or the differences may be structural. . . . The air-permeability of textile element 40" may also vary in the different areas.

Id. at col. 9, ll. 39–47 (emphasis added).

B. Illustrative Claim

Claims 1 and 9 are independent, method claims. Claims 2–8 depend directly or indirectly from claim 1, and claims 10–13 depend directly or indirectly from claim 9. Claim 1 is illustrative of the claims at issue and is reproduced below:

1. A method of manufacturing an article of footwear, the method comprising steps of:
mechanically-manipulating a yarn with a circular knitting machine to form a cylindrical textile structure;
removing at least one textile element from the textile structure;
incorporating the textile element into an upper of the article of footwear.

Id. at col. 11, ll. 43–50.

C. Related Proceedings

Neither party identifies any related litigation. Pet. 1, Paper 5, 2. As discussed above, the '598 patent is a divisional of the application that issued as the '011 patent, which is the subject of IPR2013-00067. Pet. 1. In that case, the Board instituted *inter partes* review of claims 1–46 of the '011 patent, and Patent Owner requested cancellation of claims 1–46 and proposed substitute claims 47–50 in a Motion to Amend. This panel granted Patent Owner's request to cancel claims 1–46, but denied Patent Owner's

request as to the substitute claims. Patent Owner appealed the Board's decision to the U.S. Court of Appeals for the Federal Circuit (the "Federal Circuit"). The Federal Circuit issued a decision in Patent Owner's appeal on February 11, 2016, which affirmed-in-part and vacated-in-part the Board's decision, and remanded the case to the Board for further proceedings regarding the status of the substitute claims. In addition, Petitioner has requested *inter partes* review of claims of related patents in IPR2016-00920 (U.S. Patent No. 8,042,288 B2) and IPR2016-00922 (U.S. Patent No. 8,266,749 B2). Paper 5, 2.

D. Applied References and Declaration

Petitioner relies on the following references and declaration in support of its asserted grounds of unpatentability:

Exhibit	References and Declaration
1003	Declaration of Mr. Lenny M. Holden
1006	U.S. Patent No. 3,985,003 to Reed, issued Oct. 12, 1976 ("Reed")
1007	U.S. Patent No. 4,038,840 to Castello, issued Aug. 2, 1977 ("Castello")
1008	U.S. Patent No. 6,330,814 B1 to Fujiwara, issued Dec. 18, 2001 ("Fujiwara")
1009	U.S. Patent No. 5,345,638 to Nishida, issued Sep. 13, 1994 ("Nishida")
1010	David J. Spencer, <i>Knitting technology: a comprehensive handbook and practical guide</i> , 1–413 (2001) (3rd Ed., Woodhead Publ. Ltd.) ("Spencer")
1012	International Standard, <i>Textile machinery — Knitting machines — Nominal diameters of circular machines</i> , 1–6 (2003) (2nd Ed., ISO 8117:2003(E)) ("ISO 8117")

Pet. iv.

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

References	Basis	Challenged Claims
Reed and Nishida	35 U.S.C. § 103(a)	1–13
Castello, Fujiwara, and Nishida	35 U.S.C. § 103(a)	1–13

Pet. 8.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131, 2144–46 (2016). Under that standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art³ in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). In its Petition, Petitioner proposes constructions for the following two claim terms.

³ Petitioner argues that a person of ordinary skill in the relevant art would have at least a few years of experience in the footwear industry, a broad understanding of shoemaking, and an understanding of (1) the product cycle for the process of designing, developing and bringing a new product to market; (2) milestones for reviewing upper material designs; (3) the available and varied ranges of typical construction methods within a product cycle; and (4) the functional requirements of footwear and the range of material choices available. Pet. 8–9 (citing Ex. 1003 ¶ 34). For purposes of this Decision and to the extent necessary, we adopt Petitioner’s assessment of a person of ordinary skill in the relevant art.

1. “a first area and a second area with a unitary construction”
(Claims 4 and 11)

Petitioner argues that the term “a first area and a second area with a unitary construction” means “a textile element having a unitary construction and having a first area and a second area.” Pet. 7. As Petitioner notes, this is the construction that this panel gave to the same term appearing in the substitute claims of the ’011 patent. *adidas AG v. Nike, Inc.*, Case IPR2013-00067, 2013 WL 8595550, at *7 (PTAB May 17, 2013) (Paper 60). The ’011 patent and the ’598 patent share the same Specification, neither party contested our construction of this term in the appeal of our decision in the *inter partes* review of the claims of the ’011 patent, and, at this time, Patent Owner does not contest Petitioner’s proposed construction of this term in this case. Therefore, on this record and to the extent necessary for this Decision, we adopt Petitioner’s proposed construction for this term.

2. “wide-tube circular knitting machine” (Claims 2 and 9)

Petitioner argues that the term “wide-tube circular knitting machine” means “a circular knitting machine with a nominal diameter of 7 inches or larger.” Pet. 7. The Specification of the ’598 patent identifies a wide-tube circular knitting machine, such as that produced in the Lonati Group by Santoni S.p.A., Italy, as a suitable example of the wide-tube circular knitting machine recited in the claims. *See* Ex. 1001, col. 7, ll. 12–37. In particular, the Specification of the ’598 patent indicates that such knitting machines “may form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter. The machine exhibits a maximum 140 revolutions per minute for 10 inch diameters, and a maximum 120 revolutions per minute for 13 inch diameters.” *Id.* at col. 7, ll. 17–23.

Nevertheless, the Specification does not limit suitable wide-tube circular knitting machines to this particular embodiment or to these particular diameters, and, as Petitioner acknowledges, the Specification “provides no other definition or explanation for what is meant by ‘wide-tube circular knitting machine.’” Pet. 7. Instead, the Specification describes a wide-tube circular knitting machine functionally as one capable of knitting “body garment” sized textile tubes. Ex. 1001, col. 7, ll. 6–8.

Citing to the teachings of ISO 8117 (Ex. 1012) and the testimony of Petitioner’s declarant, Mr. Holden (Ex. 1003 ¶ 97), Petitioner argues that “any circular knitting machine with a nominal diameter of 178 mm (7 inches) or larger is categorized as *a large (or wide-tube) circular knitting machine.*” Pet. 7 (emphasis added). ISO 8117 describes “Large circular knitting machines” as having a nominal diameter of at least 178 mm (7 inches), but does not equate the terms “large” and “wide,” or even use the term “wide.” Ex. 1012, 6 (Table 1). Although Mr. Holden’s testimony that “[t]he skilled person would also have understood that a circular knitting machine having a circumference of at least 22 inches (i.e., a nominal diameter of at least 7 inches) is a wide-tube circular knitting machine” is some evidence that ISO 8117 teaches that a wide-tube circular knitting machine has a nominal diameter of 178 mm (7 inches) or larger, the references relied upon by Petitioner to teach the wide-tube circular knitting machine arguably teach diameters larger even than those of the exemplary machine disclosed in the Specification of the ’598 patent. Pet. 17–18 (citing Ex. 1003 ¶ 97); *see* Ex. 1001, col. 7, ll. 12–37.

Nevertheless, for purposes of this Decision, it is not necessary for us to construe this term to define *a minimum diameter* for a wide-tube circular

knitting machine. Therefore, on this record, we construe the term “wide-tube circular knitting machine” to mean “a circular knitting machine forming body garment sized, tubular textile structures, including those having a diameter that ranges from 10 inches to 20 inches.”

3. *Other Claim Terms*

For purposes of this Decision, we discern no other claim terms that require express interpretation.

B. Obviousness over Reed and Nishida

1. Overview

Petitioner argues that claims 1–13 are unpatentable under 35 U.S.C. § 103(a) as obvious over Reed and Nishida. *See supra* Section I.E. To support its arguments, Petitioner provides a detailed mapping of limitations of challenged claims to Reed and Nishida and to Castello, Fujiwara, and Nishida. Pet. 14–29 (Reed and Nishida), 34–47 (Castello, Fujiwara, and Nishida). Petitioner also cites Mr. Holden’s Declaration for support. *See* Ex. 1003 ¶¶ 92–130, 145–199.

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3)

the level of skill in the art;⁴ and (4) objective evidence of nonobviousness, i.e., secondary considerations.⁵ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). On this record and for the reasons set forth below, we are persuaded that Petitioner demonstrates a reasonable likelihood of prevailing in this challenge to claims 1–13 of the ’598 patent.

2. *Reed (Ex. 1006)*

Reed is directed to a method of manufacturing a wearable item, which includes, among other things, mechanically manipulating a yarn with a circular-knitting machine to form a cylindrical textile structure (Ex. 1006, col. 2, ll. 22–25), textile elements located in different portions of the textile structure (*id.* at col. 2, ll. 29–31), removing the textile elements from the textile structure ((*id.* at col. 3, ll. 12–19, col. 5, l. 67–col. 6, l. 5), and incorporating the textile element(s) “to form all types of garments worn by men, women and children” (*id.* at col. 1, ll. 33–35, col. 5, ll. 56–58).

Reed’s Figure 1 is reproduced below.

⁴ See *supra* 8 n.3; see also Ex. 1003 ¶ 36 (“Based on my experience, I have an understanding of the capabilities of the skilled person in this field, and my opinions are provided from the perspective of such a person.”).

⁵ The current record lacks evidence of secondary considerations. See Pet. 47–49; *Medtronic Inc. v. NuVasive Inc.*, Case IPR2014-00087, at 21 (PTAB Apr. 3, 2015) (Paper 44).

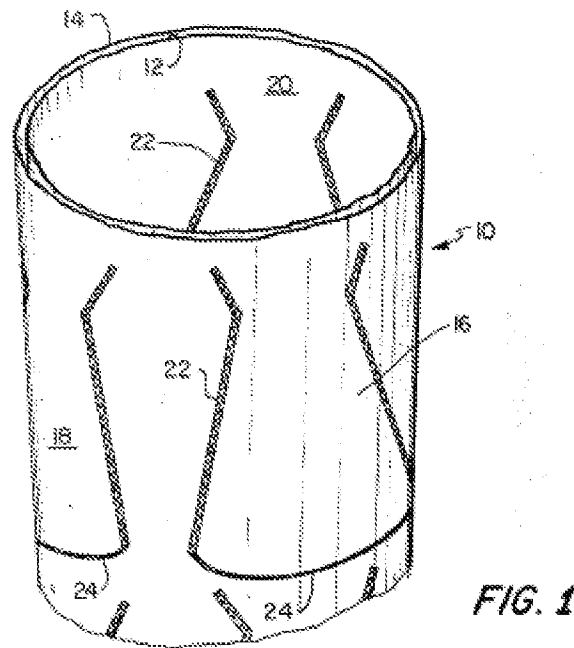


Figure 1 depicts tubular knitted structure 10, such as that produced by a circular knitting machine. *Id.* at col. 2, l. 66–col. 3, l. 1. Knitted structure 10 comprises inner tube 12 and outer tube 14, and

[a]round the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18 and 20.⁶ The garments 16, 18 and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18 and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam. The interconnecting knitting 24

⁶ On this record, we are persuaded that “skirts” are “body garments.” See Ex. 1003 ¶ 97:

That fact alone would inform a skilled person at least as of March 3, 2004, that the circumference of the circular knitted tube must be at least large enough to accommodate the width of three skirts, and would certainly require a circumference larger than 22 inches, as each skirt (even sized for a child) would require more than 7 inches of space around the circumference of the knitted tube.

is merely to define the lower outline of the skirt upon which the pattern may be cut.

Id. at col. 3, ll. 1–15.

Reed explains that the use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. Pet. 10–11 (citing Ex. 1006, col. 1, ll. 33–44; Ex. 1003 ¶ 94). Reed teaches that, with the introduction of computer pattern preparation equipment, “an era of unlimited pattern potential began.” Ex. 1006, col. 1, ll. 45–48; *see* Ex. 1003 ¶ 95. “Computer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” Ex. 1006, col. 1, ll. 50–55; *see* Ex. 1003 ¶ 95. Reed further explains that its method uses “an electronic circular double knitting machine” and that an “object of the [Reed] invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Ex. 1006, col. 1, ll. 58–59, col. 2, ll. 23–25; Figs 1–6; *see* Ex. 1003 ¶ 95.

3. *Nishida* (Ex. 1009)

Nishida is directed to the production of a shoe upper by (1) cutting out a layout in the form of the shoe upper from a web of material and (2) shaping the shoe upper by connecting material parts of the layout by the formation of seams. *See generally* Nishida, Abstract. By the disclosed process, such shoe uppers allegedly may be produced efficiently and in

reduced time despite the many individual parts present or to be made visible.
Id.

Figure 2 of Nishida is reproduced below.

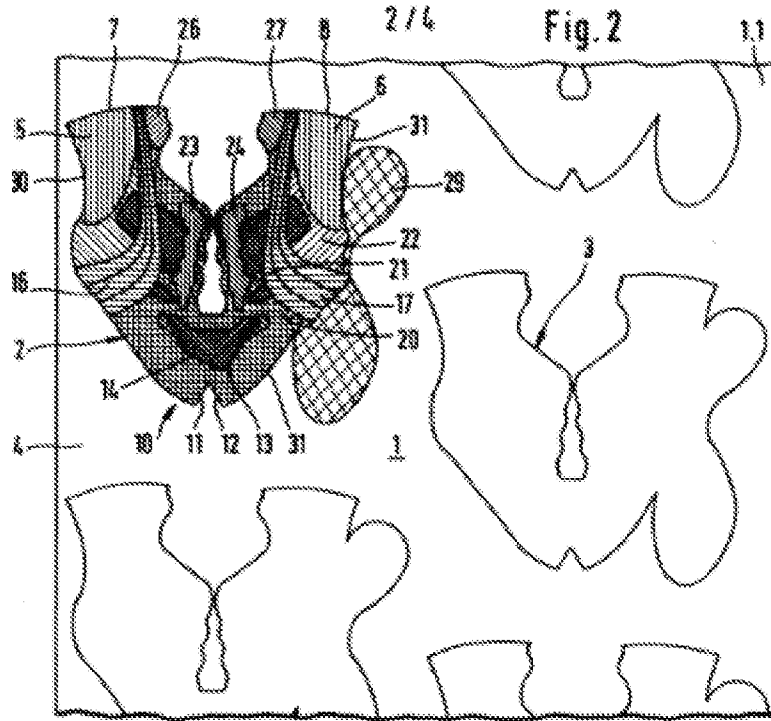


Figure 2 illustrates an embodiment of the upper layout according to Nishida. *Id.* at col. 3, ll. 6–12. Web of material 1 may include one or a plurality of layouts 2. Further, web of material 1 includes backing 4 that may be a knitted material, and different areas of layouts 2 may be formed by knitting different yarns or fibers on backing 4. *Id.* at col. 3, ll. 15–26; col. 5, l. 63–col. 6, l. 2.

Consequently, web of material 1 may be used to produce layouts 2 by different production measures, such as different styles, yarn material, color, material thickness, number of layers of material, or the like, simultaneously with the production of web of material 1. *Id.*; *see id.* at Figs. 1, 2. Each layout 2, including a sole part, may be cut from web of material 1 as a unit

and processed into an upper. *Id.* Nishida describes the manufacture of an article of footwear incorporating such an upper. *Id.* at col. 3, ll. 9–12; Fig. 3.

4. *Limitations of the Challenged Claims*

Petitioner argues that Reed and Nishida teach or suggest all of the limitations of claims 1–13 of the '598 patent. Pet. 9–29. In particular, Petitioner argues that Reed and Nishida teach or suggest all of the limitations of each of independent claims 1 and 9. *Id.* at 9–16 (claim 1), 19–20 (claim 9). Although Petitioner appears to identify a disclosure from Nishida in its claim chart (*id.* at 14–16) as teaching each of the limitations of claim 1, Petitioner does not assert expressly that Nishida *alone* renders claim 1 or claim 9 unpatentable. Further, because we determine that the identified disclosure of Nishida fails to teach or suggest at least one of the limitations of claims 1 and 9, to the extent that Petitioner argues that Nishida alone renders claim 1 or claim 9 unpatentable, we disagree.

a. *Independent Claims 1 and 9*

Initially, independent claim 1 recites “[a] method of manufacturing an article of footwear.” Ex. 1001, col. 11, l. 43; *see also id.* at col. 12, l. 21 (claim 9). Reed teaches that its circular knitting methods may be used to manufacture “all types of garments.” Ex. 1006, col. 5, ll. 56–57. Although Reed specifically identifies stockings and hosiery (*id.* at col. 1, ll. 33–35, col. 5, ll. 57–58) as garments manufactured by circular knitting, Reed does not describe shoes as “garments.” Nevertheless, Nishida teaches that the web of material depicted in its Figures 1 and 2 are “produced by a *conventional* textile process.” Ex. 1009, col. 3, ll. 6–7 (emphasis added). Thus, on this record, we are persuaded that Petitioner has shown that Reed

and Nishida teach or suggest a method of manufacturing an article of footwear.

The method of claim 1 further comprises the step of “mechanically-manipulating a yarn with a circular knitting machine to form a cylindrical textile structure.” Ex. 1001, col. 11, ll. 45–46; *see also id.* at col. 12, ll. 23–25 (claim 9 reciting “a *wide-tube* circular knitting machine” (emphasis added)). Reed clearly teaches the use of circular knitting machines, including such machines that can produce body garments, such as skirts (*see id.* at Fig. 2), shirts and pants (*see id.* at Fig. 3), and dresses (*see id.* at Fig. 6), for men, women, and children (*id.* at col. 5, ll. 56–57). In view of our construction of the term “a wide-tube circular knitting machine” above (*see supra* Section II.A.2; *see also* Ex. 1001, col. 7, ll. 6–8 (describing circular knitting machine capable of producing textile structures large enough for manufacturing “body garment[s]”)), we are persuaded that Reed teaches not only a circular knitting machine, but a wide-tube circular knitting machine. *See* Pet. 18 (claim 2 recites a “wide-tube circular knitting machine” and Petitioner relies solely on Reed to teach this limitation); Ex. 1003 ¶ 97.

Nevertheless, Petitioner also argues that Nishida discloses a circular knitting machine. Pet. 15–16 (claim 1).⁷ In particular, Petitioner notes that Nishida discloses that producing a web of material “by a conventional textile process, *[for] example, by weaving and/or knitting and/or embroidering.*” Ex. 1009, col. 3, ll. 6–9 (emphasis added). Further, Nishida teaches that “the use of program-controlled, particularly computer-controlled, production

⁷ As with claim 2 discussed above, Petitioner relies on Reed and Nishida to teach or suggest the “wide-tube circular knitting machine” of independent claim 9. Pet. 19–20.

devices is advantageous, so that style, color, design, size or the like *can be varied at will.*” *Id.* at col. 4, ll. 12–18 (emphasis added); *see* Ex. 1003 ¶¶ 100–102. Although Nishida teaches that various knitting machines may be used to produce a web of material including one or more layouts, we are not persuaded, on this record, that Nishida teaches or suggests the use of a *circular* knitting machine. Thus, we determine that only Reed supplies this limitation of independent claims 1 and 9.

The method of claim 1 further comprises the step of “removing at least one textile element from the textile structure.” Ex. 1001, col. 11, ll. 47–48; *see also id.* at col. 12, l. 26 (claim 9 recites “removing a textile element from the textile structure”). Unlike with respect to the previous limitation, we are persuaded that Petitioner has shown that either Reed or Nishida teaches or suggests this limitation of the independent claims. Pet. 16 (claim 1; citing, e.g., Ex. 1006, col. 3, ll. 12–19; Ex. 1009, col. 1, ll. 10–18); *id.* at 20 (claim 9); *see* Ex. 1003 ¶¶ 103–104.

Finally, the method of claim 1 further comprises the step of “incorporating the textile element into an upper of the article of footwear.” Ex. 1001, col. 11, ll. 49–50; *see id.* at col. 12, ll. 27–28 (claim 9). Petitioner relies solely on Nishida to supply this limitation, and we are persuaded, on this record, that Petitioner has shown that Nishida teaches or suggested this limitation of the independent claims. Pet. 16 (claim 1), 20 (claim 9); *see* Ex. 1003 ¶¶ 124–125.

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the identified teachings of Reed and Nishida to achieve the methods recited in independent claims 1 and 9. Pet. 12–14. In particular, Petitioner argues that, because Reed teaches that its methods are

applicable to “*all* types of garments” (Ex. 1006, col. 5, ll. 56–57 (emphasis added); *see* Ex. 1003 ¶ 131), a person of ordinary skill in the art would have had reason to apply the teachings of Reed to the processes and shoe parts of Nishida. Pet. 13 (citing Ex. 1003 ¶ 133). Further, Petitioner argues that, because both Reed and Nishida teach the advantages of reducing cost through the use of computer-controlled knitting machines, a person of ordinary skill in the art would have had reason to combine their teachings. Pet. 13 (citing Ex. 1003 ¶¶ 134–135). Finally, Petitioner argues that a person of ordinary skill in the art would have had reason to apply Reed’s methods for producing textile elements, from which to produce garments, to produce Nishida’s shoe upper patterns. *Id.* at 13–14; *see KSR*, 550 U.S. at 417 (“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”). Thus, we are persuaded that Petitioner has set forth sufficient reason at this initial stage of the proceeding for a person of ordinary skill in the relevant art to have combined the teachings of Reed and Nishida to achieve the recited methods of manufacturing an article of footwear.

b. Dependent Claims 2–8 and 10–13

Petitioner argues that Reed teaches or suggests the additional limitations recited in claim 2 (Pet. 17–18; *see supra* Section II.A.2.); that Nishida teaches or suggests the additional limitations recited in claims 7, 8, 12, and 13 (*id.* at 28–29); and that that Reed and/or Nishida teaches or suggests the additional limitations recited in claims 3–6, 10, and 11 (*id.* at 18–28; *see supra* Section II.A.1.). Petitioner provides a detailed mapping of

the limitations of each of these dependent claims onto the teachings of Reed and/or Nishida. We find these mappings persuasive. Moreover, we are persuaded that, on this record, a person of ordinary skill in the relevant art would have had at least the same reason to combine the teachings of Reed and Nishida to achieve the methods recited in these dependent claims, as that given for combining the teachings of Reed and Nishida to achieve the recited methods of the independent claims. *See id.* at 12–14.

Although we have highlighted specific evidence and arguments for emphasis, we have reviewed the entirety of Petitioner’s analysis for independent claims 1 and 9, as well as the supporting testimony of Mr. Holden. Based on our review of the arguments and evidence, we conclude that Petitioner has established a reasonable likelihood of prevailing on its challenge to independent claims 1 and 9 as rendered obvious by Reed and Nishida. Moreover, because Petitioner’s arguments for the obviousness of dependent claims 2–8 and 10–13 over Reed and Nishida, rely on the arguments and evidence presented with respect to independent claims 1 and 9, we also conclude that Petitioner has established a reasonable likelihood of prevailing on its challenge to the dependent claims.

5. *Obviousness over Castello, Fujiwara, and Nishida*

Petitioner argues that claims 1–13 are unpatentable under 35 U.S.C. § 103(a) as obvious over Castello, Fujiwara and Nishida. *See supra* Section I.E. In this asserted ground, Castello and Fujiwara, apparently, are cited together in lieu of the teachings of Reed. Pursuant to 35 U.S.C. § 312(a)(3), a petition only may be considered if it “identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the

challenge to each claim.” Here, the fault in the Petition lies in its failure to identify “with particularity” the grounds and evidence that form the underlying basis for Petitioner’s patentability challenge. For instance, with respect to claim 1, the claim chart offered to point out where the features of the claim are present in the prior art spans four pages and constitutes bulk citation to portions of Castello, Fujiwara, and Nishida. *See* Pet. 34–37. Such an approach does not provide meaningful “particularity” sufficient for the panel to ascertain where, specifically, Petitioner identifies the limitations of the claim in the prior art.

Furthermore, again in connection with claim 1, the Petition cites to portions of Castello and Fujiwara for the same features of that claim, and also submits parallel citation in some cases to portions of Nishida. Nevertheless, Petitioner does not articulate whether it contends that the teachings of Castello and Fujiwara are cumulative of one another, cumulative of Nishida, or both.⁸ It is not evident from the Petition what features Petitioner argues are absent from Castello that it must rely on content of Fujiwara to supply. As noted above, the Supreme Court has instructed us that the obviousness analysis includes describing (1) the scope and content of the prior art and (2) any differences between the claimed subject matter and the prior art. *Graham*, 383 U.S. at 17–18. At least with respect to Castello and Fujiwara, Petitioner has failed to do so here. We are

⁸ With the exception of characterizing Castello as directed to “shirts” and Fujiwara as directed to “garments,” Petitioner uses virtually identical language to describe the teachings of these references. *Compare* Pet. 29–30 (Castello: “incorporating the textile element(s) into *shirts* worn by men, women, and children” (emphasis added)), *with id.* at 31 (Fujiwara: “incorporating the textile element(s) into *garments* worn by men, women, and children” (emphasis added)).

left to guess what limitations Petitioner seeks to supply from the teachings of each of those references. Petitioner's arguments, citations, and claim charts fail to provide appropriate guidance as to where limitations of the challenged claims are found with particularity and are not sufficient, here, to support the institution of *inter partes* review on this second ground.⁹

Therefore, we *deny* this second ground and do not institute *inter partes* review based on it.

III. SUMMARY

We are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claims 1–13 of the '598 patent as obvious over Reed and Nishida. We are not persuaded, however, that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claims 1–13 of the '598 patent as obvious over Castello, Fujiwara, and Nishida. At this stage of the proceeding, we have not made a final determination as to the patentability of any of these challenged claims or the construction of any claim term.

IV. ORDER

It is, therefore,

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of the '598 patent is instituted on the grounds of obviousness of claims 1–13 over Reed and Nishida;

⁹ This second asserted ground addresses *all* of the challenged claims upon which we have instituted *inter partes* review based on Reed and Nishida, but Petitioner does not provide argument or evidence clearly favoring institution on one of the two asserted grounds over the other. *See* Pet. 29–47. Regardless, it would be within our discretion under 37 C.F.R. § 42.108(a) to deny institution on the additional ground.

FURTHER ORDERED that *inter partes* review is not authorized based on any other proposed ground of unpatentability; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

IPR2016-00921
Patent 7,814,598 B2

PETITIONER:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
KILPATRICK TOWNSEND & STOCKTON LLP
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
Michael J. Harris
BANNER & WITCOFF, LTD
crenk@bannerwitcoff.com
mharris@bannerwitcoff.com
bwlitdocket@bannerwitcoff.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

NIKE, Inc.,
Patent Owner.

Case IPR2016-00921(Patent 7,814,598 B2)
Case IPR2016-00922 (Patent 8,226,749 B2)¹

Before JOSIAH C. COCKS, MICHAEL J. FITZPATRICK, and
JAMES B. ARPIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

SCHEDULING ORDER
37 C.F.R. § 42.5

¹ This Order applies to each of the listed cases. We exercise our discretion to issue one Order to be docketed in each case. The parties are not authorized to use a multiple case caption.

A. GENERAL INSTRUCTIONS

1. Initial Conference Call

The parties are directed to contact the Board via e-mail at Trials@uspto.gov prior to the date scheduled below if there is no need to discuss proposed changes to this Scheduling Order or proposed motions. If no discussion is needed, the initial conference call will be cancelled. The parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,765–66 (Aug. 14, 2012), for guidance in preparing for the initial conference call, and should be prepared to discuss any proposed changes to this Scheduling Order (i.e., DUE DATES 6 and 7) and any motions that are *not* authorized already by our Rules or by this Scheduling Order, which the parties anticipate filing during the proceeding.

2. Protective Order

A protective order is not entered in this proceeding unless the parties propose one and the panel approves it. If either party files a motion to seal before entry of a protective order, a jointly proposed protective order should be presented as an exhibit to the motion. We encourage the parties to adopt the Board's default protective order if they conclude that a protective order is necessary. *See* Default Protective Order, Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, App. B. If the parties choose to propose a protective order deviating from the default protective order, they must submit the proposed protective order jointly along with a marked-up comparison of the proposed and default protective orders showing the deviations.

The Board has a strong interest in the public availability of the proceedings. 37 C.F.R. § 42.14. We advise the parties that redactions to documents filed in this proceeding should be limited strictly to isolated passages consisting *entirely* of confidential information, and that the thrust of the underlying argument or

evidence must be clearly discernible to the public from the redacted versions. We also advise the parties that information subject to a protective order will become public if identified in a final written decision in this proceeding, and that a motion to expunge the information will not necessarily prevail over the public's interest in maintaining a complete and understandable file history. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,761; 37 C.F.R. § 42.56.

Notwithstanding the default filing times for an opposition and a reply reflected in 37 C.F.R. § 42.25(a):

(1) an opposition, if any, to a motion to seal is due seven (7) days after service of the motion; and

(2) a reply, if any, to an opposition to a motion to seal is due seven (7) days after service of the opposition.

3. Motion to Amend

Patent Owner may file a motion to amend without prior authorization from the panel. Nevertheless, Patent Owner must confer with the Board before filing such a motion. *See* 37 C.F.R. § 42.121(a). If Patent Owner elects to file a Motion to Amend, Patent Owner shall confer with opposing counsel and shall arrange for a conference call with the panel and opposing counsel at least ten (10) business days before DUE DATE 1 in order to satisfy the conferral requirement. We direct the parties to the Board's website for representative decisions relating to motions to amend among other topics. The parties may access these representative decisions at: http://www.uspto.gov/ip/boards/bpai/representative_orders_and_opinions.jsp.

4. Discovery Disputes

The panel encourages the parties to resolve disputes relating to discovery on their own and in accordance with the precepts set forth in 37 C.F.R. § 42.1(b). To the extent that a dispute arises between the parties relating to discovery, the parties

shall meet and confer to resolve such a dispute before contacting the Board. If attempts to resolve the dispute fail, either party may request a conference call with the Board and the other party in order to seek authorization to move for relief.

In any request for a conference call with the Board to resolve a discovery dispute, the requesting party shall: (a) certify that it has conferred with the other party in an effort to resolve the dispute; (b) identify with specificity the issues for which agreement has not been reached; (c) identify the precise relief to be sought; and (d) propose a plurality of dates and times at which both parties are available for the conference call.

5. Depositions

The parties are advised that the Testimony Guidelines appended to the Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,772, App. D, apply to this proceeding. The Board may impose an appropriate sanction or sanctions for failure to adhere to the Testimony Guidelines. 37 C.F.R. § 42.12. For example, reasonable expenses and attorneys' fees incurred by any party may be levied on a person who impedes, delays, or frustrates the fair examination of a witness.

Whenever a party submits a deposition transcript as an exhibit in this proceeding, the submitting party shall file the full transcript of the deposition rather than excerpts of only those portions being cited. After a deposition transcript has been submitted as an exhibit, all parties who subsequently cite to portions of the transcript shall cite to the first-filed exhibit rather than submitting another copy of the same transcript.

6. Cross-Examination

Except as the parties might otherwise agree, for each due date—

1. Cross-examination begins after any supplemental evidence is due.
37 C.F.R. § 42.53(d)(2).

2. Cross-examination ends no later than a week before the filing date for any paper in which the cross-examination testimony is expected to be used. *Id.*

7. Motion for Observation on Cross-Examination

A motion for observation on cross-examination provides the parties with a mechanism to draw the Board's attention to relevant cross-examination testimony of a reply witness because no further substantive paper is permitted after the reply. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,768. The observation must be a concise statement of the relevance of specifically identified testimony to a specifically identified argument or portion of an exhibit. No observation should exceed a single, short paragraph. The opposing party may respond to the motion for observation. Any response must be equally concise and specific.

B. DUE DATES

This Order sets due dates for the parties to take action after institution of the proceeding. The parties may stipulate to different dates for DUE DATES 1 through 5 (earlier or later, but no later than DUE DATE 6). A notice of the stipulation, specifically identifying the changed due dates, must be filed promptly. The parties may not stipulate to an extension of DUE DATES 6 and 7, and, if either party anticipates the need to alter Due Date 7, the parties shall seek jointly to schedule a conference call with the panel *immediately* upon the identification any conflict or potential conflict with Due Date 7. *See* 37 C.F.R. § 42.10(a) (Each party "must designate a lead counsel and a back-up counsel who can conduct business on behalf of the lead counsel."); Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,758 ("[T]he role of back-up counsel is to conduct business with the Office on behalf of lead counsel when lead counsel is not available.").

In stipulating to different times, the parties should consider the effect of the stipulation on times to object to evidence (37 C.F.R. § 42.64(b)(1)), to supplement

evidence (37 C.F.R. § 42.64(b)(2)), to conduct cross-examination (37 C.F.R. § 42.53(d)(2)), and to draft papers depending on the evidence and cross-examination testimony.

1. DUE DATE 1

Patent Owner may file—

- a. A response to the Petition (37 C.F.R. § 42.120), and
- b. A motion to amend the patent (37 C.F.R. § 42.121).

Patent Owner must file any such response or motion to amend by DUE DATE 1.

If Patent Owner elects not to file anything, Patent Owner must arrange a conference call with the parties and the Board. Patent Owner is cautioned that any arguments for patentability not raised in the response will be deemed waived.

2. DUE DATE 2

Petitioner must file any reply to Patent Owner's response and opposition to the motion to amend by DUE DATE 2.

3. DUE DATE 3²

Patent Owner must file any reply to Petitioner's opposition to Patent Owner's motion to amend by DUE DATE 3.

4. DUE DATE 4

a. Each party must file any motion for an observation on the cross-examination testimony of a reply witness (*see* section A.7, above) by DUE DATE 4.

b. Each party must file any motion to exclude evidence (37 C.F.R. § 42.64(c)) and any request for oral argument (37 C.F.R. § 42.70(a)) by DUE DATE 4.

² Please be advised that, if no Motions to Amend are filed in these proceedings, Due Date 3 is moot, and the panel may advance Due Dates 4–7 *sua sponte*.

5. DUE DATE 5

a. Each party must file any reply to a Petitioner observation on cross-examination testimony by DUE DATE 5.

b. Each party must file any opposition to a motion to exclude evidence by DUE DATE 5.

6. DUE DATE 6

Each party must file any reply for a motion to exclude evidence by DUE DATE 6.

7. DUE DATE 7

The oral argument (if requested by either party) is set for DUE DATE 7.

DUE DATE APPENDIX

INITIAL CONFERENCE CALL2:00 PM ET on November 21, 2016

DUE DATE 1January 23, 2017

Patent Owner's response to the Petition

Patent Owner's motion to amend the patent

DUE DATE 2April 21, 2017

Petitioner's reply to Patent Owner's response to the Petition

Petitioner's opposition to motion to amend

DUE DATE 3May 22, 2017

Patent Owner's reply to Petitioner's opposition to motion to amend

DUE DATE 4June 12, 2017

Motion for observation regarding cross-examination of reply witness

Motion to exclude evidence

Request for oral argument³

DUE DATE 5June 26, 2017

Response to observation

Opposition to motion to exclude

DUE DATE 6July 3, 2017

Reply to opposition to motion to exclude

³ Although the parties may stipulate to a different date for Due Date 4, such stipulation may not alter the due date for file a request for oral argument.

IPR2016-00921(Patent 7,814,598 B2)
IPR2016-00922 (Patent 8,226,749 B2)

DUE DATE 7July 12, 2017

Oral argument (if requested)

PETITIONER:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
KILPATRICK TOWNSEND & STOCKTON LLP
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
Michael J. Harris
BANNER & WITCOFF, LTD
crenk@bannerwitcoff.com
mharris@bannerwitcoff.com
bwlitdocket@bannerwitcoff.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2016-00921
Patent No. 7,814,598

**PATENT OWNER NIKE, INC.'S
NOTICE OF CROSS-EXAMINATION OF LENNY M. HOLDEN**

Pursuant to 37 C.F.R. 42.53, Patent Owner NIKE, Inc. ("NIKE") hereby provides notice that, as previously agreed by the parties, it will cross-examine Lenny M. Holden on January 10, 2017. The cross-examination will begin at 9:00 a.m. or at a time mutually agreed by the parties and will be held at the offices of adidas' counsel, Kilpatrick Townsend and Stockton, 1100 Peachtree Street NE, Suite 2800, Atlanta, Georgia. The cross-examination will take place before a Notary Public or other official authorized by law to administer oaths, to be arranged by counsel for NIKE. The cross-examination will be recorded by using audio, video and/or stenographic means.

Date: December 19, 2016

Respectfully submitted,

/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on December 19, 2016, by email directed to the attorneys of record for Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

/s/ Aaron P. Bowling
Aaron P. Bowling
Banner & Witcoff, Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ADIDAS AG,
Petitioner,

v.

NIKE, INC.,
Patent Owner.

Case IPR2016-00922
Patent 8,266,749 B2

Mailed: April 25, 2016

Before DAVID SCHMERFELD, *Trial Paralegal*.

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for *inter partes* review in the above proceeding has been accorded the filing date of April 19, 2016.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is limited to setting forth the reasons why the requested review should not be

instituted. Patent Owner may also file an election to waive the preliminary response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012), which is available on the Board's website at <http://www.uspto.gov/PTAB>.

Patent Owner is advised of the requirement to submit mandatory notice information under 37 C.F.R. § 42.8(a)(2) within 21 days of service of the petition.

The parties are encouraged to use the heading on the first page of this Notice for all future filings in the proceeding.

The parties are advised that under 37 C.F.R. § 42.10(c), recognition of counsel *pro hac vice* requires a showing of good cause. The parties are authorized to file motions for *pro hac vice* admission under 37 C.F.R. § 42.10(c). Such motions shall be filed in accordance with the "ORDER Authorizing Motion for *Pro Hac Vice* Admission" in Case IPR2013-00639, Paper 7, a copy of which is available on the Board's website under "Representative Orders, Decisions, and Notices."

The parties are reminded that unless otherwise permitted by 37 C.F.R. § 42.6(b)(2), all filings in this proceeding must be made electronically in the Patent Review Processing System (PRPS), accessible from the Board's website at <http://www.uspto.gov/PTAB>. To file documents, users must first obtain a user ID and password by registering with PRPS. Information regarding how to register with and use PRPS is available at the Board's website.

If there are any questions pertaining to this notice, please contact David Schmerfeld at 571-272-7184 or the Patent Trial and Appeal Board at 571-272-7822.

Case IPR2016-00922

Patent 8,266,749 B2

PETITIONER:

Mitchell G. Stockwell

mstockwell@kilpatricktownsend.com

Vaibhav P. Kadaba

wkadaba@kilpatricktownsend.com

Tiffany L. Williams

tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Banner & Witcoff, Ltd.

& Attorneys for Client 005127

1100 13th St. NW, Ste. 1200

Washington, DC 20005-4051

NOTICE CONCERNING ALTERNATIVE DISPUTE RESOLUTION (ADR)

The Patent Trial and Appeal Board (PTAB) strongly encourages parties who are considering settlement to consider alternative dispute resolution as a means of settling the issues that may be raised in an AIA trial proceeding. Many AIA trials are settled prior to a Final Written Decision. Those considering settlement may wish to consider alternative dispute resolution techniques early in a proceeding to produce a quicker, mutually agreeable resolution of a dispute or to at least narrow the scope of matters in dispute. Alternative dispute resolution has the potential to save parties time and money.

Many non-profit organizations, both inside and outside the intellectual property field, offer alternative dispute resolution services. Listed below are the names and addresses of several such organizations. The listings are provided for the convenience of parties involved in cases before the PTAB; the PTAB does not sponsor or endorse any particular organization's alternative dispute resolution services. In addition, consideration may be given to utilizing independent alternative dispute resolution firms. Such firms may be located through a standard keyword Internet search.

CPR INSTITUTE FOR DISPUTE RESOLUTION	AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION (AIPLA)	AMERICAN ARBITRATION ASSOCIATION (AAA)	WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)	AMERICAN BAR ASSOCIATION (ABA)
Telephone: (212) 949-6490	Telephone: (703) 415-0780	Telephone: (212) 484-3266	Telephone: 41 22 338 9111	Telephone : (202) 662-1000
Fax: (212) 949-8859	Fax: (703) 415-0786	Fax: (212) 307-4387	Fax: 41 22 733 5428	N/A
575 Lexington Ave New York, NY 10022	241 18th Street, South, Suite 700 Arlington, VA 22202	140 West 51st Street New York, NY 10020	34, chemin des Colombettes CH-1211 Geneva 20, Switzerland	1050 Connecticut Ave, NW Washington D.C. 20036
www.cpradr.org	www.aipla.org	www.adr.org	www.wipo.int	www.americanbar.org

If parties to an AIA trial proceeding consider using alternative dispute resolution, the PTAB would like to know whether the parties ultimately decided to engage in alternative dispute resolution and the reasons why or why not. If the parties actually engage in alternative dispute resolution, the PTAB would be interested to learn what mechanism (e.g., arbitration, mediation, etc.) was used and the general result. Such a statement from the parties is not required but would be helpful to the PTAB in assessing the value of alternative dispute resolution to parties involved in AIA trial proceedings. To report an experience with ADR, please forward a summary of the particulars to the following email address: PTAB_ADR_Comments@uspto.gov

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2016-00922
Patent No. 8,266,749

**PATENT OWNER'S MANDATORY NOTICES
PURSUANT TO 37 C.F.R. § 42.8(a)(2)**

Pursuant to 37 C.F.R. § 42.8(a)(2), Patent Owner Nike, Inc. (“NIKE”) hereby submits the following mandatory notices in connection with Petitioner adidas AG’s Petition for *Inter Partes* Review of U.S. Patent No. 8,266,749, Case No. IPR-2016-00922.

I. 37 C.F.R. § 42.8(b)(1): Real Party-In-Interest

The real party-in-interest is Nike, Inc.

II. 37 C.F.R. § 42.8(b)(2): Related Matters

NIKE identifies the following matters that may be deemed related pursuant to 37 C.F.R. § 42.8(b)(2):

- Petition for *Inter Partes* Review of U.S. Patent No. 7,347,011, Case No. IPR-2013-00067;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2016-00920; and
- Petition for *Inter Partes* Review of U.S. Patent No. 7,814,598, Case No. IPR-2016-00921.

III. 37 C.F.R. § 42.8(b)(3): Lead and Back-Up Counsel

NIKE designates the following counsel to transact all business in the United States Patent & Trademark Office associated with the above-captioned Petition for *Inter Partes* Review.

Lead Counsel	Back-up Counsel
Christopher J. Renk	Michael J. Harris
Reg. No. 33,761	Reg. No. 62,957
crenk@bannerwitcoff.com	mharris@bannerwitcoff.com
BANNER & WITCOFF, LTD.	BANNER & WITCOFF, LTD.
10 South Wacker Drive	10 South Wacker Drive
Suite 3000	Suite 3000
Chicago, Illinois 60606	Chicago, Illinois 60606
Telephone: 312-463-5000	Telephone: 312-463-5000
Facsimile: 312-463-5001	Facsimile: 312-463-5001

IV. 37 C.F.R. § 42.8(b)(4): Service Information

Service of all documents may be made on the lead and back-up counsel to the following postal mailing address, with courtesy copies to crenk@bannerwitcoff.com, mharris@bannerwitcoff.com, and bwlitdocket@bannerwitcoff.com:

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

Date: May 10, 2016

Respectfully submitted,

/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

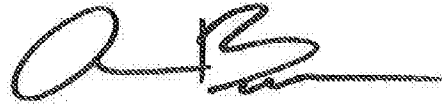
Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on
May 10, 2016, by Express Mail and email directed to the attorneys of record for
Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com



Aaron P. Bowling
Banner & Witcoff, Ltd.

Electronic Acknowledgement Receipt

EFS ID:	29868830
Application Number:	15610089
International Application Number:	
Confirmation Number:	4757
Title of Invention:	ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER
First Named Inventor/Applicant Name:	BHUPESH DUA
Customer Number:	78342
Filer:	Elizabeth Ashley Lucas
Filer Authorized By:	
Attorney Docket Number:	NIKE.276100/081313US82CON
Receipt Date:	24-JUL-2017
Filing Date:	31-MAY-2017
Time Stamp:	19:31:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	276100_IDS_Cover_Letter.pdf	15812	no	1
			b1b889159707e0f36cf66f09e808db56fdc05f99		

Warnings:

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	276100_IDS_7.PDF	1036318	no	7
			b9b69268309a0f3e50d4275540778d5112ca0fe4		
Warnings:					
Information:					
3	Non Patent Literature	276100_7_NPL_01_Burall_Cold_Design_Awards_Design_June_1969.pdf	1794795	no	4
			f014ee7c2c2978530d0cce300f6743caae2ef014ee7c2c2978530d0cce300f6743caae2ef014ee7c2c2978530d0cce300f6743caae2e2367		
Warnings:					
Information:					
4	Non Patent Literature	276100_7_NPL_02_HOLDEN_C_V.pdf	665534	no	3
			11785cf4a59aaa624edb8951ae24a06f288ee9910		
Warnings:					
Information:					
5	Non Patent Literature	276100_7_NPL_03_Textile_Machinery_ISO_8117_Second_Edition_02152003.pdf	658939	no	6
			4e2fb1c2c929bb77dc3c4ae0391705d0992bbf4d		
Warnings:					
Information:					
6	Non Patent Literature	276100_7_NPL_04_Petition_for_Inter_Parties_Review_IPR201600920_filed_04192016.pdf	477334	no	67
			b7d19164e12c52b3d20602684a2d7a7815c7beee		
Warnings:					
Information:					
7	Non Patent Literature	276100_7_NPL_05_File_History_US_Pat_8042288_Ex_1002_IPR201600920.PDF	14324301	no	324
			87b0bb480e3f887e1a2dc2d686bf366fc10ee7ada		
Warnings:					
Information:					
8	Non Patent Literature	276100_7_NPL_06_HOLDEN_DECLARATION_04192016_IPR201600920.pdf	2445134	no	166
			91c783154942228012977ad1b392d9cfe62b7560		
Warnings:					
Information:					

9	Non Patent Literature	276100_7_NPL_07_Form_PTO_SB42_04192016_IPR201600920.pdf	704981	no	2
			9243877736ffefb5cd4a1dda150704900f104143		
Warnings:					
Information:					
10	Non Patent Literature	276100_7_NPL_11_Petition_for_Inter_Parties_Review_IPR201600921_filed_04192016.pdf	471377	no	57
			9ccf4d61e4072627d04f9935be5a36ac078c68f		
Warnings:					
Information:					
11	Non Patent Literature	276100_7_NPL_12_File_History_US_Pat_7814598_filed_04192016_Ex_1002_IPR201600921.PDF	13885282	no	346
			0da0c8d54af1a80ecd7d05f4bed3db431c3d8127		
Warnings:					
Information:					
12	Non Patent Literature	276100_7_NPL_08_042516_Notice_Pat_Owner_Prelim_Resp.pdf	879007	no	4
			c7c4a8abec75c7a9f1934f28a682d19a3b1fa138		
Warnings:					
Information:					
13	Non Patent Literature	276100_7_NPL_09_05102016_Patent_Owner_Mandatory_Notices_IPR201600920.pdf	859552	no	5
			41c706f33004cc9e5a1b70c9082bec33e94a4131		
Warnings:					
Information:					
14	Non Patent Literature	276100_7_NPL_10_10212016_Trial_Instituted_Document_IPR201600920.pdf	3071051	no	8
			2742a62e593f3705bbe3aa71eb7c426e6d8f7b00		
Warnings:					
Information:					
15	Non Patent Literature	276100_7_NPL_13_HOLDEN_DECLARATION_04192016_IPR201600921.pdf	2511710	no	154
			1f4da07a8f5f9066def4807a8a539ca01ccffcd99		
Warnings:					
Information:					

16	Non Patent Literature	276100_7_NPL_14_Form_PTO_SB42_04192016_IPR201600921.pdf	704409	no	2
			3483299dd1c72967d4cbccb74768dc0d660fa942		
Warnings:					
Information:					
17	Non Patent Literature	276100_7_NPL_20_Petition_for_Inter_Parties_Review_IPR201600922_filed_04192016.pdf	582555	no	67
			5773dc6d01da945f9d569244cfa17aefcee9c61b		
Warnings:					
Information:					
18	Non Patent Literature	276100_7_NPL_21_File_History_US_Pat_8266749_filed_04192016_Ex_1002_IPR201600922.PDF	13934402	no	309
			fa18223f0779ab66036157acefee2e77c937267b		
Warnings:					
Information:					
19	Non Patent Literature	276100_7_NPL_22_HOLDEN_DECLARATION_04192016_IPR201600922.pdf	2511710	no	154
			1f4da07a8f5f9066def4807a8a539ca01ccffcd99		
Warnings:					
Information:					
20	Non Patent Literature	276100_7_NPL_23_Form_PTO_SB42_04192016_IPR201600922.pdf	704412	no	2
			91995e88be1d684c5301f160a7d3695c3ed2285c		
Warnings:					
Information:					
21	Non Patent Literature	276100_7_NPL_15_04252016_Filing_Date_accorded_to_Pat_Owner_Prelim_Response_IPR201600921.pdf	869718	no	4
			49dec0cb3a4a0daeb1cb0d7bd715de6453ec3c64		
Warnings:					
Information:					
22	Non Patent Literature	276100_7_NPL_16_05102016_Patent_Owner_Mandatory_Notices_IPR201600921.pdf	859070	no	5
			2c397c3f7cf1ebb38543d0f80d1e226a59b6325d		
Warnings:					
Information:					

23	Non Patent Literature	276100_7_NPL_17_10212016_Trial_Instituted_Document_IPR20160092276100_7_1.pdf	9954726	no	24
			1a5eab80b2d20bfe7f12e6128ce9a0da9f35a9f9		
Warnings:					
Information:					
24	Non Patent Literature	276100_7_NPL_18_10212016_Scheduling_Order_IPR201600921.pdf	3439424	no	9
			09a5200be712989210743ea7b1838783d65ea9ab		
Warnings:					
Information:					
25	Non Patent Literature	276100_7_NPL_19_Notice_Cross_Exam_Holden_12192016.pdf	535758	no	3
			358f780c304cf53c91a36857713e088d66099751		
Warnings:					
Information:					
26	Non Patent Literature	276100_7_NPL_24_04252016_Filing_Date_accorded_to_Pat_Owner_Prelim_Resp_IPR201600922.pdf	869923	no	4
			3a6e8de7994a5b8bf3e1880120bc97cdacdcc68a		
Warnings:					
Information:					
27	Non Patent Literature	276100_7_NPL_25_05102016_Patent_Owner_Mandatory_Notices_IPR201600922.pdf	859261	no	5
			b3db599fe9b2148f9b36f815a1915ca5220926b9		
Warnings:					
Information:					
Total Files Size (in bytes):			79626495		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 15/610,089 Confirmation No. 4757
Inventor : Bhupesh Dua
Applicants : NIKE, Inc.
Filed : 5/31/2017
Title : ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER
Group Art Unit : 3765
Examiner : Marie D. Bays
Matter No. : NIKE.276100/08-1313US82CON
Customer No. : 78342

VIA EFS – 7/24/2017

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

IDS SUBMISSION

This correspondence is being submitted with an Information Disclosure Statement pursuant to 37 C.F.R. § 1.97. Due to the number of references, the IDS is separated into multiple forms. Accordingly, Applicant hereby submits IDS forms 1-11 as this IDS submission. Each IDS form corresponds to an IDS form filed in the Application No. 14/503,514 from which this pending application depends. Pursuant to 37 C.F.R. § 1.97(c)(2), Applicant submits herewith the fee set forth in § 1.17(g) for the IDS submission.

Respectfully submitted,

/ELIZABETH A. LUCAS/

Elizabeth A. Lucas
Reg. No. 74,247

EAL
SHOOK, HARDY & BACON L.L.P.
2555 Grand Blvd.
Kansas City, MO 64108-2613
Phone: 816-474-6550
Fax: 816-421-5547

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner

v.

Nike, Inc.
Patent Owner

Patent No. 8,042,288
Filing Date: September 10, 2010
Issue Date: October 25, 2011
Title: ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER

Inter Partes Review No. Unassigned

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ.***

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	MANDATORY NOTICES	1
	A. Real Party in Interest	1
	B. Related Matters.....	1
	C. Fee	2
	D. Designation of Lead Counsel and Request for Authorization	2
	E. Service Information	3
	F. Power of Attorney	3
	G. Standing.....	3
III.	THE ‘288 PATENT	3
	A. Priority Date of the ‘288 Patent.....	3
	B. Brief Description of the ‘288 Patent and Summary of the Prosecution History	4
IV.	CLAIM CONSTRUCTION	5
V.	STATEMENT OF RELIEF REQUESTED.....	6
VI.	PERSON OF ORDINARY SKILL IN THE ART AT THE TIME OF THE ‘288 PATENT	7
VII.	CLAIM-BY-CLAIM EXPLANATION OF GROUNDS.....	8
	A. Ground 1: Obviousness of Claims 8 and 14-20 in View of Reed, Nishida, and Shiomura.....	8
	1. Reed (Ex. 1006)	8
	2. Nishida (Ex. 1007)	10
	3. Shiomura (Ex. 1008).....	10

4.	The Combination of Reed, Nishida, and Shiomura	11
5.	Claim-by-Claim Analysis	15
i.	Independent Claim 14	15
i.	Dependent Claims 15 and 16	27
ii.	Dependent Claim 17	29
iii.	Dependent Claim 18	31
iv.	Dependent Claim 19	32
v.	Dependent Claim 20	33
vi.	Dependent Claim 8	34
VIII.	EVEN IF CONSIDERED, SECONDARY CONSIDERATIONS FAIL TO OVERCOME THE EVIDENCE OF OBVIOUSNESS	37
IX.	THE PROPOSED REJECTIONS RAISE NEW ISSUES IN WHICH PETITIONER WILL LIKELY PREVAIL	39

LIST OF EXHIBITS

PETITIONER EXHIBIT	DESCRIPTION
1001	U.S. Patent No. 8,042,288 (“the ‘288 patent”)
1002	File History for U.S. Patent No. 8,042,288 (“‘288 file history”)
1003	Declaration of Lenny Holden (“Holden Decl.”)
1004	C.V. for Lenny Holden
1005	Form PTO-SB/42
1006	U.S. Patent No. 3,985,003 to Reed (“Reed”)
1007	U.S. Patent No. 5,345,638 to Nishida (“Nishida”)
1008	U.S. Patent No. 4,785,558 to Shiomura (“Shiomura”)
1009	U.S. Patent No. 6,779,369 to Shepherd (“Shepherd”)
1010	David J. Spencer, <i>Knitting Technology: A Comprehensive Handbook and Practical Guide</i> (Third Ed., Woodhead Publishing Ltd. 2001) (“Spencer”)

I. INTRODUCTION

Through counsel, real party in interest adidas AG (“Petitioner”) hereby petitions for initiation of *inter partes* review of claims 8 and 14-20 of U.S. Patent No. 8,042,288 (“the ‘288 patent”), assigned to Nike, Inc. (“Patent Owner”). A copy of the ‘288 patent is attached as Exhibit 1001, and a copy of the prosecution history of the ‘288 patent is attached as Exhibit 1002.

II. MANDATORY NOTICES

A. Real Party in Interest

Petitioner, adidas AG, the ultimate parent of adidas International B.V., adidas North America, Inc., adidas America, Inc., and adidas International, Inc., is the real party-in-interest for the instant petition.

B. Related Matters

The ‘288 patent is a continuation application of U.S. Patent No. 7,814,598, which is a divisional application of U.S. Patent No. 7,347,011 (“the ‘011 patent”). U.S. Patent No. 8,266,749 is a continuation application of the ‘288 patent.

The Board instituted *inter partes* review of claims 1-46 of the ‘011 patent (IPR2013-00067), and Nike requested cancellation of claims 1-46 and proposed substitute claims 47-50. The Board granted the motion to cancel, but denied the motion as to the substitute claims. Nike appealed the Board’s decision to the Federal Circuit (Case No. 2014-1719). The Federal Circuit issued a decision on February 11, 2016, which affirmed-in-part, vacated-in-part, and remanded the case to the Board for

further proceedings on secondary consideration and patentability of dependent claim 49.

The Board instituted *inter partes* review of claims 1-13 of the '598 patent (IPR2016-00921), and instituted *inter partes* review of claims 1-9, 11-19, and 21 of the '749 patent (IPR2016-00922).

C. Fee

This petition for *inter partes* review of 8 claims of the '288 patent is accompanied by a fee payment of \$23,000 which includes the \$9,000 *inter partes* review request fee and the \$14,000 *inter partes* review post-institution fee. *See* 37 C.F.R. § 312(a)(1) and 37 C.F.R. § 42.15(a) and 42.103. Petitioner further authorizes a debit from Deposit Account 20-1430 for whatever additional payment is necessary in granting this petition.

D. Designation of Lead Counsel and Request for Authorization

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 mstockwell@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 815 6214	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 wkadaba@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 532 6959 Tiffany L. Williams Reg. No. 59,549 tiwilliams@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
--	--

E. Service Information

As identified in the attached Certificate of Service, a copy of the present petition, in its entirety, is being served to the address of the attorney or agent of record. Petitioner, adidas AG, may be served at its counsel, Kilpatrick Townsend & Stockton LLP, at the e-mail addresses indicated above.

F. Power of Attorney

A power of attorney with the designation of counsel is filed herewith in accordance with 37 C.F.R. § 42.10(b).

G. Standing

Petitioner certifies that the '288 patent is eligible for *inter partes* review and further certifies that Petitioner is not barred or otherwise estopped from requesting *inter partes* review challenging the identified claims on the grounds identified herein.

III. THE '288 PATENT

A. Priority Date of the '288 Patent

The '288 patent issued on October 25, 2011 from Application No. 12/879,517 ("the '517 application"), filed on September 10, 2010. The '288 patent purports to be a continuation of Application No. 12/032,995, filed on February 18, 2008, now U.S. Patent No. 7,814,598 ("the '598 patent"). The '598 patent purports to be a division of Application No. 10/791,289, filed on March 3, 2004, now U.S. Patent No. 7,347,011. Thus, the earliest possible effective filing date for purposes of 35 U.S.C. §§ 102(a) and 102(b) is March 3, 2004.

B. Brief Description of the ‘288 Patent and Summary of the Prosecution History

The ‘288 patent relates to an article of footwear having a textile upper. (Ex. 1001, 1:19-22.) The ‘288 patent specifically teaches that the upper incorporates a textile element, which may be formed with a knitting machine. (*Id.*, 3:27-29.)

The ‘517 application was filed on September 10, 2010, with claims 1-39. Original claims 1, 14, 22, 30, and 37 were directed to an article of footwear.

The PTO issued a first Office Action on the merits, rejecting claims 1-39 on the ground of nonstatutory double patenting over claims 1-46 of the ‘011 patent, and indicated that claims 1-39 would be allowed subject to the filing of a Proper Terminal Disclaimer over claims 1-46 of the ‘011 patent. (Ex. 1002, 3/4/2011 Office Action, pp. 2-3.) Applicants responded by submitting the necessary Terminal Disclaimer. (Ex. 1002, 3/25/2011 Response.)

The PTO then issued a non-final rejection of claims 1, 2, 7, 9-18, 20, 21, 30, 31, and 35-39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,701,458 to Ducharme (“Ducharme”), and of claims 8 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Ducharme in view of U.S. Patent No. 6,558,784 to Norton (“Norton”). (Ex. 1002, 4/4/2011 Office Action, pp. 2-3.) The Examiner indicated that claims 3-6 and 32-34 were allowable and that claims 22-29 were allowed. (*Id.*, at 3.)

Applicants responded by amending claims 1 and 30 to recite “longitudinal”

edges; amending claim 14 to recite that “the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer;” and amending claim 37 to recite the knitted textile element “further having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper.” (Ex. 1002, 5/16/2011 Response, pp. 2-9.) Applicants asserted that Ducharme lacks a longitudinal seam and that neither Ducharme nor Norton discloses that the circular-knitted textile element forms at least a portion of the interior layer. (*Id.*, at 11-12.)

The Examiner then allowed claims 1-18 and 20-39, now renumbered as claims 1-38. (Ex. 1002, 6/24/2011 Notice of Allowance.) Applicants transmitted the issue fee payment on September 22, 2011, and the ‘288 patent issued on October 25, 2011. (Ex. 1002, 9/22/2011 Issue Fee Payment.)

IV. CLAIM CONSTRUCTION

A claim subject to *inter partes* review (“IPR”) is given its “broadest reasonable construction [“BRI”] in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). The words of the claim are, thus, given their plain meaning unless that meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). Petitioner submits, for the purposes of the IPR only, that the claim terms are presumed to take on their broadest reasonable interpretation in view of the specification of the ‘288 patent.

Claim 14 recites that the textile element includes “a first area and a second area with a unitary construction.” As part of the IPR proceedings for the ‘011 patent, the Board construed this phrase to “require a textile element having a unitary construction *and* having a first area and a second area.” *adidas AG v. Nike, Inc.*, No. IPR2013-00067, Paper No. 60, at pp. 16-17, 2014 WL 1713368, at *8 (PTAB Apr. 28, 2014). Because the ‘288 patent shares a common specification with the ‘011 patent and is a continuation of a division thereof, Petitioner requests that the Board construe the phrase in claim 14 to have the same meaning as its prior construction.

Petitioner submits that the remaining claim terms should be accorded their ordinary and customary meaning as understood by one of ordinary skill in the art. *See* 77 Fed. Reg. 48700 (2012). Any claim constructions presented either implicitly or explicitly in this proceeding should not be viewed as a concession as to the proper scope of any claim term in any future litigation proceeding.

V. STATEMENT OF RELIEF REQUESTED

Pursuant to 37 C.F.R. § 42.104(b), Petitioner respectfully requests cancellation of claims 8 and 14-20 based on the following grounds:

Ground	35 U.S.C.	Claims	References
1	103(a)	8 and 14-20	Reed, Nishida, and Shiomura

Below is a discussion of why the challenged claims of the ‘288 patent are unpatentable under the statutory grounds raised, including claim charts specifying

where each element of a challenged claim is met by the prior art. 37 C.F.R.

§ 42.104(b)(4). The showing in these sections establishes a reasonable likelihood of prevailing as to each ground of invalidity with respect to the challenged claims as to that ground. This showing is supported by the Declaration of Lenny Holden (“Holden Decl.”) (Ex. 1003).

VI. PERSON OF ORDINARY SKILL IN THE ART AT THE TIME OF THE ‘288 PATENT

A person of ordinary skill in the art (“POSA”) for the ‘288 patent would have at least a few years of experience in the footwear industry, possibly with a focus in one specific area (such as merchandising, design, product development, commercialization, and/or manufacturing), but would also have a broader understanding of shoemaking in general, as all aspects are so interdependent on each other. A POSA would have an understanding of the product cycle for the process of designing, developing, and bringing a new product to market. He or she would also understand that there are some key review milestones where upper material designs are reviewed and considered, such as textiles, leathers, synthetics, or other types of materials used for upper construction. The POSA would have some understanding and knowledge of the available and varied ranges of typical construction methods within a product cycle. In addition, a POSA would have a basic knowledge of the functional requirements of footwear and a comprehensive understanding of the range of material choices, as well as construction techniques and processes used to create

the various parts of a shoe and to assemble them in an effective manner. (Ex. 1003, ¶34.)

VII. CLAIM-BY-CLAIM EXPLANATION OF GROUNDS

As detailed in the claim charts below, all limitations of claims 8 and 14-20 of the '288 patent were well-known in the prior art. The various identified prior art references were not relied on by the Examiner during prosecution of the '288 patent. The '288 patent claims merely recite the combination of “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C).

Accordingly, those claims were obvious to skilled artisans.

A. Ground 1: Obviousness of Claims 8 and 14-20 in View of Reed, Nishida, and Shiomura

1. Reed (Ex. 1006)

Reed (Ex. 1006) issued on October 12, 1976, before the March 3, 2004 earliest possible priority date claimed by the '288 patent. Reed, thus, is prior art under at least 35 U.S.C. § 102(b). Reed was not cited during prosecution of the '288 patent and explicitly describes features of claims 8 and 14-20 of the '288 patent.

Reed describes using a circular-knitting machine to knit multiple textile elements unitarily with a surrounding textile structure, the textile elements located in different portions of the textile structure, the textile elements also having multiple

layers at least partially joined by interconnecting stitches; removing the knitted textile element(s) from the textile structure; and incorporating the textile element(s) into any type of garment worn by men, women, and children, including stockings and hosiery. (Ex. 1003, ¶¶87, 89-90, 93-94, 99, 108-109.)

Reed explains that the use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. (Ex. 1003, ¶¶65, 89.)

Although Reed recognized that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. (Ex. 1003, ¶¶65, 89.)

With the advent in computerized programming for knit machines beginning in the 1970s, however, “an era of unlimited pattern potential began.” (Ex. 1006, 1:45-48; Ex. 1003, ¶¶66, 90.) “Computer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” (Ex. 1006, 1:50-55; Ex. 1003, ¶¶66, 90.) Reed explains that the present invention uses “an electronic circular double knitting machine” and

an “object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” (Ex. 1006, 1:58-59; 2:23-25; FIGS. 1-6; Ex. 1003, ¶90.)

2. Nishida (Ex. 1007)

Nishida (Ex. 1007) issued on September 13, 1994, before the March 3, 2004 earliest possible priority date claimed by the ‘288 patent. Nishida, thus, is prior art under at least 35 U.S.C. § 102(b). Nishida was never applied or discussed by the Examiner, although it was disclosed during prosecution of the ‘288 patent. Nishida explicitly describes features of claims 8 and 14-20 of the ‘288 patent. Nishida describes an article of footwear, which includes, among other things: an upper incorporating a knitted textile element formed unitarily with a surrounding knitted textile structure, the knitted textile element optionally having two or more knitted layers; the knitted textile element being removed from the knitted textile structure; and a sole structure secured to the upper formed from the knitted textile element. (Ex. 1003, ¶88, 91-92, 95, 100, 107, 115.)

3. Shiomura (Ex. 1008)

Shiomura (Ex. 1008) issued on November 22, 1988, before the March 3, 2004 earliest possible priority date claimed by the ‘288 patent. Shiomura, thus, is prior art under at least 35 U.S.C. § 102(b). Shiomura was never applied or discussed by the Examiner, although it was disclosed during prosecution of the ‘288 patent. Shiomura explicitly describes features of claims 8 and 14-20 of the ‘288 patent. Shiomura

describes an athletic shoe upper formed with a three-layer configuration, in which the intermediate layer is a number of crossing threads that are interknitted between the outer and inner knit textile layers. (Ex. 1003, ¶111-114.)

4. The Combination of Reed, Nishida, and Shiomura

Reed's explicit statement that "[t]he present invention may be used to form all types of garments worn by men, women and children" (Ex. 1006, 5:56-57) in combination with Reed's explicit reference to the fact that footwear items, such as stockings, were conventionally knit with circular knitting machines (Ex. 1006, 1:33-44), would have suggested to a POSA at least as of March 3, 2004 that Reed's process could be used to form all types of articles of clothing including footwear, particularly since "clothing" is understood to refer to all things that people wear to cover their bodies. (Ex. 1003, ¶126.) Specifically, the POSA would have understood Reed's reference to "all types of garments" to include footwear, as well as tops, pants, shorts, skirts, dresses, suits, outerwear, underwear, headwear, nightwear, swimwear, and accessories. (Ex. 1003, ¶126.)

By March 3, 2004, routine acceptance of computerized knitting technology and Reed's encouragement to apply such to all garments, would have motivated the POSA to use Reed's process to form textile elements that are then used to form articles of footwear including shoe uppers as further described in Nishida, as such a design choice would have been predictable and well known to a POSA. (Ex. 1003, ¶127.)

The POSA would have found Nishida's process of producing textile elements

to be analogous art to Reed's process, as both are directed to methods of simultaneously forming textile elements within a surrounding textile structure using programmable and/or computerized single needle selection technology, removing the textile elements, and incorporating the textile elements into a wearable item. (Ex. 1003, ¶128.) Nishida, which is directed specifically to shoe uppers, explains that the textile elements could be produced by any type of conventional knitting technique. (Ex. 1003, ¶130.)

Additionally, Reed and Nishida are both directed to reducing costs associated with producing textile elements using the latest advances in knitting technology. (Ex. 1003, ¶129-130.)

Nishida states that “[i]t is of further advantage in the process according to the present invention that the individual patterns or partial patterns already can be produced *directly* in the production of the web of material in the desired shoe size, by which the cutting waste can be still further limited, since the individual patterns or partial patterns in the provided size can directly adjoin one another.” (Ex. 1007, 2:27-33 (emphasis added); Ex. 1003, ¶130.)

As Mr. Holden explains, Reed describes using his knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. (Ex. 1003, ¶131.) Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular

manner. For example, the outside tube 14 may be a normal decorative fabric ***wherein the inner tube 12 may be formed of a material such as lining.*** By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined.” (Ex. 1006, 3:61-68 (emphasis added); Ex. 1003, ¶131.)

The POSA would have understood that such a garment could easily be produced where the interknitted stitches 22, 24 are used throughout the space between the inner tube 12 and outside tube 14 to fully join the two layers. Furthermore, the POSA would have been motivated to modify Reed to fully join the two layers of the garment through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14, as this is the same construction that is described in Shiomura and is beneficial for athletic shoes. (Ex. 1003, ¶132.)

Specifically, Shiomura describes an athletic shoe upper formed with a three-layered knitted textile configuration, in which the intermediate layer is formed by a number of crossing threads that are interknitted between the outer and inner knit textile layers. (Ex. 1003, ¶133.)

Shiomura explains that fully joining two knitted layers with interknitted stitches would result in a strong and resilient textile material that would be able to meet the performance characteristics of athletic shoes. (Ex. 1003, ¶134.) For example, Shiomura states that the use of an interknitted crossing thread allows the crossing

thread “to be bound into the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” (Ex. 1008, 1:64-2:3; Ex. 1003, ¶134.)

While Shiomura does not explicitly reference using a circular knitting machine to form the three-layered knitted textile shoe upper, the POSA would have recognized that the use of circular knitting machines to include interknitted stitches throughout the space between the inner tube and outer tube to fully join the two layers to form a three-layered knitted textile was well-known, as evidenced by Shepherd (Ex. 1009.) (Ex. 1003, ¶135.) Given the benefits of the intermediate layer described by Shiomura, this would have been an obvious design choice for the POSA when constructing a circular-knitted shoe upper and corresponding shoe. (Ex. 1003, ¶135.)

Furthermore, Nishida contemplates using a three-layered knitted textile element to form a shoe upper, by stating that “[o]ptionally, in this case, the material can be woven or ***knitted in two or more layers*** or can be especially thick or additionally embroidered.” (Ex. 1007, 3:66-4:1 (emphasis added); FIG. 3; Ex. 1003, ¶136.)

In view of the substantial similarities between the methods described in Reed, Nishida, and Shiomura, along with a shared interest in reducing costs and waste, as

well as a focus on simplifying the manufacturing process, a POSA would certainly have been motivated to modify Reed's method to include the additional features described by Nishida and Shiomura to produce a textile element for use in a shoe upper, as well as to produce a shoe incorporating such a textile element, as this is nothing more than combining "prior art elements according to known methods to yield predictable results" and/or the "[u]se of known technique[s] to improve similar devices (methods, or products) in the same way." *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C); Ex. 1003, ¶137-138.) This is particularly the case where "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421.

5. Claim-by-Claim Analysis

i. Independent Claim 14

The following explanation and charts below show how Reed and Nishida disclose all of the limitations of claim 14, and thus render claim 14 obvious.

Element [14A]: Reed describes that "[s]till another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube." (Ex. 1006, 2:29-31; Ex. 1003, ¶87.) Reed goes on to state that "[t]he present invention may be used to form all types of garments worn by men, women and children" (Ex. 1006, 5:56-57; Ex. 1003, ¶87.) Such garments include footwear, such as stockings. (Ex. 1003, ¶87.)

Nishida explicitly describes "a process for the production of a shoe shaped part

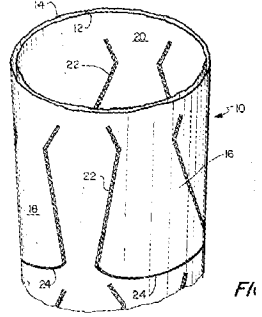
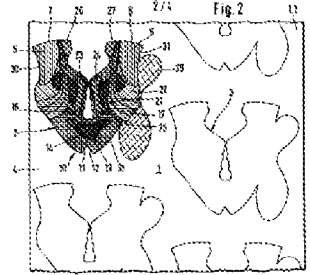
...” (Ex. 1007, 1:10-11; Ex. 1003, ¶88.) In view of the reasons that the POSA would combine Reed and Nishida discussed in Section VII.A.4 above, it would have been obvious to use Reed’s process to produce footwear garments, as described in Nishida.

CLAIM	GROUND 1
[14A] An article of footwear comprising:	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. “Circular knitting machines have been used to make tubular, knitted garments, such as ladies’ stockings, sweaters and other garments.” Reed, 1:33-35.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3.</p>

Element [14B]: Reed describes that the textile element is circular-knitted.

(Ex. 1003, ¶89-90.) To the extent that Reed does not explicitly state that the circular-knitted textile element can be used to form an upper for an article of footwear, Nishida describes using conventional textile processes, such as weaving and/or knitting and/or embroidering, and program-controlled web of material production devices to form a textile structure with a single or a plurality of textile elements in the shape of a shoe upper. (Ex. 1003, ¶91-92.) The POSA would have understood that circular knitting is a conventional textile process. (Ex. 1003, ¶91.)

CLAIM	GROUND 1
[14B] an upper incorporating	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a <i>computerized electronic knitting machine</i>.” Reed,</p>

CLAIM	GROUND 1
a circular-knitted textile element,	<p>2:23-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6. “The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added); FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p>  <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p>  <p>“As can be seen, any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1. For this purpose, above all, the use of program-controlled, particularly computer-controlled, production devices is advantageous, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>

Element [14C]: Reed describes these features in two different ways:

First, Reed describes that the edges of the garments 16, 18, 20 are formed by interknitted stitches, whereas the remainder of the garments 16, 18, 20 are formed by non-interknitted stitches. (Ex. 1003, ¶98.) Because the interknitted stitches are part

of the garments 16, 18, 20, and the garments 16, 18, 20 also comprise areas that are only formed as part of the outside tube 14 or the inner tube 12, the garments 16, 18, 20 have a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type. (Ex. 1003, ¶99.)

To the extent that Reed is modified to fully join the two layers through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14 as described in Shiomura below, Reed still describes a textile element having a unitary construction within which there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area. (Ex. 1003, ¶100.) For example, Reed goes on to describe how the two layers 12, 14 themselves may be formed of different yarns or stitch configurations. (Ex. 1003, ¶100.) “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the *outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining*. . . . Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where *the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns*.” (Ex. 1006, 3:61-4:9 (emphasis added); Ex. 1003, ¶100.)

Furthermore, the interknitted stitches 22, 24 have a different stitch configuration than the two layers 12, 14. Thus, when these layers 12, 14 are simultaneously knitted and

interknitted together using the interknitted stitches 22, 24, the textile element has a unitary construction within which there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area. (Ex. 1003, ¶100.)

To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida describes that “in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, ***areas 26 and 27 are produced in a configuration***, color or style ***that is different from the other areas.***” (Ex. 1007, 4:6-9 (emphasis added); Ex. 1003, ¶101-102.) The skilled person at least as of March 3, 2004, would have understood that it is a trivial matter to introduce different stitch types within different areas of the circular knitted textile element. Nishida further states that “[l]ayout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” (Ex. 1007, 3:15-25; Ex. 1003, ¶104.) The result is a textile element in the form of a shoe upper with multiple knit constructions.

Nishida goes on to describe that these varying properties may include at least one of the properties of absorptivity, ***air permeability, softness, extensibility***, wear resistance and appearance.” (Ex. 1007, 6:1-31 (emphasis added); Ex. 1003, ¶103-104.)

CLAIM	GROUND 1
<p>[14C] the circular-knitted textile element having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the circular-knitted textile element, wherein the varying properties are aesthetic or structural,</p>	<p>“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i> Reed, 5:3-18 (emphasis added); FIGS. 3A-3E.</p> <p>“[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's.” Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p> <div data-bbox="462 1150 1344 1791"> <p>FIG. 2b</p> <p>interconnecting knitted stitches 22.</p> <p>garment 16, 18, or 20</p> <p>cut line along the outline formed by the interconnecting stitches 22.</p> </div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the</p>

CLAIM	GROUND 1
	<p>knitted structure may form sections of a garment to be assembled in the regular manner. For example, <i>the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining.</i> By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, <i>where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.</i>” Reed, 3:61-4:9 (emphasis added).</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, <i>areas 26 and 27 are produced in a configuration, color or style that is different from the other areas.</i>” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the color <i>can be selected almost at will.</i>” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2..</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i></p>

CLAIM	GROUND 1
	<p>in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, using one of a different weaving and knitting type for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, air permeability, softness, extensibility, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p> <p>“Layout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25.</p>

Element [14D]: As Mr. Holden explains, Reed describes using his circular knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. (Ex. 1003, ¶108.) Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric **wherein the inner tube 12 may be formed of a material such as lining**. By **simultaneously knitting and interknitting the two layers**, a step is saved by producing a section of garment which is prelined.” (Ex. 1006, 3:61-68 (emphasis added); Ex. 1003, ¶109.)

The POSA would have understood that such a garment could easily be

produced where the interknitted stitches 22, 24 are used throughout the space between the inner tube 12 and outside tube 14 to fully join the two layers. (Ex. 1003, ¶110.) Furthermore, the POSA would have been motivated to modify Reed to fully join the two layers through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14, particularly when producing a shoe upper as this is the same construction that is described in Shiomura. (Ex. 1003, ¶110.)

Specifically, Shiomura describes an athletic shoe upper formed with a three-layered knitted textile configuration, in which the intermediate layer is formed by a number of crossing threads that are interknitted between the outer and inner knit textile layers. (Ex. 1003, ¶111-112.)

Shiomura explains that conventional shoe uppers have “a multilayer sandwich construction prepared by interposing a plastic foam layer, such as a polyurethane layer, between an outer fabric layer and an inner fabric layer and bonding them.” (Ex. 1008, 1:16-20; Ex. 1003, ¶113.) As an improvement over the intermediate plastic foam layer, Shiomura uses crossing threads to form the intermediate cushioning layer between the inner and outer knit textile layers. (Ex. 1008, 1:57-67; Ex. 1003, ¶113.) Shiomura explains that fully joining two knitted layers with interknitted stitches results in a strong and resilient textile material that would be able to meet the performance characteristics of athletic shoes. (Ex. 1003, ¶113.) For example, Shiomura states that the use of an interknitted crossing thread allows the crossing thread “to be bound into

the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” (Ex. 1008, 1:64-2:3; Ex. 1003, ¶113.)

While Shiomura does not explicitly reference using a circular knitting machine to form the three-layered knitted textile shoe upper, the POSA would have recognized that the use of circular knitting machines to include interknitted stitches throughout the space between the inner tube and outer tube to fully join the two layers to form a three-layered knitted textile was well-known, as evidenced by Shepherd (Ex. 1009). (Ex. 1003, ¶114.)

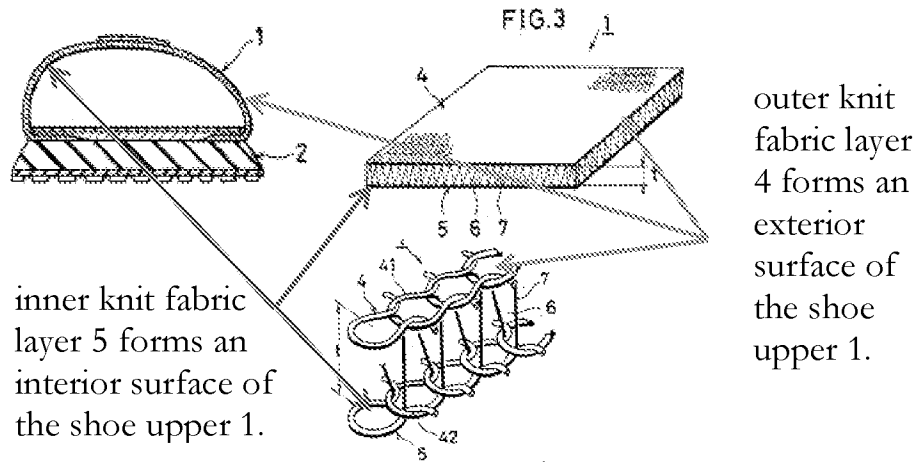
Furthermore, Nishida contemplates using a three-layered knitted textile element to form a shoe upper, by stating that “[o]ptionally, in this case, the material can be woven or ***knitted in two or more layers*** or can be especially thick or additionally embroidered.” (Ex. 1007, 3:66-4:1 (emphasis added); FIG. 3; Ex. 1003, ¶115.)

Thus, it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶116.)

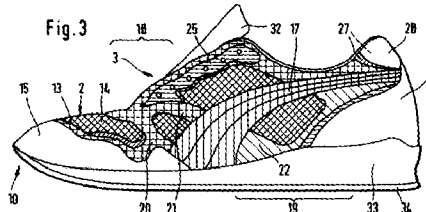
Furthermore, it would have been obvious to the skilled person to form Reed’s three-

layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. (Ex. 1003, ¶116.) The resulting upper includes an exterior layer (Reed's outside tube 14), an intermediate layer as described in Shiomura (the interknitting stitches connecting the inner tube 12 and outside tube 14 through the space between these layers), and an interior layer (Reed's inner tube 12), and Reed's circular-knitted textile element forms at least a portion of the interior layer. (Ex. 1003, ¶116.)

CLAIM	GROUND 1
<p>[14D] wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer; and</p>	<p>“The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed, 3:8-12. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric <i>wherein the inner tube 12 may be formed of a material such as lining</i>. By <i>simultaneously knitting and interknitting the two layers</i>, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68; (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:20-24; 4:39-60; 4:68-5:2; 5:37-47; FIG. 1.</p> <p>“U.S. Pat. Nos. 3,793,750 and 4,043,058 each propose a shoe upper having a multi-layer sandwich construction prepared by interposing a plastic foam layer, such as a polyurethane layer, between an outer fabric layer and an inner fabric layer and bonding them.” Shiomura, 1:16-20. “Further, this shoe upper has a space between the inner and outer knit fabric layers into which a crossing thread is inserted and, therefore, can exhibit not only air permeability much higher than that of a conventional shoe upper having a resin foam layer interposed therein but also suitable</p>

CLAIM	GROUND 1
	<p>elasticity.” Shiomura, 1:57-62.</p> <p>“Moreover, in this shoe upper, the crossing thread is interknitted in dot form to be bound into the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” Shiomura, 1:62-2:3.</p> <p>“As shown in FIGS. 3 and 4, the shoe upper 1 comprises an outer knit fabric layer 4, an inner knit fabric layer 5 provided parallel to the outer knit fabric layer 4 through a space 6, and a number of crossing threads 7 which cross the space 6. The outer knit fabric layer 4 is knitted from a yarn 41 while the inner knit fabric layer 5 is knitted from a yarn 42. The crossing threads 7 are interknitted to be bound into the outer and inner knit fabric layers 4, 5.” Shiomura, 2:27-35; FIG. 1; FIGS. 2-4 (reproduced below); <i>see also</i> 2:20-22; 2:45-54.</p> <div data-bbox="467 1121 1377 1579">  <p>outer knit fabric layer 4 forms an exterior surface of the shoe upper 1.</p> <p>inner knit fabric layer 5 forms an interior surface of the shoe upper 1.</p> </div> <p>“Areas 20, 21 and 22 . . . can be woven or knitted in two or more layers or can be especially thick or additionally embroidered.” Nishida, 3:59-4:1 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>

Element [14E]: Nishida describes forming the layout into an upper of a shoe shaped part, after which a midsole and an outsole are attached to the upper. (Ex. 1003, ¶107.)

CLAIM	GROUND 1
[14E] a sole structure secured to the upper.	<p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part . . .</i>.” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; see also Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 

i. Dependent Claims 15 and 16

The following explanation and chart below describe how Nishida discloses the features of claims 15 and 16, and thus renders claims 15 and 16 obvious.

Section VII.A.5.i above (with respect to element [14C]) describes how Reed and Nishida discloses a textile element “having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the circular-knitted textile element, wherein the varying properties are aesthetic or structural.” (Ex. 1003, ¶96-104.)

More specifically, Nishida goes on to describe that these varying properties may

include at least one of the properties of absorptivity, ***air permeability***, ***softness***, ***extensibility***, wear resistance and appearance.” (Ex. 1007, 6:1-31 (emphasis added); Ex. 1003, ¶103.) Nishida also states that “[l]ayout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns” (Ex. 1007, 3:15-25; Ex. 1003, ¶104.)

A POSA at least as of March 3, 2004, would have understood Nishida’s disclosure regarding a varying softness and the use of fibers or yarns with different textures (i.e., wool and silk) to divide layout 2 into different individual parts or areas to mean that the knit configuration in one area may have a smoother texture than a knit configuration in second area (claim 15). (Ex. 1003, ¶104.) Furthermore, a POSA at least as of March 3, 2004 would have understood Nishida’s disclosure regarding a varying extensibility to mean that the knit configuration in the rougher area may have a rib structure (claim 16). (Ex. 1003, ¶104.)

CLAIM	GROUND 1
[15] The article of footwear recited in claim 14, wherein the first stitch configuration provides a substantially smooth texture to the first area, and the second stitch configuration provides a texture	<p><i>See Section VII.A.5.i, claim [14C].</i></p> <p>“Since, generally, toe area 14 is designed to be relatively deformably <i>soft</i> or <i>elastic</i>, and optionally, also <i>permeable to air</i>, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>”</p>

to the second area that is rougher than the smoother texture.	Nishida , 3:43-52 (emphasis added).
[16] The article of footwear recited in claim 15, wherein the second stitch configuration forms a rib structure in the second area.	“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i> , wear resistance and appearance.” Nishida , 6:1-31(emphasis added); <i>see also</i> 5:63-6:2.

ii. Dependent Claim 17

The following explanation and chart below describe how Reed and Nishida disclose the feature of claim 17, and thus render claim 17 obvious.

The ‘288 patent describes apertures in one of three ways: (1) as an ankle opening (Ex. 1001, 6:25-26); (2) as openings formed by omitting stitches within the textile element in specific locations to facilitate air transfer through the upper (Ex. 1001, 9:47-54); and (3) as openings formed by omitting stitches within the textile element in specific locations, such as lace holes (Ex. 1001, 10:16-19). (Ex. 1003, ¶121.)

With respect to the “ankle opening” aperture, Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. (Ex. 1003, ¶122.)

With respect to the “air-permeability” apertures, Nishida discloses that the “type of production can, additionally, insure that the toe area 14 has a good air

exchange capability. For example, this can be achieved by a ***net-like woven or knitted structure***.” (Ex. 1007, 3:49-52 (emphasis added); Ex. 1003, ¶123.) As Mr. Holden explains, a POSA at least as of March 3, 2004, would have understood that a birds eye stitch configuration is a common technique for knitting a net-like knitted structure. (Ex. 1003, ¶123.) Birds eye stitch configurations include float stitches, which leave yarn floating freely on the reverse side of the held loop, thereby resulting in an aperture formed by omitting stitches in each location where a float stitch is applied, as evidenced by Spencer (Ex. 1010). (Ex. 1003, ¶123-124.)

With respect to the “lace hole” apertures, Nishida describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. (Ex. 1003, ¶125.) Nishida thus recognizes that (a) the lacing strips are optional and may not be applied; (b) that the net-like structure may itself then be used or (c) if no lacing strips are applied and the net-like structure is used, then the lacing areas can be further stabilized via an embroidery. (Ex. 1003, ¶125.) However, if the additional lacing strips and embroidery are not added, the textile element still includes the net-like structure in the lacing area. (Ex. 1003, ¶125.)

CLAIM	GROUND 1
[17] The article of footwear recited in claim 14, wherein at least one of the first stitch	<p>Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. <i>See Nishida</i>, FIGS. 1-5.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably</p>

CLAIM	GROUND 1
configuration and the second stitch configuration forms an aperture in the circular-knitted textile element.	<p>soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. <i>For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added); <i>see also</i> 3:66-4:5; 6:25-31.</p> <p>Nishida also describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Nishida explains that “the lacing areas 23 and 24 <i>can be made dimensionally stable</i> in corresponding manners, especially <i>if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.</i>” Nishida, 4:1-5 (emphasis added); <i>see also</i> 4:31-38.</p>

iii. Dependent Claim 18

The following explanation and chart below describe how Reed, Nishida, and Shiomura disclose the feature of claim 18, and thus render claim 18 obvious.

As discussed in VII.A.5.v below regarding element [14D], it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶120.) Furthermore, it would have been obvious to the skilled person to form Reed’s three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. (Ex. 1003,

¶120.) In the resulting upper, Reed’s circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper. (Ex. 1003, ¶120.)

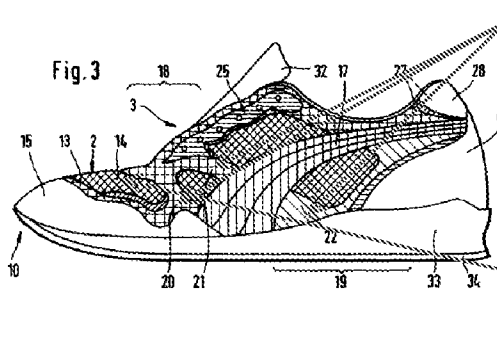
CLAIM	GROUND 1
[18] The article of footwear recited in claim 1, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.	See Section VII.A.5.i, claim [14D].

iv. Dependent Claim 19

The following explanation and chart below describe how Reed, Nishida, and Shiomura disclose the feature of claim 19, and thus render claim 19 obvious.

As discussed in VII.A.5.i above regarding element [14D], it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶118.) Furthermore, it would have been obvious to the skilled person to form Reed’s three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. (Ex. 1003, ¶118.) In the resulting upper, Reed’s circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper. (Ex. 1003, ¶118.)

Nishida goes on to describe that additional elements may be attached to the exterior surface of the layouts 2 and therefore form a portion of the exterior surface of the upper. (Ex. 1003, ¶119.) Because these additional elements do not completely cover the entire exterior surface, other portions of the layouts 2 remain uncovered by the additional elements. (Ex. 1003, ¶119.) As a result, these uncovered portions of the circular-knitted textile element (such as areas 20, 21, 22, and toe area 14) form at least a portion of the exterior surface of the upper. (Ex. 1003, ¶119.)

CLAIM	GROUND 1
<p>[19] The article of footwear recited in claim 14, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.</p>	<p>See Section VII.A.5.i, claim [14D].</p> <p>Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).</p> <div data-bbox="472 1073 1425 1413">  <div data-bbox="974 1073 1425 1228"> <p>Areas 20, 21, 22 of the layout 2 shown in the exterior view of the upper 3.</p> </div> <div data-bbox="974 1249 1425 1413"> <p>Toe area 14 of the layout 2 shown in the exterior view of the upper 3.</p> </div> </div>

v. Dependent Claim 20

The following explanation and chart below describes how Reed, Nishida, and Shiomura discloses the feature of claim 20, and thus renders claim 20 obvious.

As discussed in Section VII.A.5.i above regarding element [14D], it would have been obvious to the POSA at least as of March 3, 2004, to use Reed's circular knitting

technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶117.) Furthermore, it would have been obvious to the skilled person to form Reed’s three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. (Ex. 1003, ¶117.) In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the upper. (Ex. 1003, ¶117.)

CLAIM	GROUND 1
[20] The article of footwear recited in claim 14, wherein the circular-knitted textile element forms an interior surface of the upper.	See Section VII.A.5.i, claim [14D].

vi. Dependent Claim 8

Dependent claim 8 depends from independent claim 1. The following explanation and chart below describe how Reed, Nishida, and Shiomura disclose the feature of claim 8, and thus render claim 8 obvious.

Element [1A]: recites “[a]n article of footwear comprising,” which is identical to element [14A]. Section VII.A.5.i above (with respect to element [14A]) describes how Reed and Nishida disclose this feature.

Element [1B.1] recites “an upper incorporating a circular-knitted textile element . . .,” which is identical to element [14B]. Section VII.A.5.i above (with respect to element [14B]) describes how Reed and Nishida disclose this feature.

Element [1B.2] recites “. . . having a plurality of knit constructions,” which is similar to element [14C]. Section VII.A.5.i above (with respect to element [14C]) describes how Reed and Nishida disclose this feature.

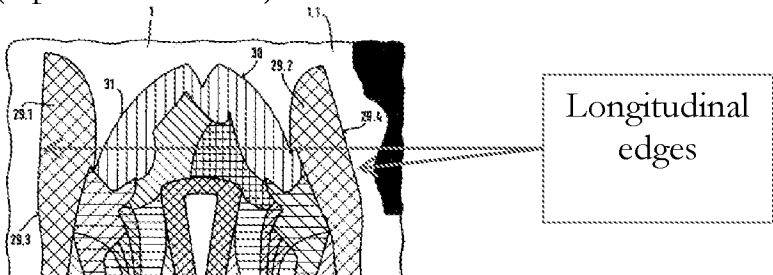
Element [1C]: Reed describes how the textile elements are removed from the cylindrical textile structure. (Ex. 1003, ¶93.) “As can be seen, the knitted structure 10 includes (around its circumference) *a plurality of finished garments which need only be severed from the structure 10* and turned inside out if a hidden seam is desired.” (Ex. 1006, 3:12-19 (emphasis added); Ex. 1003, ¶94.)

To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that the “process for the production of a shoe shaped part [involves] using a web of material with a plurality of patterns in the form of the layout of a shoe upper, *cutting out these layouts from the web of material* and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” (Ex. 1007, 1:10-18 (emphasis added); Ex. 1003, ¶95.)

CLAIM	GROUND 1
[1C] the circular-knitted textile element being removed from a circular-	“The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i> . As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired.” Reed , 3:12-19 (emphasis added). “As indicated previously, once the

CLAIM	GROUND 1
knitted textile structure, and	<p>knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed [sic] by cutting along the outline</i> formed by the interconnecting stitches represented by the X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p> <p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>

Element [1D]: Nishida describes longitudinal edges that are joined together to define at least a portion of a void for receiving a foot. (Ex. 1003, ¶105-106.)

[1D] further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and	<p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; FIG. 4 (reproduced below).</p> 
--	---

	<p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; see also 4:22-30; 6:5-41; FIGS. 3-4.</p>
--	--

Element [1E] recites “a sole structure secured to the upper,” which is identical to element [14E]. Section VII.A.5.i above (with respect to element [14E]) describes how Reed and Nishida disclose this feature.

Claim 8 recites “wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer,” which is identical to element [14D]. Section VII.A.5.i above (with respect to element [14D]) describes how Reed and Nishida disclose this feature.

VIII. EVEN IF CONSIDERED, SECONDARY CONSIDERATIONS FAIL TO OVERCOME THE EVIDENCE OF OBVIOUSNESS

The Board has repeatedly held that, at the institution phase, evidence of secondary considerations presented by the Patent Owner should be addressed in a trial where the parties may develop, and the Board may consider, a full record. *See, e.g., 10X Genomics Inc. v. Univ. of Chicago*, No. IPR2015–01162, Paper No. 14, at p. 22 (PTAB Nov. 16, 2015); *Petroleum Geo-Servs Inc. v. WesternGeco LLC*, No. IPR2014–01477, Paper No. 18, at p. 32 (PTAB Mar. 17, 2015); *Crocs Inc. v. Pollinwalks Inc.*, No. IPR2014–00424, Paper No. 8 at p. 16, 2014 WL 4181938, at *9 (PTAB Aug. 20, 2014)

(“We reiterate . . . that such secondary considerations are better considered in the context of a trial when the ultimate determination of obviousness is made.”). That is the appropriate course here given that “the inventions represent[] no more than ‘the predictable use of prior art elements according to their established functions,’” and, thus, any “secondary considerations are inadequate to establish nonobviousness as a matter of law.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1245 (Fed. Cir. 2010) (quoting *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007)).

Petitioner nonetheless preliminarily addresses alleged secondary considerations that Patent Owner may argue, but reserves the right to respond to any arguments asserted by the Patent Owner in this proceeding. Specifically, in connection with a prior review of the related ‘011 patent, Patent Owner argued that a proposed amended claim 47 satisfied a long felt need for reducing waste because it claimed a textile element with “flat knit edges” that were not cut or removed from surrounding textile structure. *See Nike, Inc. v. adidas AG*, CA No. 14-1719, slip op. at 19 & 32-33 (Fed. Cir. Feb. 11, 2016).

“For objective [evidence of secondary considerations] to be accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the claimed invention.” *Wyers*, 616 F.3d at 1246 (quoting *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)) (internal quotation marks omitted). Unlike in the proposed amended claim in the ‘011 patent, there is no claim to a textile element with “flat knit edges” or other claim elements that could, even conceivably, connect the

challenged claims to any purported long felt need for reducing cutting waste in the ‘288 patent. That is a critical difference because “[w]here the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention.” *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). No such evidence of nexus exists and, to the contrary, the claims here demonstrate that cutting waste will be generated. For example, the majority of the ‘288 patent claims expressly recite “the knitted textile element being removed from a knitted textile structure.” Thus, forming a shoe upper will require removing the element from the surrounding structure, thus creating waste and, likewise, describing a feature already present in Nishida. In short, the claims here demonstrate an absence of cost and material savings, rather than satisfaction of any purported long felt need.

IX. THE PROPOSED REJECTIONS RAISE NEW ISSUES IN WHICH PETITIONER WILL LIKELY PREVAIL

Patent Owner may urge, incorrectly, that the Board should exercise its discretion under 35 U.S.C. § 325(d) to deny institution on one or more grounds. Indeed, that was the ground Patent Owner articulated in opposing the petition filed concerning the related ‘011 patent, during prosecution of which Nishida was cited by the examiner. *adidas AG v. Nike, Inc.*, No. IPR2013-00067, Paper No. 18, 2013 WL 8595550, at *9 (PTAB May 17, 2013). The Board appropriately rejected that argument, finding Petitioner had “present[ed] different arguments and new supporting

evidence that were not before the Examiner.” *See id.*, Paper No. 18.

While the Board chose to exercise its discretion under 35 U.S.C. § 325(d) to deny Petitioner’s first petition concerning the ‘288 patent in *adidas AG v. NIKE, Inc.*, No. IPR2016-00920 (“Prior Petition”), the Board should decline to exercise its discretion to deny this follow-on Petition under 35 U.S.C. § 325(d) for at least the following reasons.

In exercising its discretion, the Board considers several factors “including the facts of each case, the burden on the parties and the Board, and the public interest.” *See Polygroup Ltd. v. Willis Elec. Co., Ltd.*, No. IPR2016-00801, Paper No. 8, at p. 16 (PTAB Oct. 17, 2016). As set forth below, all of these factors weigh heavily in favor of declining to exercise such discretion in this case.

First, this Petition presents arguments the Office has not previously considered and thus Petitioners are not seeking a “second bite at the apple.” The Board has repeatedly instituted *inter partes* review proceedings involving follow-on petitions where the prior petition was denied without substantive evaluation of the prior art or its applicability to the challenged claims. *See, e.g., Arista Networks, Inc. v. Cisco Sys., Inc.*, No. IPR2016-00309, Paper No. 8, at p. 7 (PTAB June 11, 2016) (declining to exercise discretion under 35 U.S.C. § 325(d) because “[a]lthough Petitioner also challenged the independent claims based on a combination of Amara and Habraken [in Petitioner’s prior petition], we did not address that ground substantively because we found it insufficiently articulated.”); *Par Pharm., Inc. et al. v. Jazxx Pharms., Inc.*, No. IPR2015-

00546, Paper No. 25, at pp. 23-24 (PTAB July 28, 2015) (instituting IPR proceeding because “even assuming Petitioner asserts grounds that are identical to art and arguments presented in the earlier CBM cases, decisions denying institution in those cases do not address the merits of any ground raised in the Petitions.”); *Coalition for Affordable Drugs (ADROCA) LLC v. Acorda Therapeutics, Inc.*, No. IPR2015-01853, Paper No. 13, at pp. 12-13 (PTAB Mar. 11, 2016); *Apotex Inc. v. Wyeth LLC*, No. IPR2015-00873, Paper No. 8, at p. 10 (PTAB Sept. 16, 2015); *Arris Grp., Inc. v. Cation Techs., LLC*, No. IPR2015-00635, Paper No. 19, at pp. 8-9 (PTAB July 31, 2015).

Likewise, in this case, the Board denied the Prior Petition without substantively addressing its merits because the Board was “not satisfied that the Petition provides adequate explanation or is appropriately precise and specific in articulating the basis of the proposed ground to warrant institution of an *inter partes* review on that ground.” *adidas AG v. Nike, Inc.*, No. IPR2016-00920, Paper No. 6, at p. 5 (PTAB Oct. 20, 2016). Thus, the arguments in this case “have not been presented previously to the Office.” *See* No. IPR2015-00635, Paper No. 19, at p. 8.

Second, instituting this Petition will protect the public’s interests without harassing the Patent Owner or burdening the Board. With respect to the Patent Owner, it did not even file a preliminary response to the Prior Petition so there is no additional burden on Patent Owner. With respect to the Board, it has already instituted *inter partes* review proceedings between the same parties for similar claims of

two related patents on the same or substantially the same grounds. *See adidas AG v. NIKE, Inc.*, No. IPR2016-00921, Paper No. 6 (PTAB Oct. 21, 2016); *adidas AG v. NIKE, Inc.*, No. IPR2016-00922, Paper No. 6 (PTAB Oct. 21, 2016). *See* No. IPR2016-00801, Paper No. 8, at p. 14 (instituting *inter partes* review for a follow-on petition where the Board had instituted a separate *inter partes* review proceeding between the same parties on the same or similar grounds for similar claims of a different patent because “the parties and the Board are already committed to reviewing the issues raised herein, and there is little additional burden to do so here” and “it strikes us as inefficient, from a global perspective, for the Board to decide issues in [the related IPR proceeding] and for a district court to decide the same issues with respect to the [patent challenged in the follow-on petition].”). As in *Polygroup*, instituting an *inter partes* review proceeding based on the instant Petition both protects the public’s interests and “permits a just, speedy, and inexpensive resolution of the patentability dispute between the parties.” *See* No. IPR2016-00801, Paper No. 8, at p. 14.

Finally, the Board has been willing to revisit a Petitioner’s arguments from a previously denied petition in a second petition when the law has changed. *See Westlake Servs., LLC v. Credit Acceptance Corp.*, No. CBM2014-00176, Paper No. 14 (PTAB Feb. 9, 2015). When Petitioner in this case filed the Prior Petition, the rules limited the number of pages allowed in an IPR petition. Since the Prior Petition included numerous diagrams and figures, Petitioner’s ability to address all thirty-eight

claims in the '288 patent with precise and specific articulations for each asserted ground of invalidity was restricted under the page number limitation. *See, e.g., Elekta, Inc. v. Varian Med. Sys., Inc.*, No. IPR2016-00380, Paper No. 12, at p. 21 (PTAB June 21, 2016); *Ford Motor Co. v. Paice LLC & The Abell-Found., Inc.*, No. IPR2015-00799, Paper No. 11 (PTAB Nov. 9, 2015). Subsequent to the filing of the Prior Petition, on May 2, 2016, the rules changed to include word count limits instead of page count limits, which is a more equitable approach for Petitions that include numerous diagrams and figures. 37 C.F.R. § 42.24(a) (2016). Thus, the equities weigh in Petitioner's favor of being able to present arguments under the new word count requirements.

Importantly, "35 U.S.C. § 325(d) is *discretionary*, stating only that the Board 'may' consider whether the same or substantially the same prior art or arguments were previously presented to the Office." *Valeo N. Am., Inc., et al. v. Magna Elecs. Inc.*, No. IPR2014-01204, Paper No. 13, at pp. 11-12 (PTAB Jan. 28, 2015). Not only has the Office failed to consider the arguments presented in the instant Petition, the foregoing factors weigh heavily in favor of the Board declining to exercise its discretion to deny this Petition under 35 U.S.C. § 325(d). Accordingly, the Board is requested to grant this petition and to initiate an *inter partes* review, find claims 8 and 14-20 unpatentable, and cancel these claims, rendering them null, void and otherwise unenforceable.

Respectfully submitted,

By: /s/ Mitchell G. Stockwell

Mitchell G. Stockwell

Registration No. 39,389

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 mstockwell@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6214	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 wkadaba@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 532 6959 Tiffany L. Williams Reg. No. 59,549 tiwilliams@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
---	--

CERTIFICATION UNDER 37 CFR §42.24(d)

Under the provisions of 37 CFR §42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for Inter Partes Review totals 11,556, which is less than the 14,000 allowed under 37 CFR §42.24(a)(i).

Dated: November 14, 2016

By: /s/ Mitchell G. Stockwell
Mitchell G. Stockwell
Registration No. 39,389
Lead Counsel for Petitioner

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 mstockwell@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6214	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 wkadaba@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 532 6959 Tiffany L. Williams Reg. No. 59,549 tiwilliams@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
--	--

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.8(e) and 42.105(b), the undersigned certifies that on November 14, 2016, a complete and entire copy of this Petition for *Inter Partes* Review was served via USPS Priority Express Mail, costs prepaid, to the Patent Owner by serving the correspondence address of record as follows:

NIKE, Inc./BGL
P.O. Box 10395
Chicago, IL 60610

As a courtesy, the undersigned certifies that on November 14, 2016, a complete and entire copy of this Petition for *Inter Partes* Review was served via USPS Priority Express Mail, costs prepaid, upon the following:

Banner & Witcoff, LTD.
1100 13th Street, N.W.
Suite 1200
Washington, D.C. 20005-4051

Dated: November 14, 2016

By: /s/ Mitchell G. Stockwell
Mitchell G. Stockwell
Registration No. 39,389
Lead Counsel for Petitioner

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner

v.

Nike, Inc.
Patent Owner

Patent No. 8,042,288
Filing Date: September 10, 2010
Issue Date: October 25, 2011
Title: ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER

Inter Partes Review No. Unassigned

DECLARATION OF LENNY M. HOLDEN

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	Background and Expertise	2
B.	Materials Considered.....	3
II.	LEGAL STANDARDS FOR PATENTABILITY	5
A.	Anticipation	6
B.	Obviousness.....	7
III.	PERSON OF ORDINARY SKILL IN THE ART	11
IV.	THE ‘288 PATENT	13
V.	OVERVIEW OF THE ‘288 PATENT CHALLENGED CLAIMS	24
VI.	COMMON FEATURES AMONG THE ‘288 PATENT CLAIMS	26
VII.	OVERVIEW OF THE PRIOR ART	29
VIII.	GROUND I: REED IN VIEW OF NISHIDA AND SHIOMURA DISCLOSES TO ONE OF ORDINARY SKILL IN THE ART AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 8 AND 14-20 OF THE ‘288 PATENT	36
A.	Preamble	36
B.	Knitting Techniques & Machinery.....	37
C.	Textile Element Removed from the Textile Structure	39
D.	Textile Element having a Unitary Construction and having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations.....	41
E.	Longitudinal Edges are Joined Together to Define at Least a Portion of a Void for Receiving a Foot	48

F.	Combining the Textile Element Into Footwear Components	49
G.	Upper Construction Using Textile Elements	50
H.	Aperture(s) Formed in the Textile Element	59
I.	The Skilled Person Would Have Been Motivated to Combine Reed, Nishida, and Shiomura	63
IX.	SUMMARY	69

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION OF LENNY M. HOLDEN

I, Lenny M. Holden, declare as follows:

I. INTRODUCTION

1. My name is Lenny M. Holden, and I reside in Trabuco Canyon, California. I am over eighteen years of age, and I would otherwise be competent to testify as to the matters set forth herein if I am called upon to do so.

2. I have been retained by Kilpatrick Townsend & Stockton, LLP, counsel for adidas AG (“adidas or Petitioner”). My curriculum vitae is attached hereto and is labeled Ex. 1004. I understand that adidas has petitioned for *inter partes* review of U.S. Patent No. 8,042,288 (“the ‘288 patent”) and requests that the United States Patent and Trademark Office cancel claims 8 and 14-20 of the ‘288 patent as unpatentable. The following discussion and analyses address the basis for adidas’s petition. I understand that this Declaration will be used in support of this petition.

3. I submit this Declaration at the request of adidas for consideration by the Patent Trial and Appeal Board in the above-referenced *inter partes* review proceedings.

4. In forming my opinions, I rely on my knowledge and experience in the field and on documents and information referenced in this Declaration.

A. Background and Expertise

5. As shown in my curriculum vitae, I have been in the shoe business for almost 40 years, starting in retail and then in design, development, and manufacturing starting in 1983.

6. I lived in Asia for more than 10 years, (6 years in Korea and 4 years in Taiwan). I have made shoes of almost every type in Korea, Taiwan, China, Indonesia, Malaysia, Vietnam, Brazil, Mexico, Macao, Spain, Italy, Thailand, and the Philippines.

7. I have worked in almost every aspect of design, development, operations, commercialization, quality control, and supply chain. I have had management and executive roles that have been responsible for the design, development, operations, commercialization, quality control, and supply chain of footwear products distributed to the U.S. and many other countries.

8. I am a named inventor on 5 U.S. patents relating to footwear.

9. Because my responsibilities have been from all the way through design to delivery, I have been to many types of footwear factories and many various types of material suppliers to ensure the delivery and quality of the products I was responsible for.

10. Because of my last company's focus on lowering our overall carbon footprint, I worked on many projects to address the streamlining of production. I

studied automated production in Vietnam and the UK. As a piece of this study, we worked on and patented a method of making vulcanized shoes reducing the vulcanization process. I also studied computerized stitching in China. I have generally been aware of the efforts within the shoe industry to address the amount of labor required to make conventional athletic footwear.

11. I have been retained by Petitioner adidas as an expert for these *inter partes* review proceedings. I am being compensated at a rate of \$250.00 per hour. No part of my compensation is dependent upon the outcome of these proceedings or any issue in these proceedings.

B. Materials Considered

12. In forming my opinions, in addition to my knowledge and experience, I have considered the following documents and things that I have obtained, or that have been provided to me: (i) the '288 patent and its prosecution history that is available on the U.S. Patent Office website; (ii) U.S. Patent No. 7,814,598 and its prosecution history that is available on the U.S. Patent Office website; (iii) U.S. Patent No. 8,266,749 and its prosecution history that is available on the U.S. Patent Office website; (iv) various papers, exhibits, and decisions in *adidas AG v. Nike, Inc.*, No. IPR2013-00067; (v) prior art to the '288 patent, including (a) U.S. Patent No. 4,038,840 to Castello; (b) U.S. Patent No. 6,330,814 to Fujiwara; (c) U.S. Patent No. 3,985,003 to Reed; (d) U.S. Patent No. 5,345,638 to Nishida; (e)

“Knitting Technology: A comprehensive handbook and practical guide,” 3rd edition, by David J. Spencer, published in 2001; (f) U.S. Patent No. 6,779,369 to Shepherd; (g) U.S. Patent No. 4,785,558 to Shiomura; (h) Paul Burall, “CoID Design Awards,” Design, June 1969; (i) ISO 8117:2003(E) Textile machinery – Knitting machines – Nominal diameters of circular machines; (j) U.S. Patent No. 2,641,004 to Whiting; (k) U.S. Patent No. 2,314,098 to McDonald; (l) U.S. Patent No. 2,147,197 to Glidden; (m) PCT International Publication No. WO 90/03744 to Curley; (vi) videos demonstrating circular knitting machine operation and techniques (<http://www.santoni.com/videofoto.asp>; <https://www.youtube.com/watch?v=mWB8JReKTuY>; <https://www.youtube.com/watch?v=ho9Ut9uzsGI&index=3&list=PL5DAA9BDA077A99E4>; https://www.youtube.com/watch?v=PwNTU_uoGrk; <https://www.youtube.com/watch?v=VWV0ZV9xCIA>); and (vii) discussions with adidas’s external knitting consultant in March / April / November 2016. The facts and data that I have reviewed and relied on are the kinds of facts and data that experts in the field of shoemaking ordinarily and reasonably rely on to form opinions regarding patentability. My analysis and opinions are based on the facts and evidence in these materials and my prior experience. I reserve the right to modify or expand upon my opinions and their foundation in the future should additional materials be made available to me.

II. LEGAL STANDARDS FOR PATENTABILITY

13. In expressing my opinions and considering the subject matter of the claims of the '288 patent, I am relying upon certain legal principles that counsel has explained to me.

14. First, I have been informed and understand that for an invention claimed in a patent to be found patentable, it must be, among other things, new and not obvious from what was known before the invention was made.

15. I have been informed and understand the information that is used to evaluate whether an invention is new and not obvious is generally referred to as “prior art” and generally includes patents and printed publications (*e.g.*, books, articles, product manuals, company publications, etc.).

16. I have been informed and understand that in this proceeding, adidas has the burden of proving that the claims of the '288 patent are anticipated by or obvious in view of the prior art by a preponderance of the evidence. I have been informed and understand that “a preponderance of the evidence” is evidence sufficient to show that a fact is more likely true than it is not true.

17. I have been informed and understand that in this proceeding, the claims must be given their broadest reasonable interpretation consistent with the specification. After being given their broadest reasonable interpretation, the claims are then to be compared to the information disclosed in the prior art.

18. I have been informed and understand that in this proceeding, the information that may be evaluated is limited to patents and printed publications. My analysis below compares the claims to patents and printed publications that I understand are prior art to the '288 patent.

19. I have been informed and understand that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can be shown to “anticipate” the claim. Second, the prior art can be shown to have made the claim “obvious” to a person of ordinary skill in the art. My understanding of the two legal standards is set forth below.

A. Anticipation

20. I have been informed and understand that the following standards govern the determination of whether a patent claim is “anticipated” by the prior art.

21. I have applied these standards in my evaluation of whether the claims of the '288 patent would have been anticipated by the prior art.

22. I have been informed and understand that the “prior art” includes patents and printed publications that existed before the earliest filing date (the “effective filing date”) of the patent. I also have been informed and understand that a patent will be prior art if it was filed before the effective filing date, while a printed publication will be prior art if it was publicly available before that date.

23. I have been informed and understand that, for a patent claim to be

“anticipated” by the prior art, each and every requirement of the claim must be found, expressly or inherently, in a single prior art reference. I have been informed and understand that a prior art reference inherently discloses a claim limitation if the limitation is necessarily present in the reference.

B. Obviousness

24. I have been informed and understand that a claimed invention is not patentable if it would have been obvious to a person of ordinary skill in the field of the invention at the time the invention was made.

25. I have been informed and understand that the following standards govern the determination of whether a claim in a patent is obvious. I have applied these standards in my evaluation of whether the claims of the ‘288 patent would have been considered obvious in March 2004, the earliest claimed priority date of the ‘288 patent.

26. I have been informed and understand that to find a claim in a patent obvious, one must make certain findings regarding the claimed invention and the prior art. Specifically, I have been informed and understand that the obviousness question requires consideration of four factors (although not necessarily in the following order):

- The scope and content of the prior art;
- The differences between the prior art and the claims at issue;

- The knowledge of a person of ordinary skill in the pertinent art; and
- Whatever objective factors indicating obviousness or non-obviousness may be present in any particular case.

27. I have been informed and understand that the objective indicia that may bear on the question of obviousness or non-obviousness include whether the claimed invention proceeded in a direction contrary to the accepted wisdom in the field, whether there was a long-felt but unresolved need in the field that was satisfied by the claimed invention, whether others had tried but failed to make the claimed invention, whether others copied the claimed invention, whether the claimed invention achieved any unexpected results, whether the claimed invention was praised by others, whether others have taken licenses to use the claimed invention, whether experts or those skilled in the field of the claimed invention expressed surprise or disbelief regarding the claimed invention, and whether products incorporating the claimed invention have achieved commercial success.

28. In addition, I have been informed and understand that the obviousness inquiry should not be done in hindsight, but must be done using the perspective of a person of ordinary skill in the relevant art as of the effective filing date of the patent.

29. I have been informed and understand that a person of ordinary skill in the relevant art is a person of ordinary creativity.

30. I also have been informed and understand that under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. I also have been informed and understand that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. I further have been informed and understand that the following are examples of other factors that may show obviousness:

- a combination that only unites old elements with no change in their respective functions is unpatentable. As a result, the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results;
- a predictable variation of a work in the same or a different field of endeavor is likely obvious if a person of ordinary skill would be able to implement the variation;
- an invention is obvious if it is the use of a known technique to improve a similar device in the same way, unless the actual application of the

technique would have been beyond the skill of the person of ordinary skill in the art. In this case, a key inquiry is whether the improvement is more than the predictable use of prior art elements according to their established functions;

- an invention is obvious if there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims;
- inventions that were “obvious to try” — chosen from a finite number of identified, predictable solutions, with a reasonable expectation of success — are likely obvious;
- known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- an explicit teaching, suggestion, or motivation in the art to combine references, while not a requirement for a finding of obviousness, is a helpful insight in determining on which a finding of obviousness may be based.

31. Finally, I have been informed and understand that, even if a claimed invention involves more than substitution of one known element for another or the application of a known technique to a piece of prior art ready for improvement, the invention may still be obvious. I also have been informed and understand that in such circumstances, courts may need to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art to determine if the claimed invention is obvious.

III. PERSON OF ORDINARY SKILL IN THE ART

32. It is my opinion that the field of the ‘288 patent is footwear incorporating an upper that is at least partially formed from a textile material. *See e.g.*, ‘288 patent, 1:19-22.

33. Counsel for adidas has informed me that the content of a patent or other printed publication (*e.g.*, prior art reference) should be interpreted the way a person of ordinary skill in the art would have interpreted the reference at the time of the earliest priority date for the ‘288 patent, which is March 3, 2004.

34. In my opinion, the person of ordinary skill in the art for the ‘288 patent would have at least a few years of experience in the footwear industry, possibly with a focus in one specific area (such as merchandising, design, product development, commercialization, and/or manufacturing), but would also have a

broader understanding of shoemaking in general, as all aspects are so interdependent on each other. A person of ordinary skill would have an understanding of the product cycle for the process of designing, developing, and bringing a new product to market. He or she would also understand that there are some key review milestones where upper material designs are reviewed and considered, such as textiles, leathers, synthetics, or other types of materials used for upper construction. A person of ordinary skill would have some understanding and knowledge of the available and varied ranges of typical construction methods within a product cycle. In addition, a person of ordinary skill would have a basic knowledge of the functional requirements of footwear and a comprehensive understanding of the range of material choices, as well as construction techniques and processes used to create the various parts of a shoe and to assemble them in an effective manner.

35. I have been asked by adidas's counsel to assume that the person of ordinary skill is a hypothetical person who is assumed to be aware of all the pertinent information that qualifies as prior art. In addition, the person of ordinary skill in the art makes inferences and creative steps. He or she is not an automaton, but has ordinary creativity.

36. Based on my experience, I have an understanding of the capabilities of the skilled person in this field, and my opinions are provided from the perspective of such a person.

IV. THE ‘288 PATENT

37. The ‘288 patent is entitled “Article of Footwear Having a Textile Upper.” The ‘288 patent issued on October 25, 2011 from Application No. 12/879,517, which was filed September 10, 2010 as a continuation of Application No. 12/032,995, filed on February 18, 2008, now U.S. Patent No. 7,814,598 (“the ‘598 patent”). The ‘598 patent was filed as a division of Application No. 10/791,289, filed on March 3, 2004, now U.S. Patent No. 7,347,011 (“the ‘011 patent”). The earliest claimed priority date of the ‘288 patent is the March 3, 2004 filing date of the ‘011 patent.

38. The ‘288 patent discloses and claims an article of footwear and a method of making such an article, which combines a knitted upper of unitary construction with a sole unit. The upper incorporates a textile element with edges that are joined together to create an upper with an area for receiving a foot.

39. The textile element may also have first and second areas that are parts of a unitary construction. These first and second areas may be made with different stitch configurations or different yarns, for example, so that different areas of the upper have different properties (such as, different texture, different elasticity,

different breathability, etc.). Various warp knitting or weft knitting processes may be utilized to form the textile element. For example, the textile element may be formed on a circular knitting machine and/or may be formed simultaneously with a surrounding textile structure from which it is then removed.

40. The textile element may have edges that are joined together to create an upper with a void for receiving a foot. These edges may form a seam that extends along a lower region of an upper. Additional edges may be joined to form a second seam that extends along a heel region.

41. In the section entitled “Description of Background Art,” the ‘288 patent explains that the use of various materials for uppers in athletic shoes is well known. For example, ‘288 patent, 1:54-2:12:

Various materials may be utilized in manufacturing the upper. The upper of an article of athletic footwear, for example, may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer. The materials forming the exterior layer of the upper may be selected based upon the properties of wear-resistance, flexibility, and air-permeability, for example. With regard to the exterior layer, the toe area and the heel area may be formed of leather, synthetic leather, or a rubber material to impart a relatively high degree of wear-resistance. Leather, synthetic leather, and rubber materials may not exhibit the desired degree of flexibility and air-permeability. Accordingly, various other areas of the exterior layer of the upper may be formed from a synthetic or natural textile. The exterior layer of the upper may be formed, therefore, from numerous material elements that each impart different properties to specific portions of the upper.

An intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot

from objects that may contact the upper. Similarly, an interior layer of the upper may be formed of a moisture-wicking textile that removes perspiration from the area immediately surrounding the foot. In some articles of athletic footwear, the various layers may be joined with an adhesive, and stitching may be utilized to join elements within a single layer or to reinforce specific areas of the upper.

42. The ‘288 patent explains, however, that textile materials often form at least a portion of the exterior and interior layers of athletic shoes, ‘288 patent, 2:13-23:

Although the materials selected for the upper vary significantly, textile materials often form at least a portion of the exterior layer and interior layer. A textile may be defined as any manufacture from fibers, filaments, or yarns characterized by flexibility, fineness, and a high ratio of length to thickness. Textiles generally fall into two categories. The first category includes textiles produced directly from webs of filaments or fibers by randomly interlocking to construct non-woven fabrics and felts. The second category includes textiles formed through a mechanical manipulation of yarn, thereby producing a woven fabric, for example.

43. The “Description of Background Art” section then briefly describes the various techniques for mechanically manipulating yarn into textiles, including weaving and knitting, ‘288 patent, 2:45-55:

The various techniques for mechanically manipulating yarn into a textile include interweaving, intertwining and twisting, and interlooping. Interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping.

44. The ‘288 patent explains that using multiple materials to impart different properties to different parts of the upper is an inefficient practice because, for example, materials must often be obtained from multiple suppliers located in different places and different materials may require different machinery or numerous distinct manufacturing steps. ‘288 patent, 3:3-16. In addition, the ‘288 patent explains that using multiple materials in the upper may detract from breathability of the shoe, and specifically, that leather, synthetic leather, and rubber inhibit air flow. ‘288 patent, 3:16-23.

45. Thus, the problems that the ‘288 patent identifies are (1) inefficiencies and cost in using multiple materials, and (2) poor breathability of materials like leather (natural or synthetic) and rubber. Nevertheless, the ‘288 patent describes the possibility of additional textile elements being attached to various areas of the shoe upper. *See* element 132 for example.

46. The ‘288 patent describes several embodiments of a textile element (40, 40’, 40’’) in the specification and figures. One embodiment is shown in FIG. 8, and the ‘011 Patent describes how the parts of the textile element 40 form the upper of the shoe, ‘288 patent, 5:22-37:

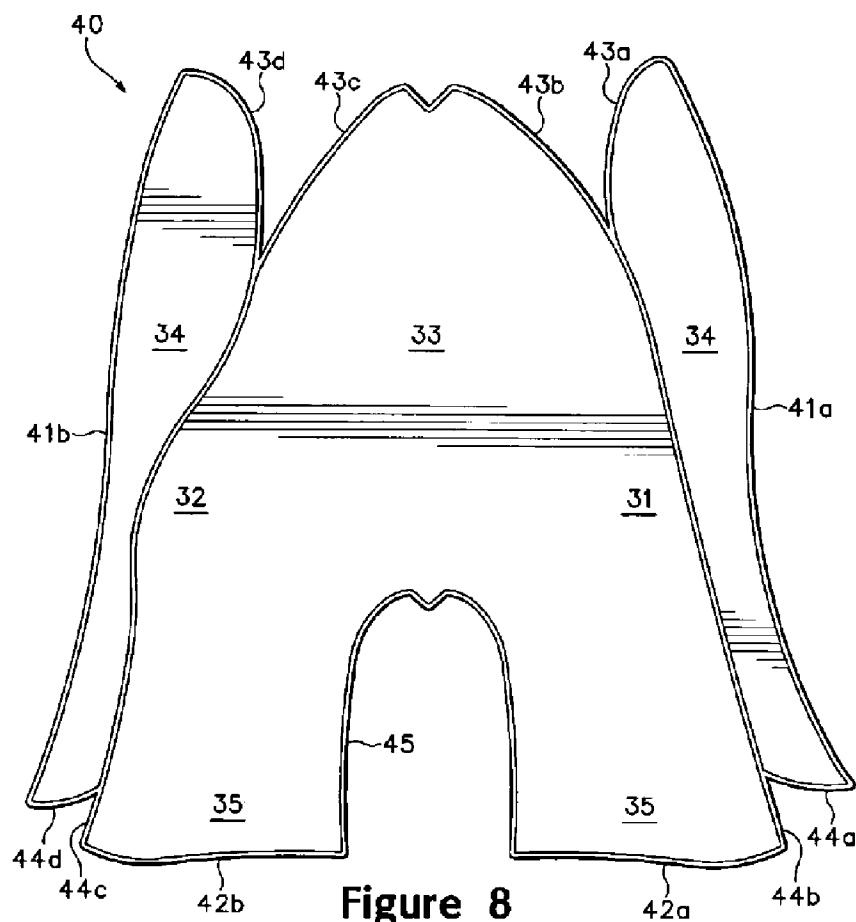


Figure 8

Upper 30 is depicted in FIGS. 2-7 as having a lateral region 31, an opposite medial region 32, an instep region 33, a lower region 34, and a heel region 35. Lateral region 31 extends through a longitudinal length of footwear 10 and is generally configured to contact and cover a lateral side of the foot. Medial region 32 has a similar configuration that generally corresponds with a medial side of the foot. Instep region 33 is positioned between lateral region 31 and medial region 32, and instep region 33 extends over an instep area of the foot. Lower region 34 forms a bottom surface of upper 30 and also extends through the longitudinal length of footwear 10. Heel region 35 forms a rear portion of upper 30 and is generally configured to contact and cover a heel area of the foot. In addition, lateral region 31, medial region 32, instep region 33, and heel region 35 cooperatively define an ankle opening 36 for providing the foot with access to the void within upper 30.

47. The '288 patent explains how the various edges of the textile element are joined together, forming several seams along the heel, toe, and longitudinal length of the bottom of the upper, to make the shape of the upper, and the upper is then secured to the sole. '288 patent, 5:44-6:41.

48. The '288 patent emphasizes that the textile element is a single material element with a unitary construction, '288 patent, 6:42-51:

Textile element 40 is a single material element with a unitary construction, as discussed above. As defined for purposes of the present invention, unitary construction is intended to express a configuration wherein portions of a textile element are not joined together by seams or other connections, as depicted with textile element 40 in FIG. 8. Although the various edges 41a-44d are joined together to form seams 51-54, the various portions of textile element 40 are formed as an unitary element without seams, as discussed below.

49. The '288 patent describes that the textile element may be formed any number of ways with one or more yarns that are mechanically manipulated using a variety of existing processes, '288 patent, 6:52-65:

Textile element 40 is primarily formed from one or more yarns that are mechanically-manipulated through either an interweaving, intertwining and twisting, or interlooping process, for example. As discussed in the Background of the Invention section above, interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping. Textile

element 40 may, therefore, be formed from one of these processes for manufacturing a textile.

50. The '288 patent continues by identifying several types of knitting and knitting machines that may be used, including a circular knitting machine from Santoni S.p.A. in Italy that the patent identifies by model number. '288 patent, 6:66-7:26. The specific example is of multiple textile elements knitted in a cylindrical textile structure formed with a wide tube circular knitting machine, '288 patent, 7:27-64:

A wide-tube circular knitting machine, as produced by Santoni S.p.A., forms a generally cylindrical textile structure and is capable of forming various types of stitches within a single textile structure. In general, the wide-tube circular knitting machine may be programmed to alter the design on the textile structure through needle selection. That is, the type of stitch that is formed at each location on the textile structure may be selected by programming the wide-tube circular knitting machine such that specific needles either accept or do not accept yarn at each stitch location. In this manner, various patterns, textures, or designs may be selectively and purposefully imparted to the textile structure.

An example of a textile structure **60** that may be formed with a wide-tube circular knitting machine is depicted in FIG. 9. Textile structure **60** has a generally cylindrical configuration, and the types of stitches vary throughout textile structure **60** so that a pattern is formed with the outline of textile element **40**. That is, differences in the stitches within textile structure **60** form an outline with the shape and proportions of textile element **40**.

The Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 16 inches, as discussed above. Assuming that textile structure **60** exhibits a diameter of 10 inches, then the circumference of textile structure **60** is approximately 31 inches. In many circumstances, the total width of textile element **40** will be approximately 12 inches, depending upon

the size of footwear **10**. The outlines for at least two textile elements **40** may, therefore, be formed on textile structure **60**. Referring to FIG. 9, the outline of textile element **40** is depicted on a front portion of textile structure **60**, and the outline of another textile element **40** is depicted on a rear portion of textile structure **60**. Accordingly, a first textile element **40** and a second textile element **40** may be simultaneously formed in a single textile structure **60**. As the diameter of textile element **60** is increased or the width of textile element **40** decreases, however, an even greater number of textile elements **40** may be outlined on textile structure **60**.

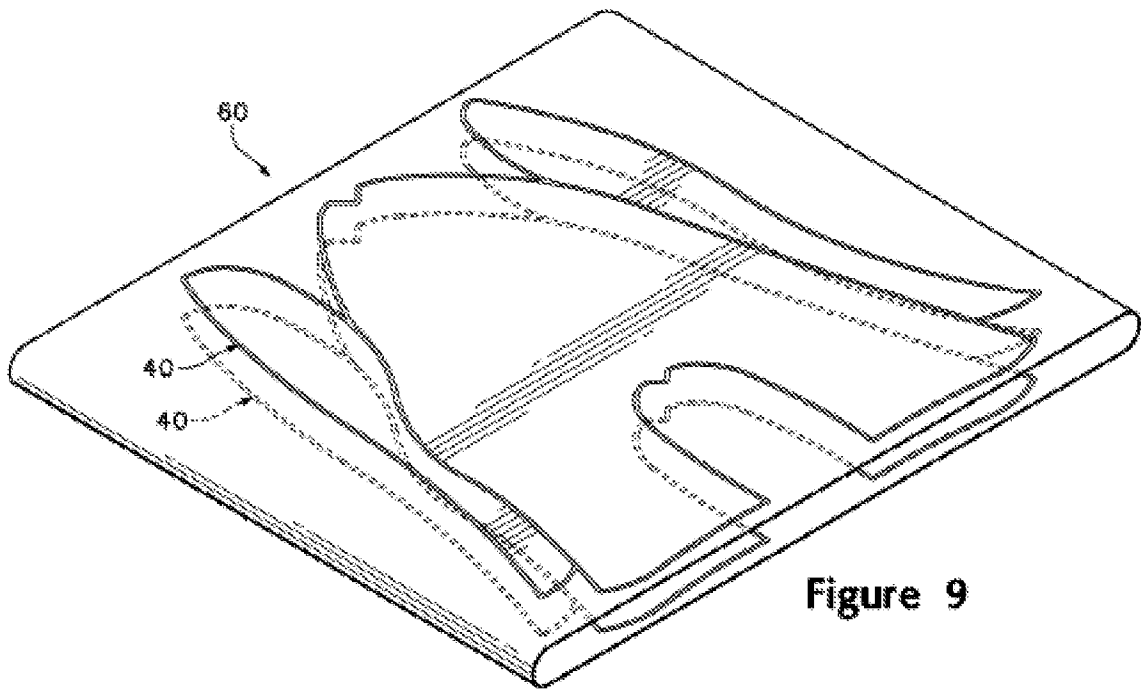


Figure 9

51. The '288 patent explains how the wide tube knitting machines are programmed to provide different types of stitches in different areas of the web so as to outline one or more textile elements, '288 patent, 7:65-8:4:

Textile structure **60** may be formed with a wide-tube circular knitting machine, as discussed above. The types of stitches that form textile structure **60** may be varied to form an outline of one or more textile elements **40** on textile structure **60**. That is, the wide-tube circular

knitting machine may be programmed to form different types of stitches in textile structure **60** so as to outline one or more textile elements **40**.

52. The '288 patent then explains how the textile elements are removed from the web ('288 patent, 8:5-9):

Each textile element **40** is then removed from textile structure **60** with a die-cutting, laser-cutting, or other conventional cutting operation. Once textile element **40** is removed from textile structure **60**, seams **51-54** may be formed and textile element **40** may be incorporated into footwear **10**.

53. FIG. 10 from the '288 patent shows another embodiment of a textile element described therein, where the textile element has different configurations in different areas:

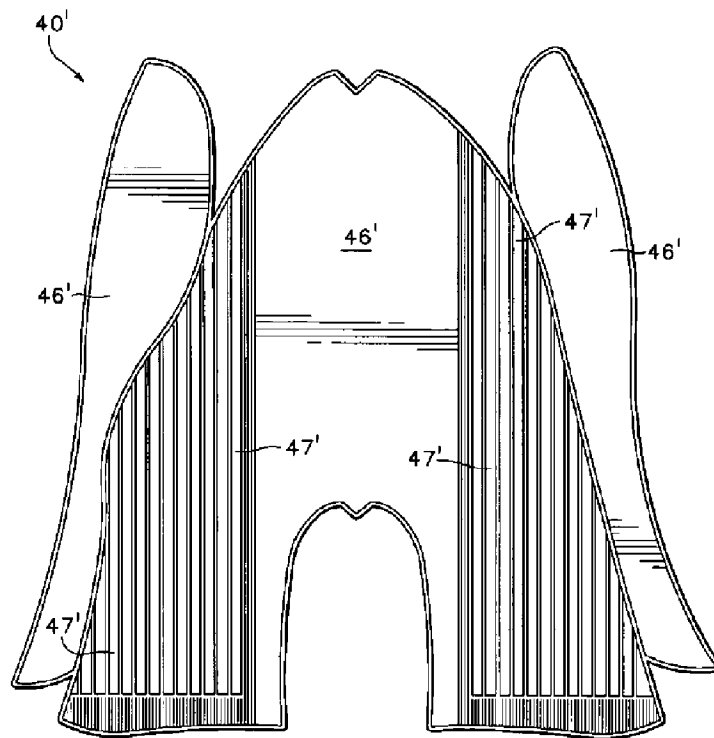


Figure 10

54. The area that corresponds with the instep region has a first texture 46' that is generally smooth, while the areas that correspond with the lateral and medial regions have a second texture 47' that is a plurality of longitudinal ribs. '288 patent, 9:5-14. The patent states that the ribs may be present for aesthetic purposes or may affect the stretch properties of the upper. '288 patent, 9:14-16. The varying textures may be obtained by varying the stitch types in the different areas or by varying the type of yarn. '288 patent, 9:59-62. Changing the yarn type can also be used to impart different properties in different areas, beyond just texture differences. '288 patent, 9:62-66.

55. The '288 patent explains how the inventors believed this was different from conventional articles of footwear, '288 patent, 9:16-29:

Accordingly, textile element 40' exhibits areas with different textures in a single element of textile material.

Many conventional articles of footwear incorporate uppers with various material elements that each exhibit different properties. For example, a first material element may be smooth, and a second material element may be textured. The first and second material elements are then stitched together to form a portion of the conventional upper. Textile element 40' also exhibits smooth and textured areas. In contrast with the conventional upper, however, first texture 46' and second texture 47' are incorporated into a single, unitary element of textile, rather than two separate elements that are stitched or otherwise joined together.

56. The '288 patent also discloses an embodiment that has areas with three different textures. '288 patent, FIG. 11; 9:30-58. In addition, the '288 patent

discloses an embodiment in which the textile element 240 forms an interior layer of a multilayered upper 230. ‘288 patent, 10:33-63; FIGS. 13-14. In the Background section, the ‘288 patent states that conventional multilayered uppers for athletic footwear “may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer.” ‘288 patent, 1:54-58. “Although the materials selected for the upper vary significantly, textile materials often form at least a portion of the exterior layer and interior layer.” ‘288 patent, 2:13-15. “An intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot from objects that may contact the upper.” ‘288 patent, 2:4-6. In the upper 230 shown in FIGS. 13-14, the ‘288 patent explains that the “[u]pper 230 has a configuration that is similar to the configuration of the conventional upper in that various material layers are utilized. In contrast with the conventional upper, however, the interior layer is formed of textile element 240, which is manufactured through the process discussed above. That is, textile element 240 is a single element of textile that forms the interior layer of upper 230.” ‘288 patent, 10:50-56; FIG. 14 (reproduced below).

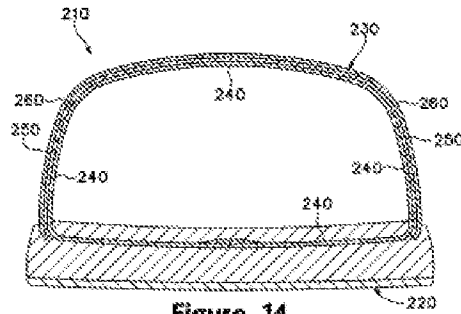


Figure 14

V. OVERVIEW OF THE ‘288 PATENT CHALLENGED CLAIMS

57. The challenged claims of the ‘288 patent are claims 8 and 14-20, of which claim 14 is the independent claim. All of the challenged claims are reproduced below, along with independent claim 1 from which claim 8 depends.

1. An article of footwear comprising:
an upper incorporating a circular-knitted textile element having a plurality of knit constructions,
the circular-knitted textile element being removed from a circular-knitted textile structure, and
further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and
a sole structure secured to the upper.
8. The article of footwear recited in claim 1, wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer.
14. An article of footwear comprising:
an upper incorporating a circular-knitted textile element,
the circular-knitted textile element having a first area and a second area with a unitary construction,
the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the circular-knitted textile element, wherein the varying properties are aesthetic or structural,
wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer; and

a sole structure secured to the upper.
15. The article of footwear recited in claim 14, wherein the first stitch configuration provides a substantially smooth texture to the first area, and the second stitch configuration provides a texture to the second area that is rougher than the smooth texture.
16. The article of footwear recited in claim 15, wherein the second stitch configuration forms a rib structure in the second area.
17. The article of footwear recited in claim 14, wherein at least one of the first stitch configuration and the second stitch configuration forms an aperture in the circular-knitted textile element.
18. The article of footwear recited in claim 14, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.
19. The article of footwear recited in claim 14, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.
20. The article of footwear recited in claim 14, wherein the circular-knitted textile element forms an interior surface of the upper.

58. I have reviewed the constructions presented by adidas in this proceeding for various claim terms of the ‘288 patent. I understand that in *inter partes* review, a claim is to be given the broadest reasonable construction in light of the patent’s specification. I have reviewed and agree that the constructions proposed by adidas for the various terms of the ‘288 patent are appropriate under this standard.

59. It is my opinion that claims 8 and 14-20 of the ‘288 patent are rendered obvious by U.S. Patent No. 3,985,003 to Reed (“Reed”), U.S. Patent No. 5,345,638 to Nishida (“Nishida”) , and U.S. Patent No. 4,785,558 to Shiomura (“Shiomura”), as described in the following sections and as detailed in the claim

chart attached hereto as Appendix A.

VI. COMMON FEATURES AMONG THE ‘288 PATENT CLAIMS

60. As discussed above, there is substantial overlap among the features recited in the challenged claims of the ‘288 patent. I have provided a summary of these common features below:

- **An Article of Footwear** (‘288 patent, claims 1, 14);
- Knitting Techniques & Machinery;
- **Circular-Knitted Textile Element Removed from a Circular-Knitted Textile Structure** (‘288 patent, claim 1);
- Textile Element having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations:
 - **upper incorporating a circular-knitted textile element having a plurality of knit constructions** (‘288 patent, claim 1);
 - **upper incorporating a circular-knitted textile element, the circular-knitted textile element having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the circular-knitted**

- textile element, wherein the varying properties are aesthetic or structural** (‘288 patent, claim 14);
- **the first stitch configuration provides a substantially smooth texture to the first area, and the second stitch configuration provides a texture to the second area that is rougher than the smooth texture** (‘288 patent, claims 15, 16 (adds that “the second stitch configuration forms a rib structure in the second area”));
 - **Longitudinal Edges are Joined Together to Define at Least a Portion of a Void for Receiving a Foot** (‘288 patent, claim 1);
 - **Sole Structure Secured to the Upper** (‘288 patent, claims 1, 14);
 - Location of the Textile Element within the Upper:
 - **upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer** (‘288 patent, claims 8, 14);
 - **circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper** (‘288 patent, claim 18);
 - **circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper** (‘288 patent, claim 19);

- **circular-knitted textile element forms an interior surface of the upper** ('288 patent, claim 20);
- **At Least One of the First Stitch Configuration and the Second Stitch Configuration Forms an Aperture in the Circular-Knitted Textile Element** ('288 patent, claim 17).

61. It is my opinion that claims 8 and 14-20 of the '288 patent are rendered obvious by Reed, Nishida, and Shiomura, as described in the following sections and as detailed in the claim chart attached hereto as Appendix A.

62. Reed, Nishida, and Shiomura all relate to knitted textiles having multiple knitted layers. Reed and Shiomura describe interknitting these layers. Reed and Nishida also relate to knitted textiles that are removed from a larger web of material using program-controlled knitting machines. Nishida states that any conventional textile process may be used to produce these knitted textiles. Reed specifically describes the use of circular knitting machines to produce knitted textiles. Shiomura describes three-layered configurations for athletic shoe uppers, in which the intermediate cushioning layer is a crossing thread that is interknitted between the outer textile layer and the inner textile layer. Nishida and Shiomura specifically describe incorporating multilayered textile elements into shoe uppers, and Reed suggests that the concept of using circular knitting machines to produce footwear items is well-known.

VII. OVERVIEW OF THE PRIOR ART

63. The claims of the '288 patent recite features that were well-known in the prior art at least as of March 3, 2004.

64. Knitted uppers of a unitary construction with modifications of stitches, yarn types, patterns, or constructions in different areas for creating various functional regions have been known for decades. For example, such constructions have been described in detail in several U.S. patents, such as Nishida.

65. The use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies' stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. Reed, 1:33-44. Although Reed acknowledges that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. Reed, 1:48-50.

66. In the mid 1970s, computers began to be used as pattern preparation equipment for electronic double knit machines. Reed, 1:45-48. The use of computers ushered in a new era for knitting technology, as it did for most

equipment of that time. As Reed describes, “[c]omputer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” Reed, 1:50-55.

67. As the breadth and complexity of computerized patterns increased, the size of circular knitting machines for producing garments also grew to include wide-tube circular knitting machines. Reed states that “[a]n example of a circular knitting machine which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60.

68. By the mid-1970s, it was envisioned that, with the advent of computerized patterns, circular knitting machines could be used to form all types of garments worn by men, women and children. Reed, 5:56-57.

69. Over the next decade, the development of computerized knitting machines progressed in complexity to the point that the technology could be used to form a variety of knit configurations within a unitary textile element that would be needed for more durable items, such as shoes. *See* Shiomura, Abstract, 1:10-20, 3:4-15; Nishida, Abstract, 3:6-11.

70. For example, by the mid 1980s, the advances in computerized knitting technology led to the development of a multilayered knitted textile in which two

knitted layers were interknitted by an elastic spacer layer. Shiomura, Abstract, 1:10-20, 3:4-15.

71. Shiomura determined that these multilayered knitted spacer textiles could be used to form shoe uppers in place of the conventional construction that utilized a plastic foam layer bonded between two fabric layers. Shiomura, Abstract; 1:10-20; 3:4-15.

72. Around this same period, footwear production was migrating toward less expensive labor markets (Japan in the 1970s, then Taiwan and Korea in the 1980s, followed by China in the 1990s). As the ability to continually find new inexpensive labor pools became more difficult, the footwear industry, along with the garment industry as a whole, began increasingly looking for new machinery and tools to increase automation of the stitching and production processes as an alternative way to reduce the cost of manufacturing.

73. In the early 1990s, Tretorn began investigating ways to leverage the advancements in computerized knitting machinery as a means for improving efficiency and reducing cutting waste associated with manufacturing shoe uppers. Nishida, 1:45-47; 2:11-47. Nishida (assigned to Tretorn) contemplates that the method of producing knitted textiles for shoe uppers can be performed with any “conventional textile process . . .” such as “weaving and/or knitting and/or embroidering.” Nishida, 3:6-9. Nishida also recognizes that “the use of program-

controlled, particularly computer-controlled, production devices is advantageous, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18; *see also* 2:40-41; 4:53-54; 5:64-65.

74. Like Nishida, the ‘288 patent recognizes the benefit of using the advances in knitting machine technology to produce knitted textiles for shoe uppers. Nike identifies the Santoni S.p.A. wide-tube circular knitting machine as being able to form complex knit patterns with higher speeds and productivity. ‘288 patent, 7:27-30. Nike states that this machine will “form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter. The machine exhibits a maximum 140 revolutions per minute for 10 inch diameters. Furthermore, the machine gauge is variable between 16, 22, 24, 26, 28, and 32 needles per inch, and is suitable for various needle gauges ranging from 48 to 75.” ‘288 patent, 7:16-26. Because these wide-tube knitting machines used computer-programmed knit patterns, the “wide-tube circular knitting machine may be programmed to alter the design on the textile structure through needle selection. That is, the type of stitch that is formed at each location on the textile structure may be selected by programming the wide-tube circular knitting machine such that specific needles either accept or do not accept yarn at each stitch location. In this manner, various patterns, textures, or designs may be selectively and purposefully imparted to the textile structure.” ‘288 patent, 7:30-38.

75. While the technology of computerized patterns for wide-tube circular knitting machines may have further evolved between 1992 and 2004 to allow for better quality, speed, and productivity from these machines, Nike did not invent anything about manufacturing textile elements for shoe uppers that had not already been envisioned by Reed, Shiomura, and Nishida years earlier.

76. I have reviewed other prior art, some of which is relevant to some of the dependent claims. These prior art references describe additional features of shoe uppers made with knitted fabrics. I also had discussions with adidas's external knitting consultant to confirm my understanding of certain stitch configurations. All of these references are prior art under 35 U.S.C. § 102(b), as they were all published more than one year before March 3, 2004.

77. Other features recited in the Nike claims do not add anything new to what was already known in the art. For example, the concept of adding breathability to a shoe dates back to the early twentieth century with the first Converse Chuck Taylor basketball shoes, which had two extra holes in the upper for additional breathability. Adding mesh panels into the upper for increased breathability has been used long before March 3, 2004. There are many examples of added wear and protection features that have been added since the early 1900s as additional overlays on the base pattern. Likewise, adding additional wear

patches to enhance durability or protection also dates back to the early Converse Chuck Taylors, which incorporated a toe cap.

78. Nishida also describes adding specially constructed regions for durability, support, or breathability. For example, Nishida discloses “[s]ince, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or material used” Nishida, 3:43-48.

79. Furthermore, the concept of forming uppers in multiple layers, with the textile element forming one of the layers, was also well-known long before March 3, 2004. For example, Reed describes forming one layer of the circular-knitted textile element as a lining, while forming the other layer as a normal fabric. Reed, 3:61-68. Reed also describes at least partly joining the layers to each other via interconnecting stitches. Reed, 3:8-12; *see also* 4:20-24; 4:39-60; 5:37-47. Shiomura describes a construction in which two knitted layers are fully joined by including the interknitted stitches throughout the space between the layers, as well as the benefits of doing so in an athletic shoe upper. Shiomura, 1:64-2:3; 2:20-22; 2:8-9; 2:27-35; 2:45-54; FIGS. 1-4. Nishida similarly states that the material for the upper can be knitted in two or more layers. Nishida, 3:66-4:1.

80. Finally, several of the ‘288 patent claims focus on edges and seam locations in the upper (*e.g.*, ‘288 patent, claims 1, 3-6, 21-22, 29, 31-33, 36). The placement of seams in various locations is one of the choices made by pattern makers in the shoe industry. Basically, all the seam configurations claimed are simply a few of a limited number of configurations that patternmakers employ to impart various shapes to footwear and to ensure proper fit.

81. Further to this point, the creation of a textile upper for footwear that has edges that are joined together to form seams along the bottom and heel of the upper, as well as in the forefoot area, is a process that has been used to make shoes and slippers for more than 100 years. There is nothing new about the various seam locations described in the ‘288 patent.

82. As Nishida clearly shows in FIGS. 1, 2, 4, and 5, creating a layout for a shoe within a surrounding textile structure that can be cutout and then folded and stitched to form a three-dimensional shoe upper was well known. In fact, the layout shown in FIG. 4 of Nishida is very similar to those shown in the ‘288 patent. By constructing the upper from the layout shown in FIG. 4 of Nishida, the upper would necessarily have seams in the same places as the upper described and claimed in the ‘288 patent.

VIII. GROUND I: REED IN VIEW OF NISHIDA AND SHIOMURA DISCLOSES TO ONE OF ORDINARY SKILL IN THE ART AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 8 AND 14-20 OF THE ‘288 PATENT

83. U.S. Patent No. 3,985,003 to Reed (“Reed”) issued on October 12, 1976. I understand that Reed qualifies as prior art to the ‘288 patent.

84. U.S. Patent No. 5,345,638 to Nishida (“Nishida”) issued on September 13, 1994. I understand that Nishida qualifies as prior art to the ‘288 patent.

85. U.S. Patent No. 4,785,558 to Shiomura (“Shiomura”) issued on November 22, 1988. I understand that Shiomura qualifies as prior art to the ‘288 patent.

86. As such, with reference to the claim chart attached to this Declaration as Appendix A, Reed, in combination with Nishida and Shiomura discloses, teaches, or suggests the features recited in claims 8 and 14-20 of the ‘288 patent.

A. Preamble

87. Reed describes that “[s]till another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. Reed goes on to state that “[t]he present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. Such garments include footwear, such as stockings. Reed, 1:34-35.

88. Nishida explicitly describes “a process for the production of a shoe shaped part” Nishida, 1:10-11; *see also* Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3. In view of the reasons that the skilled person would combine Reed and Nishida discussed in Section VIII.I below, it would have been obvious to use Reed’s process to produce footwear garments, as described in Nishida.

B. Knitting Techniques & Machinery

89. By way of background, Reed explains that the use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies’ stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. Reed, 1:33-44. Although Reed recognized that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. Reed, 1:48-50.

90. With the advent in computerized programming for knit machines that began in the 1970s, however, “an era of unlimited pattern potential began.” Reed, 1:45-48. “Computer electronic knitting brought about the possibilities of making

patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” Reed, 1:50-55. Reed goes on to explain that the present invention uses “*an electronic circular double knitting machine*,” and that an “object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 1:58-59; (emphasis added); 2:23-25; FIGS. 1-6; *see also* 3:5-7; 4:68-5:2.

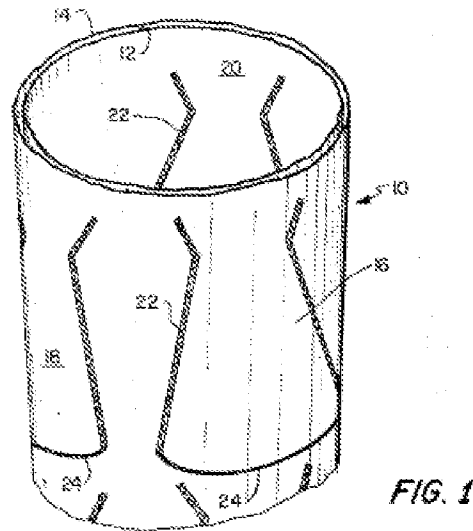
91. To the extent that Reed does not explicitly state that the circular-knitted textile element can be used to form an upper for an article of footwear, Nishida describes using conventional textile processes and program-controlled web of material production devices to form a textile structure with a single or a plurality of textile elements in the shape of a shoe upper. “In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a *conventional textile process*, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9 (emphasis added); *see also* Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1-2. The person of ordinary skill in the relevant art at least as of March 3, 2004 would have understood that circular knitting is a conventional textile process.

92. Nishida also recognizes that “the use of *program-controlled*,

particularly computer-controlled, production devices is advantageous, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); *see also* Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

C. Textile Element Removed from the Textile Structure

93. Reed describes how the textile elements are removed from the cylindrical textile structure. For example, Reed states that “[t]he present invention uses an electronic circular double knitting machine programmed to *simultaneously knit two concentric tubes*, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch *to form the outline of the design of a garment*.” Reed, 1:58-64 (emphasis added). Reed further explains that these computerized electronic knitting machines may be used to produce “a *plurality of garments* formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added); FIG. 1 (reproduced below).



94. Reed states that “[t]he interconnecting knitting 24 is merely to define the lower outline of the skirt *upon which the pattern may be cut*. As can be seen, the knitted structure 10 includes (around its circumference) *a plurality of finished garments which need only be severed from the structure 10* and turned inside out if a hidden seam is desired.” Reed, 3:12-19 (emphasis added). “As indicated previously, once the knitted structure 10 is removed from the knitting machine, *the individual garments may be severed by cutting along the outline* formed by the interconnecting stitches represented by the X's and O's. If desired, the *fabric may be cut with a hot knife* so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); *see also* Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.

95. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an

article of footwear, Nishida states that the “process for the production of a shoe shaped part [involves] using a web of material with a plurality of patterns in the form of the layout of a shoe upper, *cutting out these layouts from the web of material* and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); *see also* Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.

D. Textile Element having a Unitary Construction and having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations

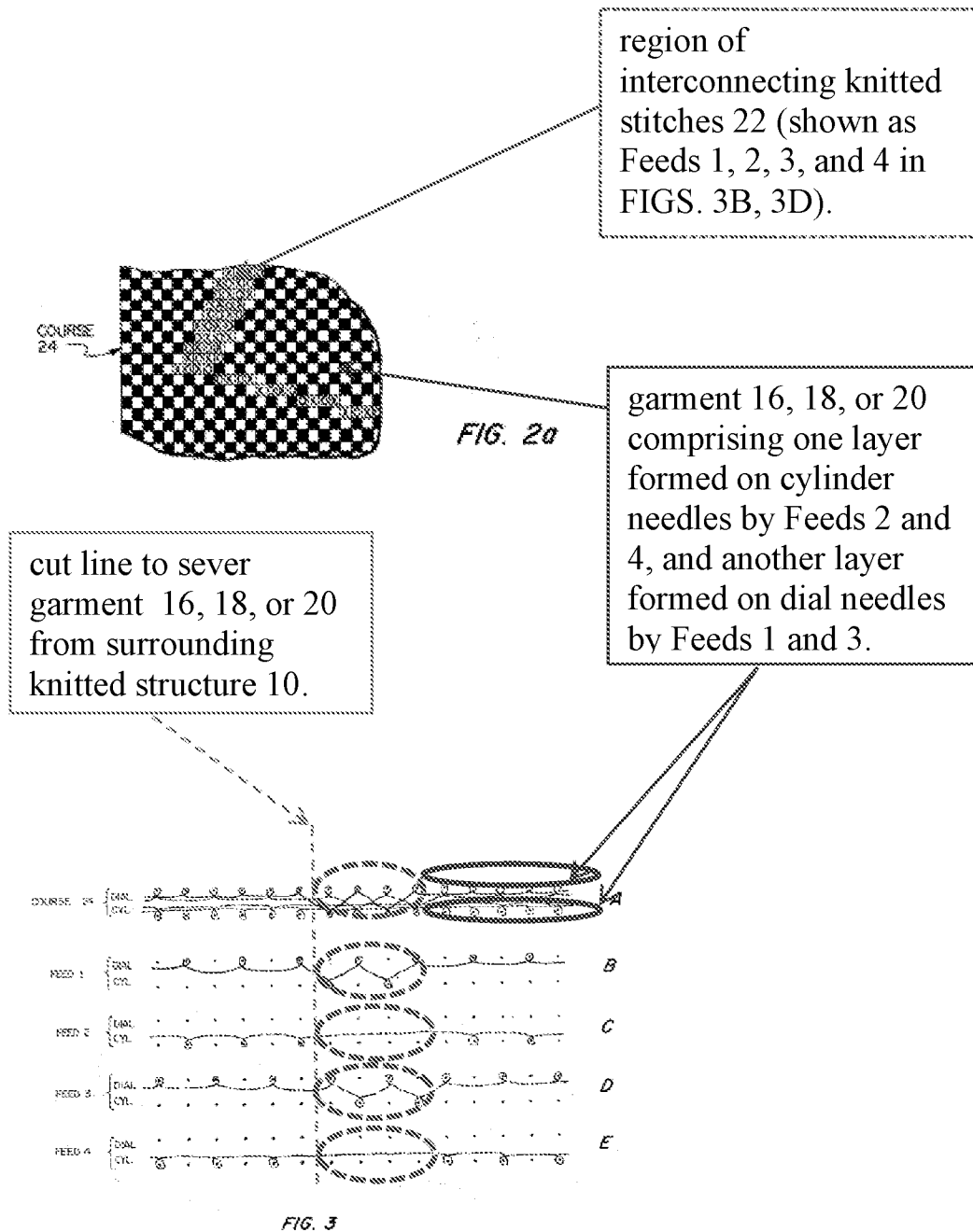
96. Reed describes that the textile element has a unitary construction within which there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area.

97. Reed describes this feature in two different ways:

98. First, Reed describes that the edges of the garments 16, 18, 20 are formed by interknitted stitches, whereas the remainder of the garments 16, 18, 20 are formed by non-interknitted stitches. Specifically, Reed describes that the outline of the garments 16, 18, 20 is formed with interknitted stitches (shown in X’s and O’s in FIG. 2), which are formed by feeds 1, 2, 3, and 4 on needles 7, 9, 8, and 10 (as shown in FIG. 3B and 3D). Reed, 5:3-18, FIGS. 3A-3E. In contrast,

“two feeds [i.e., feeds 1, 3 for the dial needles] are used for one course of the inner tube 12 and two feeds [i.e., feeds 2, 4 for the cylinder needles] are used for the outer tube 14.” Reed, 4:61-64; FIGS. 2A, 3A-3E.

99. Reed goes on to explain that “once the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X’s and O’s.” Reed, 5:67-6:3; *see also* 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below). As illustrated in the attached claim chart for claim 14 of the ‘288 patent, because the interknitted stitches are part of the garments 16, 18, 20, and the garments 16, 18, 20 also comprise areas that are only formed as part of the outside tube 14 or the inner tube 12, the garments 16, 18, 20 have a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type.



100. To the extent that Reed is modified to fully join the two layers through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14 as described in Shiomura below, Reed still describes a textile element having a unitary construction within which

there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area. For example, Reed goes on to describe how the two layers 12, 14 themselves may be formed of different yarns or stitch configurations. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, *the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining*. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, *where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.*” Reed, 3:61-4:9 (emphasis added). Furthermore, the interknitted stitches 22, 24 have a different stitch configuration than the two layers 12, 14. Thus, when these layers 12, 14 are simultaneously knitted and interknitted together using the interknitted stitches 22, 24, the textile element has a unitary construction within which there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area.

101. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida describes that “in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, *areas 26 and 27 are produced in a configuration*, color or style *that is different from the other areas*.” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or *knitted type of individual areas or contours*, the type of fiber or yarn and/or the color *can be selected almost at will*.” Nishida, 2:40-45 (emphasis added).

102. For example, the ‘288 patent describes varying the “stitch type” as a way to vary the type of texture in different areas, and as separate from varying the type of yarn. ‘288 Patent, 9:33-50; 9:54-62. Nishida specifically describes using different materials, different compositions (such as twisted or parallel processing or the like), and different knit types or knit patterns, therefore describing for the skilled person using different stitch configurations in different areas as a way to give the textile element different properties in different areas. Nishida, Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2. The skilled person at least as of March 3, 2004, would have understood that it is a trivial

matter to introduce different stitch types within different areas of the circular knitted textile element.

103. Nishida goes on to describe that these varying properties may include a varying elasticity, air permeability, absorptivity, softness, extensibility, wear resistance, and appearance. “Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, *insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.*” Nishida, 3:43-52 (emphasis added). “[T]he layouts of the shoe upper and sole parts are *produced by modifying the overall construction of the web of material* in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, *using* one of a *different* weaving and *knitting type* for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, *air permeability, softness, extensibility, wear resistance and appearance.*” Nishida, 6:1-31(emphasis added).

104. Regarding varying properties, Nishida further states that “[a]s already indicated, the webs of material being used can be produced by program-controlled web of material production devices whose programs can be matched almost at will according to the corresponding basic setting with deviations in the size of the layouts of the individual shoe uppers or *with changes of the type of weave or knit of individual areas* or contours, the type of fiber or yarn and/or the color.”

Nishida, 5:63-6:2 (emphasis added). A person of ordinary skill in the art at least as of March 3, 2004 would have understood that Nishida’s disclosure regarding varying the knit of individual areas would include having a substantially smooth texture in one area, and a rougher texture in another area. Such an understanding is evident in view of Nishida’s statement that “softness” is specifically one of the properties to be varied, combined with Nishida’s statement that “[l]ayout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25. Furthermore, a person of ordinary skill in the relevant art at least as of March 3, 2004 would have understood Nishida’s disclosure regarding a varying extensibility to mean that portions of the knit configuration may have a rib structure, which is designed to

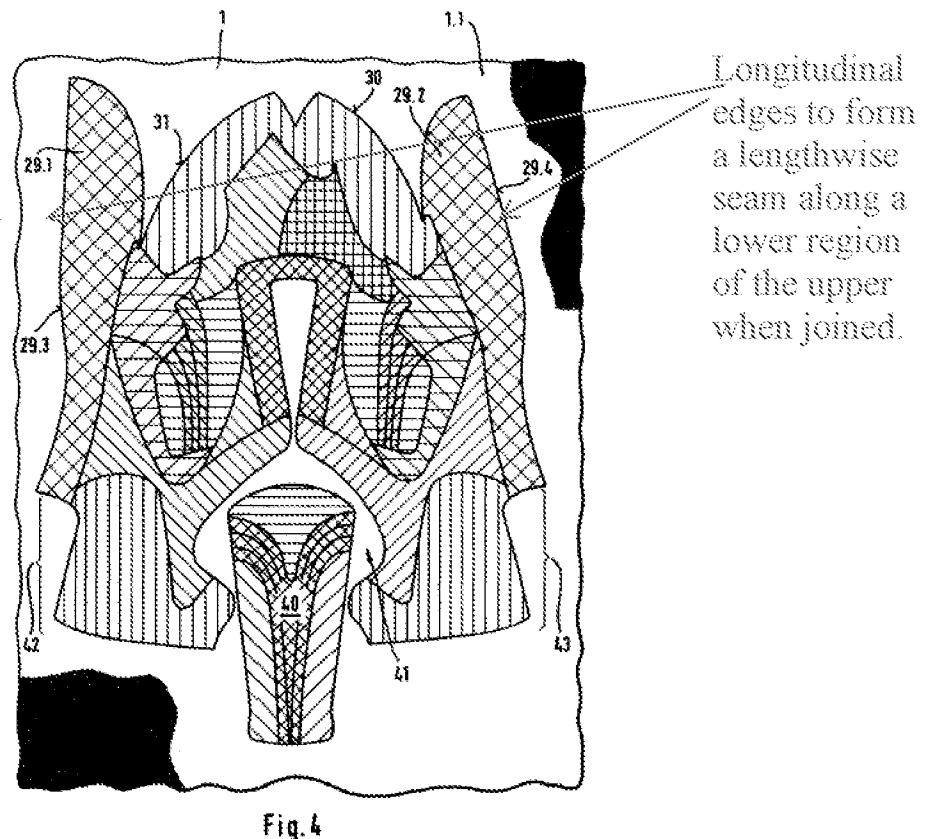
provide greater elasticity / extensibility than portions of the knit configuration without rib structures.

E. Longitudinal Edges are Joined Together to Define at Least a Portion of a Void for Receiving a Foot

105. Nishida shows longitudinal edges 29.3 and 29.4 in FIG. 4 (reproduced below), as illustrated in the attached claim chart for claim 1 (as part of claim 8) of the ‘288 patent. “With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; *see also* 4:22-30; 6:5-41; 6:47-54; FIGS. 3-4.

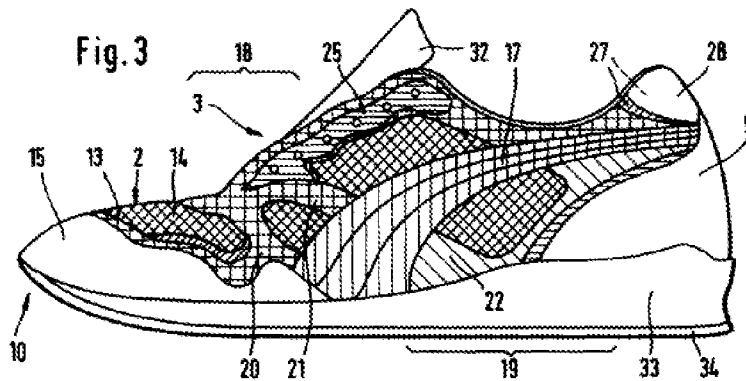
106. As part of converting the layout into a shoe upper, Nishida describes joining longitudinal edges 29.3 and 29.4 in FIG. 4 to define at least a portion of a void for receiving a foot, as well as to form a seam that extends along a lower region of an upper. “[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form

the sole part.” Nishida, 6:47-54; *see also* 4:22-30; 5:3-13; 6:5-41; FIGS. 3, 4 (reproduced below).



F. Combining the Textile Element Into Footwear Components

107. Nishida describes “*stitching parts of the layout* of the cut-out unit on provided seams *to form an upper of the shoe shaped part . . .*” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; *see also* Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced below).



G. Upper Construction Using Textile Elements

1. Upper includes an Exterior Layer, an Intermediate Layer, and an Interior Layer, and the Circular-Knitted Textile Element Forms at least a Portion of the Interior Layer

108. Reed describes using his circular knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. “The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed, 3:8-12.

109. Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric *wherein the inner tube 12 may be formed of a material such as lining*. By simultaneously knitting and interknitting the two layers, a step

is saved by producing a section of garment which is prelined.” Reed, 3:61-68 (emphasis added); *see also* Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:20-24; 4:39-60; 4:68-5:2; 5:37-47; FIG. 1.

110. The skilled person at least as of March 3, 2004, would have understood that such a garment could easily be produced where the interknitted stitches 22, 24 are used throughout the space between the inner tube 12 and outside tube 14 to fully join the two layers. Furthermore, the skilled person would have been motivated to modify Reed to fully join the two layers through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14, particularly when producing a shoe upper as this is the same construction that is described in Shiomura.

111. Specifically, Shiomura describes an athletic shoe upper formed with a three-layered knitted textile configuration, in which the intermediate layer is formed by a number of crossing threads that are interknitted between the outer and inner knit textile layers. Shiomura states that “[a]s shown in FIGS. 1 and 2, the athletic shoe of the present invention comprises a shoe upper 1 and a rubber sole 2 attached to the shoe upper 1.” Shiomura, 2:20-22; FIG. 1 (reproduced below). “FIG. 2 is a cross-sectional view taken along the line II--II of FIG. 1.” Shiomura, 2:8-9; FIG. 2 (reproduced below). “As shown in FIGS. 3 and 4, the shoe upper 1 comprises an outer knit fabric layer 4, an inner knit fabric layer 5 provided parallel

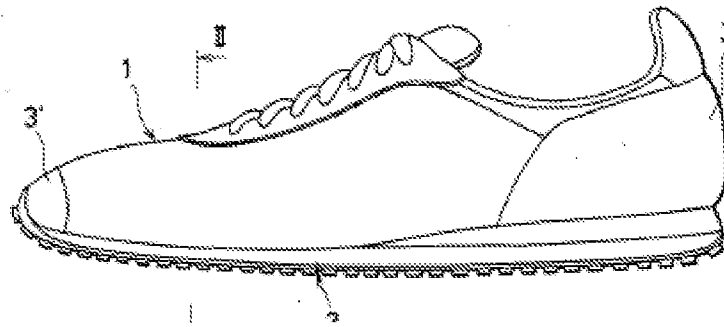
to the outer knit fabric layer 4 through a space 6, and a number of crossing threads 7 which cross the space 6. The outer knit fabric layer 4 is knitted from a yarn 41 while the inner knit fabric layer 5 is knitted from a yarn 42. The crossing threads 7 are interknitted to be bound into the outer and inner knit fabric layers 4, 5.”

Shiomura, 2:27-35; FIGS. 2-4 (reproduced below).

112. Shiomura additionally explains that “[a]lthough the yarns 41, 42 used for the outer and inner knit fabric layers may be any of synthetic fibers such as polyester and nylon and natural fibers such as cotton and hemp and are not particularly limited, *the yarn 41 of the outer knit fabric layer is preferably a filament yarn or a spun yarn made of a synthetic fiber having excellent wear resistance* while the *yarn 42 of the inner knit fabric layer is preferably a spun yarn made of a natural fiber having excellent moisture absorptivity.*” Shiomura, 2:45-54 (emphasis added). Because the outer knit fabric layer 4 forms an exterior surface of the upper 1, Shiomura suggests that this layer should be formed of “a synthetic fiber having excellent wear resistance.” Shiomura, 2:45-54. Conversely, because the inner knit fabric layer 5 forms an interior surface of the upper 1 adjacent the wearer’s foot when worn, Shiomura suggests that this layer should be formed of “a natural fiber having excellent moisture absorptivity” so as to wick away sweat and heat from feet during exercise. Shiomura, 2:45-54. Thus, Shiomura describes an athletic shoe upper formed with a three-layered knitted

textile configuration, in which the intermediate layer is formed by a number of crossing threads that are interknitted between the outer and inner knit textile layers.

FIG. 1



outer knit fabric
layer 4 forms an
exterior surface of
the shoe upper 1.

FIG. 2

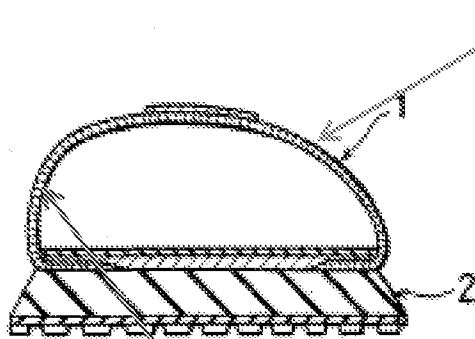
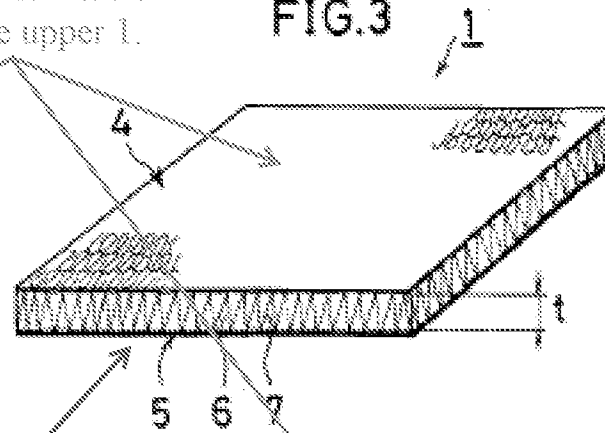


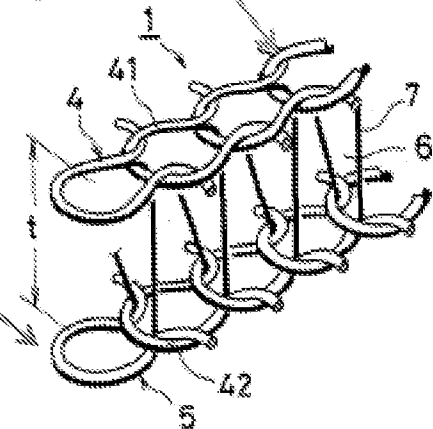
FIG. 3



inner knit fabric
layer 5 forms an
interior surface of
the shoe upper 1.

t

FIG. 4



113. Shiomura explains that conventional shoe uppers have “a multilayer sandwich construction prepared by interposing a plastic foam layer, such as a polyurethane layer, between an outer fabric layer and an inner fabric layer and bonding them.” Shiomura, 1:16-20. As an improvement over the intermediate plastic foam layer, Shiomura uses crossing threads to form the intermediate cushioning layer between the inner and outer knit textile layers. Shiomura, 1:57-67. Shiomura explains that fully joining two knitted layers with interknitted stitches results in a strong and resilient textile material that would be able to meet the performance characteristics of athletic shoes. For example, Shiomura states that the use of an interknitted crossing thread allows the crossing thread “to be bound into the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” Shiomura, 1:64-2:3.

114. While Shiomura does not explicitly reference using a circular knitting machine to form the three-layered knitted textile shoe upper, the skilled person at least as of March 3, 2004, would have recognized that the use of circular knitting machines to include interknitted stitches throughout the space between the inner

tube and outer tube to fully join the two layers to form a three-layered knitted textile was well-known, as evidenced by Shepherd. Shepherd, 4:53-7:47; FIGS. 1-2.

115. Furthermore, Nishida contemplates using a three-layered knitted textile element to form a shoe upper, by stating that “[o]ptionally, in this case, the material can be woven or *knitted in two or more layers* or can be especially thick or additionally embroidered.” Nishida, 3:66-4:1 (emphasis added); FIG. 3; *see also* Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

116. Thus, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed’s circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. Furthermore, it would have been obvious to the skilled person to form Reed’s three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. This is nothing more than combining “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP §

2143 (A, C). This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

The resulting upper includes an exterior layer (Reed’s outside tube 14), an intermediate layer as described in Shiomura (the interknitting stitches connecting the inner tube 12 and outside tube 14 throughout the space between these layers), and an interior layer (the inner tube 12), and Reed’s circular-knitted textile element forms at least a portion of the interior layer.

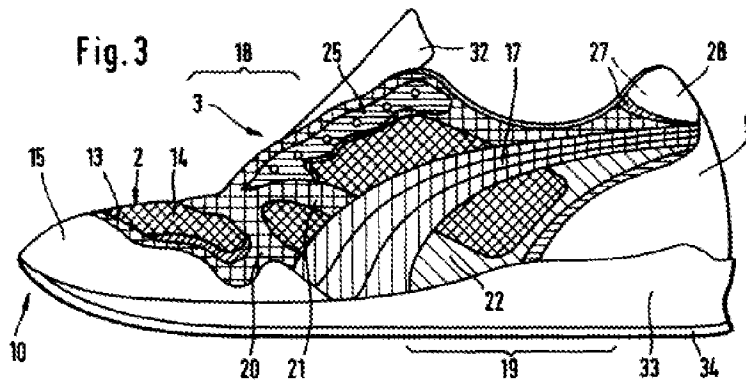
2. The Circular-Knitted Textile Element Forms an Interior Surface of the Upper

117. As described in Section VIII.G.1 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed’s circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. Furthermore, it would have been obvious to the skilled person to form Reed’s three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the upper.

3. Circular-Knitted Textile Element Forms at least a Portion of both an Interior Surface and an Exterior Surface of the Upper

118. As described in Section VIII.G.1 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed's circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. Furthermore, it would have been obvious to the skilled person to form Reed's three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. In the resulting upper, Reed's circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.

119. Nishida goes on to describe that additional elements may be attached to the exterior surface of the layouts 2 and therefore form a portion of the exterior surface of the upper. Because these additional elements do not completely cover the entire exterior surface, other portions of the layouts 2 remain uncovered by the additional elements. As a result, these uncovered portions of the circular-knitted textile element (such as areas 20, 21, 22, and toe area 14) form at least a portion of the exterior surface of the upper. Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).



4. Circular-Knitted Textile Element is one of an Exterior Layer, an Intermediate Layer, and an Interior Layer of the Upper

120. As described in Section VIII.G.1 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed's circular knitting technique to form a three-layered knitted textile element that is then used to form the shoe upper described in Nishida. Furthermore, it would have been obvious to the skilled person to form Reed's three-layered knitted textile element using interknitting stitches throughout the space between the inner tube 12 and outside tube 14 to form a strong and resilient textile material that meets the performance characteristics of athletic shoes as described in Shiomura. In the resulting upper, Reed's circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

H. Aperture(s) Formed in the Textile Element

121. The '288 patent describes apertures in one of three ways:

(1) “[T]he u-shaped area becomes *an aperture* in textile element 40 and effectively forms ankle opening 36” (‘288 patent, 6:25-26 (emphasis added));

(2) “The air-permeability of textile element 40” may also vary in the different areas. Third texture 48” is formed to include *a plurality of apertures* that extend through textile element 40”. The *apertures* may be formed by omitting stitches at specific locations during the wide-tube circular knitting process, and the *apertures* facilitate the transfer of air between the void within upper 20 and the area outside of upper 20” (‘288 patent, 9:47-54 (emphasis added)); and

(3) “Lace 131 extends through *a plurality of apertures* formed in textile element 140. The *apertures* may be formed by omitting stitches at specific locations.” (‘288 patent, 10:16-19 (emphasis added)).

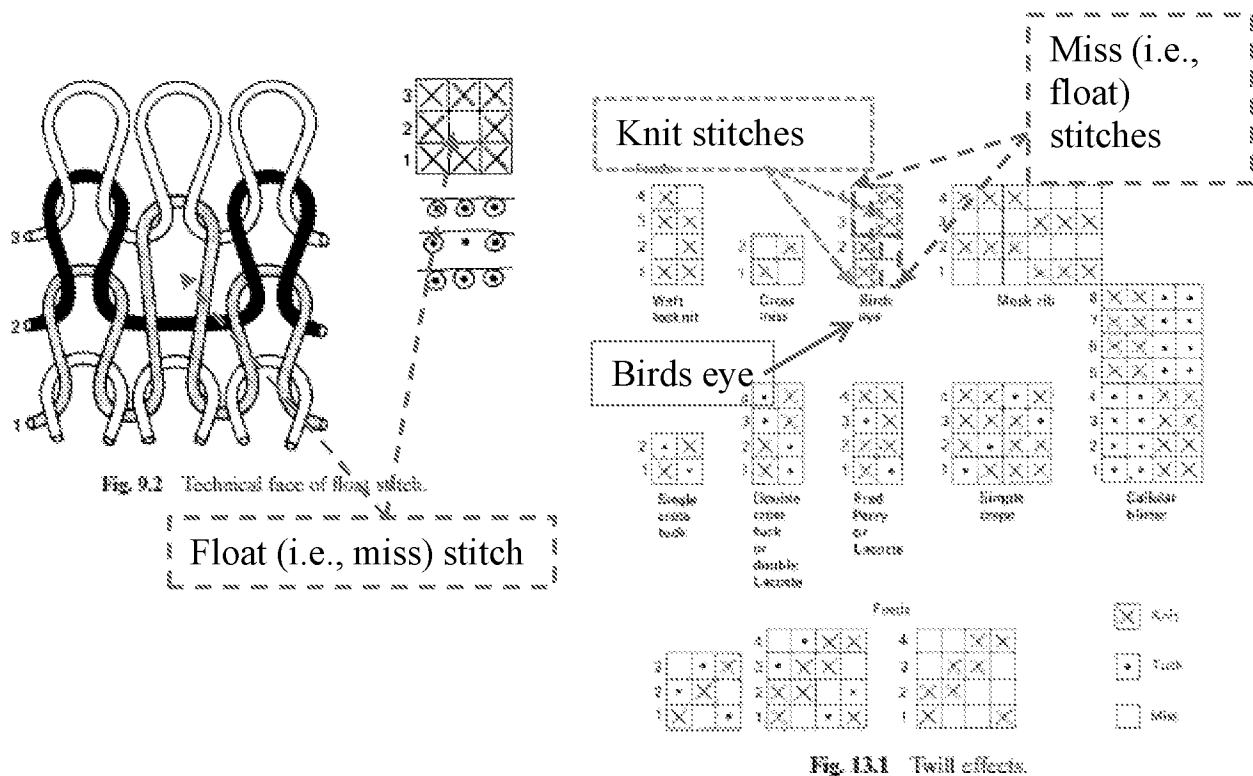
122. With respect to the first type of “ankle opening” aperture, Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. *See* Nishida, FIGS. 1-5.

123. With respect to the second type of “air-permeability” apertures, Nishida discloses that the “type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a

net-like woven or knitted structure.” Nishida, 3:49-52 (emphasis added); *see also* 3:43-52; 3:66-4:5; 6:25-31. The skilled person at least as of March 3, 2004, would have understood that a birds eye stitch configuration is a common technique for knitting a net-like knitted structure, as evidenced by Spencer. According to Spencer, a birds eye stitch is a combination of knit and miss stitches. Spencer, p. 146; FIG. 13.1 (reproduced below). Spencer explains that “a *miss stitch* would always be *floating freely on the technical back*.” Spencer, p. 94 (emphasis added). Likewise, Spencer explains that the same definition applies to a float stitch: “[i]n FIG. 9.2, the *float stitch* shows the *missed yarn floating freely on the reverse side of the held loop*. (This is the *technical back* of single-jersey structures but is the inside of rib and interlock structures.)” Spencer, p. 92 (emphasis added); FIG. 9.2 (reproduced below). In short, the terms “miss stitch” and “float stitch” are interchangeable.

124. Spencer goes on to explain that a float stitch “is produced when a needle (M) holding its old loop fails to receive the new yarn that passes, as a float loop, to the back of the needle and to the reverse side of the resultant stitch, joining together the two nearest needle loops knitted from it.” Spencer, p. 92. As a result, the float (or miss) stitch forms an aperture in the textile fabric in each specific location where “the missed yarn float[s] freely on the reverse side of the held loop.” Spencer, p. 92. In other words, the skilled person would have understood

Nishida's statement regarding the use of a net-like knitted structure to suggest incorporating birds eye stitches as a mechanism of producing apertures by omitting stitches in specific locations within the knitted textile element.



125. With respect to the third type of “lace hole” apertures, Nishida describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Thus, Nishida explains that “the lacing areas 23 and 24 *can be made dimensionally stable* in corresponding manners, especially *if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.*” Nishida, 4:1-5 (emphasis added). Nishida thus recognizes that (a) the lacing strips are optional and may not be

applied; (b) that the net-like structure may itself then be used or (c) if no lacing strips are applied and the net-like structure is used, then the lacing areas can be further stabilized via an embroidery. *See* Nishida, 4:31-38. However, if the additional lacing strips and embroidery are not added, the textile element still includes the net-like structure in the lacing area.

I. The Skilled Person Would Have Been Motivated to Combine Reed, Nishida, and Shiomura

126. Reed’s explicit statement that “[t]he present invention may be used to form all types of garments worn by men, women and children” (Reed, 5:56-57) in combination with Reed’s explicit reference to the fact that footwear items, such as stockings, were conventionally knit with circular knitting machines (Reed, 1:33-44), would have suggested to a person of ordinary skill in the relevant art at least as of March 3, 2004 that Reed’s process could be used to form all types of articles of clothing including footwear, particularly since “clothing” is understood to refer to all things that people wear to cover their bodies. Specifically, the skilled person would have understood Reed’s reference to “all types of garments” to include footwear, as well as tops, pants, shorts, skirts, dresses, suits, outerwear, underwear, headwear, nightwear, swimwear, and accessories.

127. By March 3, 2004, routine acceptance of computerized knitting technology and Reed’s encouragement to apply such to all garments, would have motivated the skilled person to use Reed’s process to form textile elements that are

then used to form footwear as described in Nishida, as such a design choice would have been predictable and well known to a person with ordinary skill in the art. Nishida, Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3. This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

128. Moreover, the skilled person would have found Nishida’s process of producing textile elements to be analogous art to Reed’s process, as both are directed to methods of simultaneously forming textile articles within a surrounding textile structure using “program-controlled web of material production devices” (as described in Nishida, 2:40-41; 4:15-17; 4:53-54; 5:64-65) and a “computerized electronic knitting machine” (as described in Reed, 1:58-59; 2:23-25); removing the textile element from the surrounding textile structure; and incorporating the textile element into a wearable item. Nishida, Abstract; 1:10-18; 1:40-2:37; 2:40-47; 3:6-52; 3:59-4:5; 4:12-60; 5:3-26; 5:63-6:2; 6:36-38; FIGS. 1-3; Reed, 1:58-64; 2:14-16; 2:22-31; 3:1-19; 3:58-60; 4:68-5:18; 5:56-57; 5:67-6:5; FIGS. 1, 2A, 2-6.

129. Additionally, Reed and Nishida are directed to reducing costs associated with producing textile elements using the latest advances in knitting technology. Reed states that “[a]nother object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the

versatility of a computerized electronic knitting machine,” and that “[s]till another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:22-31. Given the variety of sizes of shoe uppers and the fact that including multiple uppers around circumference of a circular knitted tube directly increases efficiency, the skilled person would have been motivated to use Reed’s process to produce textiles for shoe uppers, particularly in view of the improvements in single needle selection that allows for specific control over stitch configurations in different parts of the upper.

130. Nishida states that “[i]t is of further advantage in the process according to the present invention that the individual patterns or partial patterns already can be produced *directly* in the production of the web of material in the desired shoe size, by which the cutting waste can be still further limited, since the individual patterns or partial patterns in the provided size can directly adjoin one another.” Nishida, 2:27-33 (emphasis added). Nishida contemplates that the method of producing knitted textiles for shoe uppers can be performed with any “conventional textile process . . .” such as “weaving and/or knitting and/or embroidering.” Nishida, 3:6-9. Nishida further explains that “after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or knitted type of individual areas or contours, the type of fiber or yarn and/or the color can be selected almost at will.” Nishida, 2:40-45.

131. Reed describes using his circular knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. Reed, 3:8-10. Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric *wherein the inner tube 12 may be formed of a material such as lining*. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68 (emphasis added).

132. The skilled person at least as of March 3, 2004, would have understood that such a garment could easily be produced where the interknitted stitches 22, 24 are used throughout the space between the inner tube 12 and outside tube 14 to fully join the two layers. Furthermore, the skilled person at least as of March 3, 2004, would have been motivated to modify Reed to fully join the two layers through interknitted stitches 22, 24 that are positioned throughout the space between the inner tube 12 and outside tube 14, as this is the same construction that is described in Shiomura and is beneficial to the construction of athletic shoes.

133. Specifically, Shiomura describes an athletic shoe upper formed with a three-layered knitted textile configuration, in which the intermediate layer is formed by a number of crossing threads that are interknitted between the outer and

inner knit textile layers. Shiomura, 2:20-22; 2:27-35; 2:45-54; FIGS. 1-4.

134. Shiomura explains that fully joining two knitted layers with interknitted stitches would result in a strong and resilient textile material that would be able to meet the performance characteristics of athletic shoes. For example, Shiomura states that the use of an interknitted crossing thread allows the crossing thread “to be bound into the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” Shiomura, 1:64-2:3.

135. While Shiomura does not explicitly reference using a circular knitting machine to form the three-layered knitted textile shoe upper, the skilled person at least as of March 3, 2004, would have recognized that the use of circular knitting machines to include interknitted stitches throughout the space between the inner tube and outer tube to fully join the two layers to form a three-layered knitted textile was well-known, as evidenced by Shepherd. Shepherd, 4:53-7:47; FIGS. 1-2. Given the benefits of the intermediate layer described by Shiomura, this would have been an obvious design choice for the skilled person when constructing a circular-knitted shoe upper and corresponding shoe. Shiomura, 1:64-2:3.

136. Furthermore, Nishida contemplates using a three-layered knitted textile element to form a shoe upper, by stating that “[o]ptionally, in this case, the material can be woven or *knitted in two or more layers* or can be especially thick or additionally embroidered.” Nishida, 3:66-4:1 (emphasis added); FIG. 3.

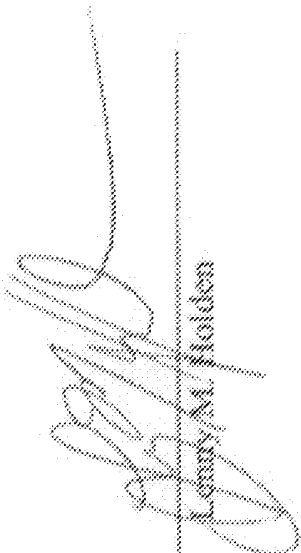
137. In view of the substantial similarities between the methods described in Reed, Nishida, and Shiomura, along with a shared interest in reducing costs and waste, as well as a focus on simplifying the manufacturing process, a person of ordinary skill in the relevant art would certainly have been motivated to modify Reed’s method to include the additional features described by Nishida and Shiomura to produce a textile element for use in a shoe upper, as well as to produce a shoe incorporating such a textile element. The combination of Reed, Nishida, and Shiomura is nothing more than combining “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C). This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

138. It is therefore my opinion that Reed, Nishida, and Shiomura teach and render obvious claims 8 and 14-20 of the ‘288 patent.

IX. SUMMARY

139. I note that my analysis is continuing and that I may modify or supplement my conclusions as I receive additional information. I declare under penalty of perjury that the foregoing Declaration is true and correct.

Dated: November 11, 2016



Lenny M. Holden

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
[14A] An article of footwear comprising:	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. “Circular knitting machines have been used to make tubular, knitted garments, such as ladies' stockings, sweaters and other garments.” Reed, 1:33-35.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3.</p>
[14B] an upper incorporating a circular-knitted textile element,	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 2:23-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6. “The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added), FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p> <div data-bbox="1117 989 1377 1304" data-label="Image"> </div> <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p> <div data-bbox="1057 1367 1357 1640" data-label="Image"> </div> <p>“As can be seen, any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p><i>be produced on a single web of material 1.</i> For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
<p>[14C] the circular-knitted textile element having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the circular-knitted textile element, wherein the varying properties are aesthetic or structural,</p>	<p>“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i>” Reed, 5:3-18 (emphasis added), FIGS. 3A-3E.</p> <p>“[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's.” Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<div data-bbox="454 241 1347 871"> <p>FIG. 23</p> </div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, <i>the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining.</i> By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, <i>where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.</i>” Reed, 3:61-4:9 (emphasis added).</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, <i>areas 26 and 27 are produced in a configuration, color or style that is different from the other areas.</i>” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the</p>

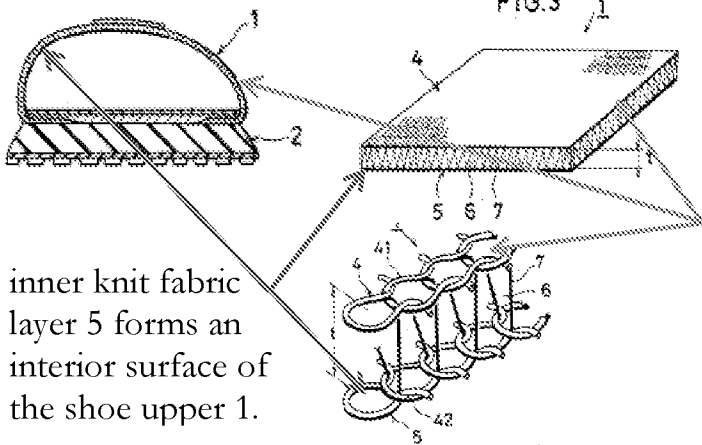
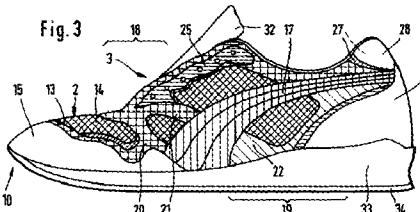
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
	<p>color <i>can be selected almost at will</i>.” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 3:15-26; 3:47-48; 4:12-28; 4:48-55; 5:56-6:2.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i>, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p> <p>“Layout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25.</p>
[14D] wherein the upper includes an exterior layer, an intermediate layer, and an	<p>“The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed, 3:8-12; <i>see also</i> 4:20-24; 4:39-60; 5:37-47. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
interior layer, and the circular-knitted textile element forms at least a portion of the interior layer; and	<p>structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric <i>wherein the inner tube 12 may be formed of a material such as lining</i>. By <i>simultaneously knitting and interknitting the two layers</i>, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68; (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:68-5:2; FIG. 1.</p> <p>“U.S. Pat. Nos. 3,793,750 and 4,043,058 each propose a shoe upper having a multi-layer sandwich construction prepared by interposing a plastic foam layer, such as a polyurethane layer, between an outer fabric layer and an inner fabric layer and bonding them.” Shiomura, 1:16-20. “Further, this shoe upper has a space between the inner and outer knit fabric layers into which a crossing thread is inserted and, therefore, can exhibit not only air permeability much higher than that of a conventional shoe upper having a resin foam layer interposed therein but also suitable elasticity.” Shiomura, 1:57-62.</p> <p>“Moreover, in this shoe upper, the crossing thread is interknitted in dot form to be bound into the inner and outer knit fabric layers rather than a face-to-face bonding with an adhesive adopted in the conventional resin foam layer, which enables a interlaminar movement and causes no significant resistance to bending and pressing. Therefore, this shoe upper is not coarse to the touch and is advantageous in enhancing the effect of alleviating a sense of oppression and a sense of fatigue.” Shiomura, 1:62-2:3.</p> <p>“As shown in FIGS. 3 and 4, the shoe upper 1 comprises an outer knit fabric layer 4, an inner knit fabric layer 5 provided parallel to the outer knit fabric layer 4 through a space 6, and a number of crossing threads 7 which cross the space 6. The outer knit fabric layer 4 is knitted from a yarn 41 while the inner knit fabric layer 5 is knitted from a yarn 42. The crossing threads 7 are interknitted to be bound into the outer and inner knit fabric layers 4, 5.” Shiomura, 2:27-35; FIG. 1; FIGS. 2-4 (reproduced below); <i>see also</i> 2:20-22; 2:45-54.</p>

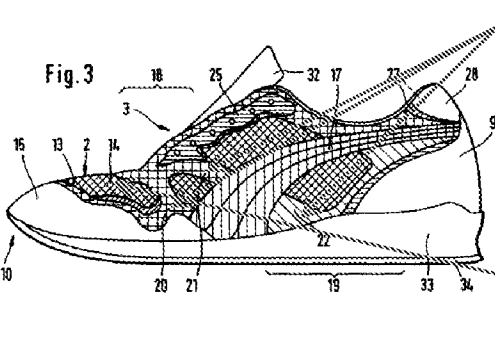
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>outer knit fabric layer 4 forms an exterior surface of the shoe upper 1.</p> <p>inner knit fabric layer 5 forms an interior surface of the shoe upper 1.</p> </div> </div> <p><i>“Areas 20, 21 and 22 . . . can be woven or knitted in two or more layers or can be especially thick or additionally embroidered.” Nishida, 3:59-4:1 (emphasis added); see also Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</i></p>
<p>[14E] a sole structure secured to the upper.</p>	<p>Nishida describes “stitching parts of the layout of the cut-out unit on provided seams to form an upper of the shoe shaped part . . .” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; <i>see also</i> Abstract, 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 
<p>[15] The article of footwear recited in claim 14, wherein the first stitch configuration provides a substantially smooth texture</p>	<p>See Appendix A, claim [14C].</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally,</p>

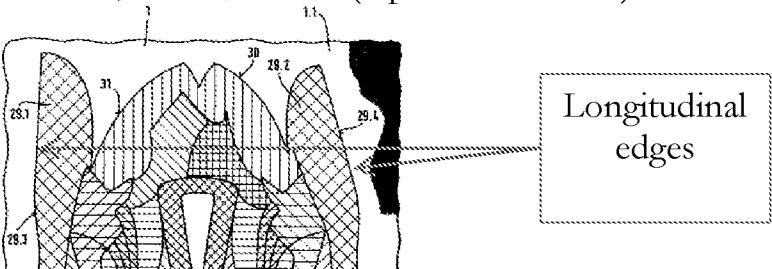
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
to the first area, and the second stitch configuration provides a texture to the second area that is rougher than the smoother texture.	<p><i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p>
[16] The article of footwear recited in claim 15, wherein the second stitch configuration forms a rib structure in the second area.	<p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility,</i> wear resistance and appearance.” Nishida, 6:1-31(emphasis added); <i>see also</i> 5:63-6:2.</p>
[17] The article of footwear recited in claim 14, wherein at least one of the first stitch configuration and the second stitch configuration forms an aperture in the circular-knitted textile element.	<p>Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. <i>See</i> Nishida, FIGS. 1-5.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. <i>For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added); <i>see also</i> 3:66-4:5; 6:25-31.</p> <p>Nishida also describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Nishida explains that “the lacing areas 23 and 24 <i>can be made dimensionally stable</i> in corresponding manners, especially <i>if, for example, no additional</i></p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<i>trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.” Nishida, 4:1-5 (emphasis added); see also 4:31-38.</i>
[18] The article of footwear recited in claim 1, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.	See Appendix A, claim [14D].
[19] The article of footwear recited in claim 14, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.	<p>See Appendix A, claim [14D].</p> <p>Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).</p> <div data-bbox="467 842 1414 1188">  <div data-bbox="959 842 1414 1188"> <p>Areas 20, 21, 22 of the layout 2 shown in the exterior view of the upper 3.</p> <p>Toe area 14 of the layout 2 shown in the exterior view of the upper 3.</p> </div> </div>
[20] The article of footwear recited in claim 14, wherein the circular-knitted textile element forms an interior surface of the upper.	See Appendix A, claim [14D].
[1A] An article of footwear comprising:	See Appendix A, claim [14A].
[1B.1] an upper incorporating a circular knitted textile element . . .	See Appendix A, claim [14B].
[1B.2] . . . having a plurality of knit constructions	See Appendix A, claim [14C].

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>[1C] the circular-knitted textile element being removed from a circular-knitted textile structure, and</p>	<p>“The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i>. As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired.” Reed, 3:12-19 (emphasis added). “As indicated previously, once the knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed [sic] by cutting along the outline</i> formed by the interconnecting stitches represented by the X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p> <p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>
<p>[1D] further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and</p>	<p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; FIG. 4 (reproduced below).</p> 

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
	<p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; <i>see also</i> 4:22-30; 6:5-41; FIGS. 3-4.</p>
[1E] a sole structure secured to the upper.	See Appendix A, claim [14E].
[8] The article of footwear recited in claim 1, wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer.	See Appendix A, claim [14D].

Document Description: Information Disclosure Statement filed

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

37 CFR 1.501 INFORMATION DISCLOSURE CITATION IN A PATENT (Sheet <u>1</u> of <u>1</u>)			Docket Number (Optional)		Patent Number 8,042,288		
			Applicant Bhupesh Dua and Edward Nathaniel Thomas				
			Issue Date October 25, 2011		Art Unit		
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	3985003	10/76	ALFRED REED	66	196	05/01/1975	
	5345638	09/94	MAMORA NISHIDA	12	146	06/23/1993	
	4785558	11/88	KAZUHIKO SHIOMURA	36	114	07/22/1987	
	6779369	08/04	ADRIAN SHEPHERD	66	196	07/31/2003	
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		David J. Spencer, "Knitting Technology," 1989 and 2001, Woodhead Publishing Limited, pp. 1-413					
EXAMINER		DATE CONSIDERED					

This collection of information is required by 37 CFR 1.501. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner

v.

Nike, Inc.
Patent Owner

Patent No. 8,042,288
Filing Date: September 10, 2010
Issue Date: October 25, 2011
Title: ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER

Inter Partes Review No. Unassigned

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ.***

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	MANDATORY NOTICES	1
	A. Real Party in Interest	1
	B. Related Matters.....	1
	C. Fee	2
	D. Designation of Lead Counsel and Request for Authorization	2
	E. Service Information	3
	F. Power of Attorney	3
	G. Standing.....	3
III.	THE ‘288 PATENT	3
	A. Priority Date of the ‘288 Patent.....	3
	B. Brief Description of the ‘288 Patent and Summary of the Prosecution History	4
IV.	CLAIM CONSTRUCTION	5
	A. “the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction” (claim 36).....	6
	B. “wide-tube circular knitting machine” (claim 30)	6
V.	STATEMENT OF RELIEF REQUESTED.....	7
VI.	PERSON OF ORDINARY SKILL IN THE ART AT THE TIME OF THE ‘288 PATENT	8
VII.	CLAIM-BY-CLAIM EXPLANATION OF GROUNDS.....	8
	A. Ground 1: Obviousness of Claims 1-7, 9-13, and 21-38 in View of Reed and Nishida.....	9

1.	Reed (Ex. 1006)	9
2.	Nishida (Ex. 1007)	11
3.	The Combination of Reed and Nishida.....	11
4.	Claim-by-Claim Analysis	13
i.	Independent Claim 1.....	13
ii.	Dependent Claim 2	22
iii.	Dependent Claims 3 and 31.....	23
iv.	Dependent Claims 4 and 32.....	23
v.	Dependent Claim 5	24
vi.	Dependent Claims 6, 22, and 33	24
vii.	Dependent Claims 7, 26, 34, and 38.....	25
viii.	Dependent Claims 9 and 27.....	27
ix.	Dependent Claims 10, 11, 12.....	28
x.	Dependent Claims 13 and 35	29
xi.	Independent Claim 21	30
xii.	Dependent Claim 23	31
xiii.	Dependent Claims 24 and 25	33
xiv.	Dependent Claim 28	34
xv.	Independent Claim 29	36
xvi.	Dependent Claim 30	38
xvii.	Independent Claim 36	39
xviii.	Dependent Claim 37	44
B.	Ground 2: Anticipation of Claims 36-38 in View of Nishida.....	44
1.	Nishida (Ex. 1007)	44
2.	Claim-by-Claim Analysis	44
i.	Independent Claim 36	44
ii.	Dependent Claim 37	45
iii.	Dependent Claim 38	46
VIII.	EVEN IF CONSIDERED, SECONDARY CONSIDERATIONS FAIL TO OVERCOME THE EVIDENCE OF OBVIOUSNESS	46
IX.	THE PROPOSED REJECTIONS RAISE NEW ISSUES IN WHICH PETITIONER WILL LIKELY PREVAIL	48

LIST OF EXHIBITS

PETITIONER EXHIBIT	DESCRIPTION
1001	U.S. Patent No. 8,042,288 (“the ‘288 patent”)
1002	File History for U.S. Patent No. 8,042,288 (“‘288 file history”)
1003	Declaration of Lenny Holden (“Holden Decl.”)
1004	C.V. for Lenny Holden
1005	Form PTO-SB/42
1006	U.S. Patent No. 3,985,003 to Reed (“Reed”)
1007	U.S. Patent No. 5,345,638 to Nishida (“Nishida”)
1008	Paul Burall, “CoID Design Awards,” Design, June 1969, pp. 46-47 (“Burall”)
1009	ISO 8117:2003(E) Textile machinery - Knitting machines - Nominal diameters of circular machines (“ISO 8117”)
1010	David J. Spencer, Knitting Technology: A Comprehensive Handbook and Practical Guide (Third Ed., Woodhead Publishing Ltd. 2001) (“Spencer”)

I. INTRODUCTION

Through counsel, real party in interest adidas AG (“Petitioner”) hereby petitions for initiation of *inter partes* review of claims 1-7, 9-13, and 21-38 of U.S. Patent No. 8,042,288 (“the ‘288 patent”), assigned to Nike, Inc. (“Patent Owner”). A copy of the ‘288 patent is attached as Exhibit 1001, and a copy of the prosecution history of the ‘288 patent is attached as Exhibit 1002.

II. MANDATORY NOTICES

A. Real Party in Interest

Petitioner, adidas AG, the ultimate parent of adidas International B.V., adidas North America, Inc., adidas America, Inc., and adidas International, Inc., is the real party-in-interest for the instant petition.

B. Related Matters

The ‘288 patent is a continuation application of U.S. Patent No. 7,814,598, which is a divisional application of U.S. Patent No. 7,347,011 (“the ‘011 patent”). U.S. Patent No. 8,266,749 is a continuation application of the ‘288 patent.

The Board instituted *inter partes* review of claims 1-46 of the ‘011 patent (IPR2013-00067), and Nike requested cancellation of claims 1-46 and proposed substitute claims 47-50. The Board granted the motion to cancel, but denied the motion as to the substitute claims. Nike appealed the Board’s decision to the Federal Circuit (Case No. 2014-1719). The Federal Circuit issued a decision on February 11, 2016, which affirmed-in-part, vacated-in-part, and remanded the case to the Board for

further proceedings on secondary consideration and patentability of dependent claim 49.

The Board instituted *inter partes* review of claims 1-13 of the ‘598 patent (IPR2016-00921), and instituted *inter partes* review of claims 1-9, 11-19, and 21 of the ‘749 patent (IPR2016-00922).

C. Fee

This petition for *inter partes* review of 30 claims of the ‘288 patent is accompanied by a fee payment of \$31,000 which includes the \$11,000 *inter partes* review request fee and the \$20,000 *inter partes* review post-institution fee. *See* 37 C.F.R. § 312(a)(1) and 37 C.F.R. § 42.15(a) and 42.103. Petitioner further authorizes a debit from Deposit Account 20-1430 for whatever additional payment is necessary in granting this petition.

D. Designation of Lead Counsel and Request for Authorization

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 mstockwell@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 815 6214	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 vkadaba@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 532 6959 Tiffany L. Williams Reg. No. 59,549 tiwilliams@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE, Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
--	--

E. Service Information

As identified in the attached Certificate of Service, a copy of the present petition, in its entirety, is being served to the address of the attorney or agent of record. Petitioner, adidas AG, may be served at its counsel, Kilpatrick Townsend & Stockton LLP, at the e-mail addresses indicated above.

F. Power of Attorney

A power of attorney with the designation of counsel is filed herewith in accordance with 37 C.F.R. § 42.10(b).

G. Standing

Petitioner certifies that the '288 patent is eligible for *inter partes* review and further certifies that Petitioner is not barred or otherwise estopped from requesting *inter partes* review challenging the identified claims on the grounds identified herein.

III. THE '288 PATENT

A. Priority Date of the '288 Patent

The '288 patent issued on October 25, 2011 from Application No. 12/879,517 ("the '517 application"), filed on September 10, 2010. The '288 patent purports to be a continuation of Application No. 12/032,995, filed on February 18, 2008, now U.S. Patent No. 7,814,598 ("the '598 patent"). The '598 patent purports to be a division of Application No. 10/791,289, filed on March 3, 2004, now U.S. Patent No. 7,347,011. Thus, the earliest possible effective filing date for purposes of 35 U.S.C. §§ 102(a) and 102(b) is March 3, 2004.

B. Brief Description of the ‘288 Patent and Summary of the Prosecution History

The ‘288 patent relates to an article of footwear having a textile upper. (Ex. 1001, 1:19-22.) The ‘288 patent specifically teaches that the upper incorporates a textile element, which may be formed with a knitting machine. (*Id.*, 3:27-29.)

The ‘517 application was filed on September 10, 2010, with claims 1-39. Original claims 1, 14, 22, 30, and 37 were directed to an article of footwear.

The PTO issued a first Office Action on the merits, rejecting claims 1-39 on the ground of nonstatutory double patenting over claims 1-46 of the ‘011 patent, and indicated that claims 1-39 would be allowed subject to the filing of a Proper Terminal Disclaimer over claims 1-46 of the ‘011 patent. (Ex. 1002, 3/4/2011 Office Action, pp. 2-3.) Applicants responded by submitting the necessary Terminal Disclaimer. (Ex. 1002, 3/25/2011 Response.)

The PTO then issued a non-final rejection of claims 1, 2, 7, 9-18, 20, 21, 30, 31, and 35-39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,701,458 to Ducharme (“Ducharme”), and of claims 8 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Ducharme in view of U.S. Patent No. 6,558,784 to Norton (“Norton”). (Ex. 1002, 4/4/2011 Office Action, pp. 2-3.) The Examiner indicated that claims 3-6 and 32-34 were allowable and that claims 22-29 were allowed. (*Id.*, at 3.)

Applicants responded by amending claims 1 and 30 to recite “longitudinal”

edges; amending claim 14 to recite that “the upper includes an exterior layer, an intermediate layer, and an interior layer, and the circular-knitted textile element forms at least a portion of the interior layer;” and amending claim 37 to recite the knitted textile element “further having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper.” (Ex. 1002, 5/16/2011 Response, pp. 2-9.) Applicants asserted that Ducharme lacks a longitudinal seam and that neither Ducharme nor Norton discloses that the circular-knitted textile element forms at least a portion of the interior layer. (*Id.*, at 11-12.)

The Examiner then allowed claims 1-18 and 20-39, now renumbered as claims 1-38. (Ex. 1002, 6/24/2011 Notice of Allowance.) Applicants transmitted the issue fee payment on September 22, 2011, and the ‘288 patent issued on October 25, 2011. (Ex. 1002, 9/22/2011 Issue Fee Payment.)

IV. CLAIM CONSTRUCTION

A claim subject to *inter partes* review (“IPR”) is given its “broadest reasonable construction [“BRI”] in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). The words of the claim are, thus, given their plain meaning unless that meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). Petitioner submits, for the purposes of the IPR only, that the claim terms are presumed to take on their broadest reasonable interpretation in view of the specification of the ‘288 patent.

A. “the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction” (claim 36)

Claim 36 recites “the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction.” As part of the IPR proceedings for the ‘011 patent, the Board construed this phrase to mean “two textile element areas, each having a unitary construction, but which areas may possess different structures, e.g., knit constructions or stitch configurations, resulting in different properties.” *adidas AG v. Nike, Inc.*, No. IPR2013-00067, Paper No. 18, at pp. 16-17, 2013 WL 8595550, at *8 (PTAB May 17, 2013). Because the ‘288 patent shares a common specification with the ‘011 patent and is a continuation of a division thereof, Petitioner requests that the Board construe the phrase in claim 36 to have the same meaning as its prior construction.

B. “wide-tube circular knitting machine” (claim 30)

Under the BRI standard, “wide-tube circular knitting machine” should be construed as: “a circular knitting machine with a nominal diameter of 7 inches or larger.” The ‘288 patent uses “wide-tube circular knitting machine” to describe a Santoni S.p.A. wide-tube circular knitting machine having a diameter that ranges from 10 inches to 20 inches (7:15-21), but provides no other definition or explanation for what is meant by “wide-tube circular knitting machine.” The use of “wide-tube circular knitting machine” in the ‘288 patent is consistent with ISO 8117 (Ex. 1009),

an international knitting standard from 2003, which specifies that any circular knitting machine with a nominal diameter of 178 mm (7 inches) or larger is categorized as a large (or wide-tube) circular knitting machine. (Ex. 1003, ¶93.)

Petitioner submits that the remaining claim terms should be accorded their ordinary and customary meaning as understood by one of ordinary skill in the art. *See* 77 Fed. Reg. 48700 (2012). Any claim constructions presented either implicitly or explicitly in this proceeding should not be viewed as a concession as to the proper scope of any claim term in any future litigation proceeding.

V. STATEMENT OF RELIEF REQUESTED

Pursuant to 37 C.F.R. § 42.104(b), Petitioner respectfully requests cancellation of claims 1-7, 9-13, and 21-38 based on the following grounds:

Ground	35 U.S.C.	Claims	References
1	103(a)	1-7, 9-13, 21-38	Reed and Nishida
2	102(b)	36-38	Nishida

Below is a discussion of why the challenged claims of the ‘288 patent are unpatentable under the statutory grounds raised, including claim charts specifying where each element of a challenged claim is met by the prior art. 37 C.F.R.

§ 42.104(b)(4). The showing in these sections establishes a reasonable likelihood of prevailing as to each ground of invalidity with respect to the challenged claims as to that ground. This showing is supported by the Declaration of Lenny Holden (“Holden Decl.”) (Ex. 1003).

VI. PERSON OF ORDINARY SKILL IN THE ART AT THE TIME OF THE '288 PATENT

A person of ordinary skill in the art (“POSA”) for the ‘288 patent would have at least a few years of experience in the footwear industry, possibly with a focus in one specific area (such as merchandising, design, product development, commercialization, and/or manufacturing), but would also have a broader understanding of shoemaking in general, as all aspects are so interdependent on each other. A POSA would have an understanding of the product cycle for the process of designing, developing, and bringing a new product to market. He or she would also understand that there are some key review milestones where upper material designs are reviewed and considered, such as textiles, leathers, synthetics, or other types of materials used for upper construction. The POSA would have some understanding and knowledge of the available and varied ranges of typical construction methods within a product cycle. In addition, a POSA would have a basic knowledge of the functional requirements of footwear and a comprehensive understanding of the range of material choices, as well as construction techniques and processes used to create the various parts of a shoe and to assemble them in an effective manner. (Ex. 1003, ¶34.)

VII. CLAIM-BY-CLAIM EXPLANATION OF GROUNDS

As detailed in the claim charts below, all limitations of claims 1-7, 9-13, and 21-38 of the ‘288 patent were well-known in the prior art. The various identified prior

art references were not relied on by the Examiner during prosecution of the ‘288 patent. The ‘288 patent claims merely recite the combination of “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C).

Accordingly, those claims were obvious to skilled artisans.

A. Ground 1: Obviousness of Claims 1-7, 9-13, and 21-38 in View of Reed and Nishida

1. Reed (Ex. 1006)

Reed (Ex. 1006) issued on October 12, 1976, before the March 3, 2004 earliest possible priority date claimed by the ‘288 patent. Reed, thus, is prior art under at least 35 U.S.C. § 102(b). Reed was not cited during prosecution of the ‘288 patent and explicitly describes features of claims 1-7, 9-13, and 21-38 of the ‘288 patent.

Reed describes using a circular-knitting machine to knit multiple textile elements unitarily with a surrounding textile structure, the textile elements located in different portions of the textile structure, the textile elements also having multiple layers at least partially joined by interconnecting stitches; removing the knitted textile element(s) from the textile structure; and incorporating the textile element(s) into any type of garment worn by men, women, and children, including stockings and hosiery. (Ex. 1003 ¶¶87, 89-90, 94-95, 100, 120-121.)

Reed explains that the use of circular knitting machines in the garment industry

was historically limited to making tubular, knitted garments, such as ladies stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. (Ex. 1003, ¶¶66, 89.)

Although Reed recognized that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. (Ex. 1003, ¶¶66, 89.)

With the advent in computerized programming for knit machines beginning in the 1970s, however, “an era of unlimited pattern potential began.” (Ex. 1006, 1:45-48; Ex. 1003, ¶¶67, 90.) “Computer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” (Ex. 1006, 1:50-55; Ex. 1003, ¶¶67, 90.) Reed explains that the present invention uses “an electronic circular double knitting machine” and an “object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” (Ex. 1006, 1:58-59; 2:23-25; FIGS. 1-6; Ex. 1003, ¶¶90.)

2. Nishida (Ex. 1007)

Nishida (Ex. 1007) issued on September 13, 1994, before the March 3, 2004 earliest possible priority date claimed by the '288 patent. Nishida, thus, is prior art under at least 35 U.S.C. § 102(b). Nishida was never applied or discussed by the Examiner, although it was disclosed during prosecution of the '288 patent. Nishida explicitly describes features of claims 1-7, 9-13, and 21-38 of the '288 patent. Nishida describes an article of footwear, which includes, among other things: an upper incorporating a knitted textile element formed unitarily with a surrounding knitted textile structure, the knitted textile element optionally having two or more knitted layers; the knitted textile element being removed from the knitted textile structure; and a sole structure secured to the upper formed from the knitted textile element. (Ex. 1003, ¶¶88, 91-92, 96-99, 101, 118, 122.)

3. The Combination of Reed and Nishida

Reed's explicit statement that "[t]he present invention may be used to form all types of garments worn by men, women and children" (Ex. 1006, 5:56-57) in combination with Reed's explicit reference to the fact that footwear items, such as stockings, were conventionally knit with circular knitting machines (Ex. 1006, 1:33-44), would have suggested to a POSA at least as of March 3, 2004, that Reed's process could be used to form all types of articles of clothing including footwear, particularly since clothing is understood to refer to all things that people wear to cover their bodies. (Ex. 1003, ¶138.) Specifically, the POSA would have understood Reed's

reference to “all types of garments” to include footwear, as well as tops, pants, shorts, skirts, dresses, suits, outerwear, underwear, headwear, nightwear, swimwear, and accessories. (Ex. 1003, ¶138.)

By March 3, 2004, routine acceptance of computerized knitting technology and Reed’s encouragement to apply such to all garments, would have motivated the POSA to use Reed’s process to form textile elements that are then used to form articles of footwear including shoe uppers as further described in Nishida, as such a design choice would have been predictable and well known to a POSA. (Ex. 1003, ¶139.)

The POSA would have found Nishida’s process of producing textile elements to be analogous art to Reed’s process, as both are directed to methods of simultaneously forming textile elements within a surrounding textile structure using programmable and/or computerized single needle selection technology, removing the textile elements, and incorporating the textile elements into a wearable item. (Ex. 1003, ¶140.) Nishida, which is directed specifically to shoe uppers, explains that the textile elements could be produced by any type of conventional knitting technique. (Ex. 1003, ¶142.)

Additionally, Reed and Nishida are both directed to reducing costs associated with producing textile elements using the latest advances in knitting technology. (Ex. 1003, ¶141-142.)

Nishida states that “[i]t is of further advantage in the process according to the present invention that the individual patterns or partial patterns already can be

produced ***directly*** in the production of the web of material in the desired shoe size, by which the cutting waste can be still further limited, since the individual patterns or partial patterns in the provided size can directly adjoin one another.” (Ex. 1007, 2:27-33 (emphasis added); Ex. 1003, ¶142.)

In view of the substantial similarities between the methods described in Reed and Nishida, along with a shared interest in reducing costs and waste, as well as a focus on simplifying the manufacturing process, a POSA would certainly have been motivated to modify Reed’s method to include the additional features described by Nishida to produce a textile element for use in a shoe upper, as well as to produce a shoe incorporating such a textile element, as this is nothing more than combining “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C); Ex. 1003, ¶143-144.) This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

4. Claim-by-Claim Analysis

i. Independent Claim 1

The following explanation and charts below show how Reed and Nishida disclose all of the limitations of claim 1, and thus render claim 1 obvious.

Element [1A]: Reed describes that “[s]till another object is to provide a

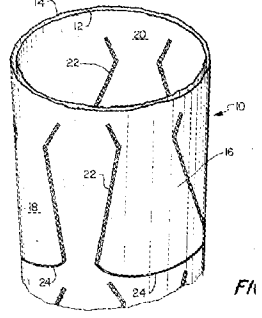
method for producing a plurality of garments formed about the circumference of a knitted tube.” (Ex. 1006, 2:29-31; Ex. 1003, ¶87.) Reed goes on to state that “[t]he present invention may be used to form all types of garments worn by men, women and children” (Ex. 1006, 5:56-57; Ex. 1003, ¶87.) Such garments include footwear, such as stockings. (Ex. 1003, ¶87.)

Nishida explicitly describes “a process for the production of a shoe shaped part” (Ex. 1007, 1:10-11; Ex. 1003, ¶88.) In view of the reasons that the POSA would combine Reed and Nishida discussed in Section VII.A.3 above, it would have been obvious to use Reed’s process to produce footwear garments, as described in Nishida.

CLAIM	GROUND 1
[1A] An article of footwear comprising:	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. “Circular knitting machines have been used to make tubular, knitted garments, such as ladies' stockings, sweaters and other garments.” Reed, 1:33-35.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3.</p>

Element [1B.1]: Reed describes that the textile element is circular-knitted. (Ex. 1003, ¶89-90.) To the extent that Reed does not explicitly state that the circular-knitted textile element can be used to form an upper for an article of footwear, Nishida describes using conventional textile processes, such as weaving and/or

knitting and/or embroidering, and program-controlled web of material production devices to form a textile structure with a single or a plurality of textile elements in the shape of a shoe upper. (Ex. 1003, ¶¶91-92.) The POSA would have understood that circular knitting is a conventional textile process. (Ex. 1003, ¶¶91.)

CLAIM	GROUND 1
<p>[1B.1] an upper incorporating a circular-knitted textile element . . .</p>	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 2:23-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6. “The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added); FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p>  <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p>

CLAIM	GROUND 1
	(emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

Element [1B.2]: Reed describes these features in two different ways:

First, Reed describes that the edges of the garments 16, 18, 20 are formed by interknitted stitches, whereas the remainder of the garments 16, 18, 20 are formed by non-interknitted stitches. (Ex. 1003, ¶106.) Because the interknitted stitches are part of the garments 16, 18, 20, and the garments 16, 18, 20 also comprise areas that are only formed as part of the outside tube 14 or the inner tube 12, the garments 16, 18, 20 have a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type. (Ex. 1003, ¶107.)

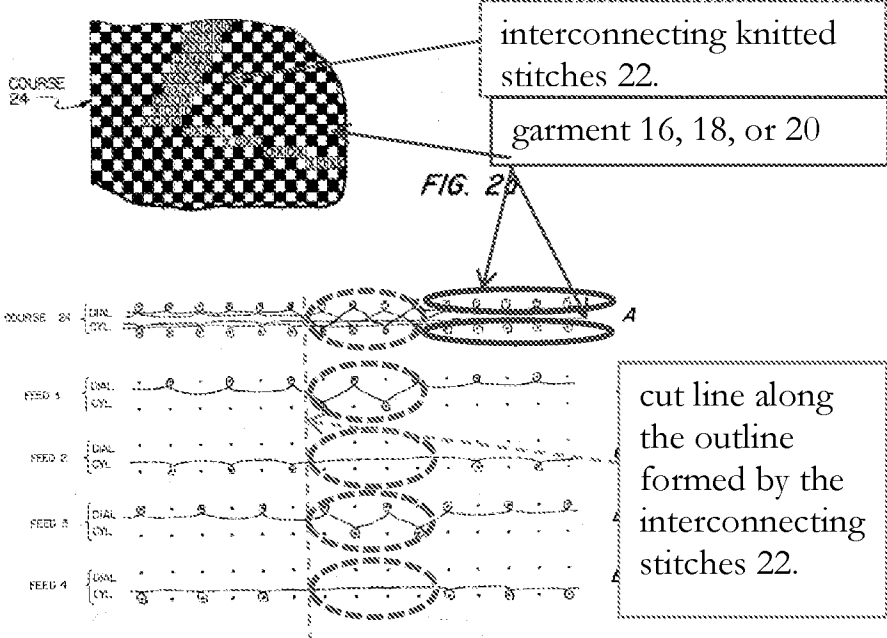
Second, Reed also goes on to describe how the two layers 12, 14 themselves may be formed of different yarns or stitch configurations. (Ex. 1003, ¶108.) “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the *outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining.* . . . Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where *the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.*” (Ex. 1006, 3:61-4:9 (emphasis added); Ex. 1003, ¶108.)

To the extent that Reed does not explicitly state that these features are present

in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida describes that “in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, **areas 26 and 27 are produced in a configuration**, color or style **that is different from the other areas.**” (Ex. 1007, 4:6-9 (emphasis added); Ex. 1003, ¶109-112.) Nishida further states that “[l]ayout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” (Ex. 1007, 3:15-25; Ex. 1003, ¶112.) The result is a textile element in the form of a shoe upper with multiple knit constructions.

Nishida goes on to describe that these varying properties may include at least one of the properties of absorptivity, **air permeability, softness, extensibility**, wear resistance and appearance.” (Ex. 1007, 6:1-31 (emphasis added); Ex. 1003, ¶111-112.)

CLAIM	GROUND 1
[1B.2] . . . having a plurality of knit constructions,	“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2. ” Reed, 5:3-18 (emphasis added);

CLAIM	GROUND 1
	<p>FIGS. 3A-3E.</p> <p>“[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X’s and O’s.” Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p> <div data-bbox="462 531 1344 1165">  <p>interconnecting knitted stitches 22.</p> <p>garment 16, 18, or 20</p> <p>FIG. 2A</p> <p>cut line along the outline formed by the interconnecting stitches 22.</p> </div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, <i>the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining.</i> By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where <i>the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.</i>” Reed, 3:61-4:9 (emphasis added).</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with</p>

CLAIM	GROUND 1
	<p>layout 2 on the web of material 1, <i>areas 26 and 27 are produced in a configuration, color or style that is different from the other areas.</i> Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the color <i>can be selected almost at will.</i>” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i>, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p> <p>“Layout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with</p>

CLAIM	GROUND 1
	plastic fibers or the like . . .” Nishida , 3:15-25.

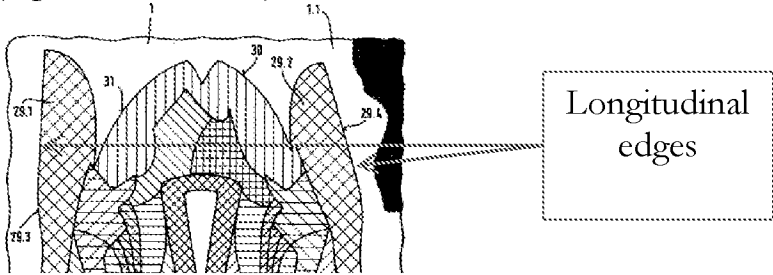
Element [1C]: Reed describes how the textile elements are removed from the cylindrical textile structure. (Ex. 1003, ¶100.) “As can be seen, the knitted structure 10 includes (around its circumference) *a plurality of finished garments which need only be severed from the structure 10* and turned inside out if a hidden seam is desired.” (Ex. 1006, 3:12-19 (emphasis added); Ex. 1003, ¶100.)

To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that the “process for the production of a shoe shaped part [involves] using a web of material with a plurality of patterns in the form of the layout of a shoe upper, *cutting out these layouts from the web of material* and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” (Ex. 1007, 1:10-18 (emphasis added); Ex. 1003, ¶101.)

CLAIM	GROUND 1
[1C] the circular-knitted textile element being removed from a circular-knitted textile structure, and	“The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i> . As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired.” Reed , 3:12-19 (emphasis added). “As indicated previously, once the knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed [sic] by cutting along the outline</i> formed by the interconnecting stitches represented by the

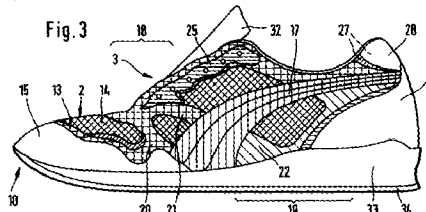
CLAIM	GROUND 1
	<p>X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p> <p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>

Element [1D]: Nishida describes longitudinal edges that are joined together to define at least a portion of a void for receiving a foot. (Ex. 1003, ¶113-114.)

<p>[1D] further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and</p>	<p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; FIG. 4 (reproduced below).</p>  <p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein</p>
---	--

	outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; see also 4:22-30; 6:5-41; FIGS. 3-4.
--	---

Element [1E]: Nishida describes forming the layout into an upper of a shoe shaped part, after which a midsole and an outsole are attached to the upper. (Ex. 1003, ¶118.)

CLAIM	GROUND 1
[1E] a sole structure secured to the upper.	<p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part</i>” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; see also Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 

ii. Dependent Claim 2

The following explanation and chart below describes how Nishida discloses the feature of claim 2, and thus renders claim 2 obvious in view of the teachings of Reed regarding circular knitted textile elements. Nishida describes that the textile element forms a portion of a lateral side, a medial side, and an instep region of the shoe upper. (Ex. 1007, 3:15-18; 3:27-42 (describing that parts of the layout forms a heel region and a toe region); 3:59-4:9 (describing that parts of the layout form the heel region and lacing areas); 5:3-8 (describing that parts of the layout form a sole region); FIGS. 1-5; Ex. 1003, ¶119.)

CLAIM	GROUND 1
[2] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of a lateral side, a medial side, and an instep region of the upper.	“The individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, areas 5 and 6 are provided for applying <i>an inside or outside heel counter 9</i> (FIG. 3).” Nishida , 3:27-31 (emphasis added). “To reduce wear, a toe cap 15, represented in FIG. 3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of <i>toe area 14</i> .” Nishida , 3:39-42 (emphasis added). “Areas 20, 21 and 22, identified in FIG. 3, <i>running from instep area 18 to heel area 19</i>” Nishida , 3:59-60 (emphasis added). <i>See also</i> Nishida , 3:15-4:46; 3:59-4:9; 5:3-8; FIGS. 1-5.

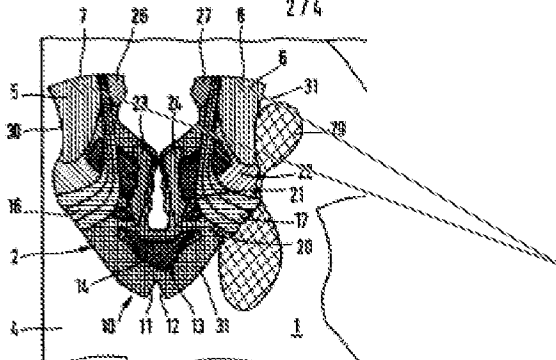
iii. Dependent Claims 3 and 31

Claims 3 and 31 recite that “a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper,” which is similar to element [1D]. Section VII.A.4.i above (with respect to element [1D]) describes how Nishida discloses this feature, and thus renders claims 3 and 31 obvious.

iv. Dependent Claims 4 and 32

The following explanation and chart below describe how Nishida discloses the features of claims 4 and 32, and thus renders claims 4 and 32 obvious. Nishida discloses joining a second pair of edges as part of converting the layout into a shoe upper, in which the joined edges form a second seam that extends vertically along a heel region of the upper. (Ex. 1003, ¶115.)

CLAIM	GROUND 1
[4] The article of footwear recited in claim 3, wherein the edges include a pair of second edges that	“After cutting out layout 2 from the web of material 1, the edges 7 and 8 are stitched together and a <i>heel seam</i> thus is formed. Then, heel counter 9, represented in FIG. 3, is applied, for example, glued and/or stitched, to adjacent areas 5 and 6.” Nishida , 3:31-36; <i>see also</i> 4:9-11; 6:5-41; FIG. 2 (a portion of

CLAIM	GROUND 1
are joined to form a second seam extending along a heel region of the upper.	<p>which is reproduced below), FIG. 4.</p> 

v. Dependent Claim 5

Claim 5 recites that the “second seam extends vertically,” Section VII.A.4.i above (with respect to claims 4 and 32) describes how Nishida discloses this feature, and thus renders claim 5 obvious.

vi. Dependent Claims 6, 22, and 33

Claims 6 and 33 recite that “the edges include at least a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper.”

Claim 22 similarly recites that the “footwear includes a third seam extending through the forefoot area of the upper.” The following explanation and chart below show how Nishida discloses this feature, and thus renders claims 6, 22, and 33 obvious.

Nishida discloses joining a third pair of edges as part of converting the layout into a shoe upper, in which the joined edges form a third seam that extends through a forefoot area of the upper. (Ex. 1003, ¶116-117.)

CLAIM	GROUND 1
[6] The article of footwear recited in claim 4, wherein	<p>“Correspondingly, the contours of <i>edges 11 and 12 are stitched together in the form of shoe toe 10</i>, and a seam is formed on the shoe toe. To reduce wear, a toe cap 15, represented in FIG.</p>

CLAIM	GROUND 1
<p>the edges include at least a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper.</p>	<p>3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of toe area 14.” Nishida, 3:37-42 (emphasis added).</p> <p>“According to an advantageous further development of the invention, an individual part 29 in the form of an insole can be co-produced on layout 2 of shoe upper 3. After being cut out, this individual part 29 remains connected with layout 2, and after or during the shaping and fixing of shoe upper 3 from layout 2, <i>part 29 is folded into the plane of the shoe sole and is fastened to the lower edge zone of the shoe upper 3. This lower edge zone is defined in layout 2 by outside contours 30 and 31,</i> and the manner of its fastening can be, in a way known in the art, for example, by gluing, stitching, tacking or the like.” Nishida, 4:19-30 (emphasis added); FIG. 4; <i>see also</i> 6:5-41; FIGS. 2, 4.</p>

vii. Dependent Claims 7, 26, 34, and 38

The following explanation and chart below describe how Reed and Nishida disclose the feature of claims 7, 26, 34, and 38, and thus render claims 7, 26, 34, and 38 obvious.

Reed describes using his circular knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. (Ex. 1003, ¶120.) Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric ***wherein the inner tube 12 may be formed of a material such as lining.*** By simultaneously knitting and

interknitting the two layers, a step is saved by producing a section of garment which is prelined.” (Ex. 1006, 3:61-68 (emphasis added); Ex. 1003, ¶121.)

Furthermore, Nishida similarly states that “[o]ptionally, in this case, the material can be woven or ***knitted in two or more layers*** or can be especially thick or additionally embroidered.” (Ex. 1007, 3:66-4:1 (emphasis added), FIG. 3; Ex. 1003, ¶122.)

To the extent that the claim language is construed to mean that the upper has three layers, and the circular-knitted textile is one of these layers, the POSA would understand that Nishida teaches three layers by describing “two or more layers,” which means an interior, intermediate, and exterior layer are all described. (Ex. 1003, ¶123.)

Thus, it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶124.) In the resulting upper, Reed’s circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper. (Ex. 1003, ¶124.)

[7] The article of footwear recited in claim 1, wherein the circular-knitted textile element is one of an exterior layer, an intermediate	“The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed , 3:8-12. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric <i>wherein the inner tube 12 may be formed of a material such as lining</i> . By
---	--

layer, and an interior layer of the upper.	<p><i>simultaneously knitting and interknitting the two layers</i>, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68; (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:20-24; 4:39-60; 4:68-5:2; 5:37-47; FIG. 1.</p> <p>“<i>Areas 20, 21 and 22 . . . can be woven or knitted in two or more layers</i> or can be especially thick or additionally embroidered.” Nishida, 3:59-4:1 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
--	---

viii. Dependent Claims 9 and 27

The following explanation and chart below describe how Reed and Nishida disclose the feature of claims 9 and 27, and thus render claims 9 and 27 obvious.

As discussed in Section VII.A.4.vii above regarding claims 7, 26, 34, and 38, it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶126.) In the resulting upper, Reed’s circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper. (Ex. 1003, ¶126.)

Nishida goes on to describe that additional elements may be attached to the exterior surface of the layouts 2 and therefore form a portion of the exterior surface of the upper. (Ex. 1003, ¶127.) Because these additional elements do not completely cover the entire exterior surface, other portions of the layouts 2 remain uncovered by the additional elements. (Ex. 1003, ¶127.) As a result, these uncovered portions of the circular-knitted textile element (such as areas 20, 21, 22, and toe area 14) form at

least a portion of the exterior surface of the upper. (Ex. 1003, ¶127.)

CLAIM	GROUND 1
[9] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.	<p>See Section VII.A.4.vii, claims 7, 26, 34, and 38.</p> <p>Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).</p>

ix. Dependent Claims 10, 11, 12

Claim 10 recites that “at least one additional element is secured to the exterior surface and forms a portion of the exterior surface.” Claim 11 adds “the additional element is secured to a forefoot area of the upper,” and claim 12 adds “the additional element is secured to a heel area of the upper.” The following explanation and chart below show how Nishida discloses these features, and thus renders claims 10, 11, and 12 obvious. Nishida describes that additional elements such as toe caps, heel counters, and/or lacing strips may be secured to the exterior surface of the upper and may form a portion of the exterior surface of the upper. (Ex. 1003, ¶132.) The toe caps may be secured to a forefoot area of the upper, and the heel counters may be secured to a heel area of the upper. (Ex. 1003, ¶132.)

CLAIM	GROUND 1
[10] The article	“The individual parts or areas of shoe upper 3 can be

<p>of footwear recited in claim 9, wherein at least one additional element is secured to the exterior surface and forms a portion of the exterior surface.</p>	<p>representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, <i>areas 5 and 6 are provided for applying</i> an inside or <i>outside heel counter 9</i> (FIG. 3).” Nishida, 3:27-29 (emphasis added).</p> <p>“To reduce wear, <i>a toe cap 15</i>, represented in FIG. 3, <i>can be applied</i>, especially glued and/or stitched, <i>on the front area</i>, adjacent to front edge 13 of <i>toe area 14</i>.” Nishida, 3:39-42 (emphasis added); <i>see also</i> Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3.</p> <div data-bbox="479 646 1031 934"> </div> <div data-bbox="1068 646 1443 961" style="border: 1px dashed black; padding: 5px;"> <p>Outside heel counter 9 is secured to “a heel area of the upper.” [Claim 12]</p> <p>Toe cap 15 is secured to “a forefoot area of the upper.” [Claim 11]</p> </div>
--	--

x. Dependent Claims 13 and 35

Claims 13 and 35 recite that “the circular-knitted textile element forms an interior surface of the upper.” The following explanation and chart below show how Reed and Nishida disclose this feature, and thus render claims 13 and 35 obvious.

As discussed in Section VII.A.4.vii above regarding claims 7, 26, 34, and 38, it would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶125.) In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the upper. (Ex. 1003, ¶125.)

CLAIM	GROUND 1
[13] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms an interior surface of the upper.	See Section VII.A.4.vii, claims 7, 26, 34, and 38.

xi. Independent Claim 21

The following explanation and charts below show how Reed and Nishida disclose all of the limitations of claim 21, and thus render claim 21 obvious.

Element [21A] recites “[a]n article of footwear comprising,” which is identical to element [1A]. Section VII.A.4.i above (with respect to element [1A]) describes how Reed and Nishida disclose this feature.

Element [21B.1] recites “an upper incorporating a circular-knitted textile element . . .,” which is identical to element [1B.1]. Section VII.A.4.i above (with respect to element [1B.1]) describes how Reed and Nishida disclose this feature.

Element [21B.2] recites “. . . having a plurality of knit constructions,” which is identical to element [1B.2]. Section VII.A.4.i above (with respect to element [1B.2]) describes how Reed and Nishida disclose this feature.

Element [21C] recites “further having edges that are joined together to form seams and define at least one portion of a void for receiving a foot ,” which is identical to element [1D] with the exception that element [21C] does not recite that the edges are “longitudinal” and adds that the edges are joined together to “form seams.” Section VII.A.4.i above (with respect to element [1D]) describes how Nishida discloses this feature.

Element [21D] recites “the seams including a first seam and a second seam, the first seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and the second seam extending vertically in the heel area” which is similar to element [1D], claim 4, and claim 5. Sections VII.A.4.i above (with respect to element [1D], VII.A.4.iv above (with respect to claim 4), and VII.A.4.v above (with respect to claim 5) describe how Nishida discloses this feature.

Element [21E] recites “a sole structure secured to the upper,” which is identical to element [1E]. Section VII.A.4.i above (with respect to element [1E]) describes how Reed and Nishida disclose this feature.

xii. Dependent Claim 23

The following explanation and chart below describe how Reed and Nishida disclose the feature of claim 23, and thus render claim 23 obvious.

The ‘288 patent describes apertures in one of three ways: (1) as an ankle opening (Ex. 1001, 6:25-26); (2) as openings formed by omitting stitches within the textile element in specific locations to facilitate air transfer through the upper (Ex. 1001, 9:47-54); and (3) as openings formed by omitting stitches within the textile element in specific locations, such as lace holes (Ex. 1001, 10:16-19; Ex. 1003, ¶133.)

With respect to the “ankle opening” aperture, Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. (Ex. 1003, ¶134.)

With respect to the “air-permeability” apertures, Nishida discloses that the

“type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a ***net-like woven or knitted structure***.” (Ex. 1007, 3:49-52 (emphasis added); Ex. 1003, ¶135.) As Mr. Holden explains, a POSA at least as of March 3, 2004, would have understood that a birds eye stitch configuration is a common technique for knitting a net-like knitted structure. (Ex. 1003, ¶135.) Birds eye stitch configurations include float stitches, which leave yarn floating freely on the reverse side of the held loop, thereby resulting in an aperture formed by omitting stitches in each location where a float stitch is applied, as evidenced by Spencer (Ex. 1010). (Ex. 1003, ¶135-136.)

With respect to the “lace hole” apertures, Nishida describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. (Ex. 1003, ¶137.) Nishida thus recognizes that (a) the lacing strips are optional and may not be applied; (b) that the net-like structure may itself then be used or (c) if no lacing strips are applied and the net-like structure is used, then the lacing areas can be further stabilized via an embroidery. (Ex. 1003, ¶137.) However, if the additional lacing strips and embroidery are not added, the textile element still includes the net-like structure in the lacing area. (Ex. 1003, ¶137.)

CLAIM	GROUND 1
[23] The article of footwear recited in claim 21, wherein at	Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. <i>See Nishida</i> , FIGS. 1-5.

CLAIM	GROUND 1
least one of the knit constructions forms an aperture in the circular-knitted textile element.	<p>“Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. <i>For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added); <i>see also</i> 3:66-4:5; 6:25-31.</p> <p>Nishida also describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Nishida explains that “the lacing areas 23 and 24 <i>can be made dimensionally stable</i> in corresponding manners, especially <i>if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.</i>” Nishida, 4:1-5 (emphasis added); <i>see also</i> 4:31-38.</p>

xiii. Dependent Claims 24 and 25

The following explanation and chart below describe how Nishida discloses the features of claims 24 and 25, and thus renders claims 24 and 25 obvious.

Section VII.A.4.i above (with respect to element [1B.1]) describes how Reed and Nishida disclose a circular-knitted textile element “having a plurality of knit constructions.” (Ex. 1003, ¶104-112.)

More specifically, Nishida goes on to describe that these varying properties may include at least one of the properties of absorptivity, ***air permeability***, ***softness***, ***extensibility***, wear resistance and appearance.” (Ex. 1007, 6:1-31 (emphasis added); Ex. 1003, ¶111-112.) Nishida also states that “[l]ayout 2 is divided into different

individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns” (Ex. 1007, 3:15-25; Ex. 1003, ¶112.)

CLAIM	GROUND 1
[24] The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying elasticity of the circular-knitted element.	See Section VII.A.4.i, claim [1B.1]. “Since, generally, toe area 14 is designed to be relatively deformably <i>soft</i> or <i>elastic</i> , and optionally, also <i>permeable to air</i> , the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i> ” Nishida , 3:43-52 (emphasis added).
[25] The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying air permeability of the circular-knitted textile element.	“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, <i>said weaving and knitting types being matched to differing requirements for materials</i> of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i> , wear resistance and appearance.” Nishida , 6:1-31(emphasis added); <i>see also</i> 5:63-6:2.

xiv. Dependent Claim 28

The following explanation and chart below describe how Reed and Nishida disclose the features of claim 28 and thus render claim 28 obvious.

As discussed in Section VII.A.4.vii above regarding claims 7, 26, 34, and 38, it

would have been obvious to the POSA at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. (Ex. 1003, ¶128.) In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the footwear. (Ex. 1003, ¶128.)

Nishida goes on to describe that additional elements such as toe caps, heel counters, and/or lacing strips may be attached to the exterior surface of the upper. (Ex. 1003, ¶129.) These additional elements therefore form an exterior surface of the upper. (Ex. 1003, ¶129.)

It was well-known to the POSA at least as of March 3, 2004, that toe caps, heel counters, and lacing strips may be formed from a textile material, such as leather or synthetic leather, as evidenced by the Background of the ‘228 patent. (Ex. 1003, ¶130.)

In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the upper, and at least one additional textile element (in the form of toe caps, heel counters, and lacing strips) forms an exterior surface of the footwear. (Ex. 1003, ¶131.)

CLAIM	GROUND 1
[28] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms an interior surface of the footwear, and at	<p>See Section VII.A.4.vii, claims 7, 26, 34, and 38.</p> <p>“The individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, areas 5 and 6 are provided for applying an inside or outside heel counter 9 (FIG. 3).” Nishida, 3:27-29 (emphasis added). “To reduce wear, a toe cap 15, represented in FIG. 3, can be</p>

CLAIM	GROUND 1
least one additional textile element forms an exterior surface of the footwear.	<i>applied</i> , especially glued and/or stitched, <i>on the front area</i> , adjacent to front edge 13 of <i>toe area 14</i> .” Nishida , 3:39-42 (emphasis added), <i>see also</i> Nishida , Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:59-4:1; 4:9-11; FIG. 3.

xv. Independent Claim 29

The following explanation and charts below show how Reed and Nishida disclose all of the limitations of claim 29, and thus render claim 29 obvious.

Element [29A] recites “[a]n article of footwear comprising,” which is identical to element [1A]. Section VII.A.4.i above (with respect to element [1A]) describes how Reed and Nishida disclose this feature.

Element [29B.1] recites “an upper incorporating a circular-knitted textile element . . .,” which is identical to element [1B.1]. Section VII.A.4.i above (with respect to element [1B.1]) describes how Reed and Nishida disclose this feature.

Element [29B.2] recites “. . . having a plurality of knit constructions,” which is identical to element [1B.2]. Section VII.A.4.i above (with respect to element [1B.2]) describes how Reed and Nishida disclose this feature.

Element [29C] recites “wherein the circular-knitted textile element is formed with a knitting machine.” Section VII.A.4.i above (with respect to element [1B.1]) describes how Reed and Nishida both describe the use of knitting machines to form the textile elements. (Ex. 1003, ¶89-93.)

Element [29D] recites “the circular-knitted element being removed from a

circular-knitted textile structure,” which is identical to element [1C]. Section VII.A.4.i above (with respect to element [1C]) describes how Reed and Nishida disclose this feature.

Element [29E]: Reed describes forming an outline/pattern/texture in the cylindrical textile structure having a shape and/or proportion of the textile element. (Ex. 1003, ¶102.) To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that patterns in the form of layouts are produced by a textile production process inside the web of material. (Ex. 1003, ¶103.)

CLAIM	GROUND 1
[29E] that includes an outline of the circular-knitted textile element	<p>“The garments 16, 18 and 20 are <i>outlined</i> by a plurality of interconnecting knitted stitches 22 and 24.” Reed, 3:8-9 (emphasis added). “The outline seam 24 is formed from two sets of X's and O's which are offset in the wale axes by four wales. The degree of wale offset <i>to form the desired outline</i> is a matter of design and thus not critical.” Reed, 4:42-45 (emphasis added); <i>see also</i> 5:67-6:3.</p> <p>“[I]n the production of a web of material, both <i>the patterns or partial patterns in the form of layouts of the shoe upper</i> and the patterns or partial patterns in the form of a sole part, <i>are produced by</i> a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by <i>a textile production process inside the web of material . . .</i>” Nishida, 1:50-56 (emphasis added); <i>see also</i> Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2.</p>

Element [29F] recites “having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot,” which is identical to element

[1D]. Section VII.A.4.i above (with respect to element [1D]) describes how Reed and Nishida disclose this feature.

Element [29G] recites “a sole structure secured to the upper,” which is identical to element [1E]. Section VII.A.4.i above (with respect to element [1E]) describes how Reed and Nishida disclose this feature.

xvi. Dependent Claim 30

The following explanation and chart below describe how Reed discloses the features of claim 30 and thus renders claim 30 obvious.

As described in Section VII.A.4.xv above, claim 29 is rendered obvious by Reed and Nishida. Claim 30 adds a product-by-process limitation that should not receive patentable weight. “If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985) (citations omitted); MPEP § 2113. Reed identifies “[a]n example of a ***circular knitting machine*** which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” (Ex. 1006, 3:58-60.)

As Mr. Holden explains, Reed describes using his knitting machine and technique to make a plurality of “skirts 16, 18, and 20” “[a]round the circumference of the knitted structure 10.” (Ex. 1006, 3:5-7; FIGS. 1, 2; Ex. 1003, ¶93.) That fact alone would inform a POSA at least as of March 3, 2004, that the circumference of the circular knitted tube must be at least large enough to accommodate the width of three

skirts, and would certainly require a circumference larger than 22 inches, as each skirt (even sized for a child) would require more than 7 inches of space around the circumference of the knitted tube. (Ex. 1003, ¶93.) The POSA would also have understood that a circular knitting machine having a circumference of at least 22 inches (i.e., a nominal diameter of at least 7 inches) is a wide-tube circular knitting machine. (Ex. 1003, ¶93.) Hence, the POSA would thus have recognized that wide-tube circular knitting machines were used to make Reed’s garments and would understand that the Model 9RJ36 was one such example. (Ex. 1003, ¶93.) Indeed, as a revolutionary and award-winning wide-tube knitting machine, the POSA at least as of March 3, 2004, would have been aware of the 9RJ36, and would have known that it had a diameter of 30 inches, as evidenced by Burall (Ex. 1008). (Ex. 1003, ¶93.)

CLAIM	GROUND 1
[30] The article of footwear recited in claim 29, wherein the circular-knitted textile element has a structure formed by a wide-tube circular knitting machine.	<p>“An example of a <i>circular knitting machine</i> which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60 (emphasis added); <i>see also</i> Abstract; 1:58-64.</p> <p>“Around the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18, 20.” Reed, 3:5-7; FIGS. 1-2.</p>

xvii. Independent Claim 36

The following explanation and charts below show how Reed and Nishida disclose all of the limitations of claim 36, and thus render claim 36 obvious.

Element [36A] recites “[a]n article of footwear comprising,” which is identical to element [1A]. Section VII.A.4.i above (with respect to element [1A]) describes how Reed and Nishida disclose this feature.

Element [36B] recites “an upper incorporating a knitted textile element,” which is identical to element [1B.1] with the exception that element [36B] does not recite that the knitted textile element is “circular-knitted.” Section VII.A.4.i above (with respect to element [1B.1]) describes how Reed and Nishida disclose this feature.

Element [36C]: Reed states that “[t]he present invention uses an electronic circular double knitting machine programmed to *simultaneously knit two concentric tubes*, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch *to form the outline of the design of a garment.*” (Ex. 1006, 1:58-64 (emphasis added); Ex. 1003, ¶94.)

Moreover, the POSA at least as of March 3, 2004 would have understood that the textile element and the surrounding textile structure are produced simultaneously in the circular knitting machine due to the way that a circular knitting machine forms courses around the circumference of the circular knitting machine. (Ex. 1003, ¶94.) Because each course of the circular knitting machine forms a portion of the textile element and the surrounding textile structure, the circular knitting machine forms the textile element simultaneously with the surrounding textile structure. (Ex. 1003, ¶94.)

To the extent that Reed does not explicitly state that these features are present

in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that any number of layouts 2 can be produced on a single web of material 1. (Ex. 1003, ¶96.)

Nishida goes on to explain that “***only just those parts of the web of material*** are ***produced*** in the necessary quality, thickness, multilayers or the like ***which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part.*** The ***remaining area of the web of material*** in contrast can consist of a simple, lightweight or inexpensive material quality, which ***holds together only the patterns or areas of such patterns in the web of material*** after their completion.” (Ex. 1007, 2:12-20 (emphasis added); Ex. 1003, ¶98.)

CLAIM	GROUND 1
[36C] wherein the knitted textile element is formed unitarily with a knitted textile structure,	<p>“The present invention uses an electronic circular double knitting machine programmed to <i>simultaneously knit two concentric tubes</i>, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch <i>to form the outline of the design of a garment.</i>” Reed, 1:58-64 (emphasis added).</p> <p>“A <i>plurality of garments</i> formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added); FIG. 1. “As can be seen, the knitted structure 10 includes (around its circumference) a <i>plurality of finished garments</i> which need only be severed from the structure 10 and turned inside out if a hidden seam is desired.” Reed, 3:15-19 (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 3:5-7; 3:58-60; 4:68-5:2; FIG. 1.</p>

CLAIM	GROUND 1
	<div data-bbox="763 247 1166 772" data-label="Image"> </div> <p data-bbox="1143 716 1230 747">FIG. 1</p> <p data-bbox="548 783 1422 1115">“As can be seen, <i>any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1.</i> For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added).</p> <p data-bbox="548 1161 1422 1577">Nishida describes that the layouts 2 are produced by either (1) printing them on the web of material or (2) knitting them inside the web of material 1. Nishida, 1:50-56. “[I]n the production of a web of material, both <i>the patterns or partial patterns in the form of layouts of the shoe upper</i> and the patterns or partial patterns in the form of a sole part, <i>are produced by</i> a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by <i>a textile production process inside the web of material . . .</i>” Nishida, 1:50-56 (emphasis added).</p> <p data-bbox="548 1623 1422 1902">Nishida goes on to explain that “<i>only just those parts of the web of material are produced</i> in the necessary quality, thickness, multilayers or the like <i>which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part.</i> The <i>remaining area of the web of material</i> in contrast can consist of a simple, lightweight or inexpensive material quality, which <i>holds together only the</i></p>

CLAIM	GROUND 1
	<p><i>patterns or areas of such patterns in the web of material</i> after their completion.” Nishida, 2:12-20 (emphasis added).</p> <p>“The web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.”</p> <p>Nishida, 3:9-12; <i>see also</i> Abstract; 1:47-2:5; 2:40-2:54; 3:6-26; 3:43-58; 3:59-4:9; 4:47-60; 5:27-40; 5:45-6:2; FIGS. 1-3.</p>

Element [36D] recites “the knitted textile element being removed from the knitted textile structure,” which is identical to element [1C] with the exception that element [36D] does not recite that the knitted textile structure is “circular-knitted.” . Section VII.A.4.i above (with respect to element [1C]) describes how Reed and Nishida disclose this feature.

Element [36E] recites “that includes an outline of the knitted textile element to form edges,” which is identical to element [29E] with the exception that element [36E] adds “to form edges.” Section VII.A.4.xv above (with respect to element [29E]) describes how Reed and Nishida disclose this feature.

Element [36F] recites that “the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element,” which is similar to element [1B.2]. Section VII.A.4.i above (with respect to element

[1B.2]) describes how Reed and Nishida disclose this feature.

Element [36G] recites “having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper,” which is similar to element [1D]. Section VII.A.4.i above (with respect to element [1D]) describes how Nishida discloses this feature.

Element [36H] recites “a sole structure secured to the upper,” which is identical to element [1E]. Section VII.A.4.i above (with respect to element [1E]) describes how Nishida discloses this feature.

xviii. Dependent Claim 37

Claim 37 recites that “the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.” Section VII.A.4.i above (with respect to element [1B.2]) describes how Reed and Nishida disclose this feature, and thus renders claim 37 obvious.

B. Ground 2: Anticipation of Claims 36-38 in View of Nishida

1. Nishida (Ex. 1007)

See Section 0 above regarding Nishida and its explicit description of the features of claims 36-38 of the ‘288 patent. (Ex. 1003, ¶¶145-163.)

2. Claim-by-Claim Analysis

i. Independent Claim 36

As discussed in Section VII.A.4.xvii above, claim 36 does not recite that the knitted textile element and the knitted textile structure are “circular-

knitted.” As a result, Section VII.A.4.xvii above describes how Nishida discloses all of the features of claim 36, and thus anticipates claim 36. (Ex. 1003, ¶148-164.)

CLAIM	GROUND 1
[36A] An article of footwear comprising:	See Section VII.A.4.xvii, claim [36A] regarding Nishida.
[36B] an upper incorporating a knitted textile element,	See Section VII.A.4.xvii, claim [36B] regarding Nishida.
[36C] wherein the knitted textile element is formed unitarily with a knitted textile structure,	See Section VII.A.4.xvii, claim [36C] regarding Nishida.
[36D] the knitted textile element being removed from the knitted textile structure	See Section VII.A.4.xvii, claim [36D] regarding Nishida.
[36E] that includes an outline of the knitted textile element to form edges,	See Section VII.A.4.xvii, claim [36E] regarding Nishida.
[36F] the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element,	See Section VII.A.4.xvii, claim [36F] regarding Nishida.
[36G] and further having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper; and	See Section VII.A.4.xvii, claim [36G] regarding Nishida.
[36H] a sole structure secured to the upper.	See Section VII.A.4.xvii, claim [36H] regarding Nishida.

ii. Dependent Claim 37

Claim 37 recites that “the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.” As discussed in Section VII.A.4.xviii aboveVII.A.4.xvii above, Nishida discloses the feature of claim 37, and thus anticipates claim 37. (Ex. 1003, ¶157-161.)

iii. Dependent Claim 38

Claim 38 recites that the textile element “is one of an exterior layer, an intermediate layer, and an interior layer of the upper.” As discussed in Section VII.A.4.vii above VII.A.4.xvii above, Nishida discloses the feature of claim 38, and thus anticipates claim 38. (Ex. 1003, ¶165.)

VIII. EVEN IF CONSIDERED, SECONDARY CONSIDERATIONS FAIL TO OVERCOME THE EVIDENCE OF OBVIOUSNESS

The Board has repeatedly held that, at the institution phase, evidence of secondary considerations presented by the Patent Owner should be addressed in a trial where the parties may develop, and the Board may consider, a full record. *See, e.g., 10X Genomics Inc. v. Univ. of Chicago*, No. IPR2015–01162, Paper No. 14, at p. 22 (PTAB Nov. 16, 2015); *Petroleum Geo-Servs Inc. v. WesternGeco LLC*, No. IPR2014–01477, Paper No. 18, at p. 32 (PTAB Mar. 17, 2015); *Crocs Inc. v. Pollinwalks Inc.*, No. IPR2014–00424, Paper No. 8 at p. 16, 2014 WL 4181938, at *9 (PTAB Aug. 20, 2014) (“We reiterate . . . that such secondary considerations are better considered in the context of a trial when the ultimate determination of obviousness is made.”). That is the appropriate course here given that “the inventions represent[] no more than ‘the predictable use of prior art elements according to their established functions,’” and, thus, any “secondary considerations are inadequate to establish nonobviousness as a matter of law.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1245 (Fed. Cir. 2010) (quoting *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007)).

Petitioner nonetheless preliminarily addresses alleged secondary considerations that Patent Owner may argue, but reserves the right to respond to any arguments asserted by the Patent Owner in this proceeding. Specifically, in connection with a prior review of the related '011 patent, Patent Owner argued that a proposed amended claim 47 satisfied a long felt need for reducing waste because it claimed a textile element with “flat knit edges” that were not cut or removed from surrounding textile structure. *See Nike, Inc. v. adidas AG*, CA No. 14-1719, slip op. at 19 & 32-33 (Fed. Cir. Feb. 11, 2016).

“For objective [evidence of secondary considerations] to be accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the claimed invention.” *Wyers*, 616 F.3d at 1246 (quoting *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)) (internal quotation marks omitted). Unlike in the proposed amended claim in the '011 patent, there is no claim to a textile element with “flat knit edges” or other claim elements that could, even conceivably, connect the challenged claims to any purported long felt need for reducing cutting waste in the '288 patent. That is a critical difference because “[w]here the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention.” *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). No such evidence of nexus exists and, to the contrary, the claims here demonstrate that cutting waste will be generated. For example, the majority of the '288 patent claims expressly recite “the

knitted textile element being removed from a knitted textile structure.” Thus, forming a shoe upper will require removing the element from the surrounding structure, thus creating waste and, likewise, describing a feature already present in Nishida. In short, the claims here demonstrate an absence of cost and material savings, rather than satisfaction of any purported long felt need.

IX. THE PROPOSED REJECTIONS RAISE NEW ISSUES IN WHICH PETITIONER WILL LIKELY PREVAIL

Patent Owner may urge, incorrectly, that the Board should exercise its discretion under 35 U.S.C. § 325(d) to deny institution on one or more grounds. Indeed, that was the ground Patent Owner articulated in opposing the petition filed concerning the related ‘011 patent, during prosecution of which Nishida was cited by the examiner. *adidas AG v. Nike, Inc.*, No. IPR2013-00067, Paper No. 18, 2013 WL 8595550, at *9 (PTAB May 17, 2013). The Board appropriately rejected that argument, finding Petitioner had “present[ed] different arguments and new supporting evidence that were not before the Examiner.” *See id.*, Paper No. 18.

While the Board chose to exercise its discretion under 35 U.S.C. § 325(d) to deny Petitioner’s first petition concerning the ‘288 patent in *adidas AG v. NIKE, Inc.*, No. IPR2016-00920 (“Prior Petition”), the Board should decline to exercise its discretion to deny this follow-on Petition under 35 U.S.C. § 325(d) for at least the following reasons.

In exercising its discretion, the Board considers several factors “including the

facts of each case, the burden on the parties and the Board, and the public interest.”

See Polygroup Ltd. v. Willis Elec. Co., Ltd., No. IPR2016-00801, Paper No. 8, at p. 16 (PTAB Oct. 17, 2016). As set forth below, all of these factors weigh heavily in favor of declining to exercise such discretion in this case.

First, this Petition presents arguments the Office has not previously considered and thus Petitioners are not seeking a “second bite at the apple.” The Board has repeatedly instituted *inter partes* review proceedings involving follow-on petitions where the prior petition was denied without substantive evaluation of the prior art or its applicability to the challenged claims. *See, e.g., Arista Networks, Inc. v. Cisco Sys., Inc.*, No. IPR2016-00309, Paper No. 8, at p. 7 (PTAB June 11, 2016) (declining to exercise discretion under 35 U.S.C. § 325(d) because “[a]lthough Petitioner also challenged the independent claims based on a combination of Amara and Habraken [in Petitioner’s prior petition], we did not address that ground substantively because we found it insufficiently articulated.”); *Par Pharm., Inc. et al. v. Jazxx Pharms., Inc.*, No. IPR2015-00546, Paper No. 25, at pp. 23-24 (PTAB July 28, 2015) (instituting IPR proceeding because “even assuming Petitioner asserts grounds that are identical to art and arguments presented in the earlier CBM cases, decisions denying institution in those cases do not address the merits of any ground raised in the Petitions.”); *Coalition for Affordable Drugs (ADROCA) LLC v. Acorda Therapeutics, Inc.*, No. IPR2015-01853, Paper No. 13, at pp. 12-13 (PTAB Mar. 11, 2016); *Apotex Inc. v. Wyeth LLC*, No. IPR2015-00873, Paper No. 8, at p. 10 (PTAB Sept. 16, 2015); *Arris Grp., Inc. v. C-*

Cation Techs., LLC, No. IPR2015-00635, Paper No. 19, at pp. 8-9 (PTAB July 31, 2015).

Likewise, in this case, the Board denied the Prior Petition without substantively addressing its merits because the Board was “not satisfied that the Petition provides adequate explanation or is appropriately precise and specific in articulating the basis of the proposed ground to warrant institution of an *inter partes* review on that ground.” *adidas AG v. Nike, Inc.*, No. IPR2016-00920, Paper No. 6, at p. 5 (PTAB Oct. 20, 2016). Thus, the arguments in this case “have not been presented previously to the Office.” *See* No. IPR2015-00635, Paper No. 19, at p. 8.

Second, instituting this Petition will protect the public’s interests without harassing the Patent Owner or burdening the Board. With respect to the Patent Owner, it did not even file a preliminary response to the Prior Petition so there is no additional burden on Patent Owner. With respect to the Board, it has already instituted *inter partes* review proceedings between the same parties for similar claims of two related patents on the same or substantially the same grounds. *See adidas AG v. NIKE, Inc.*, No. IPR2016-00921, Paper No. 6 (PTAB Oct. 21, 2016); *adidas AG v. NIKE, Inc.*, No. IPR2016-00922, Paper No. 6 (PTAB Oct. 21, 2016). *See* No. IPR2016-00801, Paper No. 8, at p. 14 (instituting *inter partes* review for a follow-on petition where the Board had instituted a separate *inter partes* review proceeding between the same parties on the same or similar grounds for similar claims of a different patent because “the parties and the Board are already committed to

reviewing the issues raised herein, and there is little additional burden to do so here” and “it strikes us as inefficient, from a global perspective, for the Board to decide issues in [the related IPR proceeding] and for a district court to decide the same issues with respect to the [patent challenged in the follow-on petition].”). As in *Polygroup*, instituting an *inter partes* review proceeding based on the instant Petition both protects the public’s interests and “permits a just, speedy, and inexpensive resolution of the patentability dispute between the parties.” *See* No. IPR2016-00801, Paper No. 8, at p. 14.

Finally, the Board has been willing to revisit a Petitioner’s arguments from a previously denied petition in a second petition when the law has changed. *See Westlake Servs., LLC v. Credit Acceptance Corp.*, No. CBM2014-00176, Paper No. 14 (PTAB Feb. 9, 2015). When Petitioner in this case filed the Prior Petition, the rules limited the number of pages allowed in an IPR petition. Since the Prior Petition included numerous diagrams and figures, Petitioner’s ability to address all thirty-eight claims in the ‘288 patent with precise and specific articulations for each asserted ground of invalidity was restricted under the page number limitation. *See, e.g., Eleka, Inc. v. Varian Med. Sys., Inc.*, No. IPR2016-00380, Paper No. 12, at p. 21 (PTAB June 21, 2016); *Ford Motor Co. v. Paice LLC & The Abell-Found., Inc.*, No. IPR2015-00799, Paper No. 11 (PTAB Nov. 9, 2015). Subsequent to the filing of the Prior Petition, on May 2, 2016, the rules changed to include word count limits instead of page count limits, which is a more equitable approach for Petitions that include numerous

diagrams and figures. 37 C.F.R. § 42.24(a) (2016). Thus, the equities weigh in Petitioner’s favor of being able to present arguments under the new word count requirements.

Importantly, “35 U.S.C. § 325(d) is *discretionary*, stating only that the Board ‘may’ consider whether the same or substantially the same prior art or arguments were previously presented to the Office.” *Valeo N. Am., Inc., et al. v. Magna Elecs. Inc.*, No. IPR2014-01204, Paper No. 13, at pp. 11-12 (PTAB Jan. 28, 2015). Not only has the Office failed to consider the arguments presented in the instant Petition, the foregoing factors weigh heavily in favor of the Board declining to exercise its discretion to deny this Petition under 35 U.S.C. § 325(d). Accordingly, the Board is requested to grant this petition and to initiate an *inter partes* review, find claims 1-7, 9-13, and 21-38 unpatentable, and cancel these claims, rendering them null, void and otherwise unenforceable.

Respectfully submitted,

By: /s/ Mitchell G. Stockwell
 Mitchell G. Stockwell
 Registration No. 39,389

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 mstockwell@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 wkadaba@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 532 6959
---	---

(404) 815 6214	Tiffany L. Williams Reg. No. 59,549 tiwilliams@kilpatricktownsend.com Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
----------------	---

CERTIFICATION UNDER 37 CFR §42.24(d)

Under the provisions of 37 CFR §42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for Inter Partes Review totals 13,964, which is less than the 14,000 allowed under 37 CFR §42.24(a)(i).

Dated: November 14, 2016

By: /s/ Mitchell G. Stockwell
Mitchell G. Stockwell
Registration No. 39,389
Lead Counsel for Petitioner

<u>Lead Counsel</u> Mitchell G. Stockwell Reg. No. 39,389 <u>mstockwell@kilpatricktownsend.com</u> Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6214	<u>Back-Up Counsel</u> Vaibhav P. Kadaba Reg. No. 45,865 <u>wkadaba@kilpatricktownsend.com</u> Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 532 6959 Tiffany L. Williams Reg. No. 59,549 <u>tiwilliams@kilpatricktownsend.com</u> Kilpatrick Townsend & Stockton LLP 1100 Peachtree Street, NE Suite 2800 Atlanta, Georgia 30309 (404) 815 6608
--	---

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.8(e) and 42.105(b), the undersigned certifies that on November 14, 2016, a complete and entire copy of this Petition for *Inter Partes* Review was served via USPS Priority Express Mail, costs prepaid, to the Patent Owner by serving the correspondence address of record as follows:

NIKE, Inc./BGL
P.O. Box 10395
Chicago, IL 60610

As a courtesy, the undersigned certifies that on November 14, 2016, a complete and entire copy of this Petition for *Inter Partes* Review was served via USPS Priority Express Mail, costs prepaid, upon the following:

Banner & Witcoff, LTD.
1100 13th Street, N.W.
Suite 1200
Washington, D.C. 20005-4051

Dated: November 14, 2016

By: /s/ Mitchell G. Stockwell
Mitchell G. Stockwell
Registration No. 39,389
Lead Counsel for Petitioner

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner

v.

Nike, Inc.
Patent Owner

Patent No. 8,042,288
Filing Date: September 10, 2010
Issue Date: October 25, 2011
Title: ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER

Inter Partes Review No. Unassigned

DECLARATION OF LENNY M. HOLDEN

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	Background and Expertise	2
B.	Materials Considered.....	3
II.	LEGAL STANDARDS FOR PATENTABILITY	5
A.	Anticipation	6
B.	Obviousness.....	7
III.	PERSON OF ORDINARY SKILL IN THE ART	11
IV.	THE ‘288 PATENT	13
V.	OVERVIEW OF THE ‘288 PATENT CHALLENGED CLAIMS	24
VI.	COMMON FEATURES AMONG THE ‘288 PATENT CLAIMS	28
VII.	OVERVIEW OF THE PRIOR ART	32
VIII.	GROUND I: REED IN VIEW OF NISHIDA DISCLOSES TO ONE OF ORDINARY SKILL IN THE ART AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 1-7, 9-13, AND 21- 38 OF THE ‘288 PATENT	39
A.	Preamble	40
B.	Knitting Techniques & Machinery.....	40
C.	Circular-Knitted Textile Structure Formed with a Wide- Tube Circular Knitting Machine	42
D.	Knitted Textile Element Formed Unitarily with a Knitted Textile Structure	44
E.	Textile Element Removed from the Textile Structure	46

F.	Textile Structure Including an Outline of the Textile Element.....	48
G.	Textile Element having a Unitary Construction and having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations.....	49
H.	First (Longitudinal), Second (Vertical), and/or Third (Forefoot) Edges and Seams	55
I.	Combining the Textile Element Into Footwear Components.....	60
J.	Upper Construction Using Textile Elements	60
K.	Aperture(s) Formed in the Textile Element	66
L.	The Skilled Person Would Have Been Motivated to Combine Reed and Nishida.....	70
IX.	GROUND II: AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 36-38 OF THE ‘288 PATENT, IS ANTICIPATED BY NISHIDA.....	73
A.	Preamble.....	74
B.	Knitting Techniques & Machinery.....	74
C.	Knitted Textile Element Formed Unitarily with a Knitted Textile Structure	74
D.	Textile Element Removed from the Textile Structure to Form Edges.....	76
E.	Textile Structure Including an Outline of the Textile Element.....	77
F.	Textile Element Having a First Area with a First Unitary Construction and a Second Area with a Second Unitary Construction Different from the First Unitary Construction, the First Area having a First Set of Properties, and the Second Area Having a Second Set of Properties that is Different from the First Set of	

	Properties to Impart Varying Characteristics to the Textile Element	77
G.	Edges Joined Together to Form a Seam Extending from a Heel Area to a Forefoot Area of the Footwear Along a Lower Surface of the Upper	80
H.	Combining the Textile Element Into Footwear Components.....	82
I.	Textile Element is one of an Exterior Layer, an Intermediate Layer, and an Interior Layer of the Upper	83
X.	SUMMARY	84

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION OF LENNY M. HOLDEN

I, Lenny M. Holden, declare as follows:

I. INTRODUCTION

1. My name is Lenny M. Holden, and I reside in Trabuco Canyon, California. I am over eighteen years of age, and I would otherwise be competent to testify as to the matters set forth herein if I am called upon to do so.

2. I have been retained by Kilpatrick Townsend & Stockton, LLP, counsel for adidas AG (“adidas or Petitioner”). My curriculum vitae is attached hereto and is labeled Ex. 1004. I understand that adidas has petitioned for *inter partes* review of U.S. Patent No. 8,042,288 (“the ‘288 patent”) and requests that the United States Patent and Trademark Office cancel claims 1-7, 9-13, and 21-38 of the ‘288 patent as unpatentable. The following discussion and analyses address the basis for adidas’s petition. I understand that this Declaration will be used in support of this petition.

3. I submit this Declaration at the request of adidas for consideration by the Patent Trial and Appeal Board in the above-referenced *inter partes* review proceedings.

4. In forming my opinions, I rely on my knowledge and experience in the field and on documents and information referenced in this Declaration.

A. Background and Expertise

5. As shown in my curriculum vitae, I have been in the shoe business for almost 40 years, starting in retail and then in design, development, and manufacturing starting in 1983.

6. I lived in Asia for more than 10 years, (6 years in Korea and 4 years in Taiwan). I have made shoes of almost every type in Korea, Taiwan, China, Indonesia, Malaysia, Vietnam, Brazil, Mexico, Macao, Spain, Italy, Thailand, and the Philippines.

7. I have worked in almost every aspect of design, development, operations, commercialization, quality control, and supply chain. I have had management and executive roles that have been responsible for the design, development, operations, commercialization, quality control, and supply chain of footwear products distributed to the U.S. and many other countries.

8. I am a named inventor on 5 U.S. patents relating to footwear.

9. Because my responsibilities have been from all the way through design to delivery, I have been to many types of footwear factories and many various types of material suppliers to ensure the delivery and quality of the products I was responsible for.

10. Because of my last company's focus on lowering our overall carbon footprint, I worked on many projects to address the streamlining of production. I

studied automated production in Vietnam and the UK. As a piece of this study, we worked on and patented a method of making vulcanized shoes reducing the vulcanization process. I also studied computerized stitching in China. I have generally been aware of the efforts within the shoe industry to address the amount of labor required to make conventional athletic footwear.

11. I have been retained by Petitioner adidas as an expert for these *inter partes* review proceedings. I am being compensated at a rate of \$250.00 per hour. No part of my compensation is dependent upon the outcome of these proceedings or any issue in these proceedings.

B. Materials Considered

12. In forming my opinions, in addition to my knowledge and experience, I have considered the following documents and things that I have obtained, or that have been provided to me: (i) the '288 patent and its prosecution history that is available on the U.S. Patent Office website; (ii) U.S. Patent No. 7,814,598 and its prosecution history that is available on the U.S. Patent Office website; (iii) U.S. Patent No. 8,266,749 and its prosecution history that is available on the U.S. Patent Office website; (iv) various papers, exhibits, and decisions in *adidas AG v. Nike, Inc.*, No. IPR2013-00067; (v) prior art to the '288 patent, including (a) U.S. Patent No. 4,038,840 to Castello; (b) U.S. Patent No. 6,330,814 to Fujiwara; (c) U.S. Patent No. 3,985,003 to Reed; (d) U.S. Patent No. 5,345,638 to Nishida; (e)

“Knitting Technology: A comprehensive handbook and practical guide,” 3rd edition, by David J. Spencer, published in 2001; (f) U.S. Patent No. 6,779,369 to Shepherd; (g) U.S. Patent No. 4,785,558 to Shiomura; (h) Paul Burall, “CoID Design Awards,” Design, June 1969; (i) ISO 8117:2003(E) Textile machinery – Knitting machines – Nominal diameters of circular machines; (j) U.S. Patent No. 2,641,004 to Whiting; (k) U.S. Patent No. 2,314,098 to McDonald; (l) U.S. Patent No. 2,147,197 to Glidden; (m) PCT International Publication No. WO 90/03744 to Curley; (vi) videos demonstrating circular knitting machine operation and techniques (<http://www.santoni.com/videofoto.asp>; <https://www.youtube.com/watch?v=mWB8JReKTuY>; <https://www.youtube.com/watch?v=ho9Ut9uzsGI&index=3&list=PL5DAA9BDA077A99E4>; https://www.youtube.com/watch?v=PwNTU_uoGrk; <https://www.youtube.com/watch?v=VWV0ZV9xCIA>); and (vii) discussions with adidas’s external knitting consultant in March / April / November 2016. The facts and data that I have reviewed and relied on are the kinds of facts and data that experts in the field of shoemaking ordinarily and reasonably rely on to form opinions regarding patentability. My analysis and opinions are based on the facts and evidence in these materials and my prior experience. I reserve the right to modify or expand upon my opinions and their foundation in the future should additional materials be made available to me.

II. LEGAL STANDARDS FOR PATENTABILITY

13. In expressing my opinions and considering the subject matter of the claims of the '288 patent, I am relying upon certain legal principles that counsel has explained to me.

14. First, I have been informed and understand that for an invention claimed in a patent to be found patentable, it must be, among other things, new and not obvious from what was known before the invention was made.

15. I have been informed and understand the information that is used to evaluate whether an invention is new and not obvious is generally referred to as “prior art” and generally includes patents and printed publications (*e.g.*, books, articles, product manuals, company publications, etc.).

16. I have been informed and understand that in this proceeding, adidas has the burden of proving that the claims of the '288 patent are anticipated by or obvious in view of the prior art by a preponderance of the evidence. I have been informed and understand that “a preponderance of the evidence” is evidence sufficient to show that a fact is more likely true than it is not true.

17. I have been informed and understand that in this proceeding, the claims must be given their broadest reasonable interpretation consistent with the specification. After being given their broadest reasonable interpretation, the claims are then to be compared to the information disclosed in the prior art.

18. I have been informed and understand that in this proceeding, the information that may be evaluated is limited to patents and printed publications. My analysis below compares the claims to patents and printed publications that I understand are prior art to the '288 patent.

19. I have been informed and understand that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can be shown to "anticipate" the claim. Second, the prior art can be shown to have made the claim "obvious" to a person of ordinary skill in the art. My understanding of the two legal standards is set forth below.

A. Anticipation

20. I have been informed and understand that the following standards govern the determination of whether a patent claim is "anticipated" by the prior art.

21. I have applied these standards in my evaluation of whether the claims of the '288 patent would have been anticipated by the prior art.

22. I have been informed and understand that the "prior art" includes patents and printed publications that existed before the earliest filing date (the "effective filing date") of the patent. I also have been informed and understand that a patent will be prior art if it was filed before the effective filing date, while a printed publication will be prior art if it was publicly available before that date.

23. I have been informed and understand that, for a patent claim to be

“anticipated” by the prior art, each and every requirement of the claim must be found, expressly or inherently, in a single prior art reference. I have been informed and understand that a prior art reference inherently discloses a claim limitation if the limitation is necessarily present in the reference.

B. Obviousness

24. I have been informed and understand that a claimed invention is not patentable if it would have been obvious to a person of ordinary skill in the field of the invention at the time the invention was made.

25. I have been informed and understand that the following standards govern the determination of whether a claim in a patent is obvious. I have applied these standards in my evaluation of whether the claims of the ‘288 patent would have been considered obvious in March 2004, the earliest claimed priority date of the ‘288 patent.

26. I have been informed and understand that to find a claim in a patent obvious, one must make certain findings regarding the claimed invention and the prior art. Specifically, I have been informed and understand that the obviousness question requires consideration of four factors (although not necessarily in the following order):

- The scope and content of the prior art;
- The differences between the prior art and the claims at issue;

- The knowledge of a person of ordinary skill in the pertinent art; and
- Whatever objective factors indicating obviousness or non-obviousness may be present in any particular case.

27. I have been informed and understand that the objective indicia that may bear on the question of obviousness or non-obviousness include whether the claimed invention proceeded in a direction contrary to the accepted wisdom in the field, whether there was a long-felt but unresolved need in the field that was satisfied by the claimed invention, whether others had tried but failed to make the claimed invention, whether others copied the claimed invention, whether the claimed invention achieved any unexpected results, whether the claimed invention was praised by others, whether others have taken licenses to use the claimed invention, whether experts or those skilled in the field of the claimed invention expressed surprise or disbelief regarding the claimed invention, and whether products incorporating the claimed invention have achieved commercial success.

28. In addition, I have been informed and understand that the obviousness inquiry should not be done in hindsight, but must be done using the perspective of a person of ordinary skill in the relevant art as of the effective filing date of the patent.

29. I have been informed and understand that a person of ordinary skill in the relevant art is a person of ordinary creativity.

30. I also have been informed and understand that under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. I also have been informed and understand that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. I further have been informed and understand that the following are examples of other factors that may show obviousness:

- a combination that only unites old elements with no change in their respective functions is unpatentable. As a result, the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results;
- a predictable variation of a work in the same or a different field of endeavor is likely obvious if a person of ordinary skill would be able to implement the variation;
- an invention is obvious if it is the use of a known technique to improve a similar device in the same way, unless the actual application of the

technique would have been beyond the skill of the person of ordinary skill in the art. In this case, a key inquiry is whether the improvement is more than the predictable use of prior art elements according to their established functions;

- an invention is obvious if there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims;
- inventions that were “obvious to try” — chosen from a finite number of identified, predictable solutions, with a reasonable expectation of success — are likely obvious;
- known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; and
- an explicit teaching, suggestion, or motivation in the art to combine references, while not a requirement for a finding of obviousness, is a helpful insight in determining on which a finding of obviousness may be based.

31. Finally, I have been informed and understand that, even if a claimed invention involves more than substitution of one known element for another or the application of a known technique to a piece of prior art ready for improvement, the invention may still be obvious. I also have been informed and understand that in such circumstances, courts may need to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art to determine if the claimed invention is obvious.

III. PERSON OF ORDINARY SKILL IN THE ART

32. It is my opinion that the field of the ‘288 patent is footwear incorporating an upper that is at least partially formed from a textile material. *See e.g.*, ‘288 patent, 1:19-22.

33. Counsel for adidas has informed me that the content of a patent or other printed publication (*e.g.*, prior art reference) should be interpreted the way a person of ordinary skill in the art would have interpreted the reference at the time of the earliest priority date for the ‘288 patent, which is March 3, 2004.

34. In my opinion, the person of ordinary skill in the art for the ‘288 patent would have at least a few years of experience in the footwear industry, possibly with a focus in one specific area (such as merchandising, design, product development, commercialization, and/or manufacturing), but would also have a

broader understanding of shoemaking in general, as all aspects are so interdependent on each other. A person of ordinary skill would have an understanding of the product cycle for the process of designing, developing, and bringing a new product to market. He or she would also understand that there are some key review milestones where upper material designs are reviewed and considered, such as textiles, leathers, synthetics, or other types of materials used for upper construction. A person of ordinary skill would have some understanding and knowledge of the available and varied ranges of typical construction methods within a product cycle. In addition, a person of ordinary skill would have a basic knowledge of the functional requirements of footwear and a comprehensive understanding of the range of material choices, as well as construction techniques and processes used to create the various parts of a shoe and to assemble them in an effective manner.

35. I have been asked by adidas's counsel to assume that the person of ordinary skill is a hypothetical person who is assumed to be aware of all the pertinent information that qualifies as prior art. In addition, the person of ordinary skill in the art makes inferences and creative steps. He or she is not an automaton, but has ordinary creativity.

36. Based on my experience, I have an understanding of the capabilities of the skilled person in this field, and my opinions are provided from the perspective of such a person.

IV. THE ‘288 PATENT

37. The ‘288 patent is entitled “Article of Footwear Having a Textile Upper.” The ‘288 patent issued on October 25, 2011 from Application No. 12/879,517, which was filed September 10, 2010 as a continuation of Application No. 12/032,995, filed on February 18, 2008, now U.S. Patent No. 7,814,598 (“the ‘598 patent”). The ‘598 patent was filed as a division of Application No. 10/791,289, filed on March 3, 2004, now U.S. Patent No. 7,347,011 (“the ‘011 patent”). The earliest claimed priority date of the ‘288 patent is the March 3, 2004 filing date of the ‘011 patent.

38. The ‘288 patent discloses and claims an article of footwear and a method of making such an article, which combines a knitted upper of unitary construction with a sole unit. The upper incorporates a textile element with edges that are joined together to create an upper with an area for receiving a foot.

39. The textile element may also have first and second areas that are parts of a unitary construction. These first and second areas may be made with different stitch configurations or different yarns, for example, so that different areas of the upper have different properties (such as, different texture, different elasticity,

different breathability, etc.). Various warp knitting or weft knitting processes may be utilized to form the textile element. For example, the textile element may be formed on a circular knitting machine and/or may be formed simultaneously with a surrounding textile structure from which it is then removed.

40. The textile element may have edges that are joined together to create an upper with a void for receiving a foot. These edges may form a seam that extends along a lower region of an upper. Additional edges may be joined to form a second seam that extends along a heel region.

41. In the section entitled “Description of Background Art,” the ‘288 patent explains that the use of various materials for uppers in athletic shoes is well known. For example, ‘288 patent, 1:54-2:12:

Various materials may be utilized in manufacturing the upper. The upper of an article of athletic footwear, for example, may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer. The materials forming the exterior layer of the upper may be selected based upon the properties of wear-resistance, flexibility, and air-permeability, for example. With regard to the exterior layer, the toe area and the heel area may be formed of leather, synthetic leather, or a rubber material to impart a relatively high degree of wear-resistance. Leather, synthetic leather, and rubber materials may not exhibit the desired degree of flexibility and air-permeability. Accordingly, various other areas of the exterior layer of the upper may be formed from a synthetic or natural textile. The exterior layer of the upper may be formed, therefore, from numerous material elements that each impart different properties to specific portions of the upper.

An intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot

from objects that may contact the upper. Similarly, an interior layer of the upper may be formed of a moisture-wicking textile that removes perspiration from the area immediately surrounding the foot. In some articles of athletic footwear, the various layers may be joined with an adhesive, and stitching may be utilized to join elements within a single layer or to reinforce specific areas of the upper.

42. The ‘288 patent explains, however, that textile materials often form at least a portion of the exterior and interior layers of athletic shoes, ‘288 patent, 2:13-23:

Although the materials selected for the upper vary significantly, textile materials often form at least a portion of the exterior layer and interior layer. A textile may be defined as any manufacture from fibers, filaments, or yarns characterized by flexibility, fineness, and a high ratio of length to thickness. Textiles generally fall into two categories. The first category includes textiles produced directly from webs of filaments or fibers by randomly interlocking to construct non-woven fabrics and felts. The second category includes textiles formed through a mechanical manipulation of yarn, thereby producing a woven fabric, for example.

43. The “Description of Background Art” section then briefly describes the various techniques for mechanically manipulating yarn into textiles, including weaving and knitting, ‘288 patent, 2:45-55:

The various techniques for mechanically manipulating yarn into a textile include interweaving, intertwining and twisting, and interlooping. Interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping.

44. The ‘288 patent explains that using multiple materials to impart different properties to different parts of the upper is an inefficient practice because, for example, materials must often be obtained from multiple suppliers located in different places and different materials may require different machinery or numerous distinct manufacturing steps. ‘288 patent, 3:3-16. In addition, the ‘288 patent explains that using multiple materials in the upper may detract from breathability of the shoe, and specifically, that leather, synthetic leather, and rubber inhibit air flow. ‘288 patent, 3:16-23.

45. Thus, the problems that the ‘288 patent identifies are (1) inefficiencies and cost in using multiple materials, and (2) poor breathability of materials like leather (natural or synthetic) and rubber. Nevertheless, the ‘288 patent describes the possibility of additional textile elements being attached to various areas of the shoe upper. *See* element 132 for example.

46. The ‘288 patent describes several embodiments of a textile element (40, 40’, 40’’) in the specification and figures. One embodiment is shown in FIG. 8, and the ‘011 Patent describes how the parts of the textile element 40 form the upper of the shoe, ‘288 patent, 5:22-37:

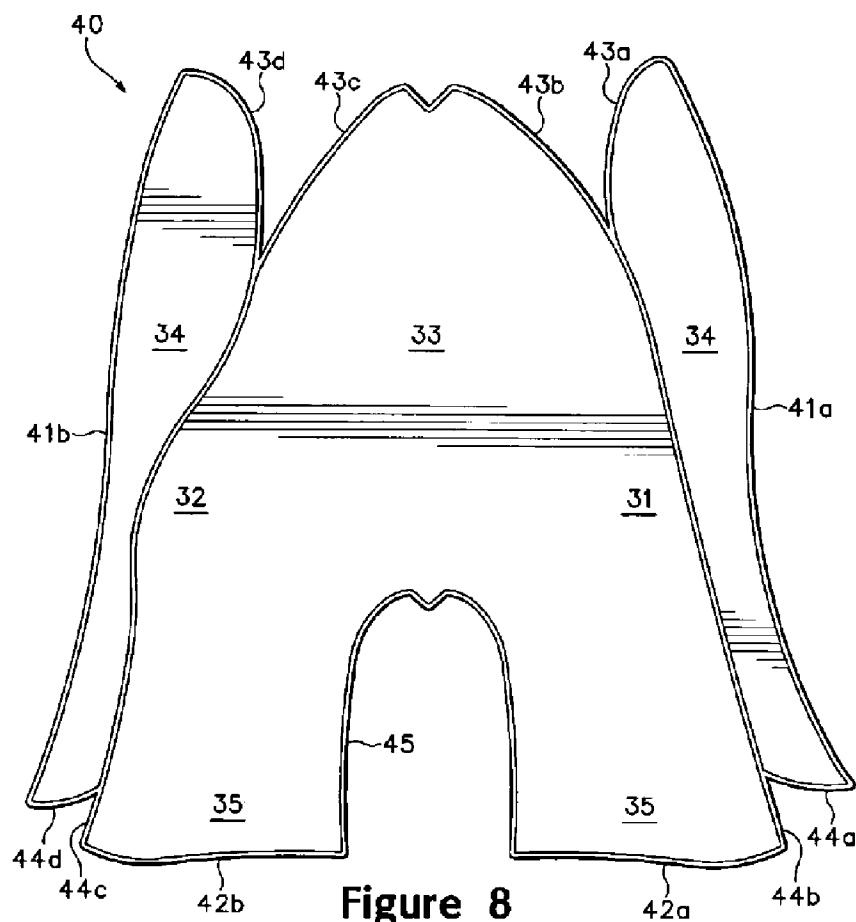


Figure 8

Upper 30 is depicted in FIGS. 2-7 as having a lateral region 31, an opposite medial region 32, an instep region 33, a lower region 34, and a heel region 35. Lateral region 31 extends through a longitudinal length of footwear 10 and is generally configured to contact and cover a lateral side of the foot. Medial region 32 has a similar configuration that generally corresponds with a medial side of the foot. Instep region 33 is positioned between lateral region 31 and medial region 32, and instep region 33 extends over an instep area of the foot. Lower region 34 forms a bottom surface of upper 30 and also extends through the longitudinal length of footwear 10. Heel region 35 forms a rear portion of upper 30 and is generally configured to contact and cover a heel area of the foot. In addition, lateral region 31, medial region 32, instep region 33, and heel region 35 cooperatively define an ankle opening 36 for providing the foot with access to the void within upper 30.

47. The '288 patent explains how the various edges of the textile element are joined together, forming several seams along the heel, toe, and longitudinal length of the bottom of the upper, to make the shape of the upper, and the upper is then secured to the sole. '288 patent, 5:44-6:41.

48. The '288 patent emphasizes that the textile element is a single material element with a unitary construction, '288 patent, 6:42-51:

Textile element 40 is a single material element with a unitary construction, as discussed above. As defined for purposes of the present invention, unitary construction is intended to express a configuration wherein portions of a textile element are not joined together by seams or other connections, as depicted with textile element 40 in FIG. 8. Although the various edges 41a-44d are joined together to form seams 51-54, the various portions of textile element 40 are formed as an unitary element without seams, as discussed below.

49. The '288 patent describes that the textile element may be formed any number of ways with one or more yarns that are mechanically manipulated using a variety of existing processes, '288 patent, 6:52-65:

Textile element 40 is primarily formed from one or more yarns that are mechanically-manipulated through either an interweaving, intertwining and twisting, or interlooping process, for example. As discussed in the Background of the Invention section above, interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping. Textile

element 40 may, therefore, be formed from one of these processes for manufacturing a textile.

50. The ‘288 patent continues by identifying several types of knitting and knitting machines that may be used, including a circular knitting machine from Santoni S.p.A. in Italy that the patent identifies by model number. ‘288 patent, 6:66-7:26. The specific example is of multiple textile elements knitted in a cylindrical textile structure formed with a wide tube circular knitting machine, ‘288 patent, 7:27-64:

A wide-tube circular knitting machine, as produced by Santoni S.p.A., forms a generally cylindrical textile structure and is capable of forming various types of stitches within a single textile structure. In general, the wide-tube circular knitting machine may be programmed to alter the design on the textile structure through needle selection. That is, the type of stitch that is formed at each location on the textile structure may be selected by programming the wide-tube circular knitting machine such that specific needles either accept or do not accept yarn at each stitch location. In this manner, various patterns, textures, or designs may be selectively and purposefully imparted to the textile structure.

An example of a textile structure **60** that may be formed with a wide-tube circular knitting machine is depicted in FIG. 9. Textile structure **60** has a generally cylindrical configuration, and the types of stitches vary throughout textile structure **60** so that a pattern is formed with the outline of textile element **40**. That is, differences in the stitches within textile structure **60** form an outline with the shape and proportions of textile element **40**.

The Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 16 inches, as discussed above. Assuming that textile structure **60** exhibits a diameter of 10 inches, then the circumference of textile structure **60** is approximately 31 inches. In many circumstances, the total width of textile element **40** will be approximately 12 inches, depending upon

the size of footwear **10**. The outlines for at least two textile elements **40** may, therefore, be formed on textile structure **60**. Referring to FIG. 9, the outline of textile element **40** is depicted on a front portion of textile structure **60**, and the outline of another textile element **40** is depicted on a rear portion of textile structure **60**. Accordingly, a first textile element **40** and a second textile element **40** may be simultaneously formed in a single textile structure **60**. As the diameter of textile element **60** is increased or the width of textile element **40** decreases, however, an even greater number of textile elements **40** may be outlined on textile structure **60**.

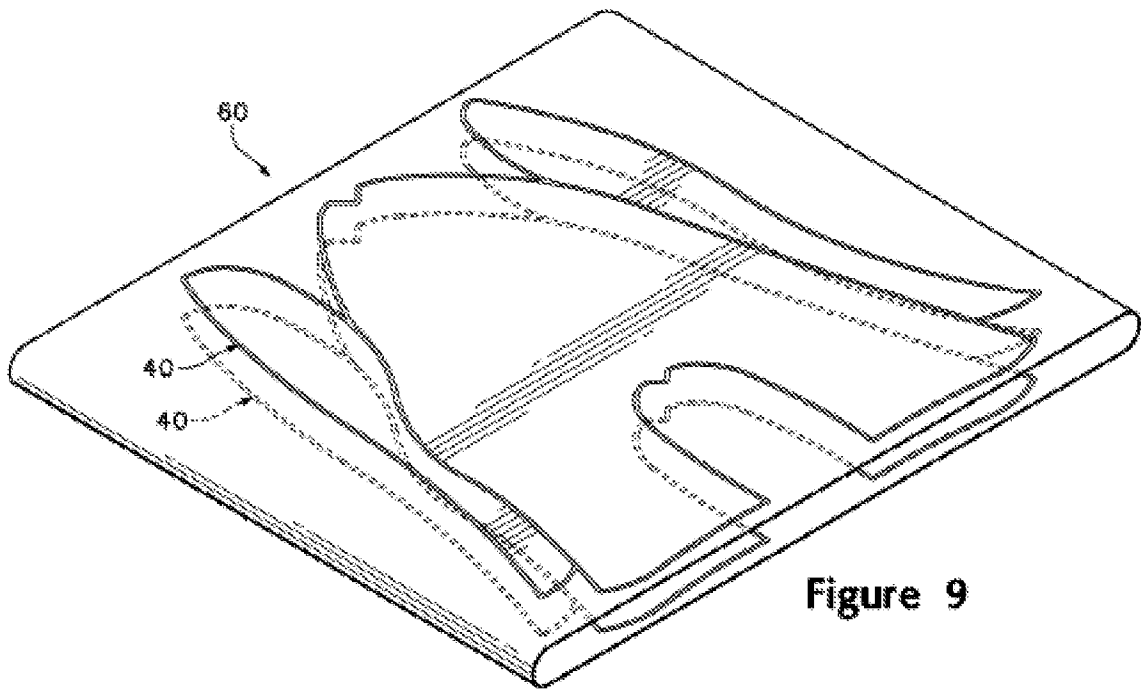


Figure 9

51. The '288 patent explains how the wide tube knitting machines are programmed to provide different types of stitches in different areas of the web so as to outline one or more textile elements, '288 patent, 7:65-8:4:

Textile structure **60** may be formed with a wide-tube circular knitting machine, as discussed above. The types of stitches that form textile structure **60** may be varied to form an outline of one or more textile elements **40** on textile structure **60**. That is, the wide-tube circular

knitting machine may be programmed to form different types of stitches in textile structure **60** so as to outline one or more textile elements **40**.

52. The '288 patent then explains how the textile elements are removed from the web ('288 patent, 8:5-9):

Each textile element **40** is then removed from textile structure **60** with a die-cutting, laser-cutting, or other conventional cutting operation. Once textile element **40** is removed from textile structure **60**, seams **51-54** may be formed and textile element **40** may be incorporated into footwear **10**.

53. FIG. 10 from the '288 patent shows another embodiment of a textile element described therein, where the textile element has different configurations in different areas:

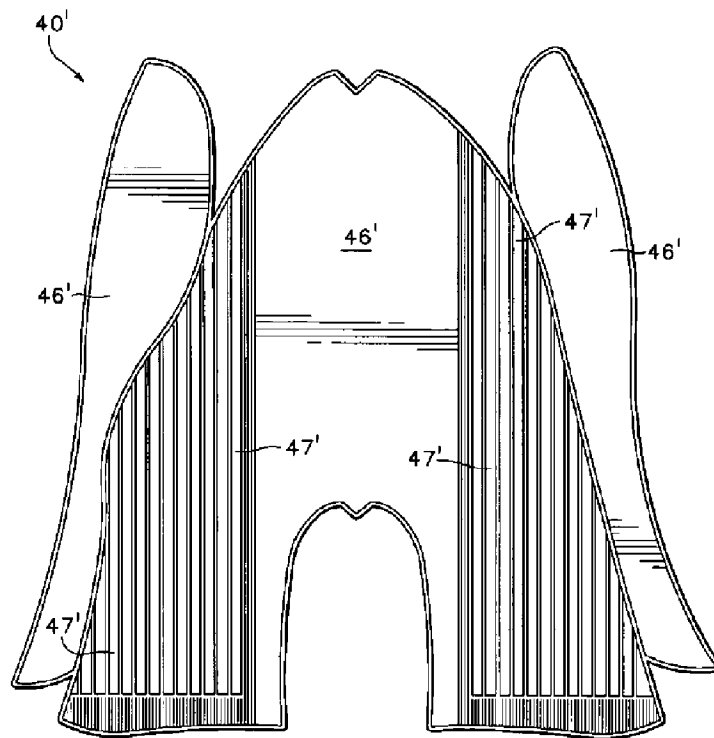


Figure 10

54. The area that corresponds with the instep region has a first texture 46' that is generally smooth, while the areas that correspond with the lateral and medial regions have a second texture 47' that is a plurality of longitudinal ribs. '288 patent, 9:5-14. The patent states that the ribs may be present for aesthetic purposes or may affect the stretch properties of the upper. '288 patent, 9:14-16. The varying textures may be obtained by varying the stitch types in the different areas or by varying the type of yarn. '288 patent, 9:59-62. Changing the yarn type can also be used to impart different properties in different areas, beyond just texture differences. '288 patent, 9:62-66.

55. The '288 patent explains how the inventors believed this was different from conventional articles of footwear, '288 patent, 9:16-29:

Accordingly, textile element 40' exhibits areas with different textures in a single element of textile material.

Many conventional articles of footwear incorporate uppers with various material elements that each exhibit different properties. For example, a first material element may be smooth, and a second material element may be textured. The first and second material elements are then stitched together to form a portion of the conventional upper. Textile element 40' also exhibits smooth and textured areas. In contrast with the conventional upper, however, first texture 46' and second texture 47' are incorporated into a single, unitary element of textile, rather than two separate elements that are stitched or otherwise joined together.

56. The '288 patent also discloses an embodiment that has areas with three different textures. '288 patent, FIG. 11; 9:30-58. In addition, the '288 patent

discloses an embodiment in which the textile element 240 forms an interior layer of a multilayered upper 230. ‘288 patent, 10:33-63; FIGS. 13-14. In the Background section, the ‘288 patent states that conventional multilayered uppers for athletic footwear “may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer.” ‘288 patent, 1:54-58. “Although the materials selected for the upper vary significantly, textile materials often form at least a portion of the exterior layer and interior layer.” ‘288 patent, 2:13-15. “An intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot from objects that may contact the upper.” ‘288 patent, 2:4-6. In the upper 230 shown in FIGS. 13-14, the ‘288 patent explains that the “[u]pper 230 has a configuration that is similar to the configuration of the conventional upper in that various material layers are utilized. In contrast with the conventional upper, however, the interior layer is formed of textile element 240, which is manufactured through the process discussed above. That is, textile element 240 is a single element of textile that forms the interior layer of upper 230.” ‘288 patent, 10:50-56; FIG. 14 (reproduced below).

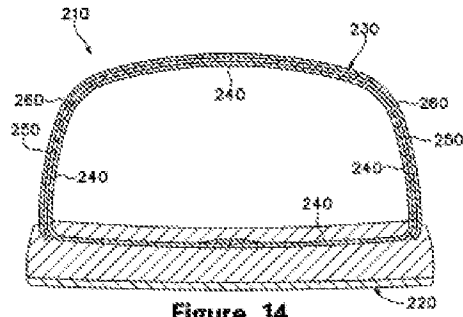


Figure 14

V. OVERVIEW OF THE '288 PATENT CHALLENGED CLAIMS

57. The challenged claims of the '288 patent are claims 1-7, 9-13, and 21-38, of which claims 1, 21, 29, and 36 are the independent claims. All of the challenged claims are reproduced below.

1. An article of footwear comprising:
an upper incorporating a circular-knitted textile element having a plurality of knit constructions,
the circular-knitted textile element being removed from a circular-knitted textile structure, and
further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and
a sole structure secured to the upper.
2. The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of a lateral side, a medial side, and an instep region of the upper.
3. The article of footwear recited in claim 1, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.
4. The article of footwear recited in claim 3, wherein the edges include a pair of second edges that are joined to form a second seam extending along a heel region of the upper.
5. The article of footwear recited in claim 4, wherein the second seam extends vertically.
6. The article of footwear recited in claim 4, wherein the edges include at least a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper.

7. The article of footwear recited in claim 1, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.
9. The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.
10. The article of footwear recited in claim 9, wherein at least one additional element is secured to the exterior surface and forms a portion of the exterior surface.
11. The article of footwear recited in claim 10, wherein the additional element is secured to a forefoot area of the upper.
12. The article of footwear recited in claim 10, wherein the additional element is secured to a heel area of the upper.
13. The article of footwear recited in claim 1, wherein the circular-knitted textile element forms an interior surface of the upper.
21. An article of footwear comprising:
an upper incorporating a circular-knitted textile element having a plurality of knit constructions, and
further having edges that are joined together to form seams and define at least a portion of a void for receiving a foot,
the seams including a first seam and a second seam,
the first seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and
the second seam extending vertically in the heel area; and
a sole structure secured to the upper.
22. The article of footwear recited in claim 21, wherein the footwear includes a third seam extending through the forefoot area of the upper.
23. The article of footwear recited in claim 21, wherein at least one of the knit constructions forms an aperture in the circular-knitted textile element.
24. The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying elasticity of the circular-knitted textile element.
25. The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying air permeability of the circular-knitted textile element.
26. The article of footwear recited in claim 21, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.
27. The article of footwear recited in claim 21, wherein the circular-knitted textile

element forms at least a portion of both an interior surface and an exterior surface of the upper.
28. The article of footwear recited in claim 21, wherein the circular-knitted textile element forms an interior surface of the footwear, and at least one additional textile element forms an exterior surface of the footwear.
29. An article of footwear comprising:
an upper incorporating a circular-knitted textile element having a plurality of knit constructions,
wherein the circular-knitted textile element is formed with a knitting machine,
the circular-knitted textile element being removed from a circular-knitted textile structure that includes an outline of the circular-knitted textile element, and
the circular-knitted textile element having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and
a sole structure secured to the upper.
30. The article of footwear recited in claim 29, wherein the circular-knitted textile element has a structure formed by a wide-tube circular knitting machine.
31. The article of footwear recited in claim 29, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.
32. The article of footwear recited in claim 31, wherein the edges include a pair of second edges that are joined to form a second seam extending along a heel region of the upper.
33. The article of footwear recited in claim 32, wherein the edges include at least a pair of third edges that are joined to form a second seam extending through a forefoot area of the upper.
34. The article of footwear recited in claim 29, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.
35. The article of footwear recited in claim 29, wherein the circular-knitted textile element forms an interior surface of the upper.
36. An article of footwear comprising:
an upper incorporating a knitted textile element,
wherein the knitted textile element is formed unitarily with a knitted textile structure,
the knitted textile element being removed from the knitted textile structure that includes an outline of the knitted textile element to form edges,
the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction,

the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element, and
further having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper; and
a sole structure secured to the upper.
37. The article of footwear recited in claim 36, wherein the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.
38. The article of footwear recited in claim 36, wherein the knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

58. I have reviewed the constructions presented by adidas in this proceeding for various claim terms of the ‘288 patent. I understand that in *inter partes* review, a claim is to be given the broadest reasonable construction in light of the patent’s specification. I have reviewed and agree that the constructions proposed by adidas for the various terms of the ‘288 patent are appropriate under this standard.

59. It is my opinion that claims 1-7, 9-13, and 21-38 of the ‘288 patent are rendered obvious by U.S. Patent No. 3,985,003 to Reed (“Reed”) and U.S. Patent No. 5,345,638 to Nishida (“Nishida”), as described in the following sections and as detailed in the claim charts attached hereto as Appendix A.

60. It is also my opinion that claims 36-38 of the ‘288 patent are anticipated by Nishida, as described in the following sections and as detailed in the claim chart attached hereto as Appendix B.

VI. COMMON FEATURES AMONG THE ‘288 PATENT CLAIMS

61. As discussed above, there is substantial overlap among the features recited in the challenged claims of the ‘288 patent. I have provided a summary of these common features below:

- **An Article of Footwear** (‘288 patent, claims 1, 21, 29, and 36);
- **Knitting Techniques & Machinery:**
 - **a knitting machine** (‘288 patent, claim 29);
 - **a wide-tube circular knitting machine** (‘288 patent, claim 30);
- **Knitted Textile Element Formed Unitarily with a Knitted Textile Structure** (‘288 patent, claim 36);
- **Textile Element Removed from the Textile Structure** (‘288 patent, claims 1, 29, 36);
- **Textile Structure Including an Outline of the Textile Element** (‘288 patent, claims 29, 36);
- **Textile Element having a Unitary Construction and having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations:**
 - **upper incorporating a knitted textile element, the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of**

- properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element** (‘288 patent, claim 36);
- **the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type** (‘288 patent, claim 37);
 - **upper incorporating a circular-knitted textile element having a plurality of knit constructions** (‘288 patent, claims 1, 21, 29);
 - **the knit constructions produce varying properties in the circular-knitted textile element** (‘288 patent, claims 24 (adds “a varying elasticity of the circular-knitted textile element”), 25 (adds “a varying air permeability of the circular-knitted textile element”));
 - **the first stitch configuration provides a substantially smooth texture to the first area, and the second stitch configuration provides a texture to the second area that is rougher than the smooth texture** (‘288 patent, claims 15, 16 (adds that “the second stitch configuration forms a rib structure in the second area”));
- **First (Longitudinal), Second (Vertical), and/or Third (Forefoot) Edges and Seams:**
 - **Form edges** (‘288 patent, claim 36);

- **the edges are joined together to define at least a portion of a void for receiving a foot** (‘288 patent, claims 1 (adds “longitudinal”), 21 (adds “to form seams”), 29 (adds “longitudinal”));
- **a pair of first edges that are joined to form a first seam extending along a lower region/surface of an upper** (‘288 patent, claims 3, 31 (adds “longitudinally”), 36 (adds “from a heel area to a forefoot area”));
- **the seams including a first seam and a second seam, the first seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and the second seam extending vertically in the heel area** (‘288 patent, claim 21);
- **a pair of second edges that are joined to form a second seam extending along a heel region of the upper** (‘288 patent, claims 4, 5 (adds “vertically”), 32);
- **a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper** (‘288 patent, claims 6, 22 (omits “a pair of third edges that are joined to form”), 33 (recites “second” instead of “third”));
- **Sole Structure Secured to the Upper** (‘288 patent, claims 1, 21, 29, 36);
- Location of the Textile Element within the Upper:

- **textile element forms at least a portion of a lateral side, a medial side, and an instep region of the upper** (‘288 patent, claim 2);
- **textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper** (‘288 patent, claims 7, 18, 26, 34, 38);
- **textile element forms at least a portion of both an interior surface and an exterior surface of the upper** (‘288 patent, claims 9, 19, and 27);
- **the circular-knitted textile element forms an interior surface of the upper** (‘288 patent, claims 13, 20, 28, 35);
- **Additional Elements Attached to an Exterior Surface of the Textile Element:**
 - **at least one additional textile element forms an exterior surface of the footwear** (‘288 patent, claim 28);
 - **at least one additional element is secured to the exterior surface and forms a portion of the exterior surface** (‘288 patent, claims 10, 11 (adds that it is “secured to a forefoot area of the upper”), 12 (adds that it is “secured to a heel area of the upper”));
- **At Least One of the First Stitch Configuration and the Second Stitch Configuration Forms an Aperture in the Circular-Knitted Textile**

Element (‘288 patent, claims 17, 23 (uses “at least one of the knit constructions” instead of the stitch configuration language).

62. It is my opinion that claims 1-7, 9-13, and 21-38 of the ‘288 patent are rendered obvious by Reed and Nishida, as described in the following sections and as detailed in the claim charts attached hereto as Appendix A. It is also my opinion that claims 36-38 of the ‘288 patent are anticipated by Nishida, as described in the following sections and as detailed in the claim charts attached hereto as Appendix B.

63. Reed and Nishida relate to knitted textiles having multiple knitted layers. Reed describes interknitting these layers. Reed and Nishida also relate to knitted textiles that are removed from a larger web of material using program-controlled knitting machines. Nishida states that any conventional textile process may be used to produce these knitted textiles. Reed specifically describes the use of circular knitting machines to produce knitted textiles. Nishida specifically describes incorporating multilayered textile elements into shoe uppers, and Reed suggests that the concept of using circular knitting machines to produce footwear items is well-known.

VII. OVERVIEW OF THE PRIOR ART

64. The claims of the ‘288 patent recite features that were well-known in the prior art at least as of March 3, 2004.

65. Knitted uppers of a unitary construction with modifications of stitches, yarn types, patterns, or constructions in different areas for creating various functional regions have been known for decades. For example, such constructions have been described in detail in several U.S. patents, such as Nishida.

66. The use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies' stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. Reed, 1:33-44. Although Reed acknowledges that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. Reed, 1:48-50.

67. In the mid 1970s, computers began to be used as pattern preparation equipment for electronic double knit machines. Reed, 1:45-48. The use of computers ushered in a new era for knitting technology, as it did for most equipment of that time. As Reed describes, “[c]omputer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this

system, patterns and designs are possible that before could not be made.” Reed, 1:50-55.

68. As the breadth and complexity of computerized patterns increased, the size of circular knitting machines for producing garments also grew to include wide-tube circular knitting machines. Reed states that “[a]n example of a circular knitting machine which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60. As described in Burall, the Model 9RJ36 has a diameter of 30 inches. Burall, pp. 46-47. According to ISO 8117, any circular knitting machine with a nominal diameter of 178 mm (7 inches) or larger is categorized as a large (or wide tube) circular knitting machine. ISO 8117, pp. 1-2.

69. By the mid-1970s, it was envisioned that, with the advent of computerized patterns, circular knitting machines could be used to form all types of garments worn by men, women and children. Reed, 5:56-57.

70. Over the next decade, the development of computerized knitting machines progressed in complexity to the point that the technology could be used to form a variety of knit configurations within a unitary textile element that would be needed for more durable items, such as shoes. *See* Nishida, Abstract, 3:6-11.

71. Around this same period, footwear production was migrating toward less expensive labor markets (Japan in the 1970s, then Taiwan and Korea in the

1980s, followed by China in the 1990s). As the ability to continually find new inexpensive labor pools became more difficult, the footwear industry, along with the garment industry as a whole, began increasingly looking for new machinery and tools to increase automation of the stitching and production processes as an alternative way to reduce the cost of manufacturing.

72. In the early 1990s, Tretorn began investigating ways to leverage the advancements in computerized knitting machinery as a means for improving efficiency and reducing cutting waste associated with manufacturing shoe uppers. Nishida, 1:45-47; 2:11-47. Nishida (assigned to Tretorn) contemplates that the method of producing knitted textiles for shoe uppers can be performed with any “conventional textile process . . .” such as “weaving and/or knitting and/or embroidering.” Nishida, 3:6-9. Nishida also recognizes that “the use of program-controlled, particularly computer-controlled, production devices is advantageous, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18; *see also* 2:40-41; 4:53-54; 5:64-65.

73. Like Nishida, the ‘288 patent recognizes the benefit of using the advances in knitting machine technology to produce knitted textiles for shoe uppers. Nike identifies the Santoni S.p.A. wide-tube circular knitting machine as being able to form complex knit patterns with higher speeds and productivity. ‘288 patent, 7:27-30. Nike states that this machine will “form a textile structure

having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter. The machine exhibits a maximum 140 revolutions per minute for 10 inch diameters. Furthermore, the machine gauge is variable between 16, 22, 24, 26, 28, and 32 needles per inch, and is suitable for various needle gauges ranging from 48 to 75.” ‘288 patent, 7:16-26. Because these wide-tube knitting machines used computer-programmed knit patterns, the “wide-tube circular knitting machine may be programmed to alter the design on the textile structure through needle selection. That is, the type of stitch that is formed at each location on the textile structure may be selected by programming the wide-tube circular knitting machine such that specific needles either accept or do not accept yarn at each stitch location. In this manner, various patterns, textures, or designs may be selectively and purposefully imparted to the textile structure.” ‘288 patent, 7:30-38.

74. While the technology of computerized patterns for wide-tube circular knitting machines may have further evolved between 1992 and 2004 to allow for better quality, speed, and productivity from these machines, Nike did not invent anything about manufacturing textile elements for shoe uppers that had not already been envisioned by Reed and Nishida years earlier.

75. I have reviewed other prior art, some of which is relevant to some of the dependent claims. These prior art references describe additional features of shoe uppers made with knitted fabrics. I also had discussions with adidas’s external

knitting consultant to confirm my understanding of certain stitch configurations. All of these references are prior art under 35 U.S.C. § 102(b), as they were all published more than one year before March 3, 2004.

76. Other features recited in the Nike claims do not add anything new to what was already known in the art. For example, the concept of adding breathability to a shoe dates back to the early twentieth century with the first Converse Chuck Taylor basketball shoes, which had two extra holes in the upper for additional breathability. Adding mesh panels into the upper for increased breathability has been used long before March 3, 2004. There are many examples of added wear and protection features that have been added since the early 1900s as additional overlays on the base pattern. Likewise, adding additional wear patches to enhance durability or protection also dates back to the early Converse Chuck Taylors, which incorporated a toe cap.

77. Nishida also describes adding specially constructed regions for durability, support, or breathability. For example, Nishida discloses “[s]ince, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or material used” Nishida, 3:43-48.

78. Furthermore, the concept of forming uppers in multiple layers, with the textile element forming one of the layers, was also well-known long before March 3, 2004. For example, Reed describes forming one layer of the circular-knitted textile element as a lining, while forming the other layer as a normal fabric. Reed, 3:61-68. Reed also describes at least partly joining the layers to each other via interconnecting stitches. Reed, 3:8-12; *see also* 4:20-24; 4:39-60; 5:37-47. Nishida similarly states that the material for the upper can be knitted in two or more layers. Nishida, 3:66-4:1.

79. Finally, several of the ‘288 patent claims focus on edges and seam locations in the upper (*e.g.*, ‘288 patent, claims 1, 3-6, 21-22, 29, 31-33, 36). The placement of seams in various locations is one of the choices made by pattern makers in the shoe industry. Basically, all the seam configurations claimed are simply a few of a limited number of configurations that patternmakers employ to impart various shapes to footwear and to ensure proper fit.

80. Further to this point, the creation of a textile upper for footwear that has edges that are joined together to form seams along the bottom and heel of the upper, as well as in the forefoot area, is a process that has been used to make shoes and slippers for more than 100 years. There is nothing new about the various seam locations described in the ‘288 patent.

81. As Nishida clearly shows in FIGS. 1, 2, 4, and 5, creating a layout for a shoe within a surrounding textile structure that can be cutout and then folded and stitched to form a three-dimensional shoe upper was well known. In fact, the layout shown in FIG. 4 of Nishida is very similar to those shown in the ‘288 patent. By constructing the upper from the layout shown in FIG. 4 of Nishida, the upper would necessarily have seams in the same places as the upper described and claimed in the ‘288 patent.

VIII. GROUND I: REED IN VIEW OF NISHIDA DISCLOSES TO ONE OF ORDINARY SKILL IN THE ART AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 1-7, 9-13, AND 21-38 OF THE ‘288 PATENT

82. U.S. Patent No. 3,985,003 to Reed (“Reed”) issued on October 12, 1976. I understand that Reed qualifies as prior art to the ‘288 patent.

83. U.S. Patent No. 5,345,638 to Nishida (“Nishida”) issued on September 13, 1994. I understand that Nishida qualifies as prior art to the ‘288 patent.

84. Paul Burall, “CoID Design Awards,” Design, June 1969, pp. 46-47 (“Burall”) published in June 1969. I understand that Burall qualifies as prior art to the ‘288 patent.

85. ISO 8117:2003(E) Textile machinery - Knitting machines - Nominal diameters of circular machines (“ISO 8117”) published on February 15, 2003. I understand that ISO 8117 qualifies as prior art to the ‘288 patent.

86. As such, with reference to the claim chart attached to this Declaration as Appendix A, Reed, in combination with Nishida, discloses, teaches, or suggests the features recited in claims 1-7, 9-13, and 21-38 of the ‘288 patent.

A. Preamble

87. Reed describes that “[s]till another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. Reed goes on to state that “[t]he present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. Such garments include footwear, such as stockings. Reed, 1:34-35.

88. Nishida explicitly describes “a process for the production of a shoe shaped part” Nishida, 1:10-11; *see also* Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3. In view of the reasons that the skilled person would combine Reed and Nishida discussed in Section VIII.L below, it would have been obvious to use Reed’s process to produce footwear garments, as described in Nishida.

B. Knitting Techniques & Machinery

89. By way of background, Reed explains that the use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies’ stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished

garment. Reed, 1:33-44. Although Reed recognized that footwear items, such as stockings, were conventionally knit with circular knitting machines, the ability to incorporate complex knit patterns for footwear on a larger scale (as described in Reed) was not possible prior to the 1970s because the labor and complexity involved in manually programming the mechanical-type patterns limited pattern sizes to approximately 144 wales wide, 324 courses high. Reed, 1:48-50.

90. With the advent in computerized programming for knit machines that began in the 1970s, however, “an era of unlimited pattern potential began.” Reed, 1:45-48. “Computer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” Reed, 1:50-55. Reed goes on to explain that the present invention uses “*an electronic circular double knitting machine*,” and that an “object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 1:58-59 (emphasis added); 2:23-25; FIGS. 1-6; *see also* 3:5-7; 4:68-5:2.

91. To the extent that Reed does not explicitly state that the circular-knitted textile element can be used to form an upper for an article of footwear, Nishida describes using conventional textile processes and program-controlled web

of material production devices to form a textile structure with a single or a plurality of textile elements in the shape of a shoe upper. “In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a *conventional textile process*, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9 (emphasis added); *see also* Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1-2. The person of ordinary skill in the relevant art at least as of March 3, 2004 would have understood that circular knitting is a conventional textile process.

92. Nishida also recognizes that “the use of *program-controlled, particularly computer-controlled, production devices is advantageous*, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); *see also* Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

C. Circular-Knitted Textile Structure Formed with a Wide-Tube Circular Knitting Machine

93. As the breadth and complexity of computerized patterns increased, the size of circular knitting machines for producing garments also grew to include wide-tube circular knitting machines. Reed states that “[a]n example of a circular knitting machine which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60; *see also* Abstract; 1:58-64. With respect to the example shown in Figures 1 and 2, Reed

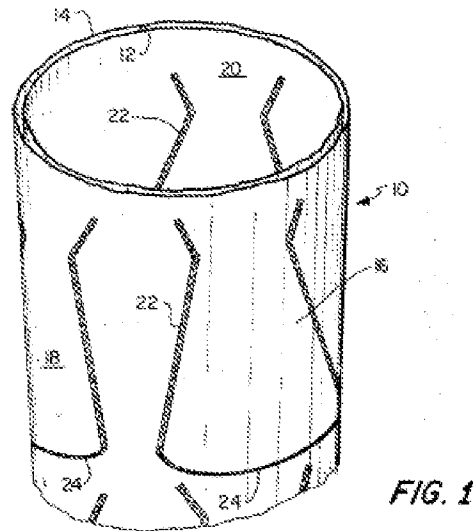
explicitly describes that he is using his knitting machine and technique to make a plurality of “skirts 16, 18, and 20” “[a]round the circumference of the knitted structure 10.” Reed, 3:5-7; FIGS. 1-2. That fact alone would inform a skilled person at least as of March 3, 2004, that the circumference of the circular knitted tube must be at least large enough to accommodate the width of three skirts, and would certainly require a circumference larger than 22 inches as each skirt (even sized for a child) would require more than 7 inches of space around the circumference of the knitted tube. The skilled person would also have understood that a circular knitting machine having a circumference of at least 22 inches (i.e., a nominal diameter of at least 7 inches) is a wide-tube circular knitting machine. This understanding is evidenced by ISO 8117, which provides a table in which any circular knitting machine with a nominal diameter of 178 mm (7 inches) or larger is categorized as a large (or wide tube) circular knitting machine. ISO 8117, pp. 1-2. Hence, skilled persons would thus have recognized that wide-tube circular knitting machines were used to make Reed’s garments and would understand that the Model 9RJ36 was one such example. Indeed, as a revolutionary and award-winning wide-tube knitting machine, the skilled person at least as of March 3, 2004, would have been aware of the 9RJ36, and would have known that it had a diameter of 30 inches, as evidenced by Burall. Burall, pp. 46-47.

D. Knitted Textile Element Formed Unitarily with a Knitted Textile Structure

94. Reed describes that one or more textile elements are formed unitarily with the surrounding textile structure. Reed states that “[t]he present invention uses an *electronic circular double knitting machine* programmed to *simultaneously knit two concentric tubes*, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch *to form the outline of the design of a garment.*” Reed, 1:58-64 (emphasis added). A person of ordinary skill in the relevant art at least as of March 3, 2004, would have understood that the textile element is produced unitarily with the surrounding textile structure in the circular knitting machine due to the way that a circular knitting machine forms the consecutive courses around the circumference of the circular knitting machine. Because each consecutive course of the circular knitting machine forms a portion of the textile element and the surrounding textile structure, the circular knitting machine forms the textile element unitarily with the surrounding textile structure.

95. Reed further explains that these computerized electronic knitting machines may be used to produce “a *plurality of garments* formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added) ; FIG. 1. “As can be seen, the knitted structure 10 includes (around its circumference) a *plurality of finished garments* which need only be severed from the structure 10 and turned

inside out if a hidden seam is desired.” Reed, 3:15-19 (emphasis added); *see also* Abstract; 1:58-64; 2:22-25; 3:5-7; 3:58-60; 4:68-5:2; FIG. 1 (reproduced below).



96. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that “[a]s can be seen, *any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1*. For this purpose, above all, *the use of program-controlled, particularly computer-controlled, production devices is advantageous*, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added).

97. Nishida describes that the layouts 2 are produced by either (1) printing them on the web of material or (2) knitting them inside the web of material 1. Nishida, 1:50-56. “[I]n the production of a web of material, both *the patterns or*

partial patterns in the form of layouts of the shoe upper and the patterns or partial patterns in the form of a sole part, *are produced by* a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by *a textile production process inside the web of material*” Nishida, 1:50-56 (emphasis added).

98. Nishida goes on to explain that “*only just those parts of the web of material* are *produced* in the necessary quality, thickness, multilayers or the like *which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part*. The *remaining area of the web of material* in contrast can consist of a simple, lightweight or inexpensive material quality, which *holds together only the patterns or areas of such patterns in the web of material* after their completion.” Nishida, 2:12-20 (emphasis added).

99. Nishida further describes that “[t]he web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.” Nishida, 3:9-12; *see also* Abstract; 1:47-2:5; 2:40-2:54; 3:6-26; 3:43-58; 3:59-4:9; 4:47-60; 5:27-40; 5:45-6:2; FIGS. 1-3.

E. Textile Element Removed from the Textile Structure

100. Reed describes how the textile elements are removed from the cylindrical textile structure. For example, Reed states that “[t]he interconnecting

knitting 24 is merely to define the lower outline of the skirt *upon which the pattern may be cut*. As can be seen, the knitted structure 10 includes (around its circumference) *a plurality of finished garments which need only be severed from the structure 10* and turned inside out if a hidden seam is desired.” Reed, 3:12-19 (emphasis added). “As indicated previously, once the knitted structure 10 is removed from the knitting machine, *the individual garments may be severed by cutting along the outline* formed by the interconnecting stitches represented by the X's and O's. If desired, the *fabric may be cut with a hot knife* so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); *see also* Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.

101. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that the “process for the production of a shoe shaped part [involves] using a web of material with a plurality of patterns in the form of the layout of a shoe upper, *cutting out these layouts from the web of material* and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); *see also* Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.

F. Textile Structure Including an Outline of the Textile Element

102. Reed describes forming an outline/pattern/texture in the cylindrical textile structure having a shape and/or proportion of the textile element. Reed states that “[t]he garments 16, 18 and 20 are ***outlined*** by a plurality of interconnecting knitted stitches 22 and 24.” Reed, 3:8-9 (emphasis added). “The ***outline seam 24*** is formed from two sets of X 's and O's which are offset in the wale axes by four wales. The degree of wale offset to form the desired outline is a matter of design and thus not critical.” Reed, 4:42-45 (emphasis added). “[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along ***the outline formed by the interconnecting stitches*** represented by the X's and O's.” Reed, 5:67-6:3 (emphasis added).

103. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida states that “in the production of a web of material, both ***the patterns or partial patterns in the form of layouts of the shoe upper*** and the patterns or partial patterns in the form of a sole part, ***are produced by*** a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by ***a textile production process inside the web of material . . .***” Nishida, 1:50-56 (emphasis added); *see also* Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2, 4-5.

G. Textile Element having a Unitary Construction and having a Plurality of Knit Constructions and/or Areas with Different Stitch Configurations

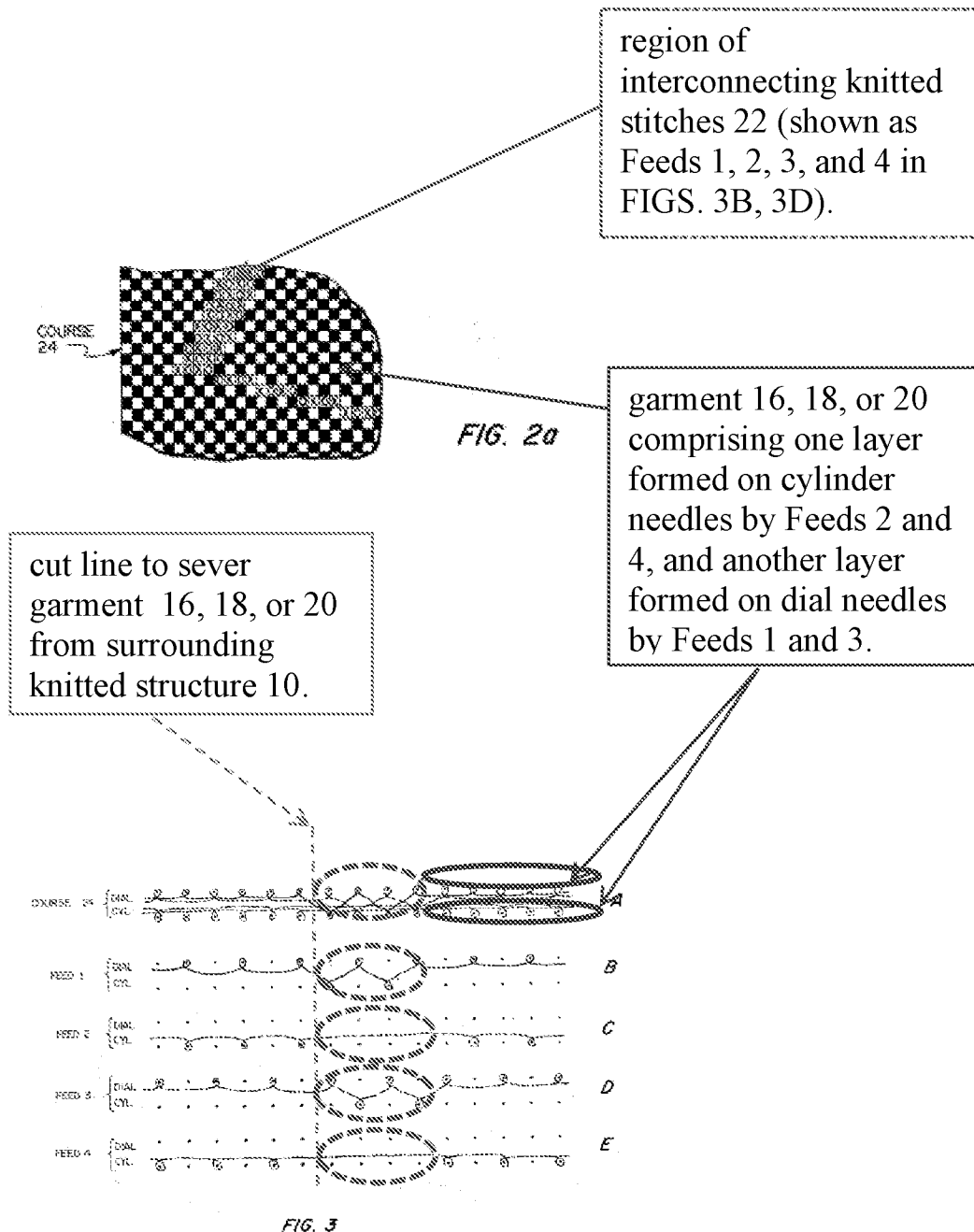
104. Reed describes that the textile element has a unitary construction within which there are areas of different knit configurations having different textures, which may be produced by varying the stitch type within each area.

105. Reed describes this feature in two different ways:

106. First, Reed describes that the edges of the garments 16, 18, 20 are formed by interknitted stitches, whereas the remainder of the garments 16, 18, 20 are formed by non-interknitted stitches. Specifically, Reed describes that the outline of the garments 16, 18, 20 is formed with interknitted stitches (shown in X's and O's in FIG. 2), which are formed by feeds 1, 2, 3, and 4 on needles 7, 9, 8, and 10 (as shown in FIG. 3B and 3D). Reed, 5:3-18, FIGS. 3A-3E. In contrast, “two feeds [i.e., feeds 1, 3 for the dial needles] are used for one course of the inner tube 12 and two feeds [i.e., feeds 2, 4 for the cylinder needles] are used for the outer tube 14.” Reed, 4:61-64; FIGS. 2A, 3A-3E.

107. Reed goes on to explain that “once the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's.” Reed, 5:67-6:3; *see also* 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below). As illustrated in the attached claim chart for claim 1 of the

‘288 patent, because the interknitted stitches are part of the garments 16, 18, 20, and the garments 16, 18, 20 also comprise areas that are only formed as part of the outside tube 14 or the inner tube 12, the garments 16, 18, 20 have a plurality of different knitted textures formed by varying at least one of the stitch type and the yarn type.



108. Second, Reed also goes on to describe how the two layers 12, 14 themselves may be formed of different yarns or stitch configurations. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, *the*

outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, *where the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns.*” Reed, 3:61-4:9 (emphasis added). Thus, Reed teaches a circular-knitted textile element with two different knit configurations.

109. To the extent that Reed does not explicitly state that these features are present in a circular-knitted textile element that is used to form an upper for an article of footwear, Nishida describes that “in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, *areas 26 and 27 are produced in a configuration*, color or style *that is different from the other areas.*” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or *knitted type of individual areas or*

contours, the type of fiber or yarn and/or the color *can be selected almost at will.*”

Nishida, 2:40-45 (emphasis added).

110. For example, the ‘288 patent describes varying the “stitch type” as a way to vary the type of texture in different areas, and as separate from varying the type of yarn. ‘288 Patent, 9:33-50; 9:54-62. Nishida specifically describes using different materials, different compositions (such as twisted or parallel processing or the like), and different knit types or knit patterns, therefore describing for the skilled person using different stitch configurations in different areas as a way to give the textile element different properties in different areas. Nishida, Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2.

111. Nishida goes on to describe that these varying properties may include a varying elasticity, air permeability, absorptivity, softness, extensibility, wear resistance, and appearance. “Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, *insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.*” Nishida, 3:43-52 (emphasis added). “[T]he layouts of the shoe upper and sole parts are *produced by*

modifying the overall construction of the web of material in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, *using* one of a *different* weaving and *knitting type* for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, *air permeability*, *softness*, *extensibility*, wear resistance and appearance.” Nishida, 6:1-31(emphasis added).

112. Regarding varying properties, Nishida further states that “[a]s already indicated, the webs of material being used can be produced by program-controlled web of material production devices whose programs can be matched almost at will according to the corresponding basic setting with deviations in the size of the layouts of the individual shoe uppers or *with changes of the type of weave or knit of individual areas* or contours, the type of fiber or yarn and/or the color.”

Nishida, 5:63-6:2 (emphasis added). A person of ordinary skill in the art at least as of March 3, 2004 would have understood that Nishida’s disclosure regarding varying the knit of individual areas would include having a substantially smooth texture in one area, and a rougher texture in another area. Such an understanding is evident in view of Nishida’s statement that “softness” is specifically one of the properties to be varied, combined with Nishida’s statement that “[l]ayout 2 is

divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25. Furthermore, a person of ordinary skill in the relevant art at least as of March 3, 2004 would have understood Nishida’s disclosure regarding a varying extensibility to mean that portions of the knit configuration may have a rib structure, which is designed to provide greater elasticity / extensibility than portions of the knit configuration without rib structures.

H. First (Longitudinal), Second (Vertical), and/or Third (Forefoot) Edges and Seams

1. Longitudinal Edges Joined Together to Define at least a Portion of a Void for Receiving a Foot and/or to Form a Seam that Extends along a Lower Region/Surface of an Upper

113. Nishida shows longitudinal edges 29.3 and 29.4 in FIG. 4 (reproduced below), as illustrated in the attached claim chart for claim 1 of the ‘288 patent.

“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29.

In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; *see also* 4:22-30; 6:5-41; 6:47-54; FIGS. 3-4.

114. As part of converting the layout into a shoe upper, Nishida describes joining longitudinal edges 29.3 and 29.4 in FIG. 4 to define at least a portion of a void for receiving a foot, as well as to form a seam that extends along a lower region of an upper. “[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; *see also* 4:22-30; 5:3-13; 6:5-41; FIGS. 3, 4 (reproduced below).

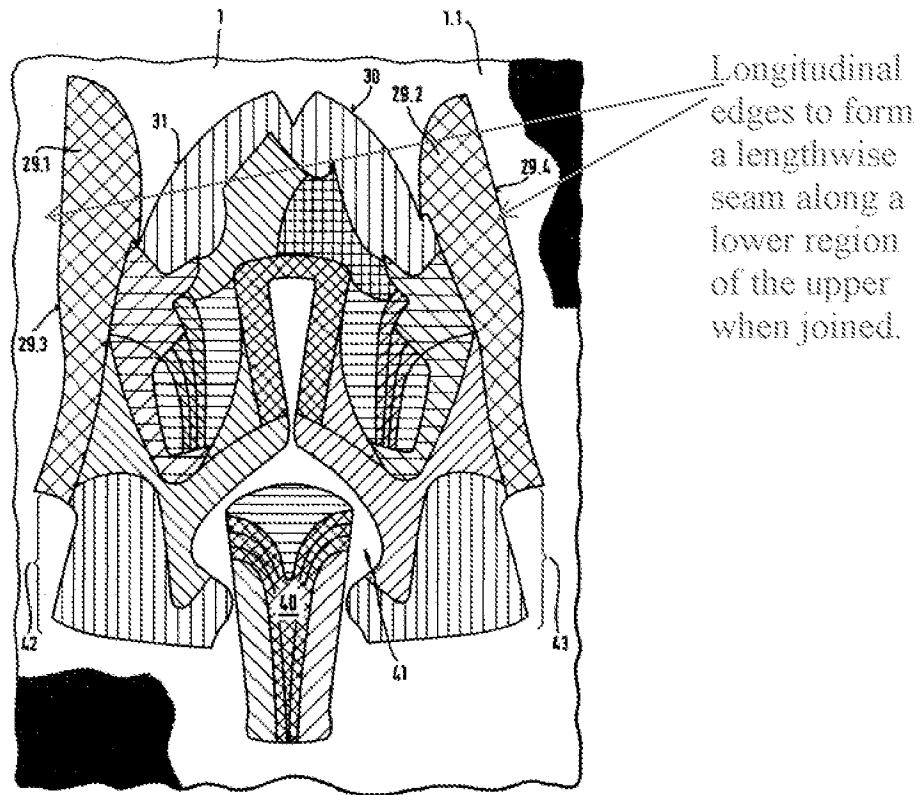
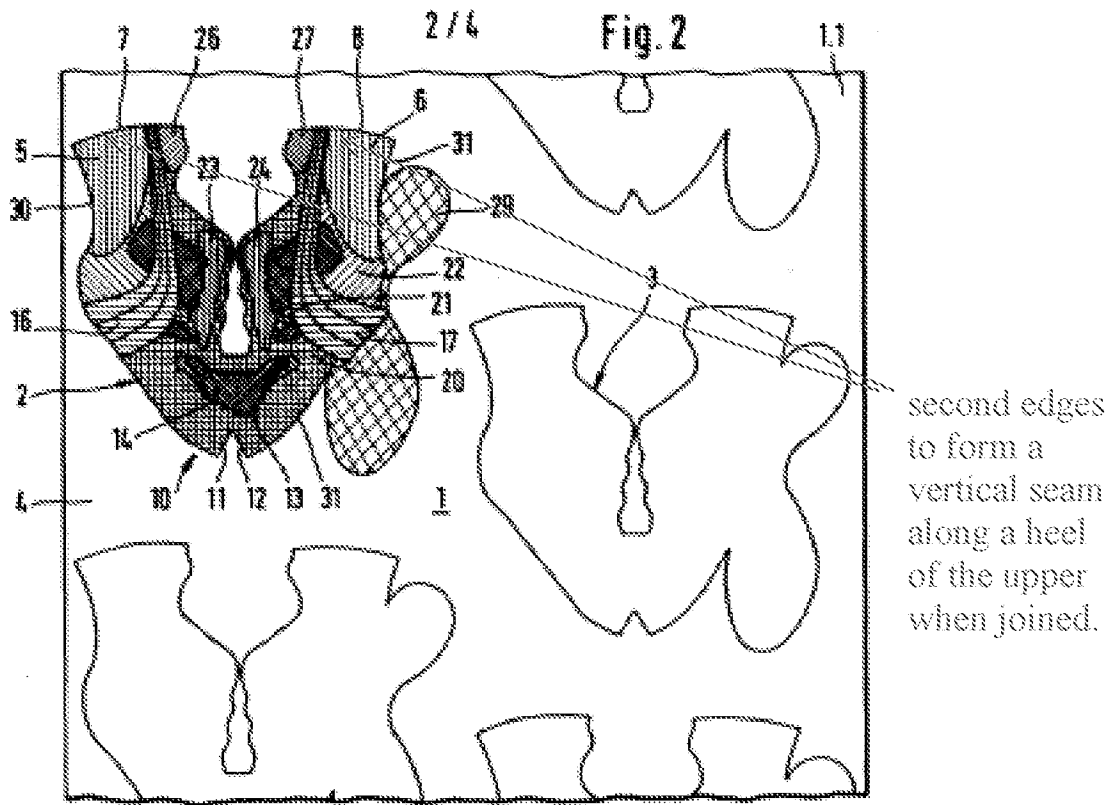


Fig. 4

2. Second (Vertical) Edges Joined to Form a Seam that Extends Vertically along a Heel Region of an Upper

115. Nishida also discloses joining a second pair of edges as part of converting the layout into a shoe upper, in which the joined edges form a second seam that extends vertically along a heel region of the upper, as illustrated in the attached claim chart for claim 4 of the '288 patent. "After cutting out layout 2 from the web of material 1, the edges 7 and 8 are stitched together and a heel seam thus is formed. Then, heel counter 9, represented in FIG. 3, is applied, for example, glued and/or stitched, to adjacent areas 5 and 6." Nishida, 3:31-36; *see also* 4:9-11; 6:5-41; FIGS. 2 (reproduced below), 4.



3. Third (Forefoot) Edges Joined to Form a Seam that Extends through a Forefoot Area of an Upper

116. Nishida also discloses joining a third pair of edges as part of converting the layout into a shoe upper, in which the joined edges form a third seam that extends through a forefoot area of the upper, as illustrated in the attached claim chart for claim 6 of the '288 patent. "Correspondingly, the contours of *edges 11 and 12 are stitched together in the form of shoe toe 10*, and a seam is formed on the shoe toe. To reduce wear, a toe cap 15, represented in FIG. 3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of toe area 14." Nishida, 3:37-42 (emphasis added).

117. “According to an advantageous further development of the invention, an individual part 29 in the form of an insole can be co-produced on layout 2 of shoe upper 3. After being cut out, this individual part 29 remains connected with layout 2, and after or during the shaping and fixing of shoe upper 3 from layout 2, ***part 29 is folded into the plane of the shoe sole and is fastened to the lower edge zone of the shoe upper 3. This lower edge zone is defined in layout 2 by outside contours 30 and 31, and the manner of its fastening can be, in a way known in the art, for example, by gluing, stitching, tacking or the like.***” **Nishida**, 4:19-30 (emphasis added); *see also* 6:5-41; FIG. 2, 4 (reproduced below).

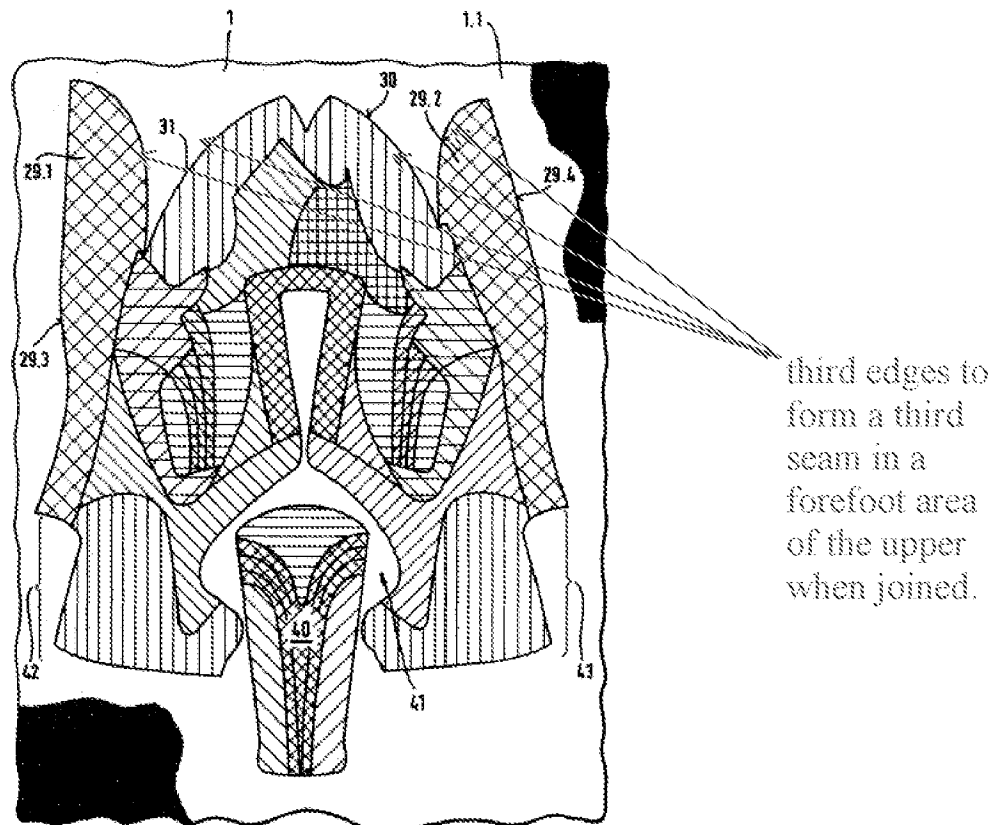
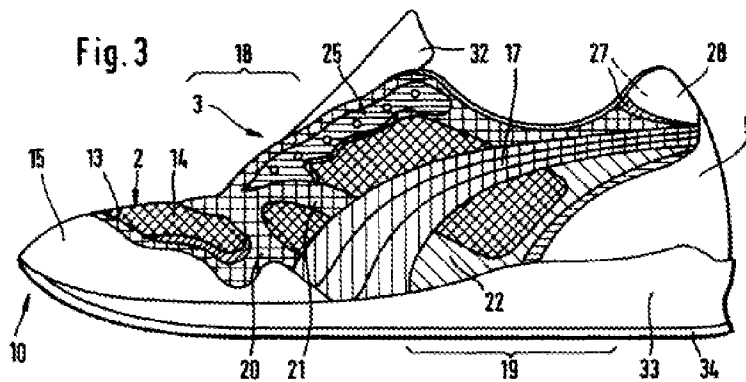


Fig. 4

I. Combining the Textile Element Into Footwear Components

118. Nishida describes “*stitching parts of the layout* of the cut-out unit on provided seams *to form an upper of the shoe shaped part . . .*” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; *see also* Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced below).



J. Upper Construction Using Textile Elements

1. Circular-Knitted Textile Element Forms at least a Portion of a Lateral Side, a Medial Side, and an Instep Region of the Upper

119. Nishida describes that the textile element forms a portion of a lateral side, a medial side, and an instep region of the shoe upper. Nishida, 3:15-18; 3:27-42 (describing that parts of the layout forms a heel region and a toe region); 3:59-

4:9 (describing that parts of the layout form the heel region and lacing areas); 5:3-8 (describing that parts of the layout form a sole region); 3:15-4:46; FIGS. 1-5.

2. Circular-Knitted Textile Element is one of an Exterior Layer, an Intermediate Layer, and an Interior Layer of the Upper

120. Reed describes using his circular knitting machine and technique to make a garment in which the inner tube 12 is partially joined to the outside tube 14 using interconnecting stitches 22 and 24. “The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed, 3:8-12.

121. Reed describes that “[i]f the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric *wherein the inner tube 12 may be formed of a material such as lining*. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68 (emphasis added); *see also* Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:20-24; 4:39-60; 4:68-5:2; 5:37-47; FIG. 1.

122. Furthermore, Nishida similarly states that “[o]ptionally, in this case, the material can be woven or *knitted in two or more layers* or can be especially thick or additionally embroidered.” Nishida, 3:66-4:1 (emphasis added); FIG. 3; *see also* Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

123. To the extent that the claim language is construed to mean that the upper has three layers, and the circular-knitted textile is one of these layers, the skilled person would understand that Nishida teaches three layers by describing “two or more layers,” which means an interior, intermediate, and exterior layer are all described.

124. Thus, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. This is nothing more than combining “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C). This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421. In the resulting upper,

Reed's circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

3. The Circular-Knitted Textile Element Forms an Interior Surface of the Upper

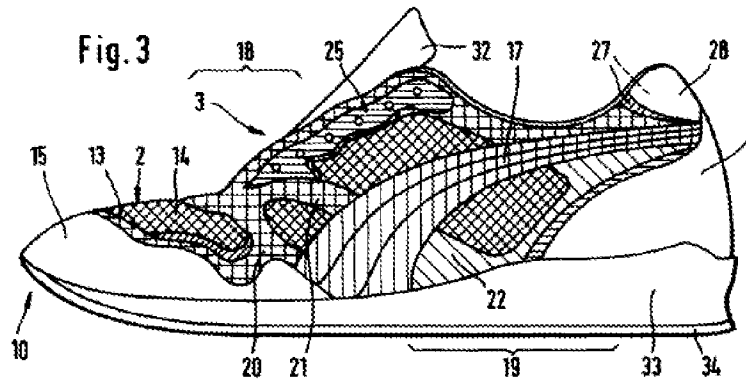
125. As described in Section VIII.J.2 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed's circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. In the resulting upper, Reed's circular-knitted textile element forms an interior surface of the upper.

4. Circular-Knitted Textile Element Forms at least a Portion of both an Interior Surface and an Exterior Surface of the Upper

126. As described in Section VIII.J.2 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed's circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. In the resulting upper, Reed's circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.

127. Nishida goes on to describe that additional elements may be attached to the exterior surface of the layouts 2 and therefore form a portion of the exterior surface of the upper. Because these additional elements do not completely cover the entire exterior surface, other portions of the layouts 2 remain uncovered by the

additional elements. As a result, these uncovered portions of the circular-knitted textile element (such as areas 20, 21, 22, and toe area 14) form at least a portion of the exterior surface of the upper. Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).



5. The Circular-Knitted Textile Element Forms an Interior Surface of the Upper, and at least one Additional Textile Element forms an Exterior Surface of the Footwear

128. As described in Section VIII.J.2 above, it would have been obvious to the skilled person at least as of March 3, 2004, to use Reed’s circular knitting technique to form a knitted textile element that is then used to form the shoe upper described in Nishida. In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the footwear.

129. Nishida goes on to describe that additional elements such as toe caps, heel counters, and/or lacing strips may be attached to the exterior surface of the upper. For example, Nishida states that “[t]he individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a

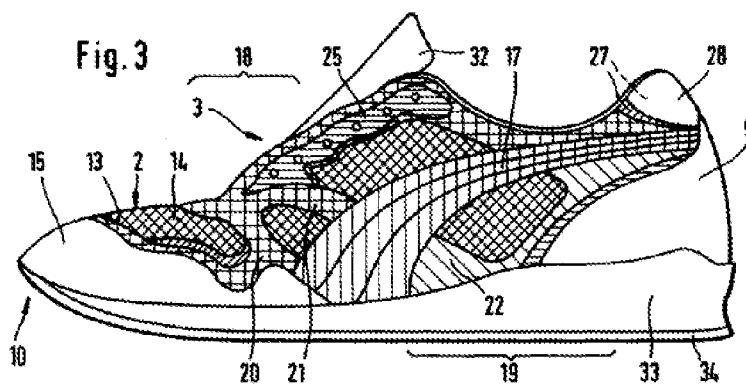
part resistant to wear, is applied. For example, *areas 5 and 6 are provided for applying* an inside or *outside heel counter 9* (FIG. 3).” Nishida, 3:27-29 (emphasis added). “To reduce wear, *a toe cap 15*, represented in FIG. 3, *can be applied*, especially glued and/or stitched, *on the front area*, adjacent to front edge 13 of *toe area 14*.” Nishida, 3:39-42 (emphasis added); *see also* Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:59-4:1; 4:9-11; FIG. 3. These additional elements therefore form an exterior surface of the upper.

130. It was well-known to the skilled person at least as of March 3, 2004, that toe caps, heel counters, and lacing strips may be formed from a textile material, such as leather or synthetic leather, as evidenced by the Background of the ‘228 patent. The Background of the ‘288 patent states states that “[w]ith regard to the exterior layer, the toe area and the heel area may be formed of leather, synthetic leather, or a rubber material to impart a relatively high degree of wear-resistance.” ‘288 patent, 1:60-63.

131. In the resulting upper, Reed’s circular-knitted textile element forms an interior surface of the upper, and at least one additional textile element (in the form of toe caps, heel counters, and lacing strips) forms an exterior surface of the footwear.

6. Additional Element Secured to the Exterior Surface (Forefoot and/or Heel) of the Circular-Knitted Textile Element and Forms at least a Portion of the Exterior Surface

132. Nishida describes that additional elements such as toe caps, heel counters, and/or lacing strips may be secured to the exterior surface of the upper and may form a portion of the exterior surface of the upper. The toe caps may be secured to a forefoot area of the upper, and the heel counters may be secured to a heel area of the upper. Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:27-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).



K. Aperture(s) Formed in the Textile Element

133. The '288 patent describes apertures in one of three ways:

- (1) "[T]he u-shaped area becomes *an aperture* in textile element 40 and effectively forms ankle opening 36" ('288 patent, 6:25-26 (emphasis added));
- (2) "The air-permeability of textile element 40" may also vary in the different areas. Third texture 48" is formed to include *a plurality of apertures* that extend through textile element 40". The *apertures* may be formed by omitting stitches at specific locations during the wide-

tube circular knitting process, and the *apertures* facilitate the transfer of air between the void within upper 20 and the area outside of upper 20” (‘288 patent, 9:47-54 (emphasis added)); and

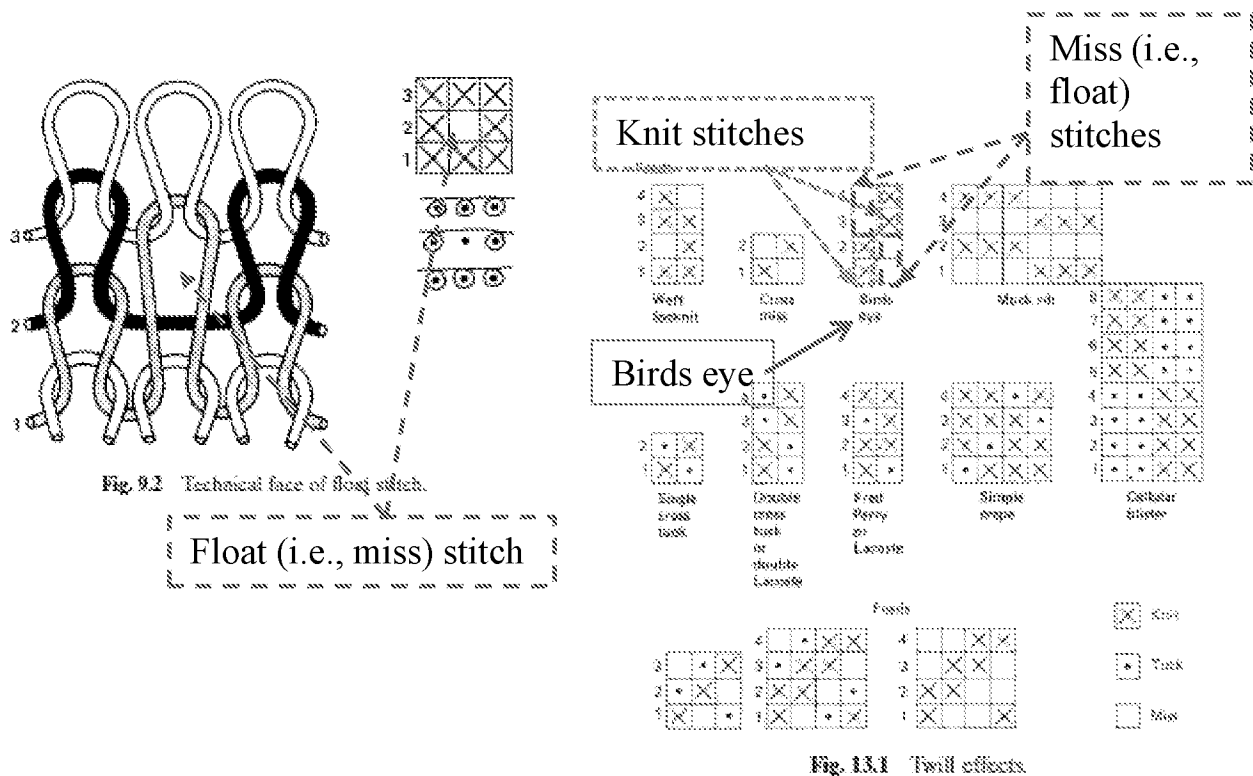
(3) “Lace 131 extends through *a plurality of apertures* formed in textile element 140. The *apertures* may be formed by omitting stitches at specific locations.” (‘288 patent, 10:16-19 (emphasis added)).

134. With respect to the first type of “ankle opening” aperture, Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. *See* Nishida, FIGS. 1-5.

135. With respect to the second type of “air-permeability” apertures, Nishida discloses that the “type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a *net-like woven or knitted structure*.” Nishida, 3:49-52 (emphasis added); *see also* 3:43-52; 3:66-4:5; 6:25-31. The skilled person at least as of March 3, 2004, would have understood that a birds eye stitch configuration is a common technique for knitting a net-like knitted structure, as evidenced by Spencer. According to Spencer, a birds eye stitch is a combination of knit and miss stitches. Spencer, p. 146; FIG. 13.1 (reproduced below). Spencer explains that “a *miss stitch* would always be *floating freely on the technical back*.” Spencer, p. 94 (emphasis

added). Likewise, Spencer explains that the same definition applies to a float stitch: “[i]n FIG. 9.2, the *float stitch* shows the *missed yarn floating freely on the* reverse side of the held loop. (This is the *technical back* of single-jersey structures but is the inside of rib and interlock structures.)” Spencer, p. 92 (emphasis added); FIG. 9.2 (reproduced below). In short, the terms “miss stitch” and “float stitch” are interchangeable.

136. Spencer goes on to explain that a float stitch “is produced when a needle (M) holding its old loop fails to receive the new yarn that passes, as a float loop, to the back of the needle and to the reverse side of the resultant stitch, joining together the two nearest needle loops knitted from it.” Spencer, p. 92. As a result, the float (or miss) stitch forms an aperture in the textile fabric in each specific location where “the missed yarn float[s] freely on the reverse side of the held loop.” Spencer, p. 92. In other words, the skilled person would have understood Nishida’s statement regarding the use of a net-like knitted structure to suggest incorporating birds eye stitches as a mechanism of producing apertures by omitting stitches in specific locations within the knitted textile element.



137. With respect to the third type of “lace hole” apertures, Nishida describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Thus, Nishida explains that “the lacing areas 23 and 24 *can be made dimensionally stable* in corresponding manners, especially *if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.*” Nishida, 4:1-5 (emphasis added). Nishida thus recognizes that (a) the lacing strips are optional and may not be applied; (b) that the net-like structure may itself then be used or (c) if no lacing strips are applied and the net-like structure is used, then the lacing areas can be further stabilized via an embroidery. See Nishida, 4:31-38. However, if the

additional lacing strips and embroidery are not added, the textile element still includes the net-like structure in the lacing area.

L. The Skilled Person Would Have Been Motivated to Combine Reed and Nishida

138. Reed’s explicit statement that “[t]he present invention may be used to form all types of garments worn by men, women and children” (Reed, 5:56-57) in combination with Reed’s explicit reference to the fact that footwear items, such as stockings, were conventionally knit with circular knitting machines (Reed, 1:33-44), would have suggested to a person of ordinary skill in the relevant art at least as of March 3, 2004 that Reed’s process could be used to form all types of articles of clothing including footwear, particularly since “clothing” is understood to refer to all things that people wear to cover their bodies. Specifically, the skilled person would have understood Reed’s reference to “all types of garments” to include footwear, as well as tops, pants, shorts, skirts, dresses, suits, outerwear, underwear, headwear, nightwear, swimwear, and accessories.

139. By March 3, 2004, routine acceptance of computerized knitting technology and Reed’s encouragement to apply such to all garments, would have motivated the skilled person to use Reed’s process to form textile elements that are then used to form footwear as described in Nishida, as such a design choice would have been predictable and well known to a person with ordinary skill in the art.

Nishida, Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48;

3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3. This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

140. Moreover, the skilled person would have found Nishida’s process of producing textile elements to be analogous art to Reed’s process, as both are directed to methods of simultaneously forming textile articles within a surrounding textile structure using “program-controlled web of material production devices” (as described in Nishida, 2:40-41; 4:15-17; 4:53-54; 5:64-65) and a “computerized electronic knitting machine” (as described in Reed, 1:58-59; 2:23-25); removing the textile element from the surrounding textile structure; and incorporating the textile element into a wearable item. Nishida, Abstract; 1:10-18; 1:40-2:37; 2:40-47; 3:6-52; 3:59-4:5; 4:12-60; 5:3-26; 5:63-6:2; 6:36-38; FIGS. 1-3; Reed, 1:58-64; 2:14-16; 2:22-31; 3:1-19; 3:58-60; 4:68-5:18; 5:56-57; 5:67-6:5; FIGS. 1, 2A, 2-6.

141. Additionally, Reed and Nishida are directed to reducing costs associated with producing textile elements using the latest advances in knitting technology. Reed states that “[a]nother object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine,” and that “[s]till another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:22-31. Given the variety of sizes of

shoe uppers and the fact that including multiple uppers around circumference of a circular knitted tube directly increases efficiency, the skilled person would have been motivated to use Reed's process to produce textiles for shoe uppers, particularly in view of the improvements in single needle selection that allows for specific control over stitch configurations in different parts of the upper.

142. Nishida states that “[i]t is of further advantage in the process according to the present invention that the individual patterns or partial patterns already can be produced *directly* in the production of the web of material in the desired shoe size, by which the cutting waste can be still further limited, since the individual patterns or partial patterns in the provided size can directly adjoin one another.” Nishida, 2:27-33 (emphasis added). Nishida contemplates that the method of producing knitted textiles for shoe uppers can be performed with any “conventional textile process . . .” such as “weaving and/or knitting and/or embroidering.” Nishida, 3:6-9. Nishida further explains that “after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or knitted type of individual areas or contours, the type of fiber or yarn and/or the color can be selected almost at will.” Nishida, 2:40-45.

143. In view of the substantial similarities between the methods described in Reed and Nishida, along with a shared interest in reducing costs and waste, as well as a focus on simplifying the manufacturing process, a person of ordinary skill

in the relevant art would certainly have been motivated to modify Reed’s method to include the additional features described by Nishida to produce a textile element for use in a shoe upper, as well as to produce a shoe incorporating such a textile element.

144. The combination of Reed and Nishida is nothing more than combining “prior art elements according to known methods to yield predictable results” and/or the “[u]se of known technique[s] to improve similar devices (methods, or products) in the same way.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-22 (2007); MPEP § 2143 (A, C). This is particularly the case where “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

145. It is therefore my opinion that Reed and Nishida teach and render obvious claims 1-7, 9-13, and 21-38 of the ‘288 patent.

IX. GROUND II: AN ARTICLE OF FOOTWEAR, AS CLAIMED IN CLAIMS 36-38 OF THE ‘288 PATENT, IS ANTICIPATED BY NISHIDA

146. U.S. Patent No. 5,345,638 to Nishida (“Nishida”) issued on September 13, 1994. I understand that Nishida qualifies as prior art to the ‘288 patent.

147. As such, with reference to the claim chart attached to this Declaration as Appendix B, Nishida discloses, teaches, or suggests the features recited in claims 36-38 of the ‘288 patent.

A. Preamble

148. Nishida explicitly describes “a process for the production of a shoe shaped part” Nishida, 1:10-11; *see also* Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3.

B. Knitting Techniques & Machinery

149. Nishida describes using conventional textile processes and program-controlled web of material production devices to form a textile structure with a single or a plurality of textile elements in the shape of a shoe upper. “In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a *conventional textile process*, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9 (emphasis added); *see also* Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1-2.

150. Nishida also recognizes that “the use of *program-controlled, particularly computer-controlled, production devices is advantageous*, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); *see also* Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.

C. Knitted Textile Element Formed Unitarily with a Knitted Textile Structure

151. Nishida describes that one or more textile elements are formed unitarily with the surrounding textile structure. Specifically, Nishida states that

“[a]s can be seen, *any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1*. For this purpose, above all, *the use of program-controlled, particularly computer-controlled, production devices is advantageous*, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); *see also* 2:40-41; 4:53-54; 5:64-65.

152. Nishida describes that the layouts 2 are produced by either (1) printing them on the web of material or (2) knitting them inside the web of material 1. Nishida, 1:50-56. “[I]n the production of a web of material, both *the patterns or partial patterns in the form of layouts of the shoe upper* and the patterns or partial patterns in the form of a sole part, *are produced by* a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by *a textile production process inside the web of material . . .*” Nishida, 1:50-56 (emphasis added).

153. Nishida goes on to explain that “*only just those parts of the web of material are produced* in the necessary quality, thickness, multilayers or the like *which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part*. The *remaining area of the web of material* in contrast can consist of a simple, lightweight or inexpensive material quality, which *holds together only the patterns or areas of such patterns in the web of material* after

their completion.” Nishida, 2:12-20 (emphasis added). Thus, I interpret this to mean that the remaining web area is also being knitted together with the layouts that form the shoe upper.

154. Nishida further describes that “[t]he web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.” Nishida, 3:9-12; *see also* Abstract; 1:47-2:5; 2:40-2:54; 3:6-26; 3:43-58; 3:59-4:9; 4:47-60; 5:27-40; 5:45-6:2; FIGS. 1-3.

D. Textile Element Removed from the Textile Structure to Form Edges

155. Nishida describes how the textile elements are removed from the cylindrical textile structure to form edges. Specifically, Nishida states that the “process for the production of a shoe shaped part [involves] using a web of material with a plurality of patterns in the form of the layout of a shoe upper, *cutting out these layouts from the web of material* and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); *see also* Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.

E. Textile Structure Including an Outline of the Textile Element

156. Nishida describes forming an outline/pattern/texture in the cylindrical textile structure having a shape and/or proportion of the textile element.

Specifically, Nishida states that “in the production of a web of material, both *the patterns or partial patterns in the form of layouts of the shoe upper* and the patterns or partial patterns in the form of a sole part, *are produced by* a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by *a textile production process inside the web of material . . .*.”

Nishida, 1:50-56 (emphasis added); *see also* Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2, 4-5.

F. Textile Element Having a First Area with a First Unitary Construction and a Second Area with a Second Unitary Construction Different from the First Unitary Construction, the First Area having a First Set of Properties, and the Second Area Having a Second Set of Properties that is Different from the First Set of Properties to Impart Varying Characteristics to the Textile Element

157. Nishida describes that the textile element has a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element.

158. Specifically, Nishida describes that “in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, *areas 26 and 27 are produced in a configuration*, color or style *that is different from the other areas.*” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or *knitted type of individual areas or contours*, the type of fiber or yarn and/or the color *can be selected almost at will.*” Nishida, 2:40-45 (emphasis added).

159. For example, the ‘288 patent describes varying the “stitch type” as a way to vary the type of texture in different areas, and as separate from varying the type of yarn. ‘288 Patent, 9:33-50; 9:54-62. Nishida specifically describes using different materials, different compositions (such as twisted or parallel processing or the like), and different knit types or knit patterns, therefore describing for the skilled person using different stitch configurations in different areas as a way to give the textile element different properties in different areas. Nishida, Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2.

160. Nishida goes on to describe that these varying properties may include a varying elasticity, air permeability, absorptivity, softness, extensibility, wear resistance, and appearance. “Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web

of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, ***insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.***” Nishida, 3:43-52 (emphasis added). “[T]he layouts of the shoe upper and sole parts are ***produced by modifying the overall construction of the web of material*** in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, ***using*** one of a ***different*** weaving and ***knitting type*** for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, ***air permeability, softness, extensibility,*** wear resistance and appearance.” Nishida, 6:1-31(emphasis added).

161. Regarding varying properties, Nishida further states that “[a]s already indicated, the webs of material being used can be produced by program-controlled web of material production devices whose programs can be matched almost at will according to the corresponding basic setting with deviations in the size of the layouts of the individual shoe uppers or ***with changes of the type of weave or knit of individual areas*** or contours, the type of fiber or yarn and/or the color.”

Nishida, 5:63-6:2 (emphasis added). A person of ordinary skill in the art at least as of March 3, 2004 would have understood that Nishida's disclosure regarding varying the knit of individual areas would include having a substantially smooth texture in one area, and a rougher texture in another area. Such an understanding is evident in view of Nishida's statement that "softness" is specifically one of the properties to be varied, combined with Nishida's statement that "[l]ayout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like" Nishida, 3:15-25. Furthermore, a person of ordinary skill in the relevant art at least as of March 3, 2004 would have understood Nishida's disclosure regarding a varying extensibility to mean that portions of the knit configuration may have a rib structure, which is designed to provide greater elasticity / extensibility than portions of the knit configuration without rib structures.

G. Edges Joined Together to Form a Seam Extending from a Heel Area to a Forefoot Area of the Footwear Along a Lower Surface of the Upper

162. Nishida shows longitudinal edges 29.3 and 29.4 in FIG. 4 (reproduced below), as illustrated in the attached claim chart for claim 36 of the '288 patent.

"With the embodiment according to FIG. 4, a sole part section 29.1 that extends

over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; *see also* 4:22-30; 6:5-41; 6:47-54; FIGS. 3-4.

163. As part of converting the layout into a shoe upper, Nishida describes joining longitudinal edges 29.3 and 29.4 in FIG. 4 to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper. “[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.” Nishida, 6:47-54; *see also* 4:22-30; 5:3-13; 6:5-41; FIGS. 3, 4 (reproduced below).

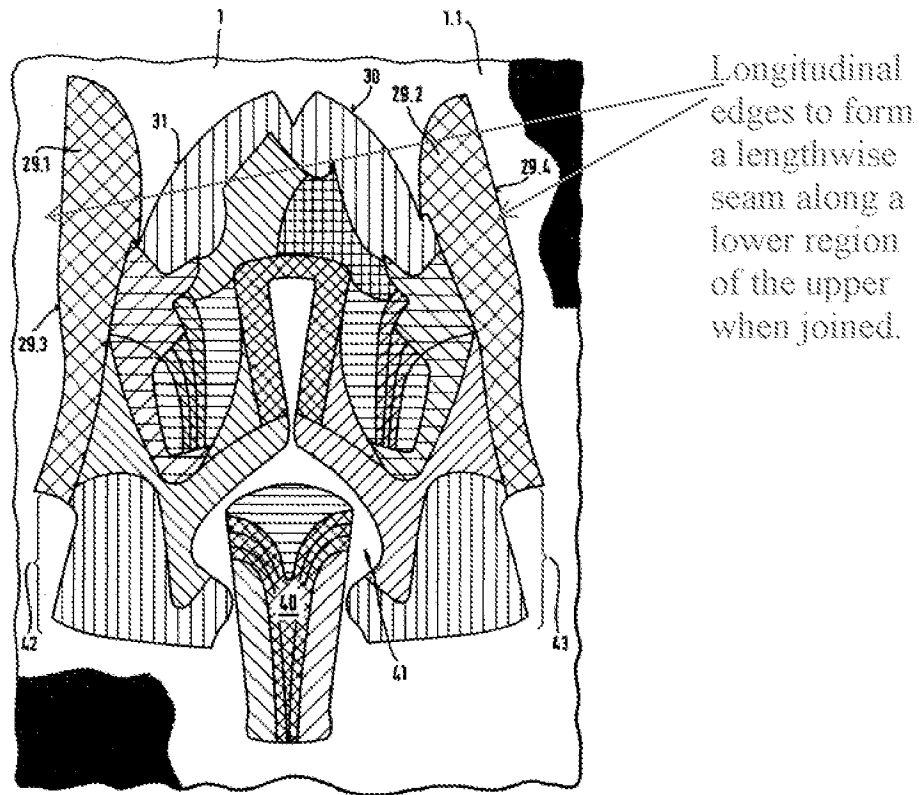
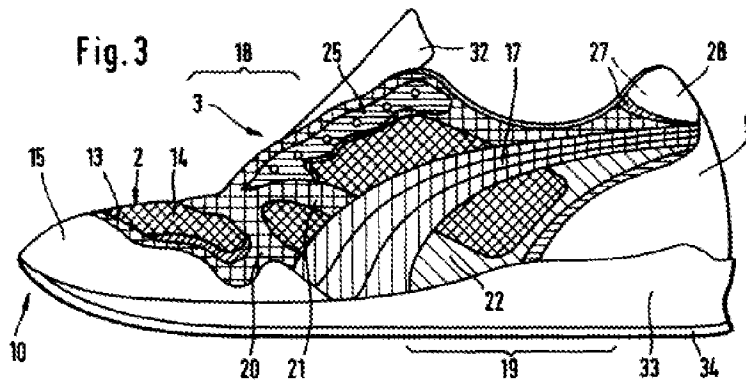


Fig. 4

H. Combining the Textile Element Into Footwear Components

164. Nishida describes “*stitching parts of the layout* of the cut-out unit on provided seams *to form an upper of the shoe shaped part . . .*” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46; *see also* Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced below).



I. Textile Element is one of an Exterior Layer, an Intermediate Layer, and an Interior Layer of the Upper

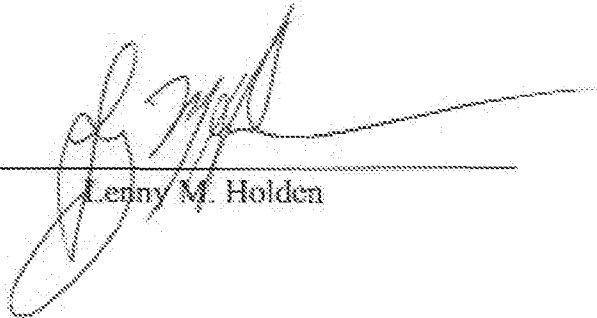
165. Nishida similarly states that “[o]ptionally, in this case, the material can be woven or *knitted in two or more layers* or can be especially thick or additionally embroidered.” Nishida, 3:66-4:1 (emphasis added); FIG. 3. As a result, Nishida’s textile layer forms at least one of an exterior layer, an intermediate layer, and an interior layer of the upper.

166. It is therefore my opinion that Nishida anticipates claims 36-38 of the ‘288 patent.

X. SUMMARY

167. I note that my analysis is continuing and that I may modify or supplement my conclusions as I receive additional information. I declare under penalty of perjury that the foregoing Declaration is true and correct.

Dated: November 14, 2016



Lenny M. Holden

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
[1A] An article of footwear comprising:	<p>“Still another object is to provide a method for producing a plurality of garments formed about the circumference of a knitted tube.” Reed, 2:29-31. “The present invention may be used to form all types of garments worn by men, women and children” Reed, 5:56-57. “Circular knitting machines have been used to make tubular, knitted garments, such as ladies' stockings, sweaters and other garments.” Reed, 1:33-35.</p> <p>“This invention relates to a process for the production of a shoe shaped part” Nishida, 1:10-11; <i>see also</i> Abstract; 1:39-47; 1:65-2:10; 2:26-33; 3:27-42; 4:19-30; 4:43-46; 5:3-26; 5:63-6:2; FIGS. 1-3.</p>
[1B.1] an upper incorporating a circular-knitted textile element . . .	<p>“Another object of the present invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Reed, 2:23-25 (emphasis added); <i>see also</i> 1:58-59; FIGS. 1-6. “The present invention uses an electronic circular double knitting machine programmed to simultaneously knit two concentric tubes, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch to form the outline of the design of a garment.” Reed, 1:58-64 (emphasis added), FIG. 1 (reproduced at right); <i>see also</i> 3:5-7; 4:68-5:2.</p> <div data-bbox="1117 989 1377 1304" data-label="Image"> </div> <p>“In FIGS. 1 and 2, a web of material is identified by 1, and is produced by a conventional textile process, for example, by weaving and/or knitting and/or embroidering.” Nishida, 3:6-9; <i>see also</i> Abstract; 1:10-18; 1:47-2:5; 2:11-25; 2:40-47; 3:6-26; 3:43-52; 3:59-4:5; 4:12-18; 4:47-60; 5:64-65; FIGS. 1, 2 (reproduced at right).</p> <div data-bbox="1057 1367 1360 1640" data-label="Image"> </div> <p>“As can be seen, any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p><i>be produced on a single web of material 1.</i> For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
<p>[1B.2] . . . having a plurality of knit constructions,</p>	<p>“The knitted structure of course 24 of FIG. 2 formed by program 1 is illustrated in FIGS. 3A-3E. The inner knitting fabric formed on the dial needles are shown in FIG. 3A above the outer knitted fabric formed on the cylinder needles. Feed 1 (FIG. 3B) knits on dial needles 2, 4, 6, 8, 12, 14, etc. to form alternate stitches on the inner tube with feed 3 (FIG. 3D) on dial needles 1, 3, 5, 7, 9, 11, 13, 15, etc. stitches therebetween. The outer fabric is formed basically from an alternation of the cylinder needles using feeds 2 and 4 (FIGS. 3C and 3E, respectively). <i>Interknitted stitches (shown as X's and O's in FIG. 2) are formed by feeds 1 and 3 on needles 7 and 9 and 8 and 10, respectively, as shown in FIGS. 3B and 3D. As can be seen in FIG. 3A, feeds 1 and 3 form part of the outer fabric at interconnecting stitches 7, 8, 9, and 10 of course 24 of FIG. 2.</i>” Reed, 5:3-18 (emphasis added); FIGS. 3A-3E.</p> <p>“[O]nce the knitted structure 10 is removed from the knitting machine, the individual garments may be severed by cutting along the outline formed by the interconnecting stitches represented by the X's and O's.” Reed, 5:67-6:3; <i>see also</i> 4:61-64; FIGS. 2, 2A (reproduced below), 3A-3E (reproduced below).</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<div data-bbox="454 241 1347 871"> <p>interconnecting knitted stitches 22.</p> <p>garment 16, 18, or 20</p> <p>FIG. 23</p> <p>cut line along the outline formed by the interconnecting stitches 22.</p> </div> <p>“If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, <i>the outside tube 14 may be a normal decorative fabric wherein the inner tube 12 may be formed of a material such as lining</i>. By simultaneously knitting and interknitting the two layers, a step is saved by producing a section of garment which is prelined. Similarly, the layer 12 (instead of being lining) may be interfacing, which is attached to the outside layer 14 and again saves a step in the manufacture of garments. Another example where two different fibers are used to make the inner and outer tubing would be in the foundation garment industry, where <i>the inner fabric could be cotton or other soft fibers and the outer fabric would be lycra or elasticized yarns</i>.” Reed, 3:61-4:9 (emphasis added).</p> <p>“Finally, in the embodiment according to FIGS. 1 and 2, with layout 2 on the web of material 1, <i>areas 26 and 27 are produced in a configuration</i>, color or style <i>that is different from the other areas</i>.” Nishida, 4:6-9 (emphasis added). “With the use of program-controlled web of material production devices, after a one-time creation of the program, the size of the layout corresponding to the shoe size, the woven or <i>knitted type of individual areas or contours</i>, the type of fiber or yarn and/or the</p>

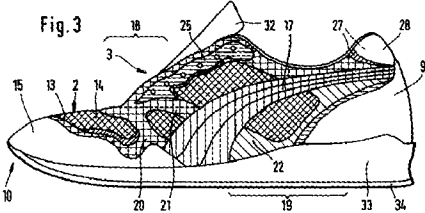
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>color <i>can be selected almost at will</i>.” Nishida, 2:40-45 (emphasis added); <i>see also</i> Abstract; 1:65-69; 2:40-45; 3:15-26; 3:47-48; 4:6-9; 4:12-28; 4:48-55; 5:56-6:2.</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or <i>elastic</i>, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, <i>using</i> one of a <i>different</i> weaving and <i>knitting type</i> for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, <i>air permeability, softness, extensibility</i>, wear resistance and appearance.” Nishida, 6:1-31 (emphasis added); <i>see also</i> 5:63-6:2.</p> <p>“Layout 2 is divided into different individual parts or areas, which differ from one another, such as by being of another material style and/or by being of different fibers or yarns, for example, from wool, wool with metal yarns, silk, silk with metal yarns, wool with plastic fibers or the like” Nishida, 3:15-25.</p>
[1C] the circular-knitted textile element being removed from a circular-knitted textile	<p>“The interconnecting knitting 24 is merely to define the lower outline of the skirt <i>upon which the pattern may be cut</i>. As can be seen, the knitted structure 10 includes (around its circumference) <i>a plurality of finished garments which need only be severed from the structure 10</i> and turned inside out if a hidden seam is desired.” Reed, 3:12-19 (emphasis added). “As</p>

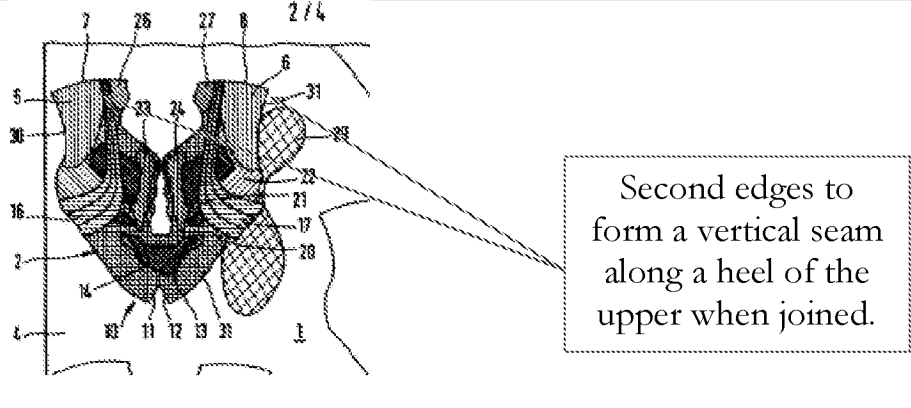
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
structure, and	<p>indicated previously, once the knitted structure 10 is removed from the knitting machine, <i>the individual garments may be severed [sic] by cutting along the outline</i> formed by the interconnecting stitches represented by the X's and O's. If desired, the <i>fabric may be cut with a hot knife</i> so that the edges are fused together to add additional strength to the seams.” Reed, 5:67-6:5 (emphasis added); <i>see also</i> Abstract; 2:14-16; 3:12-19; 5:67-6:5; FIGS. 2, 4-6.</p> <p>“This invention relates to a process for the production of a shoe shaped part using a web of material with a plurality of patterns in the form of the layout of a shoe upper, <i>cutting out these layouts from the web of material</i> and stitching the parts of the shoe upper to a top part, and fastening the related part of the sole to the edge area of the cut-open outside edge of the assigned layout and to a shoe shaped part produced according to this process.” Nishida, 1:10-18 (emphasis added); <i>see also</i> Abstract; 1:65-2:10; 2:20-25; 2:30-33; 3:31-35; 4:31-43.</p>
[1D] further having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and	<p>“With the embodiment according to FIG. 4, a sole part section 29.1 that extends over the entire length of the sole is provided on outside contour 31 in the approximate form of a half of sole part 29, and a sole part section 29.2 which forms the remainder of sole part 29 is provided on the outside contour 30. Both sole part sections 29.1 and 29.2 complement each other to complete sole part 29. In this case, their outside contours 29.3 and 29.4 are connected with one another, for example stitched and/or glued and/or fused or the like, preferably by a longitudinal seam.” Nishida, 5:3-13; FIG. 4 (reproduced below).</p> <div data-bbox="461 1360 1232 1635" data-label="Image"> </div> <p>“[T]he sole part is formed of sole part sections which extend over the entire length of an insole to be formed and which are connected to outside contours of the layout of the shoe upper; and wherein outside edge portions of the sole part sections are fastened together, by producing a lengthwise seam, to form the sole part.”</p>

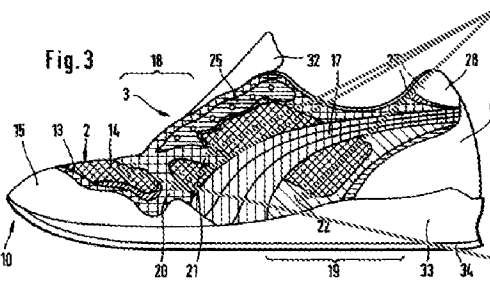
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>Nishida, 6:47-54; <i>see also</i> 4:22-30; 6:5-41; FIGS. 3-4.</p>
<p>[1E] a sole structure secured to the upper.</p>	<p>Nishida describes “<i>stitching parts of the layout</i> of the cut-out unit on provided seams <i>to form an upper of the shoe shaped part</i> . . .” Nishida, 6:36-38 (emphasis added). “Completed shoe upper 3 is then brought into a gluing, injection or casting mold, in which a midsole 33 and an outsole 34 are molded by known measures, as is represented in FIG. 3.” Nishida, 4:43-46 (emphasis added); <i>see also</i> Abstract; 1:40-47; 1:50-56; 1:60-2:5; 2:34-37; 2:40-45; 3:6-26; 3:46-48; 3:66-4:1; 4:13-18; 4:25-60; 5:10-26; FIG. 3 (reproduced at right).</p> 
<p>[2] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of a lateral side, a medial side, and an instep region of the upper.</p>	<p>“The individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, <i>areas 5 and 6</i> are provided for applying <i>an inside or outside heel counter 9</i> (FIG. 3).” Nishida, 3:27-31 (emphasis added). “To reduce wear, a toe cap 15, represented in FIG. 3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of <i>toe area 14</i>.” Nishida, 3:39-42 (emphasis added). “Areas 20, 21 and 22, identified in FIG. 3, <i>running from instep area 18 to heel area 19</i> . . .” Nishida, 3:59-60 (emphasis added); <i>see also</i> Nishida, 3:15-4:46; 3:59-4:9; 5:3-8; FIGS. 1-5.</p>
<p>[3] The article of footwear recited in claim 1, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.</p>	<p>See Appendix A, claim [1D].</p>
<p>[4] The article of footwear recited in claim 3, wherein the edges include a pair of second edges that are joined to form a second seam</p>	<p>“After cutting out layout 2 from the web of material 1, the edges 7 and 8 are stitched together and a <i>heel seam</i> thus is formed. Then, heel counter 9, represented in FIG. 3, is applied, for example, glued and/or stitched, to adjacent areas 5 and 6.” Nishida, 3:31-36; <i>see also</i> 4:9-11; 6:5-41; FIGS. 2 (a portion of which is reproduced below), 4.</p>

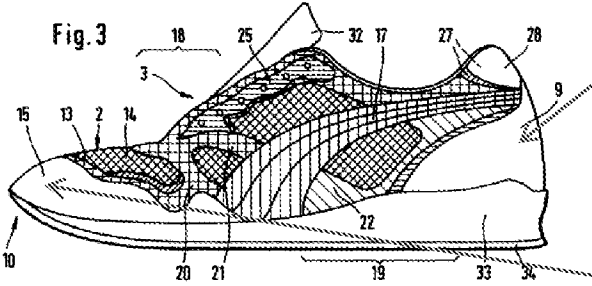
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>extending along a heel region of the upper.</p>	
<p>[5] The article of footwear recited in claim 4, wherein the second seam extends vertically.</p>	<p>See Appendix A, claim 4.</p>
<p>[6] The article of footwear recited in claim 4, wherein the edges include at least a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper.</p>	<p>“Correspondingly, the contours of edges 11 and 12 are stitched together in the form of shoe toe 10, and a seam is formed on the shoe toe. To reduce wear, a toe cap 15, represented in FIG. 3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of toe area 14.” Nishida, 3:37-42 (emphasis added).</p> <p>“According to an advantageous further development of the invention, an individual part 29 in the form of an insole can be co-produced on layout 2 of shoe upper 3. After being cut out, this individual part 29 remains connected with layout 2, and after or during the shaping and fixing of shoe upper 3 from layout 2, part 29 is folded into the plane of the shoe sole and is fastened to the lower edge zone of the shoe upper 3. This lower edge zone is defined in layout 2 by outside contours 30 and 31, and the manner of its fastening can be, in a way known in the art, for example, by gluing, stitching, tacking or the like.” Nishida, 4:19-30 (emphasis added); FIG. 4; <i>see also</i> 6:5-41; FIGS. 2, 4.</p>
<p>[7] The article of footwear recited in claim 1, wherein the circular-knitted textile element is one of an exterior layer,</p>	<p>“The garments 16, 18, and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18, and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam.” Reed, 3:8-12. “If the two tubes 12 and 14 are knitted of two different fibers, the knitted structure may form sections of a garment to be assembled in the regular manner. For example, the outside tube 14 may be a normal decorative fabric wherein the</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>an intermediate layer, and an interior layer of the upper.</p>	<p><i>inner tube 12 may be formed of a material such as lining.</i> By <i>simultaneously knitting and interknitting the two layers</i>, a step is saved by producing a section of garment which is prelined.” Reed, 3:61-68; (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 2:29-31; 3:5-7; 3:58-60; 3:67-4:3; 4:20-24; 4:39-60; 4:68-5:2; 5:37-47; FIG. 1.</p> <p>“<i>Areas 20, 21 and 22 . . . can be woven or knitted in two or more layers</i> or can be especially thick or additionally embroidered.” Nishida, 3:59-4:1 (emphasis added); <i>see also</i> Abstract; 1:40-2:5; 2:11-2:25; 2:40-54; 3:6-26; 3:43-4:9; 4:11-18; 4:47-55; 5:27-40; 5:45-6:2.</p>
<p>[9] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.</p>	<p>See Appendix A, claim [7].</p> <p>Nishida, Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3 (reproduced below).</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Areas 20, 21, 22 of the layout 2 shown in the exterior view of the upper 3.</p> <p>Toe area 14 of the layout 2 shown in the exterior view of the upper 3.</p> </div> </div>
<p>[10] The article of footwear recited in claim 9, wherein at least one additional element is secured to the exterior surface and forms a portion of the exterior surface.</p>	<p>“The individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, <i>areas 5 and 6 are provided for applying</i> an inside or <i>outside heel counter 9</i> (FIG. 3).” Nishida, 3:27-29 (emphasis added).</p> <p>“To reduce wear, <i>a toe cap 15</i>, represented in FIG. 3, <i>can be applied</i>, especially glued and/or stitched, <i>on the front area</i>, adjacent to front edge 13 of <i>toe area 14</i>.” Nishida, 3:39-42 (emphasis added); <i>see also</i> Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:39-42; 3:59-4:1; 4:9-11; FIG. 3.</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Outside heel counter 9 is secured to “a heel area of the upper.” [Claim 12]</p> <p>Toe cap 15 is secured to “a forefoot area of the upper.” [Claim 11]</p> </div> </div>
[11] The article of footwear recited in claim 10, wherein the additional element is secured to a forefoot area of the upper.	See Appendix A, claim [10].
[12] The article of footwear recited in claim 10, wherein the additional element is secured to a heel area of the upper.	See Appendix A, claim [10].
[13] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms an interior surface of the upper.	See Appendix A, claim [7].
[21A] An article of footwear comprising:	See Appendix A, claim [1A].
[21B.1] an upper incorporating a circular-knitted textile element . . .	See Appendix A, claim [1B.1].
[21B.2] . . . having a plurality of knit constructions, and	See Appendix A, claim [1B.2].
[21C] further having edges that are joined together to form seams and define at least a portion of a void for receiving a foot,	See Appendix A, claim [1D].
[21D] the seams include a first seam and a second seam, the first seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and the second seam extending vertically in the heel area; and	See Appendix A, claims [1D], [4], [5].
[21E] a sole structure secured to the upper.	See Appendix A, claim [1E].

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
[22] The article of footwear recited in claim 21, wherein the footwear includes a third seam extending through the forefoot area of the upper.	See Appendix A, claim [6].
[23] The article of footwear recited in claim 21, wherein at least one of the knit constructions forms an aperture in the circular-knitted textile element.	<p>Nishida discloses that the u-shaped area in the layout 2 forms an ankle opening 36 when formed into the shoe upper. <i>See Nishida, FIGS. 1-5.</i></p> <p>“Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. <i>For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added); <i>see also</i> 3:66-4:5; 6:25-31.</p> <p>Nishida also describes lacing strips that may be layered over the net-like structure to reinforce that structure and holes formed in the lacing strips may be aligned with the existing holes in the net-like structure. Nishida, 4:1-5. Nishida explains that “the lacing areas 23 and 24 <i>can be made dimensionally stable</i> in corresponding manners, especially <i>if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.</i>” Nishida, 4:1-5 (emphasis added); <i>see also</i> 4:31-38.</p>
[24] The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying elasticity of the circular-	<p>See Appendix A, claim [1B.1].</p> <p>“Since, generally, toe area 14 is designed to be relatively deformably <i>soft</i> or <i>elastic</i>, and optionally, also <i>permeable to air</i>, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, <i>knit pattern</i> and/or the material used, such as, for example, silk or plastic. The type of production can, additionally, <i>insure that the toe area 14 has a good air exchange capability.</i> <i>For example, this can be achieved by a net-like woven or knitted structure.</i>” Nishida, 3:43-52 (emphasis added).</p> <p>“[T]he layouts of the shoe upper and sole parts are <i>produced by</i></p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
knitted element.	<p><i>modifying the overall construction of the web of material</i> in the locations of the layouts relative to that in portions thereof where the layouts of the shoe upper and the sole parts are not provided, using one of a different weaving and knitting type for the layouts of the shoe upper than is used for producing the sole parts, said weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the properties of absorptivity, air permeability, softness, extensibility, wear resistance and appearance.” Nishida, 6:1-31(emphasis added); <i>see also</i> 5:63-6:2.</p>
[25] The article of footwear recited in claim 21, wherein the knit constructions produce varying properties in the circular-knitted textile element including a varying air permeability of the circular-knitted textile element.	
[26] The article of footwear recited in claim 21, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.	See Appendix A, claim [7].
[27] The article of footwear recited in claim 21, wherein the circular-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.	See Appendix A, claim [9].
[28] The article of footwear recited in claim 1, wherein the circular-knitted textile element forms an interior surface of the footwear, and at least one additional textile element forms an	<p>See Appendix A, claim [7].</p> <p>“The individual parts or areas of shoe upper 3 can be representations of those areas on which a trimming, for example, a part resistant to wear, is applied. For example, areas 5 and 6 are provided for applying an inside or outside heel counter 9 (FIG. 3).” Nishida, 3:27-29 (emphasis added). “To reduce wear, a toe cap 15, represented in FIG. 3, can be applied, especially glued and/or stitched, on the front area, adjacent to front edge 13 of toe area 14.” Nishida, 3:39-42 (emphasis added), <i>see also</i> Abstract; 2:11-22; 2:37-39; 2:45-47; 3:6-15; 3:29-36; 3:59-4:1; 4:9-11; FIG. 3.</p>

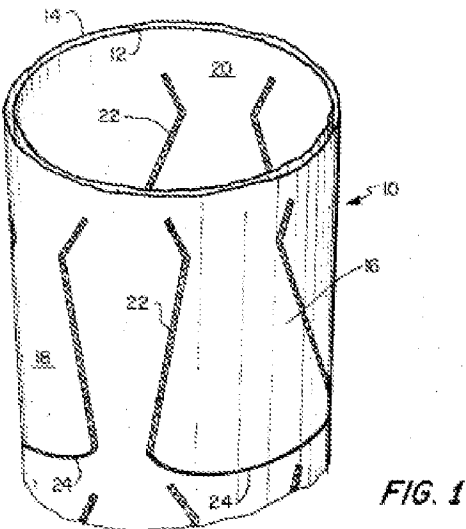
DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1	
exterior surface of the footwear.		
[29A] An article of footwear comprising:	See Appendix A, claim [1A].	
[29B.1] an upper incorporating a circular-knitted textile element . . .	See Appendix A, claim [1B.1].	
[29B.2] . . . having a plurality of knit constructions,	See Appendix A, claim [1B.2].	
[29C] wherein the circular-knitted textile element is formed with a knitting machine,	See Appendix A, claim [1B.1].	
[29D] the circular-knitted textile element being removed from a circular-knitted textile structure . . .	See Appendix A, claim [1C].	
[29E] . . . that includes an outline of the circular-knitted textile element, and	<p>“The garments 16, 18 and 20 are <i>outlined</i> by a plurality of interconnecting knitted stitches 22 and 24.” Reed, 3:8-9 (emphasis added). “The outline seam 24 is formed from two sets of X's and O's which are offset in the wale axes by four wales. The degree of wale offset <i>to form the desired outline</i> is a matter of design and thus not critical.” Reed, 4:42-45 (emphasis added); <i>see also</i> 5:67-6:3.</p> <p>“[I]n the production of a web of material, both <i>the patterns or partial patterns in the form of layouts of the shoe upper</i> and the patterns or partial patterns in the form of a sole part, <i>are produced by</i> a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by <i>a textile production process inside the web of material . . .</i>” Nishida, 1:50-56 (emphasis added); <i>see also</i> Abstract; 1:10-18; 1:40-47; 1:50-2:47; 4:13-18; 4:47-60; 5:63-6:2; FIGS. 1-2.</p>	
[29F] the circular-knitted textile element having longitudinal edges that are joined together to define at least a portion of a void for receiving a foot; and	See Appendix A, claim [1D].	

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I	
[29G] a sole structure secured to the upper.		See Appendix A, claim [1E].
[30] The article of footwear recited in claim 29, wherein the circular-knitted textile element has a structure formed by a wide-tube circular knitting machine.	<p>“An example of a <i>circular knitting machine</i> which will produce knitted structure 10 is Model 9RJ36 made by Wildt, Mellor, Bromley, Ltd. of Leicester, England.” Reed, 3:58-60 (emphasis added); <i>see also</i> Abstract; 1:58-64.</p> <p>“Around the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18, 20.” Reed, 3:5-7; FIGS. 1-2.</p>	
[31] The article of footwear recited in claim 29, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.		See Appendix A, claim [3].
[32] The article of footwear recited in claim 31, wherein the edges include a pair of second edges that are joined to form a second seam extending along a heel region of the upper.		See Appendix A, claim [4].
[33] The article of footwear recited in claim 32, wherein the edges include at least a pair of third edges that are joined to form a second seam extending through a forefoot area of the upper.		See Appendix A, claim [6].
[34] The article of footwear recited in claim 29, wherein the circular-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.		See Appendix A, claim [7].
[35] The article of footwear recited in claim 29, wherein the circular-knitted textile element forms an interior surface of the upper.		See Appendix A, claim [13].
[36A] An article of footwear comprising:		See Appendix A, claim [1A].
[36B] an upper incorporating a knitted textile element,		See Appendix A, claim [1B.1].

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
<p>[36C] wherein the knitted textile element is formed unitarily with a knitted textile structure,</p>	<p>“The present invention uses an electronic circular double knitting machine programmed to <i>simultaneously knit two concentric tubes</i>, one on the dial set of needles and a second on the cylinder set of needles and additionally programmed to interconnect the two concentric tubes by a knit interlock stitch <i>to form the outline of the design of a garment.</i>” Reed, 1:58-64 (emphasis added).</p> <p>“A <i>plurality of garments</i> formed about the circumference of a knitted tube.” Reed, 2:29-31 (emphasis added); FIG. 1. “As can be seen, the knitted structure 10 includes (around its circumference) a <i>plurality of finished garments</i> which need only be severed from the structure 10 and turned inside out if a hidden seam is desired.” Reed, 3:15-19 (emphasis added); <i>see also</i> Abstract; 1:58-64; 2:22-25; 3:5-7; 3:58-60; 4:68-5:2; FIG. 1 (reproduced below).</p>  <p>“As can be seen, <i>any number of layouts 2 in the most varied configurations and/or designs as well as of different sizes can be produced on a single web of material 1.</i> For this purpose, above all, <i>the use of program-controlled, particularly computer-controlled, production devices is advantageous</i>, so that style, color, design, size or the like can be varied at will.” Nishida, 4:12-18 (emphasis added).</p> <p>Nishida describes that the layouts 2 are produced by either (1) printing them on the web of material or (2) knitting them inside the web of material 1. Nishida, 1:50-56. “[I]n the production of a web</p>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND 1
	<p>of material, both <i>the patterns or partial patterns in the form of layouts of the shoe upper</i> and the patterns or partial patterns in the form of a sole part, <i>are produced by</i> a fabric printing process (which is generally well known in the textile industry) on the web of material and/or by <i>a textile production process inside the web of material . . .</i>” Nishida, 1:50-56 (emphasis added).</p> <p>Nishida goes on to explain that “<i>only just those parts of the web of material</i> are <i>produced</i> in the necessary quality, thickness, multilayers or the like <i>which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part</i>. The <i>remaining area of the web of material</i> in contrast can consist of a simple, lightweight or inexpensive material quality, which <i>holds together only the patterns or areas of such patterns in the web of material</i> after their completion.” Nishida, 2:12-20 (emphasis added).</p> <p>“The web of material 1 can be provided with a single or with a plurality of layouts 2 of the shape of a shoe upper 3, as it is represented from the side, for example, in FIG. 3.” Nishida, 3:9-12; <i>see also</i> Abstract; 1:47-2:5; 2:40-2:54; 3:6-26; 3:43-58; 3:59-4:9; 4:47-60; 5:27-40; 5:45-6:2; FIGS. 1-3.</p>
[36D] the knitted textile element being removed from the knitted textile structure,	See Appendix A, claim [1C].
[36E] that includes an outline of the knitted textile element to form edges,	See Appendix A, claim [29E].
[36F] the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element,	See Appendix A, claim [1B.2].
[36G] having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and	See Appendix A, claim [1D].

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX A

CLAIM	GROUND I
[36H] a sole structure secured to the upper.	<i>See Appendix A, claim [1E].</i>
[37] The article of footwear recited in claim 36, wherein the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.	<i>See Appendix A, claim [1B.2].</i>
[38] The article of footwear recited in claim 36, wherein the knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.	<i>See Appendix A, claim [7].</i>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX B

CLAIM	GROUND 1
[36A] An article of footwear comprising:	<i>See Appendix A, claim [36A] regarding Nishida.</i>
[36B] an upper incorporating a knitted textile element,	<i>See Appendix A, claim [36B] regarding Nishida.</i>
[36C] wherein the knitted textile element is formed unitarily with a knitted textile structure,	<i>See Appendix A, claim [36C] regarding Nishida.</i>
[36D] the knitted textile element being removed from the knitted textile structure,	<i>See Appendix A, claim [36D] regarding Nishida.</i>
[36E] that includes an outline of the knitted textile element to form edges,	<i>See Appendix A, claim [36E] regarding Nishida.</i>
[36F] the knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element,	<i>See Appendix A, claim [36F] regarding Nishida.</i>
[36G] having the edges joined together to form a seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and	<i>See Appendix A, claim [136G] regarding Nishida.</i>
[36H] a sole structure secured to the upper.	<i>See Appendix A, claim [36H] regarding Nishida.</i>
[37] The article of footwear recited in claim 36, wherein the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.	<i>See Appendix A, claim [37] regarding Nishida.</i>

DECLARATION OF LENNY M. HOLDEN – 288 PATENT
APPENDIX B

[38] The article of footwear recited in claim 36, wherein the knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.	<i>See Appendix A, claim [38] regarding Nishida.</i>
---	---

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

NIKE, Inc.,
Patent Owner.

Case IPR2016-00922
Patent 8,266,749 B2

Before JOSIAH C. COCKS, MICHAEL J. FITZPATRICK, and
JAMES B. ARPIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

adidas AG (“Petitioner”) filed a Petition pursuant to 35 U.S.C. §§ 311–19 to institute an *inter partes* review of claims 1–9, 11–19, and 21 of U.S. Patent No. 8,266,749 B2 (Ex. 1001, “the ’749 patent”).¹ Paper 2 (“Pet.”). Nike, Inc. (“Patent Owner”) did not file a Preliminary Response.² Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review of claims 1–9, 11–19, and 21 of the ’749 patent.

I. BACKGROUND

A. The ’749 Patent

The ’749 patent claims priority from U.S. Patent Application No. 10/791,289, filed on March 3, 2004, now issued as U.S. Patent No. 7,347,011 B2 (“the ’011 patent”) (Ex. 1001 at (60)) and relates to articles of footwear incorporating an upper that is at least partially formed from a textile material (*id.* at col. 1, ll. 20–23). Conventional articles of athletic footwear may include two primary elements: an upper and a sole structure. *Id.* at col. 1, ll. 25–28. The upper may form a void in the interior of the footwear for receiving a wearer’s foot, and the upper may extend over the instep and toe areas, along the medial and lateral sides, and around the heel area of the wearer’s foot. *Id.* at col. 1, ll. 42–47.

In particular, the Specification describes articles of footwear having an upper incorporating a knitted textile element and having a sole structure secured to the upper. *Id.* at col. 3, ll. 27–33. Methods for manufacturing an

¹ Petitioner identifies adidas International B.V.; adidas North America, Inc.; adidas America, Inc.; and adidas International, Inc., as real parties-in-interest. Pet. 1.

² Patent Owner identifies only itself, as a real party-in-interest. Paper 5, 2.

article of footwear include “mechanically-manipulating a yarn with a circular knitting machine, for example, to form a cylindrical textile structure. In addition, the method involves removing at least one textile element from the textile structure, and incorporating the textile element into an upper of the article of footwear.” *Id.* at col. 3, ll. 41–46.

Figure 9 of the '749 patent is reproduced below.

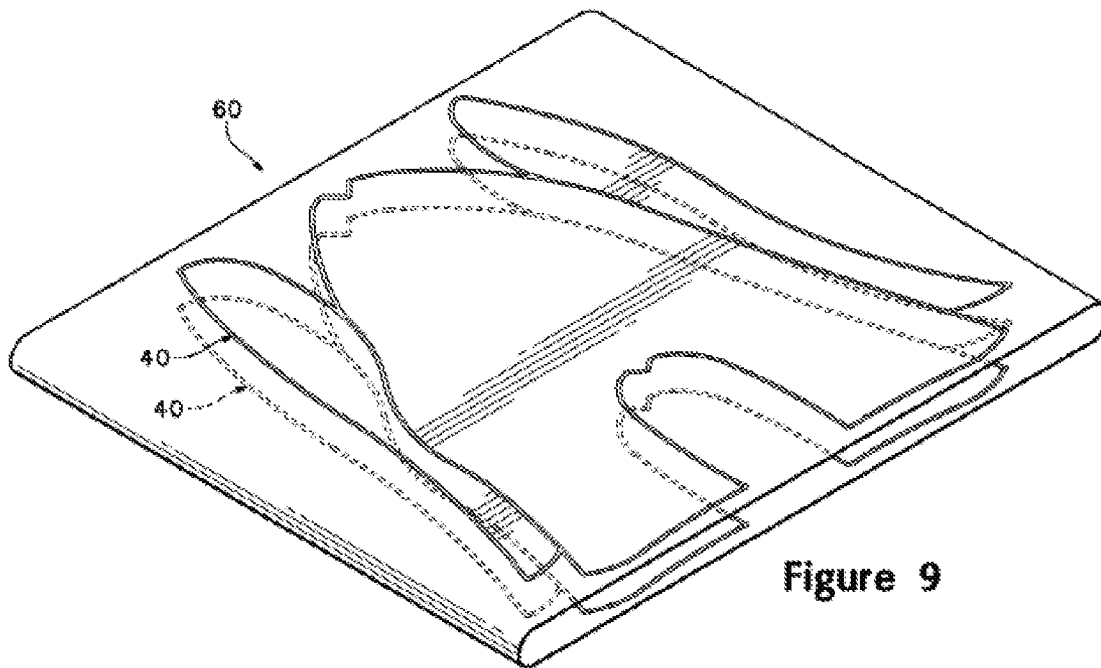


Figure 9 depicts textile structure 60 formed on a circular knitting machine. *Id.* at col. 7, ll. 38–39. For example,

[a] suitable knitting machine for forming textile element 40 is a wide-tube circular knitting machine that is produced in the Lonati Group by Santoni S.p.A. of Italy under the SM8 TOP1 model number. This Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter.

Id. at col. 7, ll. 14–20. As discussed below, the types of stitches that form textile structure 60 may be varied to form an outline of one or more textile

elements 40 on textile structure 60. *Id.* at col. 7, l. 64–col. 8, l. 3. In particular, as depicted in Figure 9, the outlines for at least two textile elements 40 maybe formed on textile structure 60. *Id.* at col. 7, ll. 53–54.

Figure 8 of the '749 patent is reproduced below.

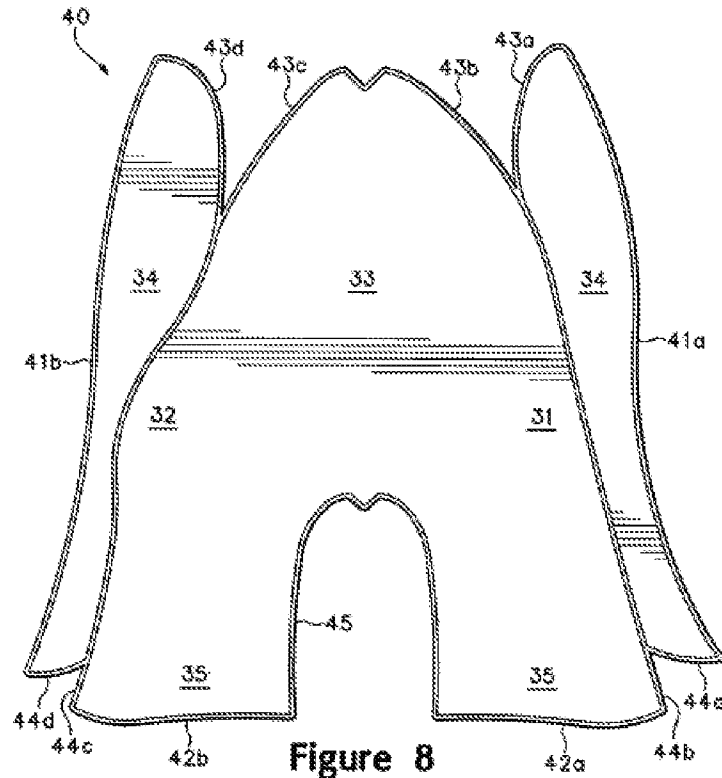


Figure 8 depicts an embodiment of an upper according to the '749 patent. *Id.* at col. 5, l. 59–col. 6, l. 64. “Textile element 40 is a single material element that is formed to exhibit a unitary (i.e., one-piece) construction, and textile element 40 is formed or otherwise shaped to extend around the foot.” *Id.* at col. 5, ll. 40–43; *see also id.* at Figs. 10 (depicting textile element 40'), 11 (depicting textile element 40"). Consequently, textile element 40 is formed, such that portions of the textile element are not joined together with seams or other connections. *Id.* at col. 5, ll. 40–43. Edges 41a–44d are joined together as shown in Figures 3–5 to form seams

51–54, thereby forming at least a portion of a void for receiving the foot. *Id.* at col. 6, ll. 41–50. In contrast, lateral region 31, medial region 32, instep region 33, lower regions 34, and heel regions 35 together have a unitary construction without seams (*id.* at col. 5, ll. 46–58; col. 6, ll. 47–50).

Figure 11 of the '749 patent is reproduced below.

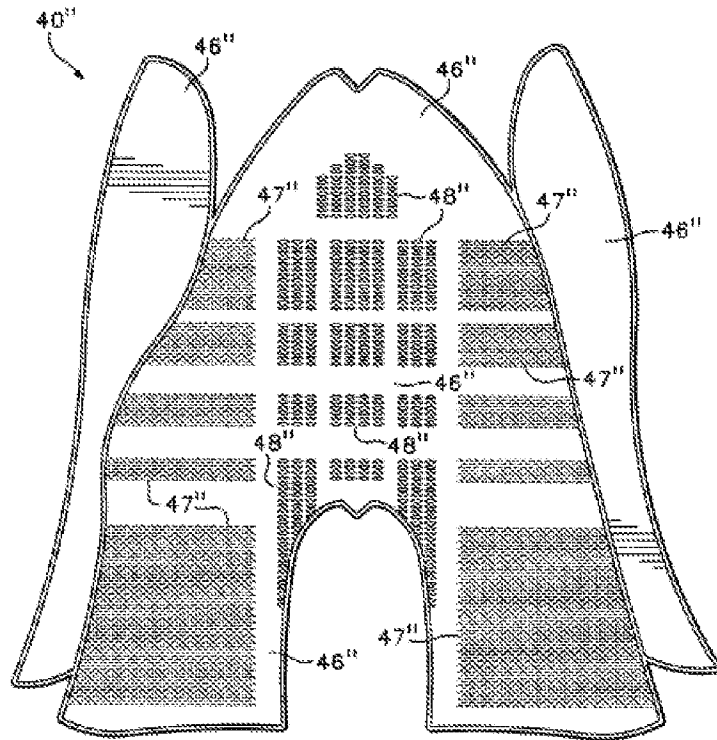


Figure 11

Figure 11 depicts another embodiment of an upper according to the '749 patent. *Id.* at col. 9, l. 29–col. 10, l. 7. Textile element 40'' includes three different areas with three different textures. *Id.* at col. 9, ll. 31–32. First texture 46'' is generally smooth and extends in strips across lateral region 31, medial region 32, and instep region 33 of the upper. *Id.* at col. 9, ll. 32–35. In addition, textile element 40'' includes second texture 47'' and third texture 48''. *Id.* at col. 9, ll. 35–39. Moreover, the Specification of the '749 patent describes that:

The different textures 46"-48" are formed *by merely varying the type of stitch formed* by the wide-tube circular knitting machine at each location of textile element 40". Textures 46"-48" may exhibit aesthetic differences, or the differences may be structural. . . . The air-permeability of textile element 40" may also vary in the different areas.

Id. at col. 9, ll. 39–47 (emphasis added).

B. Illustrative Claim

Claims 1 and 13 are independent, method claims. Claims 2–9, 11, and 12 depend directly or indirectly from claim 1, and claims 14–19 and 21 depend directly or indirectly from claim 13. Claim 1 is illustrative of the claims at issue and is reproduced below:

1. A method of manufacturing an article of footwear, the method comprising:
simultaneously knitting a textile element with a surrounding textile structure, the knitted textile element having at least one knitted texture that differs from a knitted texture in the surrounding knitted textile structure;
removing the knitted textile element from the surrounding knitted textile structure;
incorporating the knitted textile element into the article of footwear.

Id. at col. 11, ll. 43–52.

C. Related Proceedings

Neither party identifies any related litigation. Pet. 1, Paper 5, 2. As discussed above, the '749 patent claims priority from the application that issued as the '011 patent, which is the subject of IPR2013-00067. Pet. 1. In that case, the Board instituted *inter partes* review of claims 1–46 of the '011 patent, and Patent Owner requested cancellation of claims 1–46 and

proposed substitute claims 47–50 in a Motion to Amend. This panel granted Patent Owner’s request to cancel claims 1–46, but denied Patent Owner’s request as to the substitute claims. Patent Owner appealed the Board’s decision to the U.S. Court of Appeals for the Federal Circuit (the “Federal Circuit”). The Federal Circuit issued a decision in Patent Owner’s appeal on February 11, 2016, which affirmed-in-part and vacated-in-part the Board’s decision, and remanded the case to the Board for further proceedings regarding the status of the substitute claims. In addition, Petitioner has requested *inter partes* review of claims of related patents in IPR2016-00920 (U.S. Patent No. 8,042,288 B2) and IPR2016-00921 (U.S. Patent No. 7,814,598 B2). Paper 5, 2.

D. Applied References and Declaration

Petitioner relies on the following references and declaration in support of its asserted grounds of unpatentability:

Exhibit	References and Declaration
1003	Declaration of Mr. Lenny M. Holden
1006	U.S. Patent No. 3,985,003 to Reed, issued Oct. 12, 1976 (“Reed”)
1007	U.S. Patent No. 4,038,840 to Castello, issued Aug. 2, 1977 (“Castello”)
1008	U.S. Patent No. 6,330,814 B1 to Fujiwara, issued Dec. 18, 2001 (“Fujiwara”)
1009	U.S. Patent No. 5,345,638 to Nishida, issued Sep. 13, 1994 (“Nishida”)
1010	David J. Spencer, <i>Knitting technology: a comprehensive handbook and practical guide</i> , 1–413 (2001) (3rd Ed., Woodhead Publ. Ltd.) (“Spencer”)
1012	International Standard, <i>Textile machinery — Knitting machines — Nominal diameters of circular machines</i> , 1–6 (2003) (2nd Ed., ISO 8117:2003(E)) (“ISO 8117”)

Pet. iv.

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

References	Basis	Challenged Claims
Reed and Nishida	35 U.S.C. § 103(a)	1–9, 11–19, and 21
Castello, Fujiwara, and Nishida	35 U.S.C. § 103(a)	1–9, 11–19, and 21

Pet. 7.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131, 2144–46 (2016). Under that standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art³ in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). In its Petition, Petitioner proposes constructions for the following two claim terms.

³ Petitioner argues that a person of ordinary skill in the relevant art would have at least a few years of experience in the footwear industry, a broad understanding of shoemaking, and an understanding of (1) the product cycle for the process of designing, developing and bringing a new product to market; (2) milestones for reviewing upper material designs; (3) the available and varied ranges of typical construction methods within a product cycle; and (4) the functional requirements of footwear and the range of material choices available. Pet. 8 (citing Ex. 1003 ¶ 34). For purposes of this Decision and to the extent necessary, we adopt Petitioner’s assessment of a person of ordinary skill in the relevant art.

1. “*a first area and a second area with a unitary construction*”
(Claims 11 and 21)

Petitioner argues that the term “a first area and a second area with a unitary construction” means “a textile element having a unitary construction and having a first area and a second area.” Pet. 6. As Petitioner notes, this is the construction that this panel gave to the same term appearing in the substitute claims of the ’011 patent. *adidas AG v. Nike, Inc.*, Case IPR2013-00067, 2013 WL 8595550, at *7 (PTAB May 17, 2013) (Paper 60). The ’011 patent and the ’749 patent share the same Specification, neither party contested our construction of this term in the appeal of our decision in the *inter partes* review of the claims of the ’011 patent, and, at this time, Patent Owner does not contest Petitioner’s proposed construction of this term in this case. Therefore, on this record and to the extent necessary for this Decision, we adopt Petitioner’s proposed construction for this term.

2. “*wide-tube circular knitting machine*” (Claims 9 and 19)

Petitioner argues that the term “wide-tube circular knitting machine” means “a circular knitting machine with a nominal diameter of 7 inches or larger.” Pet. 6. The Specification of the ’749 patent identifies a wide-tube circular knitting machine, such as that produced in the Lonati Group by Santoni S.p.A., Italy, as a suitable example of the wide-tube circular knitting machine recited in the claims. *See* Ex. 1001, col. 7, ll. 12–37. In particular, the Specification of the ’749 patent indicates that such knitting machines “may form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter. The machine exhibits a maximum 140 revolutions per minute for 10 inch diameters, and a maximum 120 revolutions per minute for 13 inch diameters.” *Id.* at col. 7, ll. 17–23.

Nevertheless, the Specification does not limit suitable, wide-tube circular knitting machines to this particular embodiment or to these particular diameters, and, as Petitioner acknowledges, the Specification “provides no other definition or explanation for what is meant by ‘wide-tube circular knitting machine.’” Pet. 6. Instead, the Specification describes a wide-tube circular knitting machine functionally as one capable of knitting “body garment” sized textile tubes. Ex. 1001, col. 7, ll. 6–8.

Citing to the teachings of ISO 8117 (Ex. 1012) and the testimony of Petitioner’s declarant, Mr. Holden (Ex. 1003 ¶ 97), Petitioner argues that “any circular knitting machine with a nominal diameter of 178 mm (7 inches) or larger is categorized as *a large (or wide-tube) circular knitting machine.*” Pet. 6–7 (emphasis added). ISO 8117 describes “Large circular knitting machines” as having a nominal diameter of at least 178 mm (7 inches), but does not equate the terms “large” and “wide,” or even use the term “wide.” Ex. 1012, 6 (Table 1). Although Mr. Holden’s testimony that “[t]he skilled person would also have understood that a circular knitting machine having a circumference of at least 22 inches (i.e., a nominal diameter of at least 7 inches) is a wide-tube circular knitting machine” is some evidence that ISO 8117 teaches that a wide-tube circular knitting machine has a nominal diameter of 178 mm (7 inches) or larger, the references relied upon by Petitioner to teach the wide-tube circular knitting machine arguably teach diameters larger even than those of the exemplary machine disclosed in the Specification of the ’749 patent. Pet. 29–31 (citing Ex. 1003 ¶ 97); *see* Ex. 1001, col. 7, ll. 12–37.

Nevertheless, for purposes of this Decision, it is not necessary for us to construe this term to define *a minimum diameter* for a wide-tube circular

knitting machine. Therefore, on this record, we construe the term “wide-tube circular knitting machine” to mean “a circular knitting machine forming body garment sized, tubular textile structures, including those having a diameter that ranges from 10 inches to 20 inches.”

3. Other Claim Terms

For purposes of this Decision, we discern no other claim terms that require express interpretation.

B. Obviousness over Reed and Nishida

1. Overview

Petitioner argues that claims 1–9, 11–19, and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over Reed and Nishida. *See supra* Section I.E. To support its arguments, Petitioner provides a detailed mapping of limitations of challenged claims to Reed and Nishida and to Castello, Fujiwara, and Nishida. Pet. 9–32 (Reed and Nishida), 33–56 (Castello, Fujiwara, and Nishida). Petitioner also cites Mr. Holden’s Declaration for support. *See* Ex. 1003 ¶¶ 92–130, 145–200.

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3)

the level of skill in the art;⁴ and (4) objective evidence of nonobviousness, i.e., secondary considerations.⁵ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). On this record and for the reasons set forth below, we are persuaded that Petitioner demonstrates a reasonable likelihood of prevailing in this challenge to claims 1–13 of the ’749 patent.

2. *Reed (Ex. 1006)*

Reed is directed to a method of manufacturing a wearable item, which includes, among other things, mechanically manipulating a yarn with a circular-knitting machine to form a cylindrical textile structure (Ex. 1006, col. 2, ll. 22–25), textile elements located in different portions of the textile structure (*id.* at col. 2, ll. 29–31), removing the textile elements from the textile structure ((*id.* at col. 3, ll. 12–19, col. 5, l. 67–col. 6, l. 5), and incorporating the textile element(s) “to form all types of garments worn by men, women and children” (*id.* at col. 1, ll. 33–35, col. 5, ll. 56–58).

Reed’s Figure 1 is reproduced below.

⁴ See *supra* 8 n.3; see also Ex. 1003 ¶ 36 (“Based on my experience, I have an understanding of the capabilities of the skilled person in this field, and my opinions are provided from the perspective of such a person.”).

⁵ The current record lacks evidence of secondary considerations. See Pet. 47–49; *Medtronic Inc. v. NuVasive Inc.*, Case IPR2014-00087, at 21 (PTAB Apr. 3, 2015) (Paper 44).

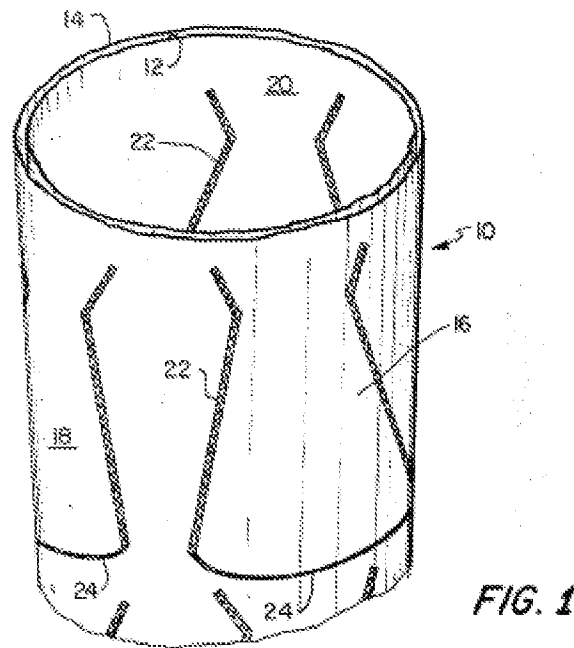


Figure 1 depicts tubular knitted structure 10, such as that produced by a circular knitting machine. *Id.* at col. 2, l. 66–col. 3, l. 1. Knitted structure 10 comprises inner tube 12 and outer tube 14, and

[a]round the circumference of the knitted structure 10 are illustrated three garments which, for example, may be skirts 16, 18 and 20.⁶ The garments 16, 18 and 20 are outlined by a plurality of interconnecting knitted stitches 22 and 24. The interconnecting knitting 22 not only forms the outline of the garments 16, 18 and 20, but joins the inner tube 12 to the outer tube 14 so as to create a seam. The interconnecting knitting 24

⁶ On this record, we are persuaded that “skirts” are “body garments.” See Ex. 1003 ¶ 97:

That fact alone would inform a skilled person at least as of March 3, 2004, that the circumference of the circular knitted tube must be at least large enough to accommodate the width of three skirts, and would certainly require a circumference larger than 22 inches, as each skirt (even sized for a child) would require more than 7 inches of space around the circumference of the knitted tube.

is merely to define the lower outline of the skirt upon which the pattern may be cut.

Id. at col. 3, ll. 1–15.

Reed explains that the use of circular knitting machines in the garment industry was historically limited to making tubular, knitted garments, such as ladies stockings, sweaters, and other garments, wherein the entire knitted fabric was used as a unit to form one surface of a finished garment. Pet. 10–11 (citing Ex. 1006, col. 1, ll. 33–44; Ex. 1003 ¶ 94). Reed teaches that, with the introduction of computer pattern preparation equipment, “an era of unlimited pattern potential began.” Ex. 1006, col. 1, ll. 45–48; *see* Ex. 1003 ¶ 95. “Computer electronic knitting brought about the possibilities of making patterns and designs of up to three million stitches (previously approximately 50,000 was maximum). With this system, patterns and designs are possible that before could not be made.” Ex. 1006, col. 1, ll. 50–55; *see* Ex. 1003 ¶ 95. Reed further explains that its method uses “an electronic circular double knitting machine” and that an “object of the [Reed] invention is to provide a method of reducing the cost of manufacturing of garments by using the versatility of a computerized electronic knitting machine.” Ex. 1006, col. 1, ll. 58–59, col. 2, ll. 23–25; Figs 1–6; *see* Ex. 1003 ¶ 95.

3. *Nishida (Ex. 1009)*

Nishida is directed to the production of a shoe upper by (1) cutting out a layout in the form of the shoe upper from a web of material and (2) shaping the shoe upper by connecting material parts of the layout by the formation of seams. *See generally* Nishida, Abstract. By the disclosed process, such shoe uppers allegedly may be produced efficiently and in

reduced time despite the many individual parts present or to be made visible.
Id.

Figure 2 of Nishida is reproduced below.

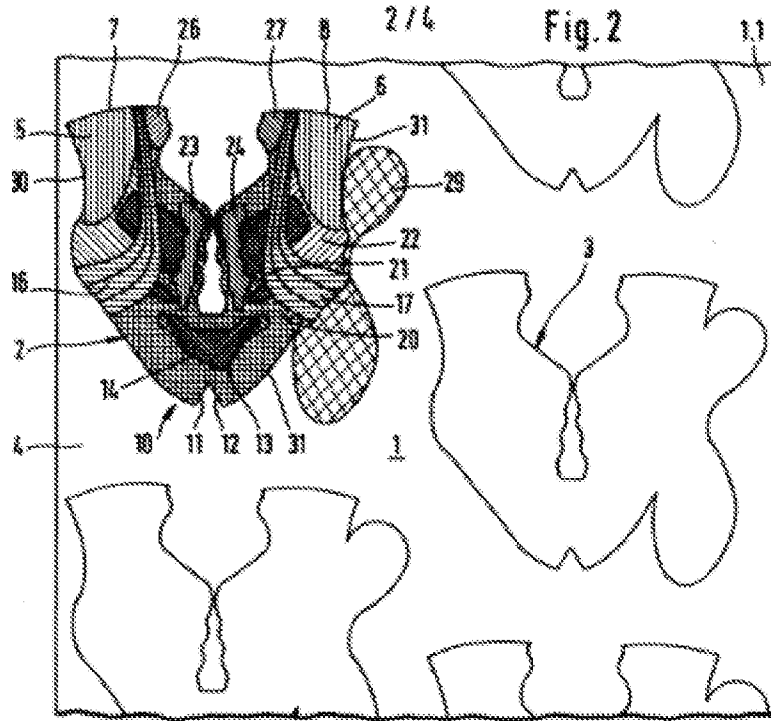


Figure 2 illustrates an embodiment of the upper layout according to Nishida. *Id.* at col. 3, ll. 6–12. Web of material 1 may include one or a plurality of layouts 2. Further, web of material 1 includes backing 4 that may be a knitted material, and different areas of layouts 2 may be formed by knitting different yarns or fibers on backing 4. *Id.* at col. 3, ll. 15–26; col. 5, l. 63–col. 6, l. 2.

Consequently, web of material 1 may be used to produce layouts 2 by different production measures, such as different styles, yarn material, color, material thickness, number of layers of material, or the like, simultaneously with the production of web of material 1. *Id.*; *see id.* at Figs. 1, 2. Each layout 2, including a sole part, may be cut from web of material 1 as a unit

and processed into an upper. *Id.* Nishida describes the manufacture of an article of footwear incorporating such an upper. *Id.* at col. 3, ll. 9–12; Fig. 3.

4. *Limitations of the Challenged Claims*

Petitioner argues that Reed and Nishida teaches or suggests all of the limitations of claims 1–9, 11–19, and 21 of the '749 patent. Pet. 9–32. In particular, Petitioner argues that Reed and Nishida teaches or suggests all of the limitations of each of independent claims 1 and 13. *Id.* at 13–19 (claim 1), 20–21 (claim 13). Although Petitioner appears to identify a disclosure from Nishida in its claim charts (*id.* at 13–21) as teaching each of the limitations of claims 1 and 13, Petitioner does not assert expressly that Nishida *alone* renders claim 1 or claim 13 unpatentable. Therefore, although Petitioner may argue and present evidence that Nishida alone renders claim 1 or claim 13 unpatentable, we decline to institute grounds not expressly asserted by Petitioner. *See supra* Section I.E.

a. *Independent Claims 1 and 13*

Initially, independent claim 1 recites “[a] method of manufacturing an article of footwear.” Ex. 1001, col. 11, l. 43; *see also id.* at col. 12, l. 27 (claim 13). Reed teaches that its circular knitting methods may be used to manufacture “all types of garments.” Ex. 1006, col. 5, ll. 56–57. Although Reed specifically identifies stockings and hosiery (*id.* at col. 1, ll. 33–35, col. 5, ll. 57–58) as garments manufactured by circular knitting, Reed does not describe shoes as “garments.” Nevertheless, Nishida teaches that the web of material depicted in its Figures 1 and 2 is “produced by a *conventional* textile process.” Ex. 1009, col. 3, ll. 6–7 (emphasis added). Thus, on this record, we are persuaded that Petitioner has shown that Reed

and Nishida teach or suggest a method of manufacturing an article of footwear.

The method of claim 1 further comprises the step of “simultaneously knitting a textile element with a surrounding textile structure, the knitted textile element having at least one knitted texture that differs from a knitted texture in the surrounding knitted textile structure.” Ex. 1001, col. 11, ll. 45–48; *see also id.* at col. 12, ll. 29–39 (claim 13 reciting “the first knitted textile element located within a first portion of the knitted textile structure, the second knitted textile element located within a second portion of the knitted textile structure, varying at least one of the types of stitches or the types of yarns in the knitted textile structure to impart a texture to the first and second knitted textile elements different from a texture of the knitted textile structure extending between the first and second portions”). Reed clearly teaches simultaneously knitting a textile element, including producing body garments, such as skirts (*see id.* at Fig. 2), shirts and pants (*see id.* at Fig. 3), and dresses (*see id.* at Fig. 6), for men, women, and children (*id.* at col. 5, ll. 56–57) with a surrounding textile structure. Nishida also clearly supplies this limitation. Pet. 14–15. Nishida’s Figure 2, reproduced above (*see supra* Section II.B.3.) depicts textile elements, such as layouts 2, with a surrounding textile structure, such as web of material 1. Pet. 15–16: *see* Ex. 1009, col. 3, ll. 15–26. Thus, we determine that either Reed or Nishida teaches or suggests “simultaneously knitting a textile element with a surrounding textile structure” and “the first knitted textile element located within a first portion of the knitted textile structure,” as recited in independent claims 1 and 13, respectively.

With regard to the second part of this limitation of claims 1 and 13, which Petitioner refers to as limitations 1C and 13C, Petitioner argues that

Reed describes using different types of stitches or yarns to impart a knitted texture to the textile element(s) that is different from a knitted texture in the surrounding textile structure. For example, Reed describes that the edges of the garments 16, 18, 20 are formed by interknitted stitches, whereas the remainder of the garments 16, 18, 20 are formed by non-interknitted stitches. . . . *Because the interknitted stitches are part of the garments 16, 18, 20, they form a texture in the garments that is different from the texture in the surrounding textile structure.*

Pet. 16 (emphasis added; citing Ex. 1006, col. 5, ll. 3–18; Ex. 1003 ¶¶ 108, 109). Similarly, Petitioner argues that Nishida teaches that

“only just those parts of the web of material are produced in the necessary quality, thickness, multilayers or the like which correspond to the pattern or to an area of a pattern of the shoe upper or the related shoe part. The remaining area of the web of material in contrast can consist of a simple, lightweight or inexpensive material quality, which holds together only the patterns or areas of such patterns in the web of material after their completion.”

Id. at 17 (emphasis added; quoting Ex. 1009, col. 2, ll. 12–20; citing Ex. 1003 ¶¶ 110–111). Thus, on this record, we determine that either Reed or Nishida supplies this limitation of independent claims 1 and 13.

The method of claim 1 further comprises the step of “removing the knitted textile element from the surrounding knitted textile structure.” Ex. 1001, col. 11, ll. 49–50; *see also id.* at col. 12, ll. 40–41 (claim 13 recites “removing the first and second knitted textile element from the knitted textile structure”). Like with respect to the previous limitation, we are persuaded that Petitioner has shown that either Reed or Nishida teaches or

suggests this limitation of the independent claims. Pet. 18 (claim 1; citing, e.g., Ex. 1006, col. 3, ll. 12–19; Ex. 1009, col. 1, ll. 10–18); *id.* at 21 (claim 13); *see* Ex. 1003 ¶¶ 103–104.

Finally, the method of claim 1 further comprises the step of “incorporating the textile element into an upper of the article of footwear.” Ex. 1001, col. 11, ll. 51–52; *see also id.* at col. 12, ll. 42–43 (claim 13). Petitioner relies solely on Nishida to supply this limitation, and we are persuaded, on this record, that Petitioner has shown that Nishida teaches or suggested this limitation of the independent claims. Pet. 16 (claim 1), 20 (claim 13); *see* Ex. 1003 ¶ 126.

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the identified teachings of Reed and Nishida to achieve the methods recited in independent claims 1 and 13. Pet. 11–13. In particular, Petitioner argues that, because Reed teaches that its methods are applicable to “*all* types of garments” (Ex. 1006, col. 5, ll. 56–57 (emphasis added); *see* Ex. 1003 ¶ 131), a person of ordinary skill in the art would have had reason to apply the teachings of Reed to the processes and shoe parts of Nishida. Pet. 13 (citing Ex. 1003 ¶ 133). Further, Petitioner argues that, because both Reed and Nishida teach the advantages of reducing cost through the use of computer-controlled knitting machines, a person of ordinary skill in the art would have had reason to combine their teachings. Pet. 13 (citing Ex. 1003 ¶¶ 134–135). Finally, Petitioner argues that a person of ordinary skill in the art would have had reason to apply Reed’s methods for producing textile elements, from which to produce garments, to produce Nishida’s shoe upper patterns. *Id.*; *see KSR*, 550 U.S. at 417 (“[I]f a technique has been used to improve one device, and a person of ordinary

skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”). Thus, we are persuaded that Petitioner has set forth sufficient reason at this initial stage of the proceeding for a person of ordinary skill in the relevant art to have combined the teachings of Reed and Nishida to achieve the recited methods of manufacturing an article of footwear.

b. Dependent Claims 2–9, 11, 12, 14–19, and 21

Petitioner argues that Reed teaches or suggests the additional limitations recited in claims 9 and 19 (*id.* at 29–31; *see supra* Section II.A.2.); that Nishida teaches or suggests the additional limitations recited in claims 7, 12, 17, and 18 (Pet. 25, 31–32); and that that Reed and/or Nishida teaches or suggests the additional limitations recited in claims 2–6, 8, 11, 14–16, and 21 (*id.* at 19, 21–29, 31; *see supra* Section II.A.1.). Petitioner provides a detailed mapping of the limitations of each of these dependent claims onto the teachings of Reed and/or Nishida. We find these mappings persuasive. Moreover, we are persuaded that, on this record, a person of ordinary skill in the relevant art would have had at least the same reason to combine the teachings of Reed and Nishida to achieve the methods recited in these dependent claims, as that given for combining the teachings of Reed and Nishida to achieve the recited methods of the independent claims. *See id.* at 11–13.

Although we have highlighted specific evidence and arguments for emphasis, we have reviewed the entirety of Petitioner’s analysis for independent claims 1 and 13, as well as the supporting testimony of Mr. Holden. Based on our review of the arguments and evidence, we conclude

that Petitioner has established a reasonable likelihood of prevailing on its challenge to independent claims 1 and 13 as rendered obvious by Reed and Nishida. Moreover, because Petitioner's arguments for the obviousness of dependent claims 2–9, 11, 12, 14–19, and 21 over Reed and Nishida, rely on the arguments and evidence presented with respect to independent claims 1 and 13, we also conclude that Petitioner has established a reasonable likelihood of prevailing on its challenge to the dependent claims.

5. Obviousness over Castello, Fujiwara, and Nishida

Petitioner argues that claims 1–9, 11–19, and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over Castello, Fujiwara, and Nishida. *See supra* Section I.E. In this asserted ground, Castello and Fujiwara, apparently, are cited together in lieu of the teachings of Reed. *See supra* Section I.E. Pursuant to 35 U.S.C. § 312(a)(3), a petition only may be considered if it “identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” Here, the fault in the Petition lies in its failure to identify “with particularity” the grounds and evidence that form the underlying basis for Petitioner's patentability challenge. For instance, with respect to claim 1, the claim chart offered to point out where the features of the claim are present in the prior art spans eight pages and constitutes bulk citation to portions of Castello, Fujiwara, and Nishida. *See* Pet. 37–44. Such an approach does not provide meaningful “particularity” sufficient for the panel to ascertain where, specifically, Petitioner identifies the limitations of the claim in the prior art.

Furthermore, again in connection with claim 1, the Petition cites to portions of Castello and Fujiwara for the same features of that claim, and

also submits parallel citation in some cases to portions of Nishida. Nevertheless, Petitioner does not articulate whether it contends that the teachings of Castello and Fujiwara are cumulative of one another, cumulative of Nishida, or both.⁷ It is not evident from the Petition what features Petitioner argues are absent from Castello that it must rely on content of Fujiwara to supply. As noted above, the Supreme Court has instructed us that the obviousness analysis includes describing (1) the scope and content of the prior art and (2) any differences between the claimed subject matter and the prior art. *Graham*, 383 U.S. at 17–18. At least with respect to Castello and Fujiwara, Petitioner has failed to do so here. We are left to guess what limitations Petitioner seeks to supply from the teachings of each of those references. Petitioner’s arguments, citations, and claim charts fail to provide appropriate guidance as to where limitations of the challenged claims are found with particularity and are not sufficient, here, to support the institution of *inter partes* review on this second ground.⁸

⁷ With the exception of characterizing Castello as directed to “shirts” and Fujiwara as directed to “garments,” Petitioner uses virtually identical language to describe the teachings of these references. *Compare* Pet. 33 (Castello: “incorporating the textile element(s) into *shirts* worn by men, women, and children” (emphasis added)), *with id.* at 34 (Fujiwara: “incorporating the textile element(s) into *garments* worn by men, women, and children” (emphasis added)).

⁸ This second asserted ground addresses *all* of the challenged claims upon which we have instituted *inter partes* review based on Reed and Nishida, but Petitioner does not provide argument or evidence clearly favoring institution on one of the two asserted grounds over the other. *See* Pet. 57–58. Regardless, it would be within our discretion under 37 C.F.R. § 42.108(a) to deny institution on the additional ground.

Therefore, we *deny* this second ground and do not institute *inter partes* review based on it.

III. SUMMARY

We are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claims 1–9, 11–19, and 21 of the ’749 patent as obvious over Reed and Nishida. We are not persuaded, however, that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claims 1–9, 11–19, and 21 of the ’749 patent as obvious over Castello, Fujiwara, and Nishida. At this stage of the proceeding, we have not made a final determination as to the patentability of any of these challenged claims or the construction of any claim term.

IV. ORDER

It is, therefore,

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of the ’749 patent is instituted on the grounds of obviousness of claims 1–9, 11–19, and 21 over Reed and Nishida;

FURTHER ORDERED that *inter partes* review is not authorized based on any other proposed ground of unpatentability; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

IPR2016-00922
Patent 8,266,749 B2

PETITIONER:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
KILPATRICK TOWNSEND & STOCKTON LLP
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
Michael J. Harris
BANNER & WITCOFF, LTD
crenk@bannerwitcoff.com
mharris@bannerwitcoff.com
bwlitdocket@bannerwitcoff.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

NIKE, Inc.,
Patent Owner.

Case IPR2016-00921(Patent 7,814,598 B2)
Case IPR2016-00922 (Patent 8,226,749 B2)¹

Before JOSIAH C. COCKS, MICHAEL J. FITZPATRICK, and
JAMES B. ARPIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

SCHEDULING ORDER
37 C.F.R. § 42.5

¹ This Order applies to each of the listed cases. We exercise our discretion to issue one Order to be docketed in each case. The parties are not authorized to use a multiple case caption.

A. GENERAL INSTRUCTIONS

1. *Initial Conference Call*

The parties are directed to contact the Board via e-mail at Trials@uspto.gov prior to the date scheduled below if there is no need to discuss proposed changes to this Scheduling Order or proposed motions. If no discussion is needed, the initial conference call will be cancelled. The parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,765–66 (Aug. 14, 2012), for guidance in preparing for the initial conference call, and should be prepared to discuss any proposed changes to this Scheduling Order (i.e., DUE DATES 6 and 7) and any motions that are *not* authorized already by our Rules or by this Scheduling Order, which the parties anticipate filing during the proceeding.

2. *Protective Order*

A protective order is not entered in this proceeding unless the parties propose one and the panel approves it. If either party files a motion to seal before entry of a protective order, a jointly proposed protective order should be presented as an exhibit to the motion. We encourage the parties to adopt the Board's default protective order if they conclude that a protective order is necessary. *See* Default Protective Order, Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, App. B. If the parties choose to propose a protective order deviating from the default protective order, they must submit the proposed protective order jointly along with a marked-up comparison of the proposed and default protective orders showing the deviations.

The Board has a strong interest in the public availability of the proceedings. 37 C.F.R. § 42.14. We advise the parties that redactions to documents filed in this proceeding should be limited strictly to isolated passages consisting *entirely* of confidential information, and that the thrust of the underlying argument or

evidence must be clearly discernible to the public from the redacted versions. We also advise the parties that information subject to a protective order will become public if identified in a final written decision in this proceeding, and that a motion to expunge the information will not necessarily prevail over the public's interest in maintaining a complete and understandable file history. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,761; 37 C.F.R. § 42.56.

Notwithstanding the default filing times for an opposition and a reply reflected in 37 C.F.R. § 42.25(a):

(1) an opposition, if any, to a motion to seal is due seven (7) days after service of the motion; and

(2) a reply, if any, to an opposition to a motion to seal is due seven (7) days after service of the opposition.

3. Motion to Amend

Patent Owner may file a motion to amend without prior authorization from the panel. Nevertheless, Patent Owner must confer with the Board before filing such a motion. *See* 37 C.F.R. § 42.121(a). If Patent Owner elects to file a Motion to Amend, Patent Owner shall confer with opposing counsel and shall arrange for a conference call with the panel and opposing counsel at least ten (10) business days before DUE DATE 1 in order to satisfy the conferral requirement. We direct the parties to the Board's website for representative decisions relating to motions to amend among other topics. The parties may access these representative decisions at: http://www.uspto.gov/ip/boards/bpai/representative_orders_and_opinions.jsp.

4. Discovery Disputes

The panel encourages the parties to resolve disputes relating to discovery on their own and in accordance with the precepts set forth in 37 C.F.R. § 42.1(b). To the extent that a dispute arises between the parties relating to discovery, the parties

shall meet and confer to resolve such a dispute before contacting the Board. If attempts to resolve the dispute fail, either party may request a conference call with the Board and the other party in order to seek authorization to move for relief.

In any request for a conference call with the Board to resolve a discovery dispute, the requesting party shall: (a) certify that it has conferred with the other party in an effort to resolve the dispute; (b) identify with specificity the issues for which agreement has not been reached; (c) identify the precise relief to be sought; and (d) propose a plurality of dates and times at which both parties are available for the conference call.

5. Depositions

The parties are advised that the Testimony Guidelines appended to the Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,772, App. D, apply to this proceeding. The Board may impose an appropriate sanction or sanctions for failure to adhere to the Testimony Guidelines. 37 C.F.R. § 42.12. For example, reasonable expenses and attorneys' fees incurred by any party may be levied on a person who impedes, delays, or frustrates the fair examination of a witness.

Whenever a party submits a deposition transcript as an exhibit in this proceeding, the submitting party shall file the full transcript of the deposition rather than excerpts of only those portions being cited. After a deposition transcript has been submitted as an exhibit, all parties who subsequently cite to portions of the transcript shall cite to the first-filed exhibit rather than submitting another copy of the same transcript.

6. Cross-Examination

Except as the parties might otherwise agree, for each due date—

1. Cross-examination begins after any supplemental evidence is due.
37 C.F.R. § 42.53(d)(2).

2. Cross-examination ends no later than a week before the filing date for any paper in which the cross-examination testimony is expected to be used. *Id.*

7. Motion for Observation on Cross-Examination

A motion for observation on cross-examination provides the parties with a mechanism to draw the Board's attention to relevant cross-examination testimony of a reply witness because no further substantive paper is permitted after the reply. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,768. The observation must be a concise statement of the relevance of specifically identified testimony to a specifically identified argument or portion of an exhibit. No observation should exceed a single, short paragraph. The opposing party may respond to the motion for observation. Any response must be equally concise and specific.

B. DUE DATES

This Order sets due dates for the parties to take action after institution of the proceeding. The parties may stipulate to different dates for DUE DATES 1 through 5 (earlier or later, but no later than DUE DATE 6). A notice of the stipulation, specifically identifying the changed due dates, must be filed promptly. The parties may not stipulate to an extension of DUE DATES 6 and 7, and, if either party anticipates the need to alter Due Date 7, the parties shall seek jointly to schedule a conference call with the panel *immediately* upon the identification any conflict or potential conflict with Due Date 7. *See* 37 C.F.R. § 42.10(a) (Each party "must designate a lead counsel and a back-up counsel who can conduct business on behalf of the lead counsel."); Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,758 ("[T]he role of back-up counsel is to conduct business with the Office on behalf of lead counsel when lead counsel is not available.").

In stipulating to different times, the parties should consider the effect of the stipulation on times to object to evidence (37 C.F.R. § 42.64(b)(1)), to supplement

evidence (37 C.F.R. § 42.64(b)(2)), to conduct cross-examination (37 C.F.R. § 42.53(d)(2)), and to draft papers depending on the evidence and cross-examination testimony.

1. DUE DATE 1

Patent Owner may file—

- a. A response to the Petition (37 C.F.R. § 42.120), and
- b. A motion to amend the patent (37 C.F.R. § 42.121).

Patent Owner must file any such response or motion to amend by DUE DATE 1.

If Patent Owner elects not to file anything, Patent Owner must arrange a conference call with the parties and the Board. Patent Owner is cautioned that any arguments for patentability not raised in the response will be deemed waived.

2. DUE DATE 2

Petitioner must file any reply to Patent Owner's response and opposition to the motion to amend by DUE DATE 2.

3. DUE DATE 3²

Patent Owner must file any reply to Petitioner's opposition to Patent Owner's motion to amend by DUE DATE 3.

4. DUE DATE 4

a. Each party must file any motion for an observation on the cross-examination testimony of a reply witness (*see* section A.7, above) by DUE DATE 4.

b. Each party must file any motion to exclude evidence (37 C.F.R. § 42.64(c)) and any request for oral argument (37 C.F.R. § 42.70(a)) by DUE DATE 4.

² Please be advised that, if no Motions to Amend are filed in these proceedings, Due Date 3 is moot, and the panel may advance Due Dates 4–7 *sua sponte*.

5. DUE DATE 5

a. Each party must file any reply to a Petitioner observation on cross-examination testimony by DUE DATE 5.

b. Each party must file any opposition to a motion to exclude evidence by DUE DATE 5.

6. DUE DATE 6

Each party must file any reply for a motion to exclude evidence by DUE DATE 6.

7. DUE DATE 7

The oral argument (if requested by either party) is set for DUE DATE 7.

DUE DATE APPENDIX

INITIAL CONFERENCE CALL2:00 PM ET on November 21, 2016

DUE DATE 1January 23, 2017

Patent Owner's response to the Petition

Patent Owner's motion to amend the patent

DUE DATE 2April 21, 2017

Petitioner's reply to Patent Owner's response to the Petition

Petitioner's opposition to motion to amend

DUE DATE 3May 22, 2017

Patent Owner's reply to Petitioner's opposition to motion to amend

DUE DATE 4June 12, 2017

Motion for observation regarding cross-examination of reply witness

Motion to exclude evidence

Request for oral argument³

DUE DATE 5June 26, 2017

Response to observation

Opposition to motion to exclude

DUE DATE 6July 3, 2017

Reply to opposition to motion to exclude

³ Although the parties may stipulate to a different date for Due Date 4, such stipulation may not alter the due date for file a request for oral argument.

IPR2016-00921(Patent 7,814,598 B2)
IPR2016-00922 (Patent 8,226,749 B2)

DUE DATE 7July 12, 2017

Oral argument (if requested)

PETITIONER:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
KILPATRICK TOWNSEND & STOCKTON LLP
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
Michael J. Harris
BANNER & WITCOFF, LTD
crenk@bannerwitcoff.com
mharris@bannerwitcoff.com
bwlitdocket@bannerwitcoff.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2016-00922
Patent No. 8,266,749

**PATENT OWNER NIKE, INC.'S
NOTICE OF CROSS-EXAMINATION OF LENNY M. HOLDEN**

Pursuant to 37 C.F.R. 42.53, Patent Owner NIKE, Inc. ("NIKE") hereby provides notice that, as previously agreed by the parties, it will cross-examine Lenny M. Holden on January 11, 2017. The cross-examination will begin at 9:00 a.m. or at a time mutually agreed by the parties and will be held at the offices of adidas' counsel, Kilpatrick Townsend and Stockton, 1100 Peachtree Street NE, Suite 2800, Atlanta, Georgia. The cross-examination will take place before a Notary Public or other official authorized by law to administer oaths, to be arranged by counsel for NIKE. The cross-examination will be recorded by using audio, video and/or stenographic means.

Date: December 19, 2016

Respectfully submitted,

/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on December 19, 2016, by email directed to the attorneys of record for Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

/s/ Aaron P. Bowling
Aaron P. Bowling
Banner & Witcoff, Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2017-00263
Patent No. 8,042,288

**PATENT OWNER'S MANDATORY NOTICES
PURSUANT TO 37 C.F.R. § 42.8(a)(2)**

Pursuant to 37 C.F.R. § 42.8(a)(2), Patent Owner Nike, Inc. (“NIKE”) hereby submits the following mandatory notices in connection with Petitioner adidas AG’s Petition for *Inter Partes* Review of claims 8 and 14-20 of U.S. Patent No. 8,042,288, Case No. IPR-2017-00263.

I. 37 C.F.R. § 42.8(b)(1): Real Party-In-Interest

The real party-in-interest is Nike, Inc.

II. 37 C.F.R. § 42.8(b)(2): Related Matters

NIKE identifies the following matters that may be deemed related pursuant to 37 C.F.R. § 42.8(b)(2):

- Petition for *Inter Partes* Review of U.S. Patent No. 7,347,011, Case No. IPR-2013-00067;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2016-00920;
- Petition for *Inter Partes* Review of U.S. Patent No. 7,814,598, Case No. IPR-2016-00921;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,266,749, Case No. IPR-2016-00922; and
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2017-00264.

III. 37 C.F.R. § 42.8(b)(3): Lead and Back-Up Counsel

NIKE designates the following counsel to transact all business in the United States Patent & Trademark Office associated with the above-captioned Petition for *Inter Partes* Review.

Lead Counsel	Back-up Counsel
Christopher J. Renk	Michael J. Harris
Reg. No. 33,761	Reg. No. 62,957
crenk@bannerwitcoff.com	mharris@bannerwitcoff.com
BANNER & WITCOFF, LTD.	BANNER & WITCOFF, LTD.
10 South Wacker Drive	10 South Wacker Drive
Suite 3000	Suite 3000
Chicago, Illinois 60606	Chicago, Illinois 60606
Telephone: 312-463-5000	Telephone: 312-463-5000
Facsimile: 312-463-5001	Facsimile: 312-463-5001

IV. 37 C.F.R. § 42.8(b)(4): Service Information

Service of all documents may be made on the lead and back-up counsel to the following postal mailing address, with courtesy copies to crenk@bannerwitcoff.com, mharris@bannerwitcoff.com, and bwlitdocket@bannerwitcoff.com:

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

Date: December 5, 2016

Respectfully submitted,

/s/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on December 5, 2016, by Express Mail and email directed to the attorneys of record for Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

/s/Aaron P. Bowling/
Aaron P. Bowling
Banner & Witcoff, Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

Nike, Inc.,
Patent Owner.

Case IPR2017-00263
Patent 8,042,288

Mailed: December 9, 2016

Before Althea Wilburn, *Trial Paralegal*.

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for *inter partes* review filed in the above proceeding has been accorded the filing date of November 14, 2016.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is

limited to setting forth the reasons why the requested review should not be instituted. Patent Owner may also file an election to waive the preliminary response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012), which is available on the Board Web site at <http://www.uspto.gov/PTAB>.

Patent Owner is advised of the requirement to submit mandatory notice information under 37 C.F.R. § 42.8(a)(2) within 21 days of service of the petition.

The parties are encouraged to use the heading on the first page of this Notice for all future filings in the proceeding.

The parties are advised that under 37 C.F.R. § 42.10(c), recognition of counsel *pro hac vice* requires a showing of good cause. The parties are authorized to file motions for *pro hac vice* admission under 37 C.F.R. § 42.10(c). Such motions shall be filed in accordance with the “Order -- Authorizing Motion *for Pro Hac Vice* Admission” in Case IPR2013-00639, Paper 7, a copy of which is available on the Board Web site under “Representative Orders, Decisions, and Notices.”

The parties are reminded that unless otherwise permitted by 37 C.F.R. § 42.6(b)(2), all filings in this proceeding must be made electronically in the Patent Review Processing System (PRPS), accessible from the Board Web site at <http://www.uspto.gov/PTAB>. To file documents, users must first obtain a user ID and password by registering with PRPS. Information regarding how to register with and use PRPS is available at the Board Web site.

Case IPR2017-00263
Patent No. 8,042,288

If there are any questions pertaining to this notice, please contact
Althea Wilburn at 571-272-6230 or the Patent Trial and Appeal Board at
571-272-7822.

PETITIONER:

Mitchell Stockwell
mstockwell@kilpatricktownsend.com

Wab Kadaba
wkadaba@kilpatricktownsend.com

Tiffany Williams
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
crenk@bannerwitcoff.com

Michael Harris
mharris@bannerwitcoff.com

NOTICE CONCERNING ALTERNATIVE DISPUTE RESOLUTION (ADR)

The Patent Trial and Appeal Board (PTAB) strongly encourages parties who are considering settlement to consider alternative dispute resolution as a means of settling the issues that may be raised in an AIA trial proceeding. Many AIA trials are settled prior to a Final Written Decision. Those considering settlement may wish to consider alternative dispute resolution techniques early in a proceeding to produce a quicker, mutually agreeable resolution of a dispute or to at least narrow the scope of matters in dispute. Alternative dispute resolution has the potential to save parties time and money.

Many non-profit organizations, both inside and outside the intellectual property field, offer alternative dispute resolution services. Listed below are the names and addresses of several such organizations. The listings are provided for the convenience of parties involved in cases before the PTAB; the PTAB does not sponsor or endorse any particular organization's alternative dispute resolution services. In addition, consideration may be given to utilizing independent alternative dispute resolution firms. Such firms may be located through a standard keyword Internet search.

CPR INSTITUTE FOR DISPUTE RESOLUTION	AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION (AIPLA)	AMERICAN ARBITRATION ASSOCIATION (AAA)	WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)	AMERICAN BAR ASSOCIATION (ABA)
Telephone: (212) 949-6490	Telephone: (703) 415-0780	Telephone: (212) 484-3266	Telephone: 41 22 338 9111	Telephone : (202) 662-1000
Fax: (212) 949-8859	Fax: (703) 415-0786	Fax: (212) 307-4387	Fax: 41 22 733 5428	N/A
575 Lexington Ave New York, NY 10022	241 18th Street, South, Suite 700 Arlington, VA 22202	140 West 51st Street New York, NY 10020	34, chemin des Colombettes CH-1211 Geneva 20, Switzerland	1050 Connecticut Ave, NW Washington D.C. 20036
www.cpradr.org	www.aipla.org	www.adr.org	www.wipo.int	www.americanbar.org

If parties to an AIA trial proceeding consider using alternative dispute resolution, the PTAB would like to know whether the parties ultimately decided to engage in alternative dispute resolution and the reasons why or why not. If the parties actually engage in alternative dispute resolution, the PTAB would be interested to learn what mechanism (e.g., arbitration,

mediation, etc.) was used and the general result. Such a statement from the parties is not required but would be helpful to the PTAB in assessing the value of alternative dispute resolution to parties involved in AIA trial proceedings. To report an experience with ADR, please forward a summary of the particulars to the following email address:
PTAB_ADR_Comments@uspto.gov

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner,

v.

NIKE, Inc.
Patent Owner

Case IPR2017-00264
Patent No. 8,042,288

PATENT OWNER'S MANDATORY NOTICES
PURSUANT TO 37 C.F.R. § 42.8(a)(2)

Pursuant to 37 C.F.R. § 42.8(a)(2), Patent Owner Nike, Inc. (“NIKE”) hereby submits the following mandatory notices in connection with Petitioner adidas AG’s Petition for *Inter Partes* Review of claims 1-7, 9-13, and 21-38 of U.S. Patent No. 8,042,288, Case No. IPR-2017-00264.

I. 37 C.F.R. § 42.8(b)(1): Real Party-In-Interest

The real party-in-interest is Nike, Inc.

II. 37 C.F.R. § 42.8(b)(2): Related Matters

NIKE identifies the following matters that may be deemed related pursuant to 37 C.F.R. § 42.8(b)(2):

- Petition for *Inter Partes* Review of U.S. Patent No. 7,347,011, Case No. IPR-2013-00067;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2016-00920;
- Petition for *Inter Partes* Review of U.S. Patent No. 7,814,598, Case No. IPR-2016-00921;
- Petition for *Inter Partes* Review of U.S. Patent No. 8,266,749, Case No. IPR-2016-00922; and
- Petition for *Inter Partes* Review of U.S. Patent No. 8,042,288, Case No. IPR-2017-00263.

III. 37 C.F.R. § 42.8(b)(3): Lead and Back-Up Counsel

NIKE designates the following counsel to transact all business in the United States Patent & Trademark Office associated with the above-captioned Petition for *Inter Partes* Review.

Lead Counsel	Back-up Counsel
Christopher J. Renk	Michael J. Harris
Reg. No. 33,761	Reg. No. 62,957
crenk@bannerwitcoff.com	mharris@bannerwitcoff.com
BANNER & WITCOFF, LTD.	BANNER & WITCOFF, LTD.
10 South Wacker Drive	10 South Wacker Drive
Suite 3000	Suite 3000
Chicago, Illinois 60606	Chicago, Illinois 60606
Telephone: 312-463-5000	Telephone: 312-463-5000
Facsimile: 312-463-5001	Facsimile: 312-463-5001

IV. 37 C.F.R. § 42.8(b)(4): Service Information

Service of all documents may be made on the lead and back-up counsel to the following postal mailing address, with courtesy copies to crenk@bannerwitcoff.com, mharris@bannerwitcoff.com, and bwlitdocket@bannerwitcoff.com:

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

Date: December 5, 2016

Respectfully submitted,

/s/Christopher J. Renk/

Christopher J. Renk

Michael J. Harris

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

crenk@bannerwitcoff.com

mharris@bannerwitcoff.com

Telephone: 312-463-5000

Facsimile: 312-463-5001

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served on December 5, 2016, by Express Mail and email directed to the attorneys of record for Petitioner as follows:

Mitchell G. Stockwell
Vaibhav P. Kadaba
Tiffany L. Williams
Kilpatrick Townsend & Stockton LLP
1100 Peachtree Street, NE, Suite 2800
Atlanta, Georgia 30309
mstockwell@kilpatricktownsend.com
wkadaba@kilpatricktownsend.com
tiwilliams@kilpatricktownsend.com

/s/Aaron P. Bowling/
Aaron P. Bowling
Banner & Witcoff, Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG,
Petitioner,

v.

Nike, Inc.,
Patent Owner.

Case IPR2017-00264
Patent 8,042,288

Mailed: December 9, 2016

Before Althea Wilburn, *Trial Paralegal*.

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for *inter partes* review filed in the above proceeding has been accorded the filing date of November 14, 2016.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is

limited to setting forth the reasons why the requested review should not be instituted. Patent Owner may also file an election to waive the preliminary response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012), which is available on the Board Web site at <http://www.uspto.gov/PTAB>.

Patent Owner is advised of the requirement to submit mandatory notice information under 37 C.F.R. § 42.8(a)(2) within 21 days of service of the petition.

The parties are encouraged to use the heading on the first page of this Notice for all future filings in the proceeding.

The parties are advised that under 37 C.F.R. § 42.10(c), recognition of counsel *pro hac vice* requires a showing of good cause. The parties are authorized to file motions for *pro hac vice* admission under 37 C.F.R. § 42.10(c). Such motions shall be filed in accordance with the “Order -- Authorizing Motion *for Pro Hac Vice* Admission” in Case IPR2013-00639, Paper 7, a copy of which is available on the Board Web site under “Representative Orders, Decisions, and Notices.”

The parties are reminded that unless otherwise permitted by 37 C.F.R. § 42.6(b)(2), all filings in this proceeding must be made electronically in the Patent Review Processing System (PRPS), accessible from the Board Web site at <http://www.uspto.gov/PTAB>. To file documents, users must first obtain a user ID and password by registering with PRPS. Information regarding how to register with and use PRPS is available at the Board Web site.

Case IPR2017-00264
Patent No. 8,042,288

If there are any questions pertaining to this notice, please contact Althea Wilburn at 571-272-6230 or the Patent Trial and Appeal Board at 571-272-7822.

PETITIONER:

Mitchell Stockwell
mstockwell@kilpatricktownsend.com

Wab Kadaba
wkadaba@kilpatricktownsend.com

Tiffany Williams
tiwilliams@kilpatricktownsend.com

PATENT OWNER:

Christopher J. Renk
crenk@bannerwitcoff.com

Michael Harris
mharris@bannerwitcoff.com

NOTICE CONCERNING ALTERNATIVE DISPUTE RESOLUTION (ADR)

The Patent Trial and Appeal Board (PTAB) strongly encourages parties who are considering settlement to consider alternative dispute resolution as a means of settling the issues that may be raised in an AIA trial proceeding. Many AIA trials are settled prior to a Final Written Decision. Those considering settlement may wish to consider alternative dispute resolution techniques early in a proceeding to produce a quicker, mutually agreeable resolution of a dispute or to at least narrow the scope of matters in dispute. Alternative dispute resolution has the potential to save parties time and money.

Many non-profit organizations, both inside and outside the intellectual property field, offer alternative dispute resolution services. Listed below are the names and addresses of several such organizations. The listings are provided for the convenience of parties involved in cases before the PTAB; the PTAB does not sponsor or endorse any particular organization's alternative dispute resolution services. In addition, consideration may be given to utilizing independent alternative dispute resolution firms. Such firms may be located through a standard keyword Internet search.

CPR INSTITUTE FOR DISPUTE RESOLUTION	AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION (AIPLA)	AMERICAN ARBITRATION ASSOCIATION (AAA)	WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)	AMERICAN BAR ASSOCIATION (ABA)
Telephone: (212) 949-6490	Telephone: (703) 415-0780	Telephone: (212) 484-3266	Telephone: 41 22 338 9111	Telephone : (202) 662-1000
Fax: (212) 949-8859	Fax: (703) 415-0786	Fax: (212) 307-4387	Fax: 41 22 733 5428	N/A
575 Lexington Ave New York, NY 10022	241 18th Street, South, Suite 700 Arlington, VA 22202	140 West 51st Street New York, NY 10020	34, chemin des Colombettes CH-1211 Geneva 20, Switzerland	1050 Connecticut Ave, NW Washington D.C. 20036
www.cpradr.org	www.aipla.org	www.adr.org	www.wipo.int	www.americanbar.org

If parties to an AIA trial proceeding consider using alternative dispute resolution, the PTAB would like to know whether the parties ultimately decided to engage in alternative dispute resolution and the reasons why or why not. If the parties actually engage in alternative dispute resolution, the PTAB would be interested to learn what mechanism (e.g., arbitration,

mediation, etc.) was used and the general result. Such a statement from the parties is not required but would be helpful to the PTAB in assessing the value of alternative dispute resolution to parties involved in AIA trial proceedings. To report an experience with ADR, please forward a summary of the particulars to the following email address:
PTAB_ADR_Comments@uspto.gov

Electronic Acknowledgement Receipt

EFS ID:	29869217
Application Number:	15610089
International Application Number:	
Confirmation Number:	4757
Title of Invention:	ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER
First Named Inventor/Applicant Name:	BHUPESH DUA
Customer Number:	78342
Filer:	Elizabeth Ashley Lucas
Filer Authorized By:	
Attorney Docket Number:	NIKE.276100/081313US82CON
Receipt Date:	24-JUL-2017
Filing Date:	31-MAY-2017
Time Stamp:	19:33:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	276100_7_NPL_29_Petition_for_Inter_Parties_Review_IPR201700263_filed_11142016.pdf	385516 37f63fb6d76087372b57ccc6a2fb9740f861df1c	no	50

Warnings:

Information:					
2	Non Patent Literature	276100_7_NPL_30_HOLDEN_D ECLARATION_11142016_IPR20 1700263.pdf	891516	no	82
			ddbbea8c9bd66ea773e37a64a5350b10a6 a1f0ac		
Warnings:					
Information:					
3	Non Patent Literature	276100_7_NPL_31_Form_PTO_ SB42_11142016_IPR201700263 .pdf	862633	no	2
			97ab9d8caf9e57f43dd12221eec87fe6b122 51c3		
Warnings:					
Information:					
4	Non Patent Literature	276100_7_NPL_34_Petition_fo r_Inter_Parties_Review_IPR201 700264_filed_11142016.pdf	420666	no	59
			841d9e95e3199cca89628948e072b639547 371f2		
Warnings:					
Information:					
5	Non Patent Literature	276100_7_NPL_35_HOLDEN_D ECLARATION_11142016_IPR20 100264.pdf	1029356	no	106
			a177257023ec36353b5dd235250ccfbc47af 1122		
Warnings:					
Information:					
6	Non Patent Literature	276100_7_NPL_36_Form_PTO_ SB42_11142016_IPR201700264 .pdf	864940	no	2
			8c23114fe64f2bc262b594d9b62712542ad 7c7d4		
Warnings:					
Information:					
7	Non Patent Literature	276100_7_NPL_26_10212016_ Trial_Instituted_Document_IPR 201600922.pdf	10242966	no	24
			e69466f2ce19fa9360cea121696eb4424980 c5da		
Warnings:					
Information:					
8	Non Patent Literature	276100_7_NPL_27_10212016_ Scheduling_Order_IPR2016009 22.pdf	3439424	no	9
			17a9762ea07130f39e403a8e1ce47b8c62a 9f0a9		
Warnings:					
Information:					

9	Non Patent Literature	276100_7_NPL_28_Notice_of_Cross_Exam_Holden_12192016_IPR201600922.pdf	539131	no	3
			4e13e9d6bfc3f8532131b18b8826d930808f8136		
Warnings:					
Information:					
10	Non Patent Literature	276100_7_NPL_32_12052016_Patent_Owner_Mandatory_Notices_IPR201700263.pdf	903988	no	5
			a64b85f0974605420c2b5314fd668fef983cd646		
Warnings:					
Information:					
11	Non Patent Literature	276100_7_NPL_33_12092016_Pat_Owner_Prelim_Resp_IPR201700263.pdf	1477615	no	5
			b6d1a4baffdf00caff615ce6b2c47e488b437268		
Warnings:					
Information:					
12	Non Patent Literature	276100_7_NPL_37_12052016_Patent_Owner_Mandatory_Notices_IPR201700264.pdf	905335	no	5
			f6602e5482f4b520b3144d8fb22bbf58786aac440		
Warnings:					
Information:					
13	Non Patent Literature	276100_7_NPL_38_12092016_Filing_Date_accorded_to_Pat_Owner_Prelim_Resp_IPR201700264.pdf	1475294	no	5
			e6ad3c5ccee249ff10e63a7443eec1b95029a002		
Warnings:					
Information:					
Total Files Size (in bytes):			23438380		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	15610089
	Filing Date	2017-05-31
	First Named Inventor	BHUPESH DUA
	Art Unit	3765
	Examiner Name	MARIE D. BAYS
	Attorney Docket Number	NIKE.276100/081313US82CON

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	1910251		1933-05-23	Joha	
	2	1888172	A	1932-11-15	Joha	
	3	2147197	A	1939-02-14	Glidden	
	4	5345638	A	1994-09-13	Nishida	
	5	6401364	B1	2002-06-11	Burt	
	6	6931762	B1	2005-08-23	Dua	
	7	D517297	S	2006-03-21	Jones et al.	
	8	7051460	B2	2006-05-30	Orei et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

9	7347011	B2	2008-03-25	Dua et al.	
10	8490299	B2	2013-07-23	Dua et al.	
11	9084449	B2	2015-07-21	Bell et al.	
12	2343390		1944-03-07	Ushakoff	
13	2608078		1952-08-26	Anderson	
14	2569764		1951-10-02	Jonas	
15	2314098		1943-03-16	McDonald	
16	2641004		1953-06-09	Whiting et al.	
17	2440393		1949-04-27	Clark	
18	4750339		1988-06-14	Simpson et al.	
19	6333105		2001-12-25	Tanaka et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

20	3583081		1974-06-08	Hayashi	
21	4447967		1984-05-15	Zaino	
22	4813158		1989-03-21	Brown	
23	4756098		1988-07-12	Boggia	
24	4785558		1988-11-22	Shiomura	
25	0601192		1898-03-22	Woodside	
26	1215198		1917-02-06	Rothstein	
27	1597934		1926-08-31	Stimpson	
28	4354318		1982-10-19	Frederick et al.	
29	1902780		1933-03-21	Holden et al.	
30	2001293		1935-05-14	Wilson	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

31	2047724		1936-07-14	Zuckerman	
32	2330199		1943-09-28	Basch	
33	2400692		1946-05-21	Herbert	
34	2586045		1952-02-19	Hoza	
35	2675631		1954-04-20	Doughty	
36	2994322		1961-08-01	Cullen et al.	
37	3694940		1972-10-03	Stohr	
38	3704474		1971-12-05	Winkler	
39	3766566		1973-10-23	Tadakoro	
40	3778856		1973-12-18	Christie et al.	
41	3952427		1976-04-27	Von den Benken et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

42	3972086		1976-08-03	Belli et al.	
43	4027402		1977-06-07	Liu et al.	
44	4031586		1977-06-28	Von den Benken et al.	
45	4211806		1980-07-08	Civardi et al.	
46	4232458		1980-11-11	Bartels	
47	4255949		1981-03-17	Thorneburg	
48	4258480		1981-03-31	Famolare, Jr.	
49	4317292		1982-03-02	Melton	
50	4373361		1982-02-15	Thorneburg	
51	4465448		1984-08-14	Aldridge	
52	4607439		1986-08-26	Harada	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

53	4737396		1988-04-12	Kamat	
54	5031423		1991-07-16	Ikenaga	
55	5095720		1992-03-17	Tibbals, Jr.	
56	5117567		1992-06-02	Berger	
57	5152025		1992-10-16	Himmas	
58	5192601		1993-03-09	Neisler	
59	5353524		1994-10-11	Brier	
60	5461884		1995-10-31	McCartney et al.	
61	5371957		1994-12-13	Gaudio	
62	5511323		1996-04-20	Dahlgren	
63	5572860		1996-11-12	Mitsumoto et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

64	5575090		1996-11-19	Condini	
65	5623840		1997-04-29	Roell	
66	5729918		1998-03-24	Smets	
67	5735145		1998-04-07	Pernick	
68	5746013		1998-05-05	Fay, Sr.	
69	5765296		1998-06-16	Ludemann et al.	
70	5884419		1999-03-23	Davidowitz et al.	
71	5996189		1999-12-07	Wang	
72	6029376		2000-02-29	Cass	
73	6032387		2000-03-07	Johnson	
74	6052921		2000-04-24	Oreck	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

75	6088936		2000-07-18	Bahl	
76	6151802		2000-11-28	Reynolds	
77	6170175		2001-01-09	Funk	
78	6308438		2001-10-30	Throneburg et al.	
79	6558784		2003-05-06	Norton et al.	
80	6588237		2003-07-08	Cole et al.	
81	6754983		2004-06-29	Hatfield et al.	
82	6910288		2005-06-28	Dua	
83	6922917		2005-08-02	Kerns et al.	
84	7056402		2006-06-06	Koerwien et al.	
85	7441348		2008-10-28	Dawson	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15610089
Filing Date	2017-05-31
First Named Inventor	BHUPESH DUA
Art Unit	3765
Examiner Name	MARIE D. BAYS
Attorney Docket Number	NIKE.276100/081313US82CON

86	7543397		2009-06-09	Kilgore et al.
87	7568298		2009-08-04	Kerns
88	7682219		2010-03-23	Falla
89	7814598		2010-10-19	Dua et al.
90	8042288		2011-10-25	Dua et al.
91	8266749		2012-09-18	Dua et al.
92	4183156		1980-01-15	Rudy
93	4219945		1980-09-02	Rudy
94	5343639		1994-09-06	Kilgore et al.
95	5353523		1994-10-11	Kilgore et al.

If you wish to add additional U.S. Patent citation information please click the Add button.

Add

U.S.PATENT APPLICATION PUBLICATIONS

Remove

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15610089
Filing Date	2017-05-31
First Named Inventor	BHUPESH DUA
Art Unit	3765
Examiner Name	MARIE D. BAYS
Attorney Docket Number	NIKE.276100/081313US82CON

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20020078599	A1	2002-06-27	Delgorgue et al.	
	2	20020148258	A1	2002-10-17	Cole et al.	
	3	20040118018	A1	2004-06-24	Dua	
	4	20050193592	A1	2005-09-08	Dua et al.	
	5	20080110048	A1	2008-05-15	Dua et al.	
	6	20110030244		2011-02-10	Motawi et al.	
	7	20110078921	A1	2011-04-07	Greene et al.	
	8	20120255201	A1	2012-10-11	Little	
	9	20140150294		2014-06-05	Thomas et al.	
	10	20020148258		2002-10-17	Cole et al.	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

11	20030126762	2003-07-10	Tseng
12	20030191427	2003-10-19	Jay et al.
13	20040181972	2004-09-23	Csorba
14	20050115284	2005-06-02	Dua
15	20050273988	2005-12-15	Christy
16	20050284000	2005-12-29	Kerns
17	20060059715	2006-03-26	Aveni
18	20060162187	2006-07-27	Bymes et al.
19	20070022627	2007-02-01	Sokolowski et al.
20	20070180730	2007-08-09	Greene et al.
21	20070294920	2007-12-27	Baychar

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15610089
Filing Date	2017-05-31
First Named Inventor	BHUPESH DUA
Art Unit	3765
Examiner Name	MARIE D. BAYS
Attorney Docket Number	NIKE.276100/081313US82CON

22	20080017294	2008-01-24	Bailey et al.
23	20080078102	2008-04-03	Kilgore et al.
24	20080189830	2008-08-14	Egglesfield
25	20080313939	2008-12-25	Ardill
26	20090068908	2009-03-12	Hinchcliff
27	20100051132	2010-03-04	Glenn
28	20100154256	2010-06-24	Dua
29	20100170651	2010-07-08	Scherb et al.
30	20120255201	2012-09-20	Huffa et al.
31	20120159813	2012-06-28	Dua et al.

If you wish to add additional U.S. Published Application citation information please click the Add button. [Add](#)

FOREIGN PATENT DOCUMENTS

[Remove](#)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	19728848	DE		1999-01-07	Kundert Werke Gmbh		
	2	0448714	EP		1991-10-02	Toray Industries		
	3	1233091	EP		2002-08-21	Lee Sara Corp		
	4	0231247	WO		2002-04-18	Prodesco Inc.		
	5	H11302943	JP		1999-11-02	Masahiko et al.		
	6	19738433	DE		1998-04-02	Recytex Textilaufbereitung Gmb		
	7	0758693	EP		1997-02-19	Buck		
	8	7304678	NL		1974-10-08	Wildeman et al.		
	9	1084173	DE		1960-06-23	Geissler		
	10	0032861	WO		2000-06-08	Recaro Gmbh & Co.		

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		15610089
Filing Date		2017-05-31
First Named Inventor	BHUPESH DUA	
Art Unit	3765	
Examiner Name	MARIE D. BAYS	
Attorney Docket Number	NIKE.276100/081313US82CON	

11	538865	GB	1941-08-20	Brew		
12	0728860	EP	1996-08-28	Hoeshst Trevira Gmbh & Co Kg		
13	H08109553	JP	1996-04-30	Toho Seni Kk		
14	2171172	FR	1973-09-21	ICI Ltd		
15	1603487	GB	1981-11-25	Inmont Corporation		
16	H06113905	JP	1994-04-26	Daiyu Shoji Kk		
17	9003744	WO	1990-04-19	RBFT Inc.		
18	870963	DE	1953-03-19	Hofer		
19	0279950	EP	1998-08-31	Arova Mammut		
20	0898002	EP	1999-02-24	Shima Seiki Mfg		
21	1437057	EP	2004-07-14	Mizuno KK		

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15610089
Filing Date	2017-05-31
First Named Inventor	BHUPESH DUA
Art Unit	3765
Examiner Name	MARIE D. BAYS
Attorney Docket Number	NIKE.276100/081313US82CON

22	1563752	EP	2005-08-17	Calzado Robusta S.L.
23	1602762	EP	2005-12-07	Shima Seiki Mfg.
24	1972706	EP	2008-09-27	Shima Seiki Mfg.
25	2018837	GB	1979-10-24	Dubied & Cie, S.A.E.

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	International Search Report and Written Opinion in connection with PCT/US2009/056795 mailed on April 20, 2010.	
	2	International Search Report and Written Opinion in connection with PCT/US2012/028576 mailed on October 1, 2012.	
	3	International Search Report and Written Opinion in connection with PCT/US2012/028559 mailed on October 19, 2012.	
	4	International Search Report and Written Opinion in connection with PCT/US2012/028534 mailed on October 17, 2012.	
	5	International Preliminary Report on Patentability in connection with PCT/US2012/028534 mailed September 17, 2013.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		15610089
	Filing Date		2017-05-31
	First Named Inventor	BHUPESH DUA	
	Art Unit	3765	
	Examiner Name	MARIE D. BAYS	
	Attorney Docket Number	NIKE.276100/081313US82CON	

6	International Preliminary Report on Patentability in connection with PCT/US2012/028576 mailed September 17, 2013.		
If you wish to add additional non-patent literature document citation information please click the Add button <input type="button" value="Add"/>			
EXAMINER SIGNATURE			
Examiner Signature			Date Considered
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			
<small> ¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached. </small>			

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15610089
Filing Date	2017-05-31
First Named Inventor	BHUPESH DUA
Art Unit	3765
Examiner Name	MARIE D. BAYS
Attorney Docket Number	NIKE.276100/081313US82CON

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/ELIZABETH A. LUCAS/	Date (YYYY-MM-DD)	2017-07-24
Name/Print	Elizabeth A. Lucas	Registration Number	74247

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	29860044
Application Number:	15610089
International Application Number:	
Confirmation Number:	4757
Title of Invention:	ARTICLE OF FOOTWEAR HAVING A TEXTILE UPPER
First Named Inventor/Applicant Name:	BHUPESH DUA
Customer Number:	78342
Filer:	Elizabeth Ashley Lucas
Filer Authorized By:	
Attorney Docket Number:	NIKE.276100/081313US82CON
Receipt Date:	24-JUL-2017
Filing Date:	31-MAY-2017
Time Stamp:	19:35:56
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	276100_9_DE19728848A1.pdf	324937	no	8
			74f4ccc05a0c5fd4cd2ab2125240fbcb86248c96		

Warnings:

Information:					
2	Foreign Reference	276100_9_EP0448714B1.pdf	1385850	no	23
			6b5dd854805cd89ee95fc6dfe7f12e0bf30aaae7		
Warnings:					
Information:					
3	Foreign Reference	276100_9_EP1233091A1.pdf	377584	no	8
			dcd524eee2014e7ac21fcea5419b869f5b492f28		
Warnings:					
Information:					
4	Foreign Reference	276100_9_WO0231247A1.pdf	900662	no	22
			6992a596485498422217ed9f910bf00b0bfaebcd		
Warnings:					
Information:					
5	Foreign Reference	276100_9_JPH11302943.pdf	272248	no	5
			a0bd7a77b24f8412ad267ac96fed83cfdbbc0439		
Warnings:					
Information:					
6	Foreign Reference	276100_9_DE19738433.pdf	132579	no	2
			02f92cd4bdb109141e7821d1d2430daf797dcdde		
Warnings:					
Information:					
7	Foreign Reference	276100_9_EP0758693.pdf	518860	no	9
			4ebc1dc3b086616393e4d1873dad113a08f9157e		
Warnings:					
Information:					
8	Foreign Reference	276100_9_NL7304678.pdf	324821	no	6
			e0cc1a4a3dad8aa57fbb71ab3bab2576c31275e1		
Warnings:					
Information:					

9	Foreign Reference	276100_9_DE1084173.pdf	146718	no	2
			151d83472bdd6423496291761d154678fab7698f		
Warnings:					
Information:					
10	Foreign Reference	276100_9_WO0032861.pdf	454290	no	14
			ce7bf39dc71eda9334b379266200166f451bc077		
Warnings:					
Information:					
11	Foreign Reference	276100_9_GB538865.pdf	1194567	no	14
			d09c4200a4b7a9487c19148ea540bd62484dbc76		
Warnings:					
Information:					
12	Foreign Reference	276100_9_EP0728860.pdf	1195711	no	17
			4094958234c4839085b101b1860fb708ae58fa3f		
Warnings:					
Information:					
13	Foreign Reference	276100_9_JPH08109553.pdf	811931	no	10
			8d98874a71f49528ec2d96cb4426c725343b1612		
Warnings:					
Information:					
14	Foreign Reference	276100_9_FR2171172.pdf	390819	no	9
			a40c9e9c635a57ac47b903789e2b9836f0f66ccf		
Warnings:					
Information:					
15	Foreign Reference	276100_9_GB1603487.pdf	2449841	no	36
			b86fa520df4912965e413cb6df83d8cf52335ab0		
Warnings:					
Information:					

16	Foreign Reference	276100_9_JPH06113905.pdf	317329	no	4
			2f2ea03bda22d32b2fd826d14e821c7c21eafb50		
Warnings:					
Information:					
17	Foreign Reference	276100_9_WO9003744.pdf	1788989	no	53
			418d83e9f16aa30d262cbe2813c18634deb5ef7b		
Warnings:					
Information:					
18	Foreign Reference	276100_9_DE870963.pdf	112156	no	3
			e9caddcbcb28e7ea8a9d489a30d7a77bcb962983b		
Warnings:					
Information:					
19	Transmittal Letter	276100_IDS_Cover_Letter.pdf	15812	no	1
			b1b889159707e0f36ef66f09e808db56fdc05f99		
Warnings:					
Information:					
20	Information Disclosure Statement (IDS) Form (SB08)	276100_IDS_9.PDF	1039336	no	18
			fa92393d5bc0cafdfa08b6f9cb48c829567ae348		
Warnings:					
Information:					
Total Files Size (in bytes):			14155040		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



①9 **BUNDESREPUBLIK
DEUTSCHLAND**



**DEUTSCHES
PATENT- UND
MARKENAMT**

⑫ **Offenlegungsschrift**
⑩ **DE 197 28 848 A 1**

⑤1 Int. Cl.⁶:
A 41 B 11/00
D 04 B 1/00
G 09 F 3/04

②1 Aktenzeichen: 197 28 848.0
②2 Anmeldetag: 5. 7. 97
④3 Offenlegungstag: 7. 1. 99

DE 197 28 848 A 1

⑦1 Anmelder:
Kunert Werke GmbH, 87509 Immenstadt, DE

⑦4 Vertreter:
Rüger und Kollegen, 73728 Esslingen

⑦2 Erfinder:
Schützmeier, Hermann, 87509 Immenstadt, DE

⑤6 Entgegenhaltungen:
DE-PS 8 29 161

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen

Prüfungsantrag gem. § 44 PatG ist gestellt

⑤4 Bekleidungsstück mit eingepägtem Zeichen

⑤7 Ein vorzugsweise aus Maschenware ausgebildetes Bekleidungsstück besteht wenigstens teilweise aus einem elastomeren, thermisch deformierbaren Kunstfasergarn. Um das Bekleidungsstück mit gewünschten Zeichen, Kennzeichnungen u. dgl. zu versehen, sind diese in die Maschenware durch Temperatur- und/oder Druckeinwirkung eingepägt. Es werden dabei Prägebereiche ausgebildet, in denen die Maschenware wesentlich dünner liegt als in der anschließenden Umgebung. Die Prägebereiche sind dabei im wesentlichen glatt, ohne daß hier die Fadenstruktur aufgelöst wäre. Obwohl die Maschen als solche erhalten sind, ergibt sich, beispielsweise durch partielles Anschmelzen der Oberfläche, ein glattes, im Vergleich zur Umgebung geändertes Aussehen, was eine plastische oder räumliche Wirkung des gewünschten Schriftzugs oder sonstigen Logos hervorbringt.

DE 197 28 848 A 1

Beschreibung

Die Erfindung betrifft ein Bekleidungsstück, insbesondere ein Beinbekleidungsstück, wie einen Strumpf oder eine Strumpfhose, mit den Merkmalen des Oberbegriffs des Patentanspruchs 1.

Sowohl bei Beinbekleidungsstücken, wie halterlosen Damenstrümpfen oder Feinstrumpfhosen, als auch bei anderen Kleidungsstücken, wie Freizeit- oder Sportbekleidung, ist häufig der Wunsch vorhanden, an dem betreffenden Kleidungsstück Markierungen, Zeichen, Beschriftungen, Logos, Schmuckelemente od. dgl. anzubringen. Dies erfolgt häufig durch aufgenähte Etiketten oder Farbaufdrucke. Jedoch sind in einigen Fällen sowohl Farbaufdrucke als auch Etiketten nicht praktikabel. Beide stören häufig den optischen Eindruck oder verschlechtern die Trageeigenschaften zumindest an der Anbringstelle.

Insbesondere elastische Gewebe oder Gestricke sind zum Anbringen von Farbmarkierungen oder Etiketten meist wenig geeignet. Während sich Farbmarkierungen in diesem Bereich beim Spannen des Grundmaterials lösen können, verändern aufgenähte Etiketten die Eigenschaften des textilen Flächengebildes, insbesondere die Elastizität nachhaltig. Außerdem stören beide den optischen Gesamteindruck. Dies gilt insbesondere für Abschnitte eines Bekleidungsstücks, die in getragenen Zustand gespannt, d. h. gedehnt sind. Dies ist beispielsweise an dem oberen Rand von halterlosen Damenstrümpfen oder Feinstrumpfhosen der Fall. Darüber hinaus gilt dies für entsprechende Abschnitte sonstiger Bekleidungsstücke.

Davon ausgehend ist es Aufgabe der Erfindung, eine Möglichkeit zu schaffen, Bekleidungsstücke mit einer Kennzeichnung zu versehen, die die Trageeigenschaften an der entsprechenden Stelle nicht fühlbar verändert.

Diese Aufgabe wird von einem Bekleidungsstück mit den Merkmalen des Patentanspruchs 1 gelöst.

Das erfindungsgemäße Bekleidungsstück weist wenigstens in dem zu kennzeichnenden Bereich ein textiles Flächengebilde auf, das durch ein oder mehrere Fäden gebildet ist, die dauerhaft verformbar sind. Vorzugsweise sind diese durch Temperatur und Druck verformbare Kunstfasern. Diese sind miteinander vermascht, so daß das textile Flächengebilde in entspanntem Zustand eine Dicke aufweist, die größer als die Fadendicke ist. Beispielsweise wird dieser Bereich des Flächengebildes durch Maschen gebildet, die eine gewisse Ausdehnung senkrecht zu der Fläche des Flächengebildes haben. Das Gestrick kann sowohl ein- als auch mehrfädig ausgebildet sein.

Dem zu erzeugenden Muster, dem Logo oder der sonstigen Markierung entsprechend sind Prägebereiche festgelegt, in denen das Flächengebilde durch Druck- und Temperatureinwirkung so umgeformt worden ist, daß es eine verminderte Dicke aufweist. Gegenüber diesen Prägebereichen wirken die übrigen Bereiche des textilen Flächengebildes erhaben, so daß eine räumliche Wirkung zustandekommt. Damit ist es möglich, ohne Veränderung der jeweiligen Farbe Schriftzüge, Logos oder sonstige Markierungen in den betreffenden Bereich des Bekleidungsstücks einzuprägen, die insbesondere dann plastisch hervortreten, wenn das Flächengebilde entspannt ist, d. h. keinem Zug ausgesetzt ist. Die Prägeparameter sind dabei vorzugsweise so festgelegt, daß die einzelnen Fäden oder Fasern des textilen Flächengebildes nicht aufgelöst werden, sondern bei dem Prägevorgang erhalten bleiben. Sie werden lediglich deformiert. Damit wird eine Schädigung des Gestricks insbesondere im Übergangsbereich von dem Prägebereich zu umgebenden ungeprägten Bereichen vermieden.

Auf die genannte Weise lassen sich insbesondere bei

Feinstrumpfhosen, Strümpfen, Miederwaren oder Sportbekleidung Schriftzüge oder Logos einprägen, die relativ auf fällig sind, wenn die Ware lose ausgebreitet liegt und die die Trageeigenschaften nicht fühlbar verändern.

Das textile Flächengebilde besteht vorzugsweise aus Kunstfasern, die bei dem Prägevorgang dauerhaft verformt werden. Auch nach vielmaligem Tragen oder Waschen bleibt das eingeprägte Muster in dem lose liegenden Material deutlich sichtbar.

Ein besonders guter Effekt wird erreicht, wenn das textile Flächengebilde eine Maschenware, insbesondere ein Gewirk, ein Gestrick oder Raschelware ist. Dabei ist es besonders zweckmäßig, wenn der Prägebereich auf einem mehrlagigen Textilbereich ausgebildet ist. Hier tritt die räumliche Wirkung durch den Unterschied zwischen den Prägebereichen und den erhabenen Bereichen am deutlichsten hervor. Vorzugsweise sind die einzelnen Lagen des Flächengebildes auch in den Prägebereichen miteinander nicht verschmolzen, so daß der Tragekomfort nicht beeinträchtigt ist.

Die durch ein elastomeres Garn gebildeten einzelnen Fasern oder Fäden des textilen Flächengebildes sind vorzugsweise oberflächlich so weit angeschmolzen, daß sich in dem Prägebereich im ungedehnten Zustand fast glatte Flächenbereiche ergeben, die die Strickstruktur kaum mehr erkennen lassen. Der Schmelzvorgang oder die Strukturänderung geht jedoch nicht so weit, daß die einzelnen Fäden ganz miteinander verschmelzen. Vielmehr bleiben sie in dem Gewebe wenigstens etwas beweglich, um keine steifen Bereiche zu erzeugen.

Die Prägebereiche können als Buchstabenzeichen od. dgl. ausgebildet werden. Sie können sowohl als Verzierungen als auch zur Kennzeichnung oder als Informationsträger verwendet werden.

In der Zeichnung ist ein Ausführungsbeispiel des Gegenstandes der Erfindung veranschaulicht. Es zeigen:

Fig. 1 einen mit einer eingepägten Kennzeichnung versehenen Damenstrumpf, in schematisierter Darstellung,

Fig. 2 den Damenstrumpf nach **Fig. 1**, in einer ausschnittweisen Darstellung seines oberen Randes,

Fig. 3 eine perspektivische Schnittdarstellung eines geprägten Bereichs und sich daran anschließender ungeprägter Bereiche des Randes des Strumpfs nach **Fig. 2**, in stark schematisierter Prinzipdarstellung und

Fig. 4 ein geprägtes textiles Flächengebilde, in aufs Äußerste schematisierter Schnittdarstellung und in einlagiger Ausführung.

Beschreibung

In **Fig. 1** ist ein Damenstrumpf **1** dargestellt, dessen oberer Rand **2** mit einem Markenlogo **3** versehen ist. Der obere Rand **2** ist als Doppelrand oder Bündchen ausgebildet. Das hier doppelt vorhandene Strumpfmaterial ist durch den sogenannten Umhang **4** miteinander verbunden. In dem bei einer Trennlinie **5** beginnenden Rand- und Griffbereich **6** ist das Strumpfmaterial unter Verwendung texturierter Garne besonders elastisch ausgebildet. Der Damenstrumpf **1** ist insgesamt rundgestrickt aus synthetischem Garn gearbeitet. Dabei können auch mehrere Synthetikgarne unterschiedlicher Konstruktion verarbeitet sein. Beispielsweise kann in den Maschenreihen abwechselnd ein unwundenes elastomeres Garn und ein glattes Garn verstrickt sein ("Satin-Sheer"). Das synthetische elastomere Garn ist vorzugsweise aus Polyamidfasern gebildet, wobei unter Umständen auch andere Garne in Frage kommen.

Der in den Saum **2** eingepägte Schriftzug **3** wird, wie **Fig. 2** zeigt, durch Prägebereiche **8** gebildet, die von ungeprägten Bereichen **9** umgeben sind. Während die ungepräg-

ten Bereiche **9** deutlich die Maschenstruktur des rundgestrickten Flächengebildes erkennen lassen, ist die Struktur der Maschenware in den Prägebereichen **8** so weit geändert, daß diese Flächenbereiche fast glatt sind. Dabei sind die einzelnen Fäden allenfalls oberflächlich angeschmolzen oder zumindest deformiert. Wie aus **Fig. 3** ersichtlich ist, sind sowohl in dem ungeprägten Bereich **9** als auch in dem Prägebereich **8** einzelne Fäden **11, 12** erkennbar, wobei die Maschen in dem Prägebereich **8** nicht zerstört sind.

Während in dem ungeprägten Bereich die Gesamtdicke des hier aus zwei Lagen **13, 14** bestehenden Flächengebildes deutlich größer als der Durchmesser eines Fadens und auch größer als eine einzelne Masche ist, ist die Dicke in dem Prägebereich **8** geringer. Jedoch wird dies nur durch Verformung der einzelnen Fäden **11, 12**, nicht aber durch Verschmelzen beider Lagen **13, 14** miteinander erreicht. Während die Maschen der Lagen **13, 14** in den ungeprägten Bereichen **9** mehr oder weniger räumlich angeordnet sein und aus den Fäden **11, 12** Filamente herausragen können, die einen gewissen Flor schaffen, liegen die Maschen zumindest der oberen Lage **13**, in dem Prägebereich **8** flach, wobei die aus den Fäden **11, 12** herausragenden Filamente hier angeschmolzen sind. Dadurch ist die Maschenstruktur kaum mehr zu erkennen und der Prägebereich **8** kann eine glatte, zum Teil auch glänzende Oberfläche erhalten, während die übrigen Bereiche matt und erhaben erscheinen. Die Maschenstruktur ist jedoch erhalten, so daß die Prägebereiche **8** sowohl dehnbar als auch dauerhaft mechanisch stabil sind.

Bei Dehnung des Saums **2**, insbesondere wenn der Strumpf **1** getragen wird, zeigen die Prägebereiche **8** im Vergleich zu den ungeprägten Bereichen kaum oder nicht verändertes Dehnverhalten. Die Fäden **11, 12** sind in den Prägebereichen **8** im Wesentlichen genauso stabil wie in den ungeprägten Bereichen **9**, so daß der eingeprägte Schriftzug **3** keine nachteiligen Auswirkungen auf den Saum **2** hat.

Wie bei dem Strumpf **1** ist es gleichermaßen möglich, an einem entsprechenden Bund einer Feinstrumpfhose Schriftzüge **3** oder sonstige Markierungen, Logos od. dgl. anzubringen. Dies kann ebenfalls an entsprechenden Teilen von sonstigen, aus elastomeren Garnen hergestellter Kleidungsstücke geschehen. Dies können beispielsweise Bodies sein. Die eingepägten Zeichen können an beliebigen zweilagig ausgebildeten Stellen, wie beispielsweise Ärmelbündchen, Kragen oder an sonstigen Stellen vorgesehen werden.

Darüber hinaus ist es möglich, textile Flächengebilde **15**, wie sie aus **Fig. 4** ersichtlich sind, mit Prägebereichen **8** zu versehen, wenn die betreffenden Flächengebilde **15** einen räumlichen Aufbau haben. Dieser kann sich, wie in **Fig. 4** angedeutet, dadurch ergeben, daß das hier im Querschnitt veranschaulichte Flächengebilde in entspanntem Zustand nicht eben, sondern gerippt liegt. Das Flächengebilde **15** ist vorzugsweise eine Maschenware, die in diesem Fall sowohl ein- als auch mehrlagig ausgebildet sein kann. Der beim Prägen entstehende dauerhafte Dickenunterschied zwischen Prägebereichen **8** und ungeprägten Bereichen **9** ergibt sich durch plastische Verbiegung einzelner Rippen **17, 18**, die gegenüber undeformierten Rippen **19, 20** eine geringere Höhe aufweisen.

Ein vorzugsweise aus Maschenware ausgebildetes Bekleidungsstück **1** besteht wenigstens teilweise aus einem elastomeren, thermisch deformierbaren Kunstfasergarn. Um das Bekleidungsstück mit gewünschten Zeichen, Kennzeichnungen u. dgl. zu versehen, sind diese in die Maschenware durch Temperatur- und/oder Druckeinwirkung eingepägt. Es werden dabei Prägebereiche **8** ausgebildet, in denen die Maschenware wesentlich dünner liegt als in der anschließenden Umgebung **9**. Die Prägebereiche **8** sind dabei im Wesentlichen glatt ohne daß hier die Fadenstruktur auf-

gelöst wäre. Obwohl die Maschen als solche erhalten sind, ergibt sich, beispielsweise durch partielles Anschmelzen der Oberfläche, ein glattes, im Vergleich zur Umgebung geändertes Aussehen, was eine plastische oder räumliche Wirkung des gewünschten Schriftzugs oder sonstigen Logos hervorbringt.

Patentansprüche

1. Bekleidungsstück (**1**), insbesondere Beinbekleidungsstück, mit wenigstens einem durch ein textiles Flächengebilde (**2**) gebildeten Abschnitt, der von einem oder mehreren dauerhaft verformbaren Fäden (**11, 12**) gebildet ist und der eine Dicke aufweist, die deutlich größer ist, als die Dicke des Fadens, **dadurch gekennzeichnet**, daß in das textile Flächengebilde (**2**) eine Struktur eingepägt ist, die erhabene Bereiche (**9**) sowie Prägebereiche (**8**) enthält, die zwischen den erhabenen Bereichen (**9**) angeordnet sind und die eine Dicke aufweisen, die geringer ist als die Dicke der erhabenen Bereiche (**9**).
2. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die Fäden (**11, 12**) Kunstfasern sind, die thermoplastische Eigenschaften aufweisen.
3. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß das textile Flächengebilde (**2**) eine Maschenware, insbesondere ein Gewirk, ein Gestrick oder Raschelware ist.
4. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die das Flächengebilde (**2**) bildenden Fäden (**11, 12**) sowohl in den erhabenen Bereichen (**9**) als auch in den Prägebereichen (**8**) beweglich gelagert sind.
5. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die das Flächengebilde (**2**) bildenden Fäden (**11, 12**) sowohl in den erhabenen Bereichen (**9**) als auch in den Prägebereichen (**8**) untereinander unverbunden sind.
6. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß die Fadenstruktur des oder der das Flächengebilde (**2**) bildenden Fäden (**11, 12**) sowohl in den erhabenen Bereichen (**9**) als auch in den Prägebereichen (**8**) erhalten ist.
7. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die Fäden (**11, 12**) aus einheitlichem Material bestehen.
8. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die Fäden (**11, 12**) aus unterschiedlichen Materialien bestehen.
9. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß das Flächengebilde (**2**) elastisch ist.
10. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß das Flächengebilde (**2**) mehrlagig (**13, 14**) ausgebildet ist.
11. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß das Flächengebilde (**2**) wenigstens abschnittsweise wenigstens zwei aufeinander liegende Lagen (**13, 14**) aufweist.
12. Bekleidungsstück nach Anspruch 11, dadurch gekennzeichnet, daß die Lagen (**13, 14**) untereinander nicht verbunden sind.
13. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß der oder die Fäden (**11, 12**) des Flächengebildes (**2**) in den Prägebereichen (**8**) oberflächlich angeschmolzen sind.
14. Bekleidungsstück nach Anspruch 13, dadurch ge-

kennzeichnet, daß die oberflächlich angeschmolzenen Fäden (11, 12) in dem Prägebereich (8) eine fast glatte Oberfläche definieren, die die Maschenstruktur des Flächengebildes (2) kaum mehr erkennen lassen.

15. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß die Prägebereiche (8) Informations-träger sind.

16. Bekleidungsstück nach Anspruch 1, dadurch gekennzeichnet, daß die Prägebereiche (8) als Logo ausgebildet sind.

Hierzu 3 Seite(n) Zeichnungen

15

20

25

30

35

40

45

50

55

60

65

- Leerseite -

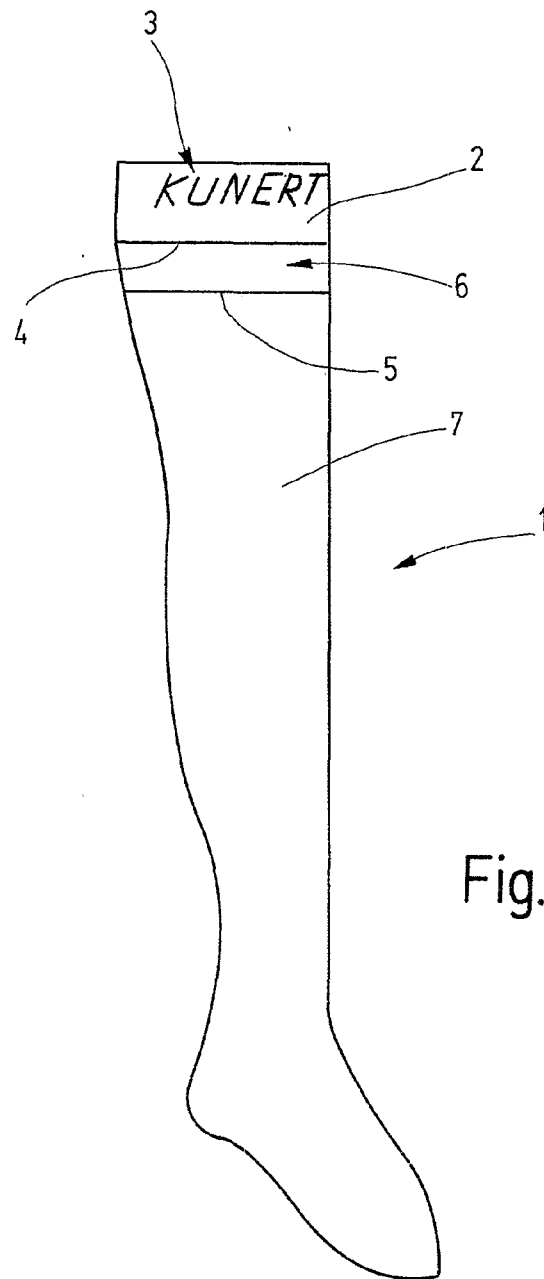


Fig. 1

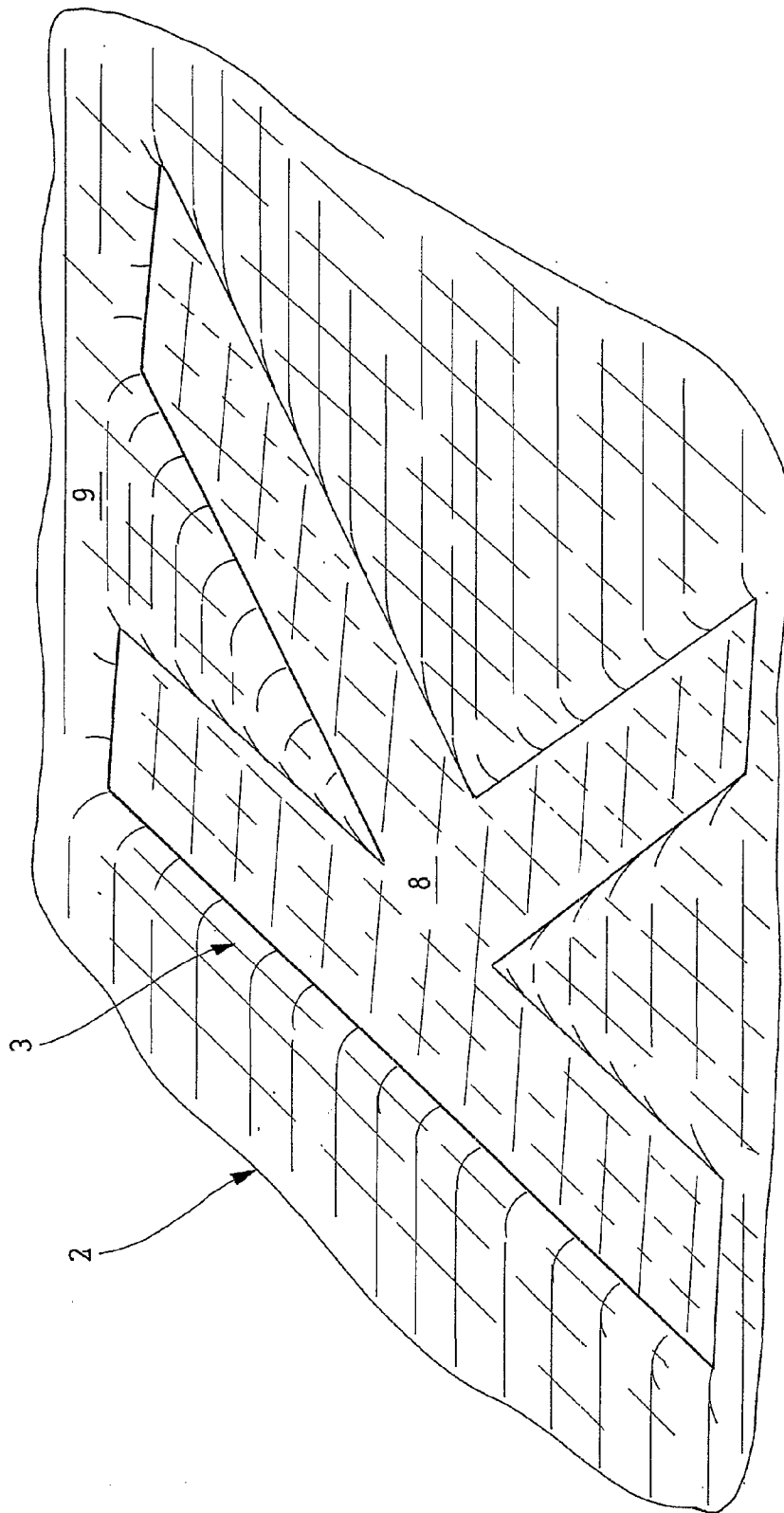


Fig. 2

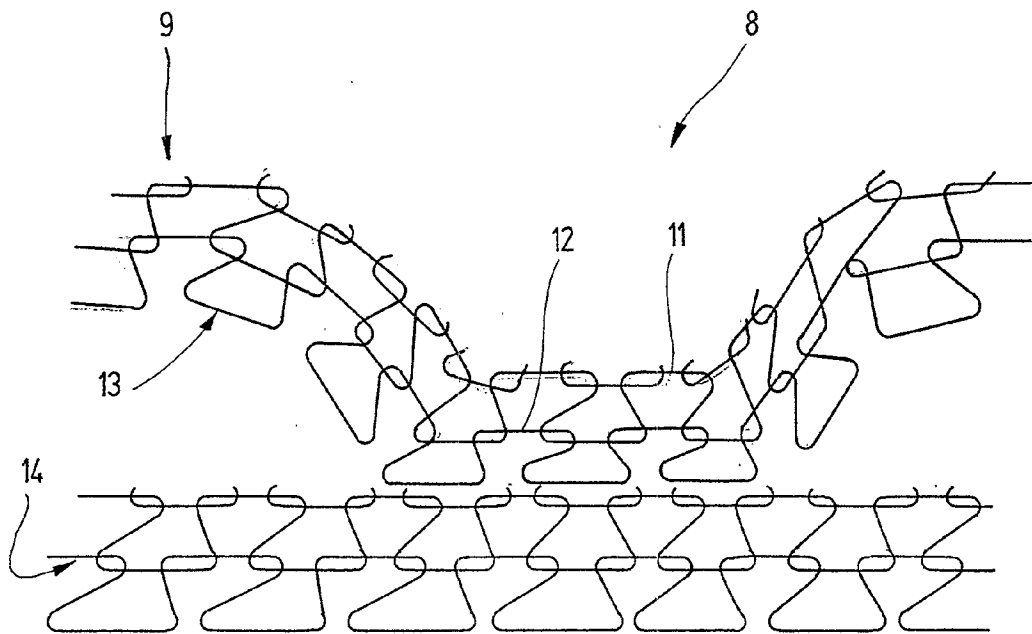


Fig. 3

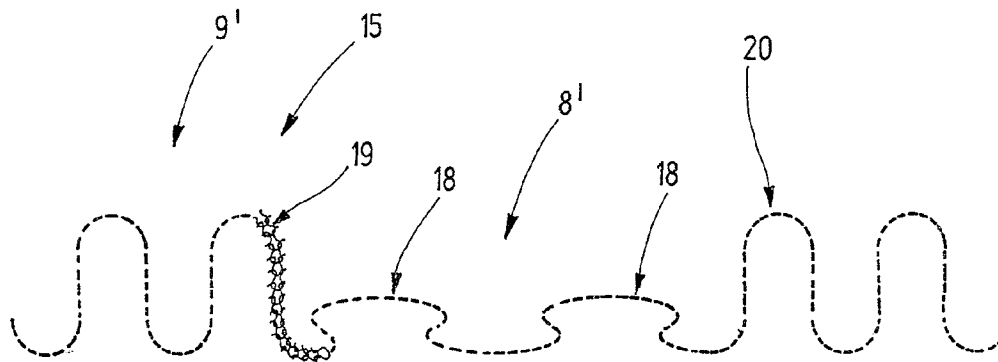


Fig. 4



(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
03.07.1996 Bulletin 1996/27

(51) Int Cl.⁶: **D04B 21/14, A01G 9/14,
A44D 27/28, A41D 27/28**

(21) Application number: **89911609.9**

(86) International application number:
PCT/JP89/01066

(22) Date of filing: **18.10.1989**

(87) International publication number:
WO 91/05897 (02.05.1991 Gazette 1991/10)

(54) **PROCESS FOR PRODUCING A FABRIC HAVING OVERLAPPING STRIPS**

VERFAHREN ZUR HERSTELLUNG VON STOFF MIT ÜBERLAPPENDEN LAMELLEN

**PROCEDE DE PRODUCTION D'UN TISSU PRESENTANT DES BANDES LISSES
RECOUVRANTES**

(84) Designated Contracting States:
DE FR GB

• **SHIMIZU, Hisao**
Otsu-shi Shiga 520 (JP)

(43) Date of publication of application:
02.10.1991 Bulletin 1991/40

(74) Representative: **Coleiro, Raymond et al**
MEWBURN ELLIS
York House
23 Kingsway
London WC2B 6HP (GB)

(73) Proprietor: **TORAY INDUSTRIES, INC.**
Tokyo 103 (JP)

(72) Inventors:
• **NAKAJIMA, Tamotu**
Kouka-gun Shiga 520-33 (JP)
• **OKAMOTO, Miyoshi**
Takatsuki-shi Osaka 569 (JP)

(56) References cited:
DE-A- 2 714 059 **FR-A- 375 439**
FR-A- 867 813 **GB-A- 2 025 194**
GB-A- 2 209 350 **JP-Y- 5 746 393**
US-A- 4 626 465

EP 0 448 714 B1

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

The invention relates to a process for producing a special structure, in particular fabrics having overlapping strips providing openings between the strips.

Conventionally, when constructing fabrics, priority has often been given to fashion, including color and design, and brand names, and manufacturers have simply relied on the primary characteristics of fiber materials (such as the water absorbing ability of cotton) when producing articles having a permeability, waterproofness and other functional properties.

However, a fabric construction should have satisfactory functional properties allowing the products to act effectively in summer when the wearers, exposed to strong sunlight, tend to perspire profusely. Women, in particular, often wear clothes with long sleeves to avoid a suntan, and therefore, women's clothes are required to have particularly good properties including a high air permeability and comfort. Mesh-type fabrics are available to achieve a high air permeability, but are not widely used because the skin or underwear can be seen through them, or because the wearers may suffer from a mesh-like tan.

Recently, many types of closely-woven fabrics with a moisture permeability and water repellency have been made commercially available as materials for sportswear, rainwear and umbrellas, but these fabrics have a low air permeability (windbreak performance) and thus are regarded as completely different from the fabrics produced by the process of the invention, which have a high air permeability. Materials with a low air permeability cannot provide the comfort associated with air permeability, even though showing a good windbreak performance.

For certain applications fabrics having a special overlapping structure, in which a plurality of overlapping strips are interconnected so as to provide openings between the strips, have been used.

Fabrics having such an overlapping structure are disclosed in JP-A-57-46393. The fabrics, for rainwear, comprise many long strips of waterproof cloth cut in the direction of the weft, placed in overlapping relationship with one another and continuously stitched, intermittently adhered or intermittently fused in the direction of the warp.

GB-A-2025194 discloses a soil covering sheet, for use in growing crop plants, comprising a plurality of overlapping sheets connected together only by a plurality of tapes or strings secured to each strip and running transversely across each strip.

FR-A-867813 describes fabrics having an overlapping structure in which parallel strips of material overlap to a small extent with one another to provide a narrow elongate overlap portion between the fabrics within which the fabrics are glued together at longitudinally spaced apart regions along the overlap portion, thus leaving openings between the glued regions.

Each of the above fabrics is produced merely by laying strips of material in overlapping relationship and then permanently interconnecting them.

To the applicants' knowledge there are no fabrics available which are highly fashionable as well as having a high air permeability, together with a light screening ability and waterproofness, as these properties generally conflict with each other.

Fabrics having a high air permeability together with a light screening ability and waterproofness as described above, if made available, will be useful not only for clothing but for a wide variety of applications, in addition to clothing, in various industrial areas.

As a solution to the conventional technical problems described above, the invention provides a process for providing, in a practically useful manner, fabrics having an overlapping structure, which have a high air permeability together with a good light-screening ability and high waterproofness.

In the case of clothing, for example, the invention allows the production of fabrics suitable for producing fabrics having a special structure suitable for providing functional and fashionable clothing with characteristic features not available from conventional clothing, including the ability to prevent exposure of the skin of the wearer directly to sunlight or rain and to maintain a high air permeability preventing tanning of the skin, allowing the wearer to feel cool and comfortable in summer and yet still providing a garment having a unique and fashionable appearance.

Clothing having such an overlapping structure is suitable for outdoor wear, including sportswear such as golf wear, baseball uniforms, baseball undershirts, and tennis wear, casual articles such as T-shirts and polo shirts, and rainwear such as a raincoat.

In addition to these clothing articles, fabrics having such a structure can provide various other unique articles if good use is made of the functional characteristics obtained from their unique fabric structure.

Various unique materials made of such fabrics can provide different novel products not currently available in each relevant area, including various clothing articles other than those stated above, bedclothes, earth and sand fixing sheets, agricultural and horticultural greenhouses, footwear, perishables storage containers, beach umbrellas, tents, partitions, filtering materials, chair covers, and curtains.

Thus, the process of the invention allows the production of fabrics having the following features.

They have a special structure which consists of a large number of overlapping narrow strips which are connected to form a fabric in such a way that the overlapping portions provide openings in the direction of the width of the narrow strips.

In the process of the invention for producing fabrics with the special structure, narrow strips are placed one on top of another while displacing them so that they partially overlap each other to form an overlapping struc-

ture, and then adjacent narrow strips are connected while maintaining that structure, to thereby produce a fabric.

The articles which can be constructed from fabrics produced by a process in accordance with the invention include clothes, various clothing items other than clothes, bedclothes, earth and sand fixing sheets, agricultural and horticultural greenhouses, footwear, perishables packaging materials, beach umbrellas, tents, partitions, filtering materials, chair covers and curtains.

With such features as described above, fabrics having an overlapping structure consisting of narrow strips, as proposed herein, can provide the desirable actions and effects as described below.

- (1) When used as material for clothes, they prevent the skin of the wearer from suffering from tanning or roughness, because they intercept direct sunlight.
- (2) They serve to produce comfortable clothes which have a high air permeability but prevent the skin from being seen.
- (3) They have a light-screening ability, waterproofness and moisture permeability together with a high air permeability.
- (4) They have an uneven surface which provides a three-dimensional, dry appearance, and serve to produce clothes without a sticky touch to the skin of the wearer.
- (5) When combined with other materials of different types or colors, they can have multiple functions with a very high fashionability not available from conventional fabrics.

With such a number of features as described above, fabrics produced by a process of the invention provide materials for a variety of clothing items including sportswear such as golf wear, tennis wear, baseball uniforms and baseball undershirts, rainwear such as raincoats, casual clothes such as summer sweaters, T-shirts and polo shirts, caps, hats and gloves.

In addition to these applications, they can effectively provide materials for bedclothes, earth and sand fixing sheets, agricultural and horticultural greenhouses, footwear, perishables packaging materials, beach umbrellas, tents, partitions, filtering materials, chair covers, and curtains, as described above.

Preferred embodiments of the invention will now be described in more detail with reference to the accompanying drawings in which

Fig. 1(A) shows a cross section of a fabric produced by a process of the present invention which consists of overlapping narrow strips connected to each other. The cross section schematically shows the fabric's special structure which is like a tiled roof. Fig. 1(B) illustrates a cross section of a non-connected portion of a fabric where overlapping narrow strips are separated from each other. This cross section schematically shows that

many narrow strips overlap each other with appropriate gaps (openings) maintained between adjacent strips.

Fig. 2 schematically illustrates a top view of a special fabric with the overlap structure as depicted in Figs. 1(A) and (B). As seen from this top view, the narrow strips are machine sewn together in the width direction of the strips along parallel lines aligned at regular intervals.

Fig. 3 schematically shows the external appearance of a raincoat made of a fabric with a special structure which will be described later in Example 2.

Fig. 4(A) and (B) gives an oblique view of a structural example consisting of narrow strips of a few different materials and colors.

In Fig. 5 a cross section of a fabric structure which is not based on the present invention is illustrated schematically to show the difference thereof from a structure produced by a process of the invention.

Fig. 6(A), (B), (C), (D) and (E) gives cross sections of non-sewn portions of various types of fabrics with special structures consisting of narrow strips as proposed herein.

Fig. 7(A), (B) and (C) gives cross sections of non-sewn portions of other various types of fabrics with special structures consisting of narrow strips as proposed herein.

Fig. 8 illustrates an example of assembling a temporarily-fixed overlap structure as a step in a process of the invention for producing a fabric with an overlap structure.

Figs. 9-13 illustrate various articles made particularly of fabrics with a special structure produced by a process of the invention. Specifically, Figs. 9-13 show examples of bedclothes, earth and sand fixing sheet, agricultural or horticultural greenhouse, footwear, and perishables storage bag, respectively.

A fabric which may be produced by a process of this invention has a special structure which consists of a large number of narrow strips which overlap each other and are connected to form a fabric sheet in such a way that the overlapping portions provide openings in the direction of the width of the narrow strips.

Any kind of narrow strip in a sheet form with a smaller width than length can serve for the invention, and there are no specific limitations on their widths. In general, desirable materials include woven, knitted or non-woven fabric, film and plastics in the form of thin sheet with a width of 1-200 mm. Of these materials, woven, knitted and non-woven fabrics are most desirable because they can maximize the effect of the invention and can be handled easily when manufacturing products. Knitted, woven and non-woven fabrics are particularly desirable when used to produce such articles as clothes, other clothing items, bedclothes, perishables storage containers, beach umbrellas and tents.

However, the optimum width of narrow strips as described above should vary with the actual application of the fabrics produced by the process of the invention. For

large-size articles such as large-type agricultural or horticultural greenhouses and large-type earth and sand fixing sheets, for example, the optimum width of the narrow strips used may be greater than the width range described above.

Also, desirable materials for narrow strips may vary with application. High-strength non-woven fabrics, film or thin plastic sheets may be desirable for such articles as agricultural or horticultural greenhouses, earth and sand fixing sheets and filter mediums.

Concerning production methods, narrow strips of woven fabric, for example, may be obtained by directly producing narrow strips with a desired width with a ribbon or tape weaving machine, or by producing a fabric with a wide fabric weaving machine followed by melt-cutting to a desired width on the weaving machine or with a melt-cutter, or by weaving soluble fiber into a fabric along parallel lines followed by treating the fabric with solution that dissolves the soluble fiber to provide narrow fabric strips with a desired width. Practically, an appropriate production method may be selected after considering the ease of the production operations and the specifications of the required narrow strips. For any type of material, including woven, knitted or non-woven fabrics, film and thin plastic sheets, proper narrow strips may be obtained either by producing large sheets and then cutting them into strips, or by directly producing narrow strips.

The desirable width range for these narrow strips is as described above. A more detailed explanation is given below concerning their application to clothes, other clothing items, bedclothes, and other small articles such as footwear and perishables storage containers. Widths smaller than 1 mm are generally undesirable because it is difficult to produce such narrow strips, and because it is usually difficult to form a fabric from such narrow strips. Widths greater than 200 mm are also generally undesirable because the resultant fabrics may not be significantly better than conventional fabrics with respect to functional and fashionable features as well as air permeability, which is the most important property of the fabrics produced by the process of the invention. Thus, widths of 2-100 mm, or 5-70 mm in particular, are desirable for these articles.

These narrow strips may have an irregular cross section with a moderately uneven or wavy surface. For example, the cross section may be either a flat rectangle or in the form of "A", ">", or combinations of these shapes such as "W", or may have other bent forms such as "J", "}", ")", "]", "}", "J", "]", "I" and "~". These narrow strips generally may be single-layer sheets, but also may be double-layer sheets such as tubes and double fabrics. Here, the width of a tube-like strip is defined as its diameter.

Where applied to articles used in contact with the skin, including clothes and other clothing items, narrow strips are preferably of a fiber material such as woven, knitted or non-woven fabric, because they are agreea-

ble to the touch. Desirable fibers used as a base material for these narrow strips are synthetic fibers including polyethylene terephthalate and its copolymers (including, e.g., copolymers with isophthalic acid or 5-sodium sulfisophthalate), polybutylene terephthalate and its copolymers, other various polyesters, polyamides such as nylon 6, 11, 12, 66 and 610 and their copolymers, acrylic polymers, polyurethane, polyethylene, ultra-high molecular weight polyethylene, polypropylene, their copolymers, and polyvinyl alcohol; regenerated cellulosic fibers including rayon and cuprammonia rayon; semi-synthetic fibers including acetate and triacetate, and natural fibers including cotton, hemp, silk and wool. These fibers may be used separately or in combination in the form of composite, combined filament yarn fabric, blended yarn fabric, twisted union yarn fabric or mixed-woven fabric.

Of these, narrow strips of composite yarn of polyester fiber and polyamide fiber, those of composite yarn of high shrinkage polyester-isophthalic acid copolymer fiber combined with other types of fibers such as low shrinkage fibers, and those of water-sensitive fibers made by spinning of low-saponification value polyvinyl alcohol are particularly desirable because they can shrink during processing to form a bulky fabric, leading to favorable bulky, dry-touch textures. As a result, the fabric will not cling to the skin and has a large porosity. Also, the fabric will have a higher air permeability and will be agreeable to the touch, making it possible to produce very comfortable clothes. Another way of obtaining bulky fabrics is to form narrow strips using bulky yarns such as woolen yarns produced from single multifilaments.

A fabric with an "overlap structure" of narrow strips as proposed herein consists of many narrow strips overlapping each other like a tiled roof. Its cross section is like that of a mino (straw raincoat).

Unique effects and functional features resulting from such a structure are explained below with reference to the drawings.

Figure 1(A) shows a cross section of sewn narrow strips that constitute a fabric with a special overlap structure which can be produced by a process of the invention, and schematically illustrates narrow strips S_1 , S_2 , S_3 , S_4 , S_5 , S_6 and S_7 overlapping each other to form a structure like a tiled roof or a mino. Fig. 1(B) shows a cross section of a non-sewn portion of narrow strips that constitute a fabric with a special overlap structure, and further schematically illustrates narrow strips S_1 , S_2 , S_3 , S_4 , S_5 , S_6 and S_7 overlapping each other with proper gaps therebetween.

As seen from these drawings, a fabric which can be produced by a process of the invention consists of many (more than one) narrow strips which overlap each other while maintaining an opening in the width direction of the narrow strips.

With this special structure, such a fabric, when exposed to rain for example, prevents an ingress of rain

drops (arrow b) while allowing air to flow therein (arrow c), leading to a high water repellence and high air permeability. Arrow a in Fig. 1(A) and (B) shows the "downward" direction.

Compared to this, Fig. 5 schematically shows a cross section of a fabric structure which is not produced by a process of the present invention. The overlap structure given in Fig. 5, in which many narrow strips S_1 , S_2 , S_3 , ... overlapping each other are bonded to base sheet B, has no openings in the width direction in the overlap portion of the narrow strips. Such a structure cannot increase the air permeability as indicated by arrow c in Fig. 1(B), even though it serves to repel raindrops as indicated by arrow b, and thus it cannot achieve a high air permeability together with a light-screening ability and waterproofness as intended in the present invention. In this example, a high air permeability could not be achieved even if an air permeable fabric is used as the base sheet B. In any case, a structure comprising a base sheet is obviously different from the fabrics of the invention with respect to expected effects.

Figure 2 schematically shows, as an example, a top view of a special fabric with an overlap structure as given in Fig. 1(A) and (B). The fabric in Fig. 2 consists of narrow strips sewn downward in the width direction thereof, and these strips are sewn with a machine along dashed lines 1, 2, 3 and 4. The cross section indicated by d-d along one of the sewing lines in Fig. 2 corresponds to that shown in Fig. 1(A), and the cross section e-e, which is spared from the sewing lines, corresponds to that given in Fig. 1(B).

The narrow strips of a fabric having a special structure produced by a process of the invention may overlap each other either regularly or irregularly with varying overlapping widths, as long as a proper overlapped structure is maintained.

Figures 6 and 7 illustrate a cross section of a non-sewn portion of narrow strips contained in some variations of the basic fabric S produced by a process of the invention. Fig. 6(A), (B) and (C) shows an example in which narrow strips with a "A"-shaped cross section and the narrow strips in Fig. 6(D) and (E), although in a flat form, overlap each other irregularly, unlike the case shown in Fig. 1. Two adjacent strips form a repeating overlap pattern in Fig. 6(D), but a repeating pattern consists of three strips in Fig. 6(E). The examples in Fig. 7 (A), (B) and (C) show two layers (inside layer and outside layer), each of which has an overlap structure consisting of narrow strips.

Various process embodiments are available for producing fabrics with an overlap structure consisting of many narrow strips. The most practical way may be to put narrow strips one on top of another while slightly shifting their positions to form an overlap structure, followed by connecting them temporarily by adhesive while maintaining the overlap structure.

More specifically, narrow strips impregnated with a water-soluble adhesive (such as an adhesive based on

polyvinyl alcohol or acrylic resin) may be put one on top of another on a tube or other appropriate supporting roll with a surface coated with, for instance, fluoroplastics such as polytetrafluoroethylene while rotating the tube so that the strips are put one on top of another with a slight misalignment therebetween, followed by drying and cutting along the axis of the tube to provide a sheet with an overlap structure consisting of temporarily bonded narrow strips. A fabric sheet consisting of temporarily bonded strips thus obtained is then sewn in the "downward" direction, in which the strips will not be turned up during the sewing operation, along lines at required intervals, in order to fix the narrow strips with regular shifts or irregular shift maintained therebetween. Then, the fabric sheet is immersed in heated water to dissolve and remove the water-soluble adhesive used for the temporary bonding, to form a fabric with an overlap structure produced by a process of the present invention.

This is explained in more detail below with reference to the drawings. Figure 8 illustrates a process that effectively produces a sheet consisting of temporarily bonded narrow strips. In the Fig. 8, a guide 12 moving at a constant speed and tension rolls 13 and 14 are provided near a cylinder 11, which rotates at a constant speed, and narrow strips 16 wound on a collared bobbin 15 are supplied through rolls 13 and 14 and guide 12, so that the narrow strips 16 are wound up on the constantly rotating cylinder 11 with a desired overlap therebetween.

In Fig. 8, a temporary bonding adhesive tank 18 and squeezing roll 17 are provided so that narrow strips impregnated with the temporary bonding adhesive form an overlap structure on the cylinder, followed by drying the temporary bonding adhesive in hot air supplied through hot water outlet 19 to ensure a temporary fixing. Thus, a temporary fixing is achieved during and/or after the winding of the narrow strips on the cylinder.

In view of the expected effects and workability, a water-soluble adhesive such as one based on polyvinyl alcohol or acrylic resin may be most desirable for the temporary fixing. An aqueous solution prepared by diluting the adhesive to an appropriate concentration may be applied to the narrow strips during and/or after the winding of the narrow strips on the cylinder, followed by drying. This may be performed while separating the strips from the cylinder. The application may be carried out by impregnation or an appropriate spreading process such as spraying, padding or brushing. A suitable process may be selected after considering its workability or other features. The narrow strips which are temporarily fixed by, for instance, exposure to normal temperature air or hot air after the application of the water-soluble adhesive are then cut or melt-cut in the transverse direction and removed from the roll to provide a fabric sheet with an overlap structure consisting of temporarily fixed narrow strips.

Next, the temporarily bonded narrow strips in the fabric with an overlap structure are connected together.

There are no specific requirements for the connecting method to be used. The use of a sewing machine is generally desirable because of its high availability. For instance, it is desirable to sew the narrow strips in their width direction along parallel lines aligned at appropriate intervals to combine the strips. In this case, the strips should preferably be sewn "downward", or in such a direction that the strips will not be turned up during sewing. There are no specific requirements for the intervals between sewing lines, and an appropriate interval may be selected depending on the use and purpose of the fabric. Also, there are no specific requirements for the sewing pattern, and appropriate pattern such as a linear, checked, checkered or cross-stitched pattern may be selected depending on the use and purpose of the fabric. Sewing may be carried out by a general-use sewing machine with one needle or by a multiple-needle sewing machine, such as a quilting machine, that can sew along several lines simultaneously.

Another way of combining the narrow strips is the use of a high-frequency or supersonic sewing machine.

The use of a sewing machine is not the only way available for combining the narrow strips, but it may also be effective to use an adhesive for bonding them together. The use of a sewing machine, however, is desirable in most practical cases because it can combine them in the downward direction of the overlap structure, which serves to minimize the number of wrinkles and is easy to perform.

Also, they may be combined by continuous or discontinuous fusion bonding with thermoplastic fiber. A fusion bonding method using vibrational energy caused by supersonic wave may be useful in most cases.

Where narrow strips are combined by sewing into a fabric, a tape for reinforcement may be put on the sewing line, followed by sewing of the narrow strips together with the reinforcing tape. Furthermore, it may also be desirable to perform ironing and/or heat-pressing in the downward direction of the overlap structure after forming a fabric to further reinforce the overlap structure.

A fabric obtained by such processes as described above is then subjected to another process to remove the temporary bonding. When a water-soluble adhesive is used for temporary bonding, the water-soluble adhesive used for the temporary bonding is removed by immersing the fabric in hot water to dissolve the adhesive. In this case, appropriate agents such as desizing agents, antistatic agents and softening agents, may be used. After adequate desizing for complete removal of the temporary adhesive, the narrow strips are dried in air or hot air to form a fabric with such a structure as shown in Fig. 1(A) or (B).

The process for removing the temporary bonding of narrow strips overlapping each other may be performed after producing secondary products from the fabric sheet consisting of temporarily bonded narrow strips. For instance, secondary products such as clothes or other clothing items may be produced from fabric sheets

consisting of narrow strips combined in a temporarily-bonded state, followed by treatment of the products in a process for dissolution and removal of the water-soluble adhesives. Such a procedure, in which temporary bonding is removed after the production of secondary products, may be more desirable in most practical cases because of the ease of operations for producing the secondary products.

It also may be desirable to subject a fabric produced by a process of the present invention to a water repellency treatment depending on the use of the fabric. Water repellency treatment can be easily carried out by applying an appropriate agent, such as silicone- or fluorine-based one, by means of spraying, padding, immersion or coating. In particular, padding is most desirable because it can apply a water repellency agent uniformly and also because its application in the downward direction of the overlap structure, as in the case of sewing as stated above, can be effective for preventing the formation of wrinkles. Thus, the padding process may be the best due to these advantages.

In producing such various secondary products as stated above from fabrics with an overlap structure consisting of narrow strips as proposed herein, such fabrics may be used solely or together with other fabric materials.

Such other fabric materials should preferably be appropriate general-use plain fabrics. In case of such secondary products as clothes and other clothing items, it may be desirable that an appropriate plain fabric be used at portions that are frequently subjected to strong bending motion while a fabric of the invention be used at flat portions that are free of strong bending motion. In rainwear, for instance, conventional waterproof material may be used at such portions as shoulders, knees and elbows, while using a fabric with an overlap structure the invention at other flat portions in order to maximize the effect of the fabric of the invention.

Figure 3, for example, schematically illustrates the appearance of a raincoat of a fabric with an overlap structure produced by sewing as described later in Example 2. Plain waterproof sheets made of high-density fabric 5 are used at flexible portions such as the collar, shoulders and elbows while fabric with an overlap structure 6 is used at other flat portions. This examples shows how both the characteristics of a fabric with an overlap structure and those of another material can be effectively exploited.

Where a raincoat is produced solely from a fabric with an overlap structure, combined-woven fiber with a low melting point may be used as material for narrow strips, and the fabric used at flexible portions such as collar, shoulders and elbows as stated above is heat-treated to melt and join the low melting point components so that the waterproofness is improved due to blinding, joining and increased density.

Where fabrics with an overlap structure are used for the production of such secondary products as clothes

and other clothing items, it may be practical to use the fabric in such a way that the downward direction of the overlap structure is virtually consistent with the downward direction of the secondary products. Note, their use is not limited to such a direction, and they may be used in any other arrangement depending on such factors as fashion and appearance.

As described above, the fabrics produced by a process of the invention have an overlap structure consisting of narrow strips which can shade direct sunlight and ensure high air permeability. Furthermore, the process can impart to the fabrics other desired properties such as water repellency, oil repellency and moisture permeability by performing appropriate treatment steps. They also can have many other good features including dry, rough surface textures and unique appearance and may be fashionable and therefore can be useful for a variety of applications including sportswear such as golf wear, tennis wear, baseball uniforms and baseball undershirts; rainwear such as raincoats; casual clothes such as summer sweaters, T-shirts and polo shirts; and other articles such as caps, hats and gloves.

The fabric and secondary products, including clothes and other clothing items, with an overlap structure may be of reversible type. Thus, such fabrics can provide very unique material and products including clothes and other clothing items having two useful sides.

Where narrow strips having two sides each of which are made of different materials, such as material 7 mainly for one side of the strips and material 8 mainly for the other side in Fig. 4(A), it will be easy to produce clothes having an outer surface and an inner surface each of which have a different characteristic from each other. Such narrow strips may be produced easily from, for instance, a double-woven fabric. In a typical case, such as fiber as cotton may be used as material for the inside surface thereof (in contact with the skin) and a water repellent material such as polyester may be used for the outside surface thereof. In another example, the fiber used in the outside surface of the narrow strips may be different from that used in their inside surface with respect to shrinkability and other properties. In such a case, the narrow strips may have a bent structure such that large openings may be formed between the strips so that the resultant fabric can have a high air permeability.

Where each narrow strip consists of two narrower strips made of different materials each arranged in a side by side structure in a widthwise direction, as shown in Fig. 4(B), material 9 used for the upper half thereof and forming the inside surface of the resultant fabric, may be cotton fiber while material 10 used for the lower half thereof may be water-repellent polyester fiber. In this case, a synergistic effect due to two different properties, i.e., sophisticated touch and water repellency, can be achieved very effectively. Where a narrow strip consists of two narrower strips of different materials as

described above, the boundary between the two materials may not be consistent with the middle line, but the boundary line may be at any desirable position in the width direction.

To produce a fabric with an overlap structure particularly high in bulkiness and air permeability, narrow strips of polyurethane fiber may be temporarily combined under an appropriate tension followed by sewing of the strips and removal of the temporary bonding to form a fabric with an overlap structure. In such a fabric, the narrow strips will have a wavy form, resulting in large gaps between them. Another good way of obtaining large gaps is by placing narrow strips of polyurethane fiber and those of other fiber one on top of another alternately while applying a tension to the polyurethane fiber strips followed by the formation of a fabric and removal of the temporary bonding so that the two types of strips have different wavy shapes.

A fabric with large gaps may also be produced effectively by combining narrow strips of high shrinkable fiber and those of low-shrinkage fiber appropriately, followed by heat treatment. Large gaps may be formed due to the difference in the degree of shrinkage between the two types of strips.

Highly fashionable, colorful fabrics or secondary products, including clothes and other clothing items, may be obtained by using a fabric having an overlap structure consisting of narrow strips of different colors or having an overlap structure consisting of narrow strips which have two sides with different colors and or which have different colored portions formed in the widthwise direction as illustrated in Fig. 4(A) and (B).

Furthermore, a fabric with novel functional and colorful features that are not available in conventional fabrics may be produced by combining several types of narrow strips which are different in color, material and other properties.

Where a fabric with an overlap structure is used to form clothes or other clothing items, the number of narrow strips used in a piece of clothes or a clothing item is preferably in the range of 2 (incl.) to 1500 (incl.), more desirably in the range of 2 (incl.) to 1000 (incl.), and still more desirably in the range of 5 (incl.) to 700 (incl.). Several narrow strips, up to 30 or so, are preferably present in every 10 cm length of fabric.

The use of too many narrow strips is not desirable because it may lead to problems such as a lower fabric strength, lower number of effective gaps for ventilation due to an increased number of strips per unit length of the resultant fabric, and increased weight of the fabric.

There are no specific requirements for the size of each narrow strip, but those with a surface area of $1.1 \text{ mm}^2 - 8 \times 10^4 \text{ mm}^2$ are generally desirable for small articles including clothes and other clothing items. It is generally difficult to produce a desired overlap structure from narrow strips with a surface area of less than 1.1 mm^2 , but a fabric consisting of narrow strips larger than $8 \times 10^4 \text{ mm}^2$ will lose its good features and has

fewer significant differences from conventional plain fabrics, though the desirable strip size varies with the application of the resultant fabric.

The fabrics with an overlap structure can be applied to a wide variety of articles, as described below.

Firstly, completely novel bedclothes with a high air permeation for good ventilation, together with a favorable heat insulation and which are fashionable, can be produced from a fabric with an overlap structure.

More specifically, novel bedclothes, including blanket and bed sheet fabric and side cloth for futon (Japanese quilt), pajamas, nightdresses, nightgowns, bathrobes, and pillowcases, particularly for summer use can be produced.

For such articles as bed sheets, pajamas and towel-cloth blankets, in particular, it is desirable to use narrow strips of cotton towel cloth because comfortable products with an agreeable touch can be produced. Where an article made solely of such towel cloth strips may have some problems, including a lack of effective gaps and excessive flexibility causing the fabric to cling to the skin, it may be desirable that appropriate narrow strips of, for instance, woven, knitted or non-woven fabric more firmly formed with a stronger nerve than the towel-cloth strips be used in combination with the towel-cloth strips in an alternating arrangement in a checked pattern or in other appropriate ways.

Furthermore, bedclothes with multiple functions can be produced by using several types of narrow strips of different materials in combination. For instance, bedclothes with an agreeable dry touch and good water absorbing ability can be produced by combining narrow strips made of polyester thread with those of cotton.

The bedclothes of the invention are produced by cutting and sewing a fabric with a special structure as described above. These bedclothes can be produced easily and in particular, those for summer use can ensure coolness and comfortability. Figure 9 schematically illustrates a towel-cloth blanket made of fabric S with an overlap structure.

Secondly, a novel soil and sand fixing sheet that has high water permeability and effectively hold soil and sand can be produced from a fabric with an overlap structure.

More specifically, it is possible to produce a soil and sand fixing sheet with a special structure that prevents soil and sand from flowing out therethrough, and serves to discharge soil water and rain water from the ground, while leaving an appropriate moisture in the ground.

Such soil and sand fixing sheets include drainage materials for building and engineering works for the construction of retaining walls, tunnels, roads, culverts, golf links, water supply/drain channels, slopes and weak ground treatment, other drainage materials such as for coal accumulation sites, and soil water removal sheets for flower pots.

Figure 10 schematically explains how a soil and sand fixing sheet of a fabric with an overlap structure

can serve to hold soil and sand while retaining a high water permeability. Soil and sand layer 23 is supported by soil and sand fixing sheet 22, which comprises a fabric S with an overlap structure.

With such a unique structure, the soil and sand fixing sheet of such a fabric schematically shown in Fig. 10 maintains narrow gaps between the narrow strips, which provide channels for water drainage as indicated by arrows, while retaining particles in the ground layer, including soil and sand, which are greater than a certain size. In addition, with the multiple layer structure consisting of narrow strips, the sheet can work as a filter free of clogging. Thus, soil and sand fixing sheet 22 prevents soil and sand from flowing out while maintaining good performance for drainage and water permeation.

Based on this mechanism, fabrics with an overlap structure can serve as a filter for various applications.

Thirdly, fabrics with an overlap structure can be useful in producing novel agricultural or horticultural greenhouses which provide good ventilation and shade and are highly suitable for the cultivation of certain agricultural or horticultural plants.

No agricultural or horticultural greenhouses are available which are suitable for the cultivation of, for example, seedlings of such widely known foliage plants as benjamin tree, yucca, dracaena tree and concinna, which grow well in a well-ventilated, well-shaded environment free of direct sunlight. In general, conventional greenhouse materials with a good light screening ability have a low air permeability, and vice versa.

Unlike these, the fabrics with an overlap structure can serve to produce an agricultural or horticultural greenhouse which provide an effective shade while maintaining a good ventilation.

The agricultural and horticultural greenhouses of the invention are described in detail below.

The agricultural and horticultural greenhouses as proposed herein include covers, tents and greenhouses for protection and cultivation of seedlings of rice and vegetables for agricultural production; covers, tents and greenhouses for protection and cultivation of seedlings of other plants including foliage plants, flowers, garden trees and fruit trees; and other types and sizes of greenhouses.

Figure 11 schematically illustrates an example of greenhouse for seedlings of foliage plants and flowers as proposed herein. In Fig. 11, fabrics with a special structure of the invention are used as exterior materials including roofing for greenhouse 24.

For these agricultural and horticultural greenhouses in particular, the use of a combination of various narrow strips of different materials and colors will permit the construction of completely novel agricultural and horticultural greenhouses which have light-screening ability together with good ventilation and also has beautiful and fashionable appearance with various colors. By making use of such color features, it will also be easy to construct greenhouses which have different colors for iden-

tification of the plants cultivated in them.

If narrow strips of an appropriate size and of an appropriate color or appropriate different colors are used at appropriate portions, greenhouses useful under various conditions can be produced, including those which absorb light efficiently to maintain a high temperature while keeping good ventilation, or which reflect light considerably to prevent the inside temperature from rising excessively. Greenhouses that provide various basic inside environments can be constructed by using a combination of narrow strips of appropriate sizes and appropriate different colors, for instance black, white, gray or transparent, at appropriate portions.

Fourthly, fabrics with an overlap structure are useful to produce functional, fashionable and comfortable footwear which has novel, fashionable appearance together with good waterproofness and high air permeability to permit the wearer to feel cool and dry especially in summer.

The footwear as proposed herein includes sports shoes, boots, slippers, sandals and other indoor footwear as well as various shoes for daily use.

Figure 12 schematically illustrates a cross section of shoe 25 comprising fabric S of the invention. Narrow strips with a hook-like cross section are used in this example.

For footwear of a fabric with an overlap structure, it may be practical to use a fabric produced by a process of the invention in such a way that the downward direction of the overlap structure virtually coincides with that of the footwear. However, there are no specific requirements for the use direction of the structure. Narrow strips may be used in any desired direction depending on the desired fashionable features and appearance.

Footwear of novel design an high fashionability that was not available in the past can be produced by using a combination of a large number of narrow strips which are different in color, hue and shade.

Furthermore, footwear with multiple functions can be produced by using a combination of narrow strips of different materials. For instance, footwear with many good properties including waterproofness, water absorption and air permeability can be produced by using double-woven fabric strips in which the inside layer to come in contact with the body is made of cotton while the other layer to be exposed to rain is coated with synthetic polymer film containing fine pores.

Fifthly, fabrics with an overlap structure serve to produce novel perishables storage containers that provide an environment which is well screened from sunlight, well ventilated and therefore suitable for the transportation and storage of perishables.

Conventional flexible containers, for instance, have been generally used for the transportation of powder and particle materials including livestock feed, but not for perishables including grain, vegetables, fruits, fish, shellfish and flowers because no materials have been available which can provide an environment suitable for

their transportation. Fabrics with a special structure of the invention, however, serve to produce novel perishables containers which can provide an environment suitable for the transportation and storage of these perishables.

The perishables storage containers as proposed herein include all boxes, bags and tubes designed to contain perishables including perishable plants as well as perishable foods such as grain, vegetables, fruits, fish, shellfish and flowers in order to transport them by land, sea or air or to preserve or store them.

Figure 13 schematically illustrates an example of a tube-like bag for transportation which is made of a perishables storage material with an overlap structure. The side wall of storage bag 26 is made of fabric with an overlap structure S.

Such perishables storage containers have good functions and effects as described below.

(1) The fabrics serve to produce perishables transporting containers which prevent the contents from being exposed to direct sunlight and maintain good ventilation. Thus, these containers are highly suitable for the storage and transportation of vegetables and other foods which require good ventilation and shade.

(2) They serve for easy production of containers which have high waterproofness, light-screening ability and moisture permeability as well as high air permeability and therefore, they are highly suitable for the transportation of perishables.

(3) The use of a combination of various narrow strips of different materials and colors permits the production of novel containers for the transportation, preservation or storage of perishables with colorful and fashionable appearance.

With such a colorful feature, these fabrics serve for easy production of containers of different colors for easy identification of the contents such as vegetables and fruits.

(4) If narrow strips of an appropriate size and of an appropriate color or appropriate different colors are used at appropriate portions, it is possible to produce containers which maintain good ventilation while absorbing light efficiently to keep a high temperature or which reflect light considerably to prevent the inside temperature from rising excessively.

If a proper combination of various narrow strips of an appropriate size and appropriate different colors, for instance black, white, gray and/or transparent, is used at appropriate portions, it is basically possible to produce containers which provide any desired inside environment.

In addition to these, fabrics with an overlap structure can be applied to a wide variety of products including

curtains, partitions and chair covering materials as well as beach umbrellas and tents with high air permeability to ensure coolness and comfortability.

Some examples are given below to further illustrate processes embodying the present invention.

Example 1

Narrow fabric strips 36 mm wide were woven with a ribbon weaving machine using 30-denier (D), 12-filament polyester yarn as warp and weft. The yarn density of the strips was 80 warp threads and 26 weft threads per centimeter.

The narrow strips were immersed in a water-soluble polyvinyl alcohol adhesive and then wound up on a cylindrical roll coated with fluoropolymer while rotating the roll at 1 m/min and shifting each strip by a required distance so that the width of the overlap between them would be 18 mm. The sheet thus obtained was then dried and cut in the direction of the axis of the roll to provide fabric in which the narrow strips were temporarily fixed with the above-mentioned water-soluble adhesive.

Then, the fabric sheet was sewn with a plurality of sewing yarns utilizing a conventional sewing machine in the width direction of the narrow strips and in the downward direction of the fabric (so that the narrow strips would not be turned up) by a plurality of sewing lines parallel to each other with a regular space of 43 mm interposed therebetween, followed by immersion in hot water of 80°C to dissolve and remove the water-soluble adhesive.

Thus, a fabric sheet with an overlap structure of the invention which had a width of 36 mm, overlap width of 18 mm and sewing line interval of 43 mm was obtained.

A piece of golf wear was produced from the fabric by sewing. Though it was sultry and the sunlight was strong on the day of testing, it was revealed that the fabric screened the skin from the sunlight effectively and had a high air permeability, and further, had a suitable handling touch and was very comfortable, demonstrating that the fabric was very suitable as material for golf wear.

Example 2

Narrow fabric strips 10 mm wide were woven with a ribbon weaving machine using, as warp and weft, mixed-yarns produced by combining conventional type polyester filament yarns (30D, 12F, shrinkage rate in boiling water 7%) and isophthalate-copolymerized polyester filament yarns (30D, 12F, shrinkage rate in boiling water 18%) and interlaced with each other by utilizing an air jet nozzle. The yarn density thereof was 56 warp threads and 20 weft threads per centimeter.

The strips were connected to each other temporarily with a water-soluble adhesive and sewn with a sewing machine in the width direction of the strips to form a

fabric sheet by the same method as in Example 1. They were sewn with a plurality of sewing lines arranged in parallel to each other with an interval of 5 mm interposed therebetween.

Then, a high-pressure paddle dyeing apparatus was used to immerse the sheet in boiling water to dissolve and remove the water-soluble adhesive while allowing a difference in shrinkage rate to develop, followed by dyeing the sheet deep brown with a disperse dye by a conventional dyeing process. The dyed and dried fabric sheet was then subjected to treatment for water and oil repellency. The water and oil repellent agent used was Asahi Guard AG-710 Emulsion (supplied by Asahi Glass Co., Ltd.) in the form of 6% aqueous solution. It was used with 0.1% Sumitex Accelerator Acx (supplied by Sumitomo Chemical Co., Ltd.) as catalyst. The solution for water and oil repellent treatment was applied to the fabric in the downward direction by light padding, followed by drying at 100°C and heat treatment at 180°C for 30 seconds to provide the final fabric product.

The fabric was then used to produce a raincoat as schematically illustrated in Fig. 3 and the raincoat was subjected to a test. High-density waterproof plain fabric coated with a water repellent agent was used as material for the collar, shoulders and elbows.

It was demonstrated that the raincoat had good features including high air permeability, waterproofness, moistureproofness and was fashionable with an attractive surface, which features are not available in conventional commercial rain coats.

Example 3

Narrow strips of polyester yarn as described in Example 1 and those of Nylon 6 yarns that had the same dimensions as the former were attached alternately to a plate made of fluorine-contained polymer with an overlap width of 15 mm using the same water-soluble adhesive as used in Example 1.

After drying, they were sewn together by the same procedure as in Example 1 with sewing line intervals of 20 mm. Then, a paddle dyeing apparatus was employed to perform a hot water treatment at 80°C for dissolution and removal of the water-soluble adhesive and to dye the Nylon 6 strips yellow with an acid dye at 100°C, followed by drying.

A summer sweater was produced by sewing the fabric and worn for testing. Because of the overlap structure, the skin was not seen through the fabric, so it can be worn directly next to the skin. The fabric appeared moderately bulky and dry because of the difference in processing characteristics between the polyester and polyamide fiber. It had a suitable handling touch and high air permeability with a good tanning control ability. Furthermore, it had good properties and was fashionable, with a striped appearance with a combination of the yellow and natural color or off-white of the polyester.

Example 4

Narrow towel-cloth strips 7 mm wide were woven using cotton threads as warp and weft.

The strips were immersed in a water-soluble poly-vinyl alcohol adhesive and then wound up on a fluoropolymer-coated cylindrical roll rotating at such a speed as to produce fabric with a required width and with an overlap width of 3 mm.

A sheet thus obtained was dried and cut in the direction of the axis of the roll to obtain fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The sheet was sewn with a conventional sewing machine along lines aligned at intervals of 20 mm in the "downward" direction so that the strips could not be turned up to provide multi-layer fabric with an overlap structure.

The fabric was then used to produce a towel-cloth blanket for summer use as illustrated in Fig. 9. The blanket is fringed with conventional polyester fabric, which serves also for reinforcement. It was then immersed in hot water at 80°C to dissolve and remove the water-soluble adhesive.

Thus, a towel-cloth blanket was obtained in which 7 mm-width strips forming an overlap structure with a overlap width of 3 mm as illustrated in Fig. 1 were sewn together along parallel lines aligned at intervals of 20 mm. Although it was very sultry on the night of the test and one would have been unable to sleep well under a conventional blanket, the towel-cloth blanket, with moderate heat insulation and dry surface texture together with a high air-permeability and moisture permeability, was found to be very comfortable and highly suitable for summer use.

Example 5

Narrow fabric strips 20 mm wide were produced with a tape weaving machine using 500-denier, 36-filament polyester yarn and 250-denier, 48-filament polyester yarn as warp and weft, respectively.

The strips were immersed in a water-soluble poly-vinyl alcohol adhesive and then wound up on a cylindrical roll coated with fluorine contained polymer rotating at such a speed as to produce a sheet with a required width and with an overlap width of 7 mm. A sheet thus obtained was dried and cut in the direction of the axis of the roll to obtain fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The temporarily fixed sheet was double-sewn with an industrial sewing machine along parallel lines aligned at intervals of 20 mm in the "downward" direction so that the strips would not be turned up, in order to provide multi-layer fabric with an overlap structure as illustrated in Fig. 1(A) and (B). The fabric was then immersed in hot water at 80°C to dissolve and remove the above-

mentioned adhesive.

Thus, a sheet was obtained in which 20 mm-width strips forming an overlap structure with a overlap width of 7 mm as illustrated in Fig. 10 were sewn together along parallel lines aligned at intervals of 20 mm.

The sheet was compared with coarse-pitch needle-punched non-woven fabric which had been used conventionally for retention of soil and sand.

These two fabric sheets were subjected to a test. Weak soil and sand containing much water was put on each sheet under the same conditions to determine their water discharge ability. It was shown that the soil and sand fixing sheet produced by the process of the present invention discharged water without allowing the soil and sand to flow away but leaving an appropriate moisture, while the conventional needle-punched non-woven sheet allowed large amounts of soil, sand and water to flow away with some holes clogged, indicating that the latter was failed to work well.

Example 6

Narrow fabric strips 25 mm wide were produced with a tape weaving machine using 50-denier, 24-filament nylon yarn and 100-denier, 48-filament nylon yarn as warp and weft, respectively.

The strips were immersed in a water-soluble poly-vinyl alcohol adhesive and then wound up on a fluoropolymer-coated cylindrical roll rotating at such a speed as to produce a sheet with a required width and with an overlap width of 4 mm. A sheet thus obtained was dried and cut in the direction of the axis of the roll to obtain fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The sheet was sewn with a conventional sewing machine along parallel lines aligned at intervals of 20 mm in the "downward" direction so that the strips would not be turned up, in order to provide multi-layer fabric with an overlap structure.

The fabric was then immersed in hot water at 80°C and then washed in water to dissolve and remove the above-mentioned adhesive. The fabric thus obtained was dried to provide a sheet in which 25 mm-width strips forming an overlap structure with an overlap width of 4 mm as illustrated in Fig. 1(A) and (B) were sewn together along parallel lines aligned at intervals of 20 mm.

The sheet was then used to construct a horticultural greenhouse as schematically illustrated in Fig. 11, and foliage plants were cultivated in it. It was revealed that the greenhouse was able to provide a well-shaded, well-ventilated environment highly suitable for the cultivation of foliage plants. The plants grew rapidly without withering.

Example 7

Narrow fabric strips 12 mm wide were produced with a tape weaving machine using 50-denier, 24-fila-

ment nylon yarn and 100-denier, 48-filament nylon yarn as warp and weft, respectively.

The strips were immersed in a water-soluble polyvinyl alcohol adhesive and then wound up on a fluoropolymer-coated cylindrical roll rotating at such a speed as to produce a sheet with a required width and with an overlap width of 6 mm.

A sheet thus obtained was dried and cut in the direction of the axis of the roll to obtain fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The fabric sheet was sewn with a conventional sewing machine along parallel lines aligned at regular intervals of 20 mm in the "downward" direction so that the strips would not be turned up.

The fabric was then immersed in hot water at 80°C to dissolve the above-mentioned adhesive. The fabric thus obtained was dried and treated for water and oil repellency.

The water and oil repellent agent used was Asahi Guard AG-710 (Asahi Glass Co., Ltd.) in the form of 5% solution. The fabric was introduced into the solution in a downward direction of the multi-layer structure and wrung lightly in a mangle, followed by drying at 90°C for 5 minutes and curing at 150°C for 3 minutes to provide a fabric sheet with a special overlap structure produced by the process of the invention as shown in Fig. 1(A) and (B) which consists of 12 mm-width narrow strips forming overlaps with an overlap width of 6 mm and sewn together along parallel lines aligned at intervals of 15 mm.

The sheet was then used to produce low shoes for summer use as illustrated in Fig. 12. They were fringed with conventional synthetic leather, which served also for reinforcement.

The shoes were put on for testing. Though it was very sultry and conventional shoes would have been very stuffy on the day of test, it was demonstrated that the low shoes with an overlap structure very comfortable and suitable for summer use because of high air permeability, moisture permeability and waterproofness and also because the fabric with a slightly rough surface was agreeable to the touch.

Example 8

Narrow fabric strips 30 mm wide were produced with a tape weaving machine using 500-denier, 36-filament polyester yarn and 250-denier, 48-filament polyester yarn as warp and weft, respectively.

The strips were immersed in a water-soluble polyvinyl alcohol adhesive and then wound up on a fluoropolymer-coated cylindrical roll rotating at such a speed as to produce a sheet with a required width and with an overlap width of 6 mm. A sheet thus obtained was dried and cut in the direction of the axis of the roll to obtain fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The fabric sheet was sewn with a conventional sewing machine along parallel lines aligned at regular intervals of 20 mm in the "downward" direction so that the strips would not be turned up to provide fabric consisting of narrow strips temporarily fixed with the above-mentioned water-soluble adhesive.

The fabric was then immersed in hot water at 80°C and washed in water to dissolve and remove the above-mentioned adhesive, followed by drying. Thus, a fabric sheet with a special overlap structure as shown in Fig. 1(A) and (B) was obtained which consisted of 30 mm-width narrow strips forming overlaps with an overlap width of 5 mm and sewn together along parallel lines aligned at intervals of 20 mm.

The sheet was then used to produce a tube-like bag as schematically illustrated in Fig. 13, and the bag was subjected to a test for the transportation of vegetables. It was demonstrated that the bag was able to provide a well-shaded, well-ventilated environment highly suitable for the transportation and storage of vegetables. The vegetables under test were stored without withering for a long period of time.

POSSIBLE INDUSTRIAL APPLICATIONS

The fabrics with a special structure produced by the process of the present invention have high air permeability, light-screening ability and waterproofness, which are generally difficult to achieve simultaneously, and are also highly fashionable.

If used as material for clothing, it can form clothes with completely unique functions including the ability to prevent the skin of the wearer from being exposed directly to sunlight or rain water while maintaining very good ventilation and fashionable appearance.

For instance, the fabrics can be used as material for various clothes, especially for outdoor wear including sportswear such as golf wear, baseball uniform, baseball undershirts and tennis wear; casuals such as T-shirts and polo shirts; and rainwear such as raincoats.

As described previously, the fabrics produced by the process of the invention, with good features and functions, also serve as material for various clothing items other than clothes, namely bedclothes, soil and sand fixing sheets, agricultural and horticultural greenhouses, footwear, perishables storage containers, beach umbrellas, various tents, filters, chair coverings, partitions and curtains. Thus, they are useful for an extremely wide variety of products.

Claims

1. A process for producing a fabric (S) having a plurality of narrow strips (S₁₋₇) in overlapping relationship with one another, each strip having a longitudinal side portion overlapping with a longitudinal side portion of an adjacent strip, which strips are

interconnected with one another to provide a fabric, but which fabric is provided with openings between the respective overlapping longitudinal side portions of each pair of adjacent strips, in which process

- (1) a plurality of narrow strips (S_{1-7}) are arranged in overlapping relationship with one another so that each strip has a longitudinal side portion overlapping with a longitudinal side portion of an adjacent strip,
- (2) each strip is temporarily secured, one to the next, by adhesive between overlapping side portions of each pair of adjacent strips,
- (3) the strips are permanently interconnected with one another to provide a fabric; and
- (4) the adhesive between the overlapping longitudinal side portions of each pair of adjacent strips is removed to provide openings therebetween.

2. A process according to claim 1, wherein strips, each carrying adhesive are received, in overlapping relationship with one another, by a take-up roller and carried through a drying station so as to activate the adhesive and secure temporarily each strip, one to the next.

3. A process according to claim 2, wherein

- (a) a plurality of strips are arranged in overlapping side by side relation with one another,
- (b) the strips impregnated with an adhesive,
- (c) the overlapping strips are introduced under tension to a take-up roller, and
- (d) the strips are carried through the drying station.

4. A process according to claim 2 or claim 3, wherein at the drying station, hot air is directed at the overlapping strips.

5. A process according to claim 4, wherein the hot air is directed to overlapping strip material taken up on the take-up roller.

6. A process according to any preceding claim, in which the additional step of cutting the strips laterally to provide fabric pieces is carried out.

7. A process according to claim 6, wherein the strips are cut prior to removal of the adhesive.

8. A process according to claim 7, wherein the strips are cut while the material is taken up by the take-up roller and is cut in a direction along the axis of the take-up roller.

9. A process according to any one of claims 6 to 8, wherein the lateral cutting is carried out at regions of the strips spaced apart from one another such that a fabric piece is obtained which, after removal of the adhesive, has a large number of narrow strips forming an overlapping structure and connected together while maintaining openings in the width direction of the narrow strips.

10. A process according to any preceding claim, wherein the width of the narrow strips is selected in the range of 1-200 mm.

11. A process according to any preceding claim, wherein several types of narrow strip (9, 10), each type being of a different respective material, are used in large numbers to form an overlapping structure.

12. A process according to claim 11, wherein different respective materials having respective heat shrinkage rates different from one another are used.

13. A process according to any preceding claim, wherein narrow strips made of a fibrous structure comprising mixed yarns including fibers having a high shrinkage and/or composite yarns comprising high shrinkage yarns and low shrinkage yarns are used.

14. A process according to any preceding claim, wherein narrow fibrous strips are used in which fiber mainly providing one surface of each strip is different from fiber mainly providing the opposite surface thereof.

15. A process according to claim 14, wherein fibres providing respective opposite surfaces of the strips have different respective shrinkage rates are used.

16. A process according to any preceding claim, wherein several types of narrow strip, each type being of a different color, are used to form an overlapping structure.

17. A process according to any preceding claim, wherein a large number of narrow strips with a water- or oil-repellency are used to form an overlapping structure.

Patentansprüche

1. Verfahren zur Herstellung von Stoff (S) mit einer Anzahl schmaler Lamellen (S_{1-7}) in einander überlappendem Verhältnis, wobei jede Lamelle einen Längsseitenabschnitt aufweist, der den Längsseitenabschnitt der benachbarten Lamelle überlappt, die Lamellen miteinander zu Stoff verbunden sind, der Stoff jedoch mit Öffnungen zwischen den ent-

sprechenden überlappenden Längsseitenabschnitten jedes Paares benachbarter Lamellen versehen ist, wobei bei diesem Verfahren

- (1) eine Anzahl schmaler Lamellen ($S_{1..7}$) in einander überlappendem Verhältnis angeordnet werden, so daß jede Lamelle einen Längsseitenabschnitt aufweist, der den Längsseitenabschnitt der benachbarten Lamelle überlappt,
 - (2) jede Lamelle, eine an die nächste, durch Klebstoff zwischen den überlappenden Seitenabschnitten jedes Paares benachbarter Lamellen zeitweilig befestigt wird,
 - (3) die Lamellen dauerhaft miteinander verbunden werden, wodurch Stoff bereitgestellt wird, und
 - (4) der Klebstoff zwischen den überlappenden Längsseitenabschnitten jedes Paares benachbarter Lamellen entfernt wird, wodurch dazwischen Öffnungen entstehen.
2. Verfahren nach Anspruch 1, wobei die Lamellen, die jeweils Klebstoff tragen, in einander überlappendem Verhältnis von einer Aufnahmerolle aufgenommen und durch eine Trocknungsstelle befördert werden, so daß der Klebstoff aktiviert wird und jede Lamelle, eine an die nächste, zeitweilig befestigt wird.
 3. Verfahren nach Anspruch 2, wobei
 - (a) eine Anzahl von Lamellen in einander seitlich überlappendem Verhältnis angeordnet wird,
 - (b) die Lamellen mit Klebstoff imprägniert werden,
 - (c) die überlappenden Lamellen unter Spannung zu einer Aufnahmerolle geführt werden, und
 - (d) die Lamellen durch die Trocknungsstelle befördert werden.
 4. Verfahren nach Anspruch 2 oder 3, wobei an der Trocknungsstelle Heißluft auf die überlappenden Lamellen gerichtet wird.
 5. Verfahren nach Anspruch 4, wobei die Heißluft auf das überlappenden Lamellenmaterial gerichtet wird, das auf der Aufnahmerolle aufgenommen wird.
 6. Verfahren nach einem der vorstehenden Ansprüche, wobei der zusätzliche Schritt des seitlichen Trennens der Lamellen erfolgt, wodurch Stoffstück bereitgestellt werden.
 7. Verfahren nach Anspruch 6, wobei die Lamellen vor der Entfernung des Klebstoffs geschnitten werden.
 8. Verfahren nach Anspruch 7, wobei die Lamellen geschnitten werden, wenn das Material von der Aufnahmerolle aufgenommen wird und in einer Richtung entlang der Achse der Aufnahmerolle geschnitten wird.
 9. Verfahren nach einem der Ansprüche 6 bis 8, wobei das seitliche Schneiden in Bereichen der voneinander getrennten Lamellen erfolgt, so daß ein Stoffstück erhalten wird, das nach der Entfernung des Klebstoffs eine große Anzahl schmaler Lamellen aufweist, die eine überlappende Struktur bilden und miteinander verbunden sind, wobei in Breitenrichtung der schmalen Lamellen Öffnungen erhalten bleiben.
 10. Verfahren nach einem der vorstehenden Ansprüche, wobei die Breite der schmalen Lamellen im Bereich von 1 bis 200 mm ausgewählt wird.
 11. Verfahren nach einem der vorstehenden Ansprüche, wobei verschiedene Arten schmaler Lamellen (9, 10), von denen jede Art aus einem entsprechenden anderen Material ist, in großer Zahl für die Bildung der überlappenden Struktur verwendet werden.
 12. Verfahren nach Anspruch 11, wobei entsprechende unterschiedliche Materialien mit entsprechenden voneinander verschiedenen Wärmeschrumpfraten verwendet werden.
 13. Verfahren nach einem der vorstehenden Ansprüche, wobei schmale Lamellen aus fasriger Struktur verwendet werden, die gemischte Garne umfassen, die Fasern mit starker Schrumpfung und/oder Verbundgarne einschließen, die stark schrumpfende Garne und wenig schrumpfende Garne umfassen.
 14. Verfahren nach einem der vorstehenden Ansprüche, wobei schmale fasrige Lamellen verwendet werden, bei denen die Faser, die hauptsächlich eine Oberfläche jeder Lamelle bildet, von der Faser verschieden ist, die hauptsächlich die entgegengesetzte Oberfläche der Lamelle bildet.
 15. Verfahren nach Anspruch 14, wobei Fasern, die die entsprechenden entgegengesetzten Oberflächen der Lamellen bilden, mit entsprechenden unterschiedlichen Schrumpfraten verwendet werden.
 16. Verfahren nach einem der vorstehenden Ansprüche, wobei verschiedene Arten schmaler Lamellen für die Bildung der überlappenden Struktur verwendet werden, wobei jede Art eine andere Farbe hat.
 17. Verfahren nach einem der vorstehenden Ansprüche

che, wobei für die Bildung der überlappenden Struktur eine große Zahl wasser- oder ölabweisender schmaler Lamellen verwendet wird.

Revendications

1. Procédé de production d'un tissu (S) comportant plusieurs bandes étroites (S_{1-7}) à disposition relative de chevauchement entre elles, chaque bande comportant une partie latérale longitudinale chevauchant une partie latérale longitudinale d'une bande adjacente, lesquelles bandes sont reliées mutuellement entre elles de façon à fournir un tissu, mais ce tissu étant pourvu d'ouvertures séparant les parties latérales longitudinales respectives de chaque paire de bandes adjacentes qui se chevauchent, procédé selon lequel :

(1) on dispose plusieurs bandes étroites (S_{1-7}) suivant une disposition relative de chevauchement entre elles, d'une façon telle que chaque bande comporte une partie latérale longitudinale chevauchant une partie latérale longitudinale d'une bande adjacente,

(2) on fixe temporairement chaque bande à la suivante au moyen d'un adhésif disposé entre des parties latérales de chaque paire de bandes adjacentes qui se chevauchent,

(3) on relie mutuellement les bandes d'une manière permanente entre elles de façon à fournir un tissu et

(4) on élimine l'adhésif situé entre les parties latérales longitudinales de chaque paire de bandes adjacentes qui se chevauchent, de façon à ménager des ouvertures entre elles.

2. Procédé selon la revendication 1, selon lequel des bandes, portant chacune de l'adhésif, sont reçues par un rouleau récepteur suivant une disposition relative de chevauchement entre elles et sont transportées à travers un poste de séchage de façon à activer l'adhésif et fixer temporairement chaque bande sur la suivante.

3. Procédé selon la revendication 2, selon lequel :

(a) on dispose plusieurs bandes suivant une disposition relative de chevauchement côte à côte entre elles,

(b) on imprègne les bandes d'un adhésif,

(c) on amène les bandes en chevauchement, sous tension, sur un rouleau récepteur et

(d) on transporte les bandes à travers le poste de séchage.

4. Procédé selon la revendication 2 ou la revendication 3, selon lequel, au poste de séchage, de l'air

chaud est dirigé sur les bandes en chevauchement.

5. Procédé selon la revendication 4, selon lequel l'air chaud est dirigé sur une matière formée de bandes en chevauchement reçue sur le rouleau récepteur.

6. Procédé selon l'une quelconque des revendications précédentes, selon lequel on exécute l'opération supplémentaire consistant à découper les bandes latéralement de façon à fournir des morceaux de tissu.

7. Procédé selon la revendication 6, selon lequel les bandes sont découpées préalablement à l'élimination de l'adhésif.

8. Procédé selon la revendication 7, selon lequel les bandes sont découpées alors que la matière est reçue par le rouleau récepteur et sont découpées suivant la direction de l'axe du rouleau récepteur.

9. Procédé selon l'une quelconque des revendications 6 à 8, selon lequel le découpage latéral est exécuté en des zones des bandes qui sont espacées entre elles, d'une façon telle qu'on obtient un morceau de tissu qui, après élimination de l'adhésif, comporte un grand nombre de bandes étroites formant une structure à chevauchement et reliées entre elles, tout en maintenant des ouvertures suivant la direction de la largeur des bandes étroites.

10. Procédé selon l'une quelconque des revendications précédentes, selon lequel la largeur des bandes étroites est choisie dans l'intervalle de valeurs de 1-200 mm.

11. Procédé selon l'une quelconque des revendications précédentes, selon lequel plusieurs types de bandes étroites (9, 10), chaque type étant en une matière respective différente, sont utilisés en des nombres élevés de façon à former une structure à chevauchement.

12. Procédé selon la revendication 11, selon lequel on utilise différentes matières respectives présentant des taux respectifs de retrait thermique qui sont différents entre eux.

13. Procédé selon l'une quelconque des revendications précédentes, selon lequel on utilise d'étroites bandes formées d'une structure fibreuse comprenant des fils mélangés comportant des fibres ayant un retrait élevé et/ou des fils composites comprenant des fils à retrait élevé et des fils à faible retrait.

14. Procédé selon l'une quelconque des revendications précédentes, selon lequel on utilise d'étroites bandes fibreuses dans lesquelles la fibre constituant

principalement une première surface de chaque bande est différente de la fibre constituant principalement la surface opposée de cette bande.

15. Procédé selon la revendication 14, selon lequel on utilise des fibres formant les surfaces opposées respectives des bandes qui ont des taux respectifs de retrait différents. 5
16. Procédé selon l'une quelconque des revendications précédentes, selon lequel on utilise plusieurs types de bandes étroites, chaque type étant d'une couleur différente, pour former une structure à chevauchement. 10
17. Procédé selon l'une quelconque des revendications précédentes, selon lequel un grand nombre de bandes étroites ayant des propriétés hydrophobe et oléorésistante sont utilisées pour former une structure à chevauchement. 15 20

25

30

35

40

45

50

55

Fig. 1

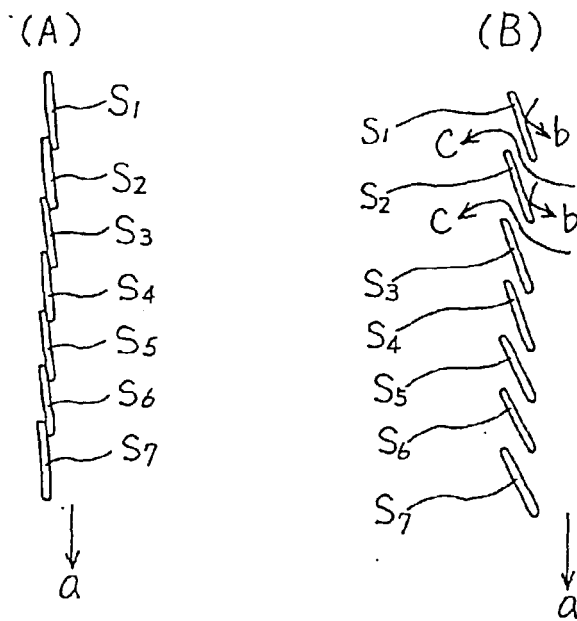


Fig. 2

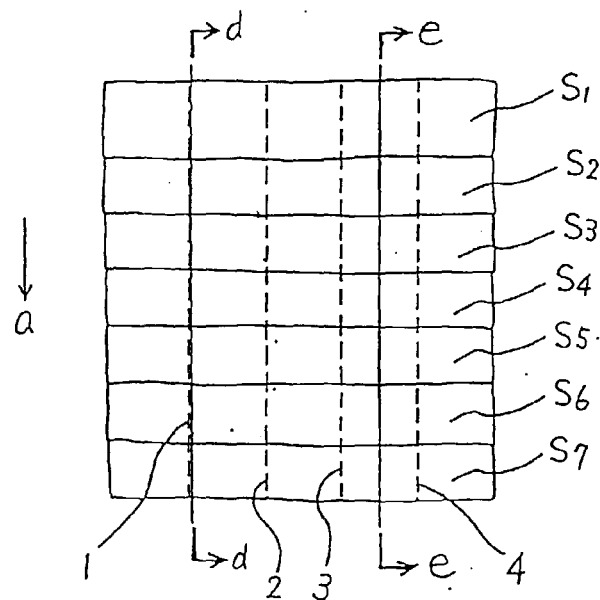


Fig. 3

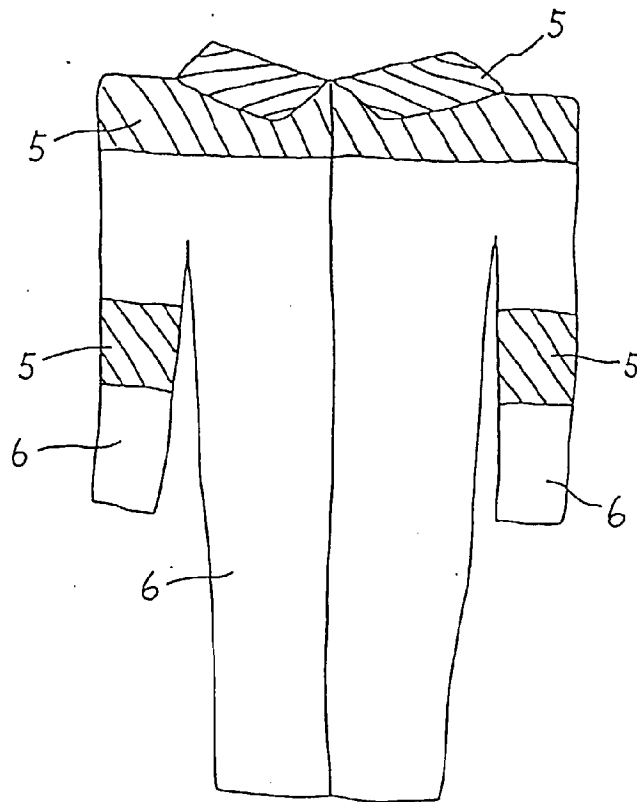
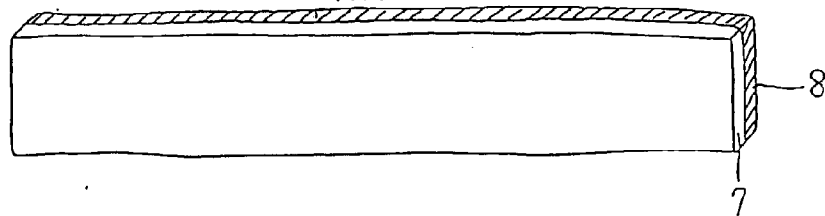


Fig. 4

(A)



(B)

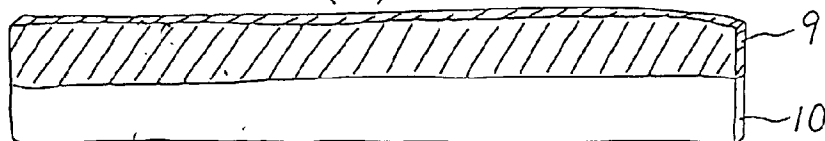


Fig. 5

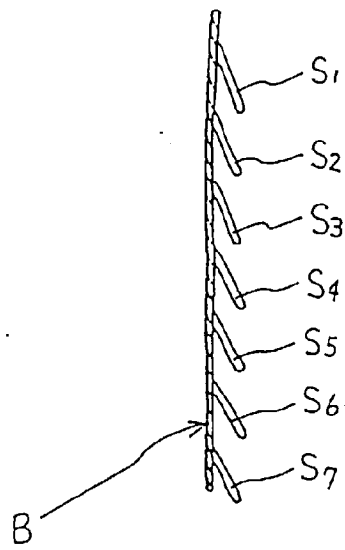


Fig. 6

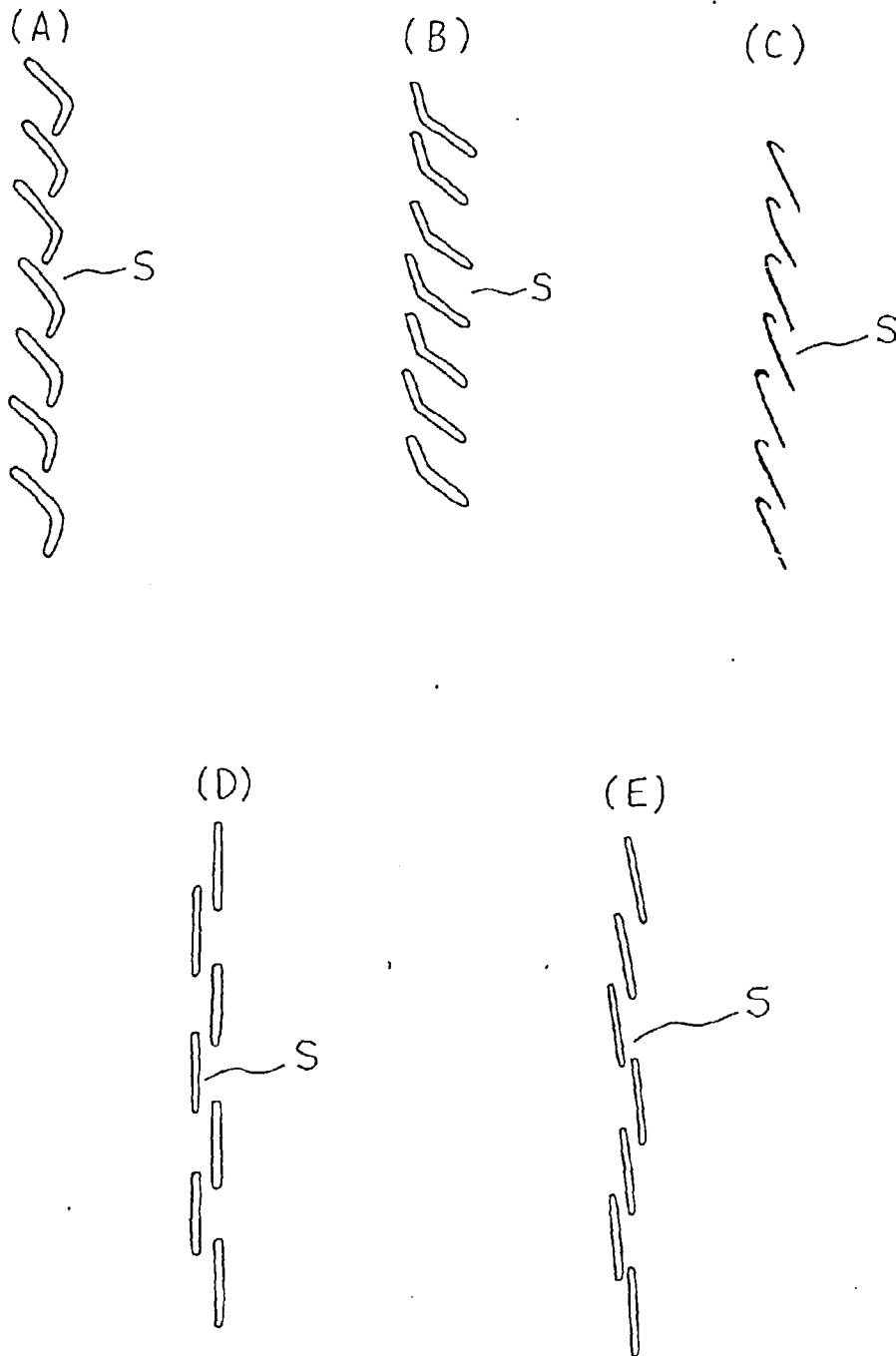


Fig. 7

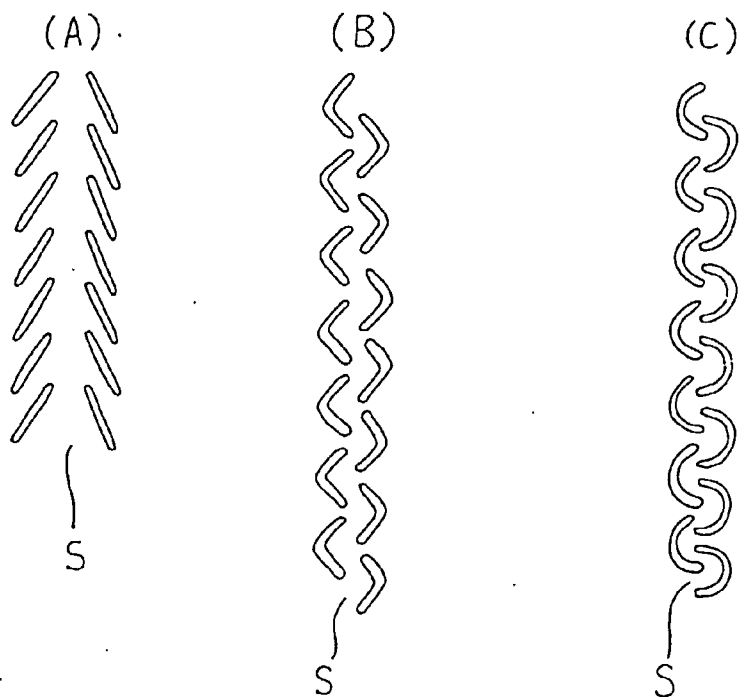


Fig. 8

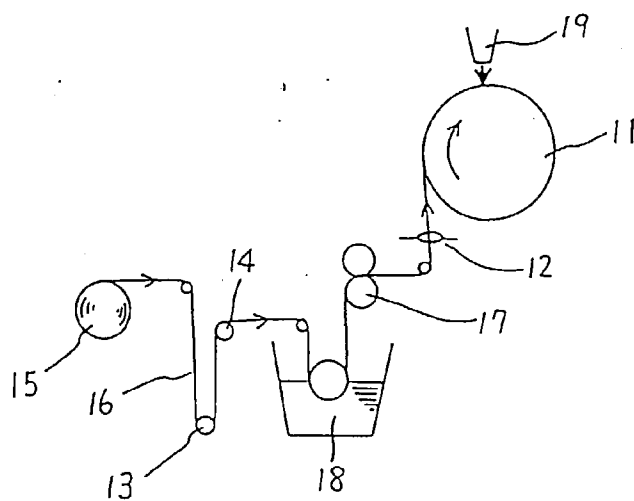


Fig. 9

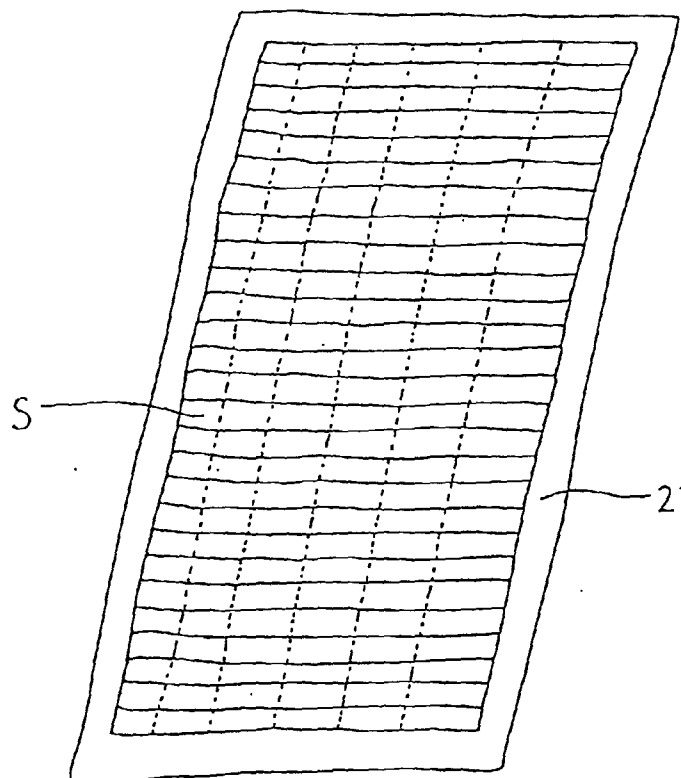


Fig. 10

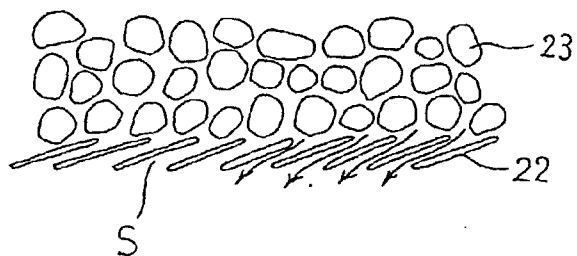


Fig. 11

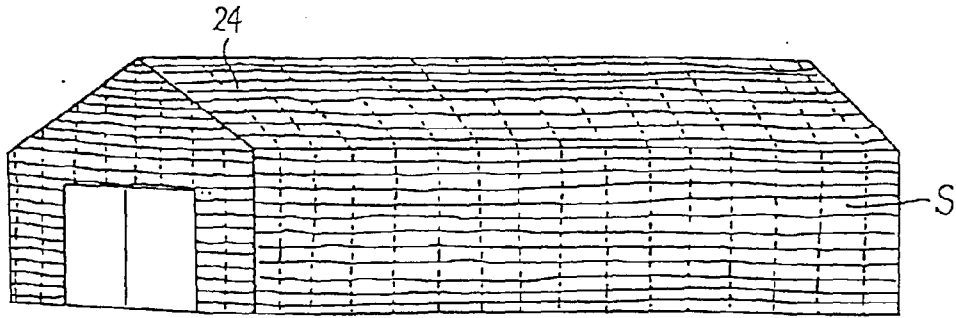


Fig. 12

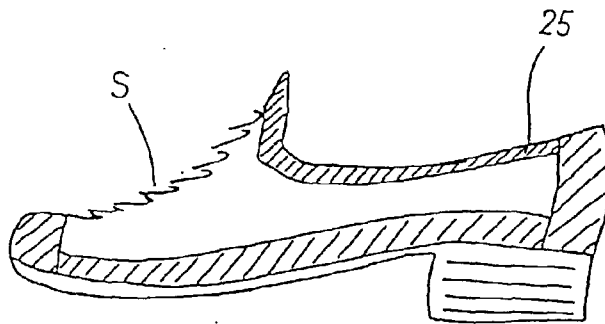
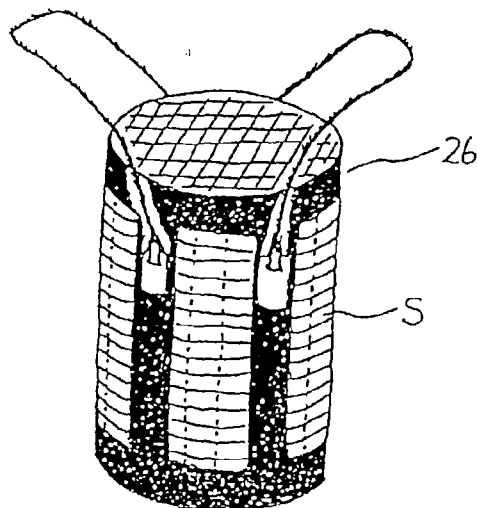


Fig. 13





(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
21.08.2002 Bulletin 2002/34

(51) Int Cl.7: **D04B 1/14**

(21) Application number: **02251103.4**

(22) Date of filing: **19.02.2002**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
 Designated Extension States:
AL LT LV MK RO SI

- **Sharrocks, Philip**
Slough, Berkshire SL1 4AU (GB)
- **Starbuck, Michael**
Slough, Berkshire SL1 4AU (GB)
- **Cole, Claire**
Slough, Berkshire SL1 4AU (GB)

(30) Priority: **20.02.2001 GB 0104143**

(71) Applicant: **Sara Lee Corporation**
Winston-Salem, NC 27105 (US)

(74) Representative: **Dealtry, Brian**
Eric Potter Clarkson,
Park View House,
58 The Ropewalk
Nottingham NG1 5DD (GB)

(72) Inventors:
 • **Ractcliffe, Andrew**
Slough, Berkshire SL1 4AU (GB)

(54) **Knitted fabric**

(57) A knitted fabric comprising a plurality of knitted stitches which are interconnected to define a plurality of courses and wales, the knitted stitches being formed from a heat fusible yarn (14), with at least some of said

stitches being formed from said heat fusible yarn plated with a ground yarn (12), the heat fusible yarn (14) being fused together at adjacent points of contact on stitches in order to give the fabric a desired dimensional stability and shape.

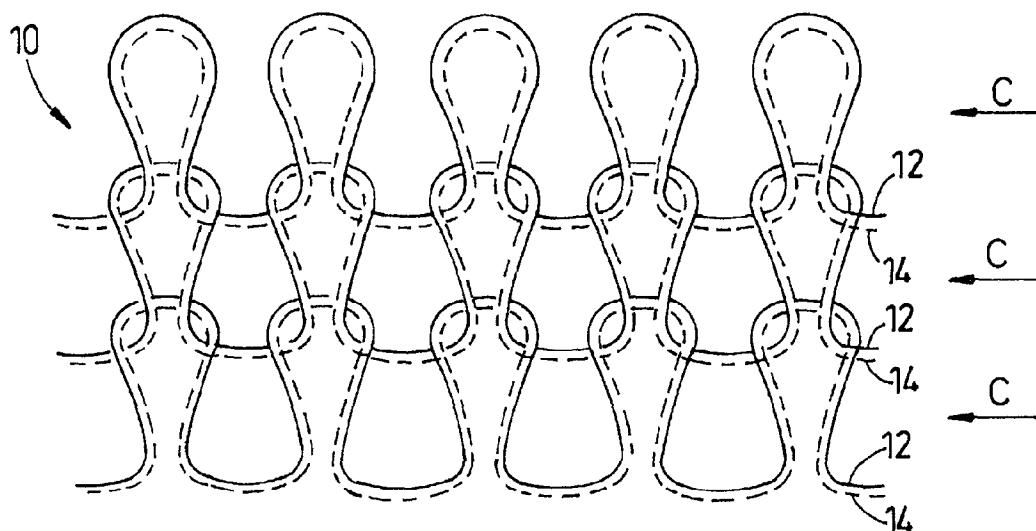


Fig. 1

Description

[0001] The present invention relates to a warp or weft knitted fabric, in particular but not exclusively, a knitted fabric suitable for making garments.

[0002] Fabrics for garments are commonly knitted using thermoplastics yarns such as polyamide or polyesters. The fabric may be knitted using either warp knitting or weft knitting techniques.

[0003] Once knitted, it is common for the fabric to be heat set in order to give the fabric stable dimensions and/or shape. Heat setting is achieved by stretching the fabric to the required dimension/shape and raising the temperature of the fabric to the setting temperature of the yarn whereat a permanent change is induced, viz. a new memory position is introduced into the yarn and it loses some of its stretch recovery capabilities and usually becomes relatively stiff. The fabric therefore thereafter retains the dimension/shape to which it was stretched during the heat setting process.

[0004] Accordingly, once the fabric has been heat set, it tends to lose its soft feel and handle qualities.

[0005] A general aim of the present invention is to provide a knitted fabric which is knitted using thermoplastics yarns as ground yarns and which is dimensionally stable without fully heat setting of the ground yarns.

[0006] According to one aspect of the present invention there is provided a knitted fabric comprising a plurality of knitted stitches which are interconnected to define a plurality of courses and wales, the knitted stitches being formed from a heat fusible yarn, with at least some of said stitches being formed from said heat fusible yarn plated with a ground yarn, the heat fusible yarn being fused together at points of contact on adjacent stitches in order to give the fabric a desired dimensional stability and shape.

[0007] According to another aspect of the invention there is provided a process for setting the coursewise and walewise dimensions and/or three dimensional shape of a fabric, the process including the steps of knitting a fabric so as to comprise a plurality of knitted stitches which are interconnected to define a plurality of courses and wales, the knitted stitches being formed from a heat fusible yarn with at least some of said stitches being formed from heat fusible yarn plated with a ground yarn having a setting temperature greater than the fusing temperature at which the heat fusible yarn become fusible, stretching the fabric on a former to stretch the fabric to desired coursewise and walewise dimensions and/or three dimensional shape, heating the fabric whilst on said former to at least the fusing temperature and preferably below said heat setting temperature, in order to cause the fusible yarn to fuse together at points of contact between the fusible yarn and subsequently cooling and removing the fabric from the former.

[0008] Preferably the heat fusible yarn is an elastomeric yarn.

[0009] Preferably the ground yarn is a thermoplastics

yarn such as a polyamide or polyester. The heat fusible yarn is fusible at a temperature below the heat setting temperature of the thermoplastics yarn; the difference in these temperatures being dependent on the fibre type and the method of heating to effect fusing.

[0010] Various aspects of the present invention are hereinafter described, with reference to the accompanying drawings, in which:-

Figure 1 is a schematic stitch diagram of part of a weft knitted fabric according to a first embodiment of the present invention shown in a stretched condition prior to a setting operation;

Figure 2 is a schematic stitch diagram of the weft knitted fabric of Figure 1 after a setting operation; Figure 3 is a schematic stitch diagram similar to Figure 2 showing a weft knitted fabric according to a second embodiment of the present invention.

[0011] A weft knitted fabric 10 according to a first embodiment of the present invention is illustrated in Figures 1 and 2. The fabric 10 includes a plurality of courses C each of which is knit using at least two yarn ends, viz. a ground yarn 12 and a heat fusible yarn 14 which serves the function of providing the fabric with desired dimensions and/or shape after a heat treatment.

[0012] The ground yarn 12 provides the body to the fabric and is preferably a thermoplastic yarn such as a polyamide or a polyester. The weight of the ground yarn is preferably in the range of 10-200 dtex, more preferably in the range of 60 to 80 dtex.

[0013] The heat fusible yarn is formed from a thermoplastics material which at a predetermined fusible temperature will fuse with itself at points of contact of the heat fusible yarn.

[0014] The weight of the fusible yarn is preferably in the range of 10 to 160 dtex, more preferably in the range of 20 to 50 dtex.

[0015] In this specification, the term 'fusible' is used to denote the condition where the yarn is able to bond to itself by the application of heat whilst retaining its integrity as a yarn; in other words the fusible temperature of the yarn is the temperature at or above which it becomes sufficiently tactile for it to bond or weld to itself but is below the temperature at which the yarn fully melts. For example, the 'sticking point' of elastomeric yarns would be in the region of 150 to 170 degrees C, i.e. this is the temperature at which the fusing would become active. This is the temperature based on 'dry' heat. The temperatures in the presence of steam would be considerably lower. The normal setting temperature of the ground yarns would be in excess of 180 degrees C in dry heat.

[0016] Thus, the predetermined fusible temperature is lower than the temperature at which the fusible yarn 14 melts and is also lower than the temperature at which the thermoplastic ground yarn 12 fully sets.

[0017] Accordingly, as schematically illustrated in Fig-

ure 2, if the fabric 10 is stretched, for example is placed upon a former, and is then raised to the predetermined fusible temperature, the points of contact between the fusible yarn become tactile and fuse together to define fused connections 18. Since the fusible temperature is below the temperature at which the fusible yarn 14 fully melts, the stitches 20 formed by the fusible yarn remain intact. The fused connections 18 thereby lock the stitches 20 formed by the fusible yarn 14, i.e. stitch lengths inbetween each adjacent pair of connections 18 are fixed throughout the fabric.

[0018] Since the fusible yarn 14 is knitted on adjacent courses and wales throughout the fabric, the relative position/sizes of stitch loops created by both the fusible and ground yarns immediately prior to creation of the fused connections 18 are maintained thereby giving the fabric a desired dimension/shape.

[0019] Accordingly, the fusible yarn 14 acts to 'set' the fabric at a desired dimension/shape without requiring the thermoplastic ground yarn 12 to be fully set. It will therefore be appreciated that the ground yarn 12 is more flexible and has more stretch recovery than a fully set thermoplastic ground yarn and that, as a result, the fabric of the present invention has improved feel and handle qualities.

[0020] Desirably the fusible and ground yarns are chosen such that at the predetermined fusible temperature of the fusible yarn 14, the ground yarn 12 is partially set, i.e. the ground yarn 12 is given a degree of shape retention or memory. This assists in giving stability to the shape/dimension of the fabric whilst still providing the benefits of improved feel/handle qualities when compared with a fully set ground yarn.

[0021] The relative weights of the ground and fusible yarns are chosen to ensure that the fusible yarns 14 contact one another at adjacent stitches (i.e. the ground yarns are not sufficiently large to shield the fusible yarns 14 from one another).

[0022] Preferably the fusible yarn 14 is an elastomeric yarn such as a bare Lycra (RTM) or Roico (RTM).

[0023] The use of an elastomeric yarn as the fusible yarn gives the advantage of providing the fabric with stretch qualities which enhance close shape fitting of a garment on the body of a wearer.

[0024] Alternatively, the fusible yarn 14 may be a non-elastomeric yarn such as a thermoplastic monofilament yarn produced from polyamide, polypropylene or other polymer with a lower setting, softening or melting temperature than the ground yarn.

[0025] In the alternative embodiment 30 illustrated in Figure 3, a fabric is illustrated having single courses C_S of heat fusible yarn 14 only alternating with courses C of fusible yarn 14 plaited with ground yarn 12. Instead of a single course C_S located inbetween courses of plaited yarns 12 and 14 it will be appreciated that a desired number of adjacent courses C_S may be provided.

[0026] The combination of the number of adjacent courses formed from plated ground and fusible yarns

and the number of adjacent courses formed from fusible yarns only may be varied as required in order to provide the fabric with desired characteristics. An important consideration is that each stitch contains the fusible yarn 12 such that connections 18 may be formed at each stitch.

[0027] In the examples given in Figures 1 and 3, the fabric is shown as being formed from plain jersey stitches only.

[0028] It will be appreciated that the fabric may also include other conventional stitches such as tuck or miss-stitches.

[0029] The fabric of the present invention is particularly suited to the creation of seamless garments wherein a tubular blank of fabric is moulded to a three dimensional shape on a former.

[0030] For example, a former in the shape of a human body part, for example the torso, is provided for the shaping of garments such as brassieres or briefs.

[0031] A tube of fabric as described above is located upon the former and elevated in temperature to the heat fusible temperature of the fusible yarn which is a high enough temperature to cause the heat fusible yarn to bond or weld together at its points of contact; the fusible temperature however being lower than the temperature at which the ground yarns are fully set. Preferably the fabric is heated using live steam.

[0032] Once the fabric has been exposed to a temperature whereat the heat fusible yarn has welded to itself, the fabric structure is locked in its stretched condition and slightly contracts (due to the stretch recovery of the heat fusible yarn). Accordingly the size of the former is chosen to be slightly oversize in order to cater for the slight contraction of the garment when removed from the former.

[0033] It is envisaged that heat meltable yarns may be incorporated into the fabric so as to join regions of fabric together. These heat meltable yarns are chosen so as to completely melt when the fabric is exposed to the fusible temperature and thereby cause the regions of fabric joined thereby to separate leaving a welded edge formed by the melted heat meltable yarn and which is of a desired shape and which is run resistant. This enables the garment to be shaped by pattern control techniques during knitting and avoids the need for a separate cutting-out process to shape the garment from the tubular blank.

[0034] It is envisaged that the former may be made from a resin polymer and be provided with a heat sink to prevent the surface of the former retaining a surface temperature equal to or above the welding temperature after repeated fabric moulding operations.

Claims

1. A knitted fabric comprising a plurality of knitted stitches which are interconnected to define a plurality of courses and wales, the knitted stitches being

formed from a heat fusible yarn, with at least some of said stitches being formed from said heat fusible yarn plated with a ground yarn, the heat fusible yarn being fused together at adjacent points of contact on stitches in order to give the fabric a desired dimensional stability and shape. 5

2. A fabric according to claim 1 wherein said heat fusible yarn is a bare elastomeric yarn. 10
3. A fabric according to claims 1 or 2 wherein the ground yarn is a thermoplastics yarn capable of being fully set when elevated to a fully set temperature, said heat fusible yarn being fusible at a temperature below said fully set temperature. 15
4. A process for setting the coursewise and walewise dimensions and/or three dimensional shape of a fabric, the process including the steps of knitting a fabric so as to comprise a plurality of knitted stitches which are interconnected to define a plurality of course and wales, the knitted stitches being formed from a heat fusible yarn with at least some of said stitches being formed from heat fusible yarn plated with a ground yarn, stretching the fabric on a former to stretch the fabric to desired coursewise and walewise dimensions and/or three dimensional shape, heating the fabric whilst on said former to at least the fusing temperature in order to cause the fusible yarn to fuse together at points of contact between the fusible yarn and subsequently cooling and removing the fabric from the former. 20 25 30
5. A process according to claim 4 wherein said ground yarn is a thermoplastics yarn capable of being fully set when elevated to a fully set temperature, and wherein said heating of the fabric whilst on the former is preformed to elevate the fabric to a temperature greater than said fusing temperature but less than said fully set temperature. 35 40
6. A process according to claim 4 or 5 wherein the fabric is further knitted using heat meltable yarns in order to join regions of said fabric together, said heat meltable yarns being melted when raising the fabric to said heat fusible temperature so as to cause said regions of fabric to separate and define, where separated, a run resistant edge of a desired shape. 45
7. A garment formed at least in part from knitted fabric according to Claims 1, 2 or 3. 50

55

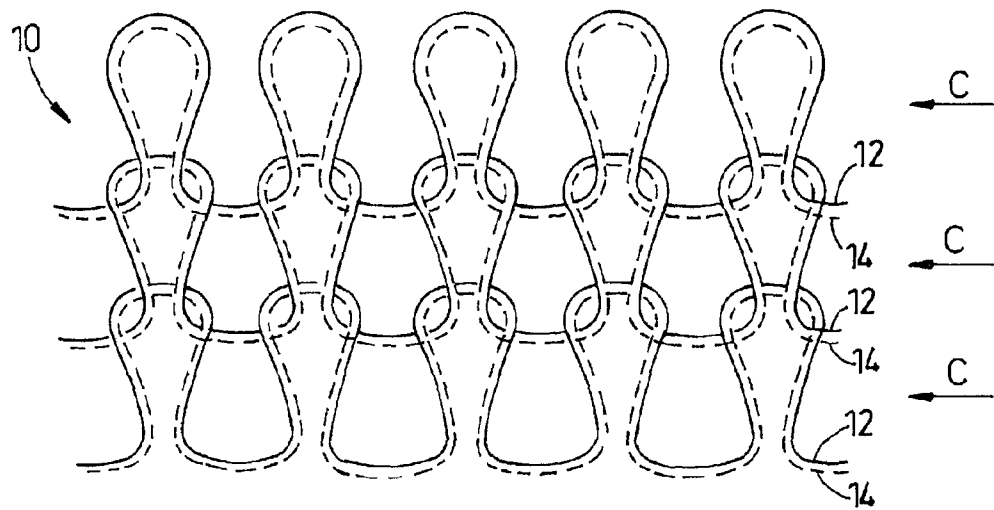


Fig. 1

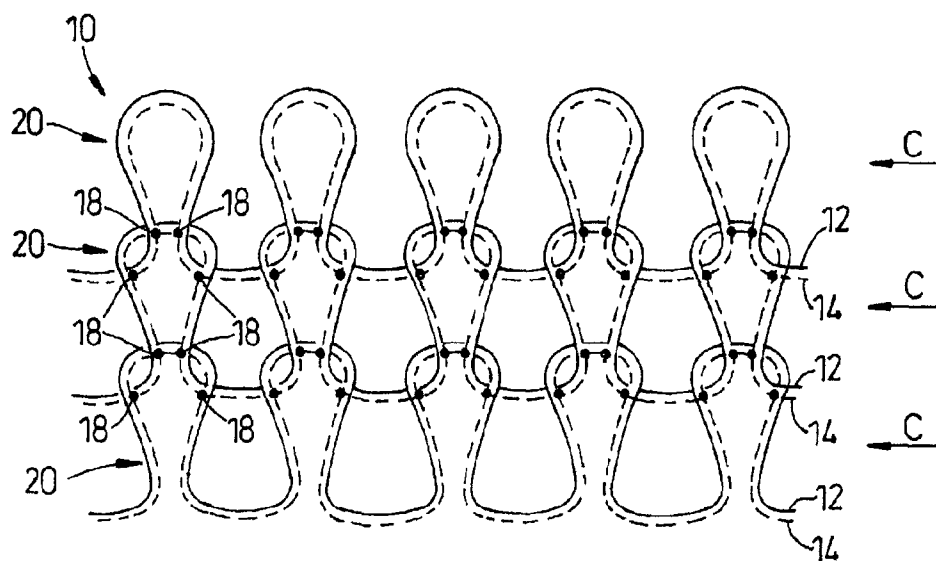


Fig. 2

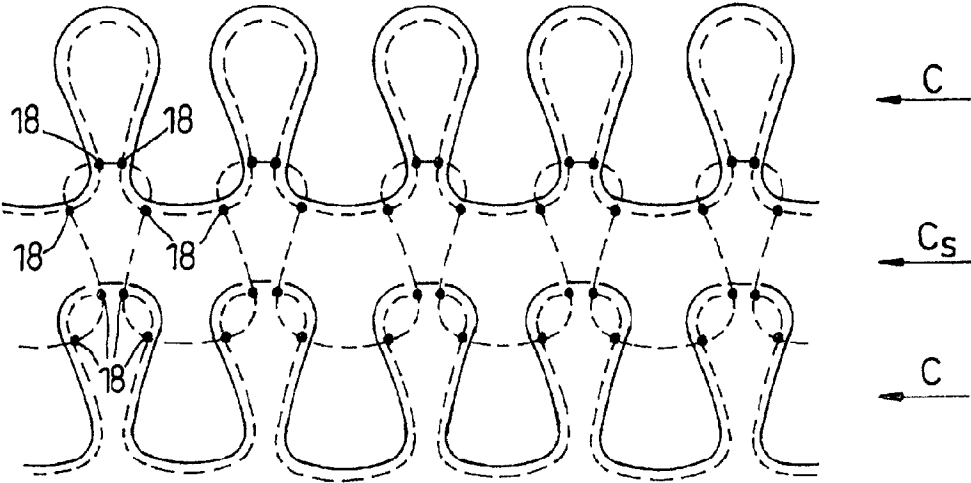


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 25 1103

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	DE 198 55 542 A (KEIPER RECARO GMBH CO) 8 June 2000 (2000-06-08) * column 1, line 66 - column 2, line 13; claims 1,3 *	1,4	D04B1/14
X	DE 295 04 780 U (HOECHST TREVIRA GMBH & CO KG) 20 July 1995 (1995-07-20) * page 17, line 9 - line 19; claims 1,5; example 2 *	1,3-5	
X	EP 0 833 000 A (KANEBO LTD) 1 April 1998 (1998-04-01) * claims 1,2,6; examples 6,7 *	1,3-5	
A	DE 38 05 234 A (SHIMA SEIKI MFG) 31 August 1989 (1989-08-31) * column 4, line 34 - column 5, line 13; claims 1-3; figures 1-4 *	1,4,6,7	
A	DE 197 38 433 A (RECYTEX TEXTILAUFBEREITUNG GMB) 2 April 1998 (1998-04-02)		
A	DE 25 23 772 A (BAHNER GERHARD) 2 December 1976 (1976-12-02)		TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	EP 0 758 693 A (BUCK ALFRED) 19 February 1997 (1997-02-19)		D04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 May 2002	Examiner Van Gelder, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 (3-92) (P04031)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 25 1103

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-05-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
DE 19855542	A	08-06-2000	DE	19855542 A1	08-06-2000
			WO	0032861 A1	08-06-2000
DE 29504780	U	20-07-1995	DE	29504780 U1	20-07-1995
			BR	9601065 A	06-01-1998
			CA	2172236 A1	22-09-1996
			CZ	9600837 A3	16-10-1996
			EP	0733732 A2	25-09-1996
			HU	9600683 A1	29-12-1997
			JP	8269841 A	15-10-1996
			PL	313371 A1	30-09-1996
EP 0833000	A	01-04-1998	DE	69619672 D1	11-04-2002
			EP	0833000 A1	01-04-1998
			JP	3025310 B2	27-03-2000
			US	5962349 A	05-10-1999
			WO	9637648 A1	28-11-1996
DE 3805234	A	31-08-1989	DE	3805234 A1	31-08-1989
			CH	679354 A	14-02-1992
			FR	2627515 A1	25-08-1989
			GB	2214939 A ,B	13-09-1989
DE 19738433	A	02-04-1998	DE	29616943 U1	21-11-1996
			DE	19738433 A1	02-04-1998
DE 2523772	A	02-12-1976	DE	2523772 A1	02-12-1976
			NL	7604471 A	30-11-1976
EP 0758693	A	19-02-1997	EP	0758693 A1	19-02-1997
			AT	207554 T	15-11-2001
			DE	59509754 D1	29-11-2001

EPO FORM P0450

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82