

**United States Patent and Trademark Office
Before the Patent Trial and Appeal Board**

lululemon usa inc. v. Nike, Inc.

IPR2024-00460

U.S. Pat. No. 8,266,749

Patent Owner's Presentation

May 7, 2025



1. Overview of '749 Patent and Instituted Grounds

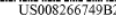
2. Claim Construction

3. The Grounds: lululemon Failed to Prove Unpatentability by a Preponderance of the Evidence

- Ground 1: lululemon fails to show that Nishida anticipates claims 1–8 and 12–18
- Ground 2: lululemon fails to show that Nishida renders obvious claims 9–10 and 19–20
- Ground 3: lululemon fails to show that Zuckerman anticipates claims 1–3, 5–8, 11, 13–17, and 21
- Ground 4: lululemon fails to show that Zuckerman renders obvious claims 3, 9–10, 14, and 19–20
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- Ground 6: lululemon fails to show that Nishida in view of Zuckerman renders obvious claims 11 and 21

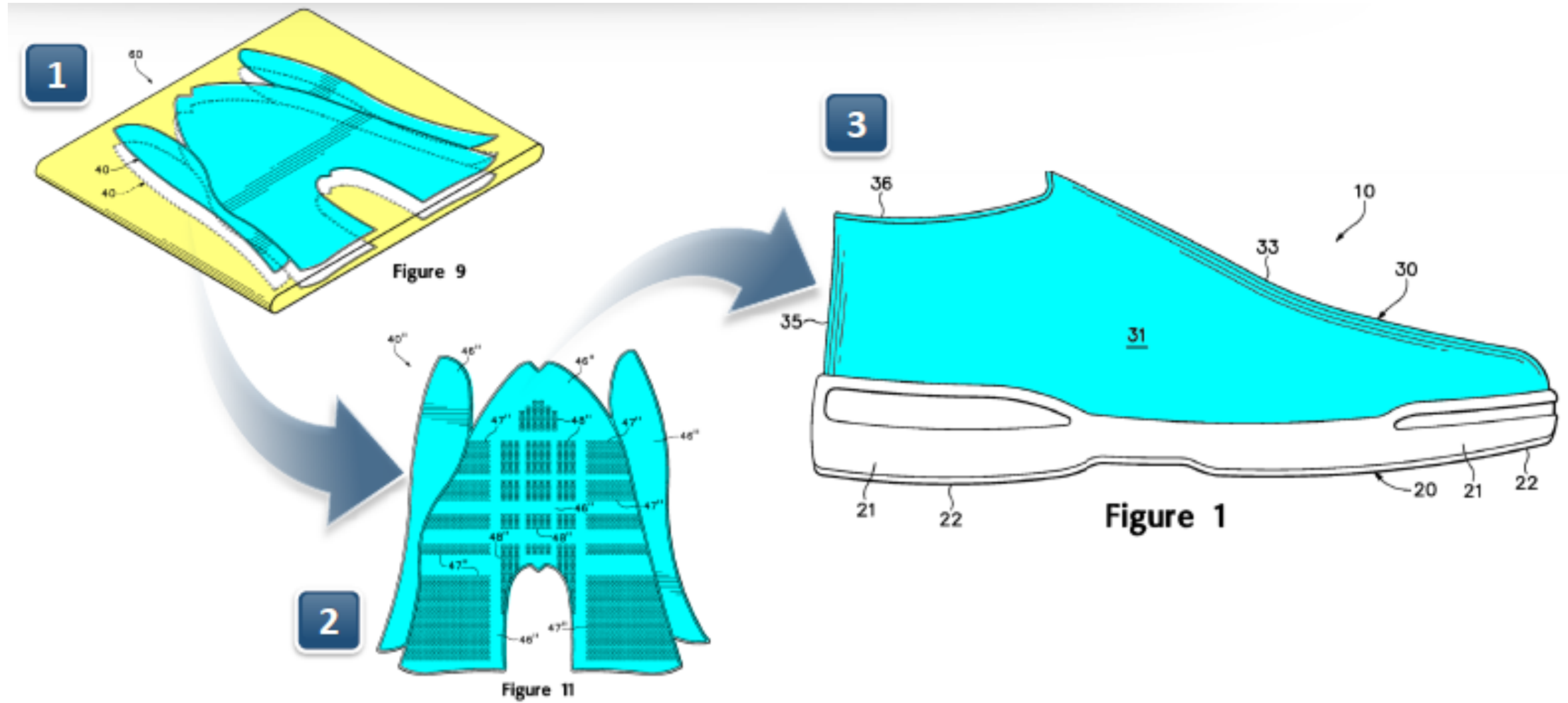


Overview of '749 Patent and Instituted Grounds



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Overview of the '749 Patent



'749 Patent, Ex. 1001 at Figs. 1, 9, 11; POR, Paper 15 at 4-5

Overview of the '749 Patent



The claimed methods offer many advantages over traditional methods of manufacturing footwear. For example, the claimed methods increase sourcing and manufacturing efficiency by limiting the required number of suppliers, machinery, or different assembly line techniques used to cut or otherwise prepare the material for incorporation into the footwear. *E.g.*, Ex. 1001 at 3:4–23 11:6–9. The claimed methods also reduce the number of steps in the manufacturing process and reduce the number of seams in the final footwear product. *Id.*

POR, Paper 15 at 5

wear may be an inefficient practice. By forming textile element **40** to be a single, unitary element of material, however, efficiency is increased in that upper **20** may include a single textile element, rather than numerous joined elements.

'749 Patent, Ex. 1001 at 11:6–9

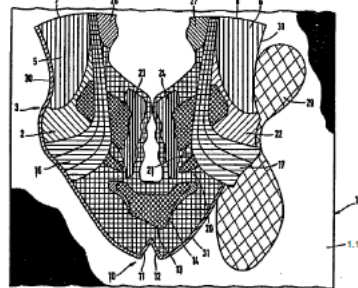


Ground	35 U.S.C. §	Claims	Reference(s)
1	§ 102	1–8, 12–18	Nishida
2	§ 103	9–10, 19–20	Nishida
3	§ 102	1–3, 5–8, 11, 13–17, 21	Zuckerman
4	§ 103	3, 9–10, 14, 19–20	Zuckerman
5	§ 103	12	Zuckerman, Doughty
6	§ 103	11, 21	Nishida, Zuckerman

Overview of Nishida

- Discloses a method of manufacturing shoe components on a material web base
- Does not disclose that the shoe components are knitted at the same time as the material web base
 - First discloses forming a separate, preexisting material web base
 - Next discloses printing or producing a shoe component on or within the material web base

POR, Paper 15 at 8–10

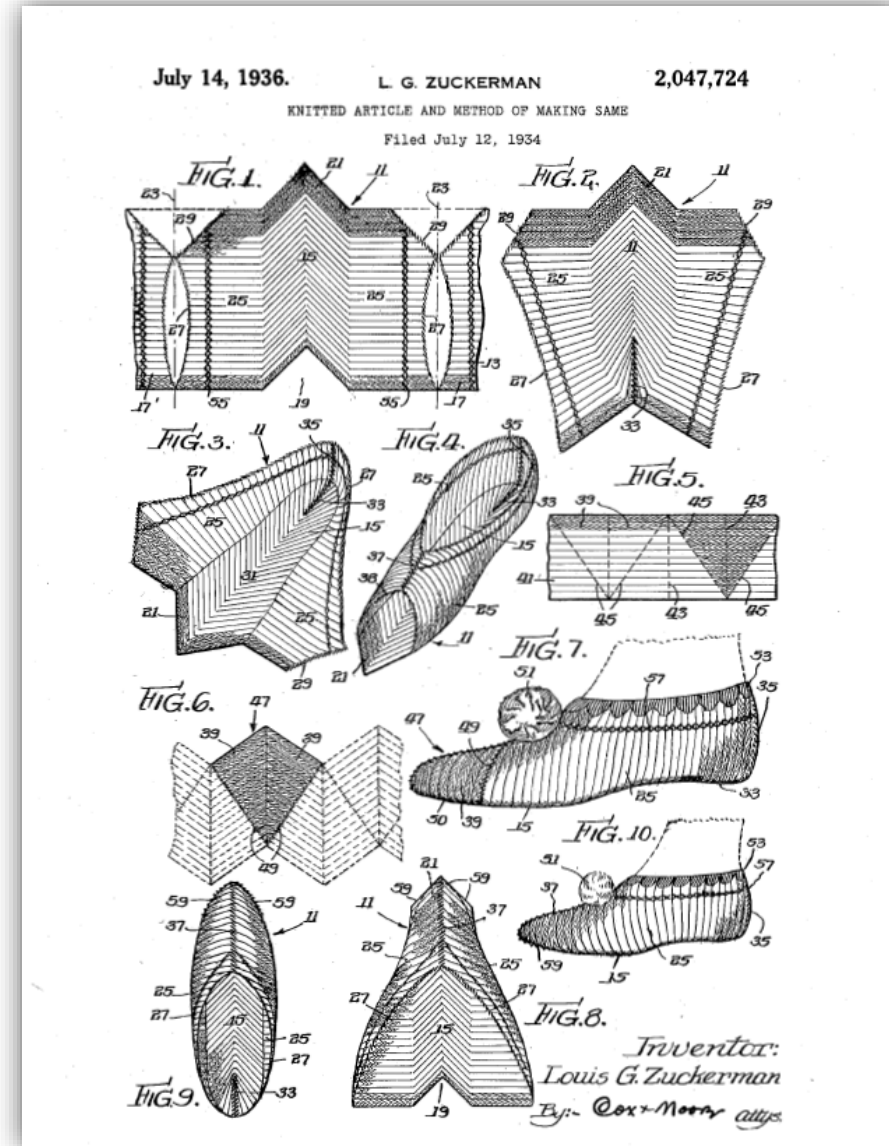
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)		
(51) International patent classification ^a A43B 1/02, A41H 3/08	AI	(11) International publication number: WO 92/22223 (43) International publication date: December 23, 1992 (12/23/92)
(21) International file number: PCT/DE92/00487 (22) International filing date: June 12, 1992 (6/12/92) (30) Priority dates: P 41 19 911.1 June 17, 1991 (6/17/91) EN (71) Applicant: PUMA AKTIENGESELLSCHAFT RUDOLF DASSLER SPORT [DE/DE]; Würzburg Straße 13, D-8522 Herzogenaurach (DE). (72) Inventor: NISHIDA, Mamoru; 265, Tung Hsin Road, Sec. 2, Taichung (TW). (74) Attorney: HUFNAGEL, Walter; Bad Brückenauer Straße 19, D-8500 Nuremberg (DE).		(81) Designated states: AT (European patent), AU, BE (European patent), BG, BR, CA, CH (European patent), CS, DE (European patent), DK (European patent), ES (European patent), FI, FR (European patent), GB (European patent), GR (European patent), HU, IT (European patent), JP, KR, LU (European patent), MC (European patent), NL (European patent), NO, PL, RO, RU, SE (European patent). Published With international search report.
(54) Title: METHOD OF PRODUCING A SHAPED SHOE PART FROM A STRIP OF FABRIC, AND A SHAPED SHOE PART PRODUCED BY THIS METHOD (54) Title: [Original title in German] VERFAHREN ZUR HERSTELLUNG EINES SCHUHFORMTEILS AUS EINER GEWEBEBAHN UND NACH DIESEM VERFAHREN HERGESTELLTES SCHUHFORMTEIL		
		
(57) Abstract The invention concerns the production of a shoe upper by cutting out the upper, in the form of a pattern, from a strip of material and shaping the upper, at the same time joining parts of the upper by seams. The aim of the invention is to develop the method used so that, in spite of the large number of individual parts existing or to be made visible, such shoe uppers can be produced rationally and without waste of time. To this end, the invention proposes that, when the strip of material (1) is manufactured, the patterns (2) of the uppers are produced, at the same time as the strip of material (1) is produced, using different manufacturing techniques, such as different make-up, different yarn material, different color, different material thickness, single- or multi-layer material, etc., the patterns being cut from this strip and further worked to give shoe uppers.		

Overview of Zuckerman



- Issued 1936
- Directed to a method of making knitted slippers
- Knitted textile element forms both the sole and upper of the slipper

POR, Paper 15 at 10

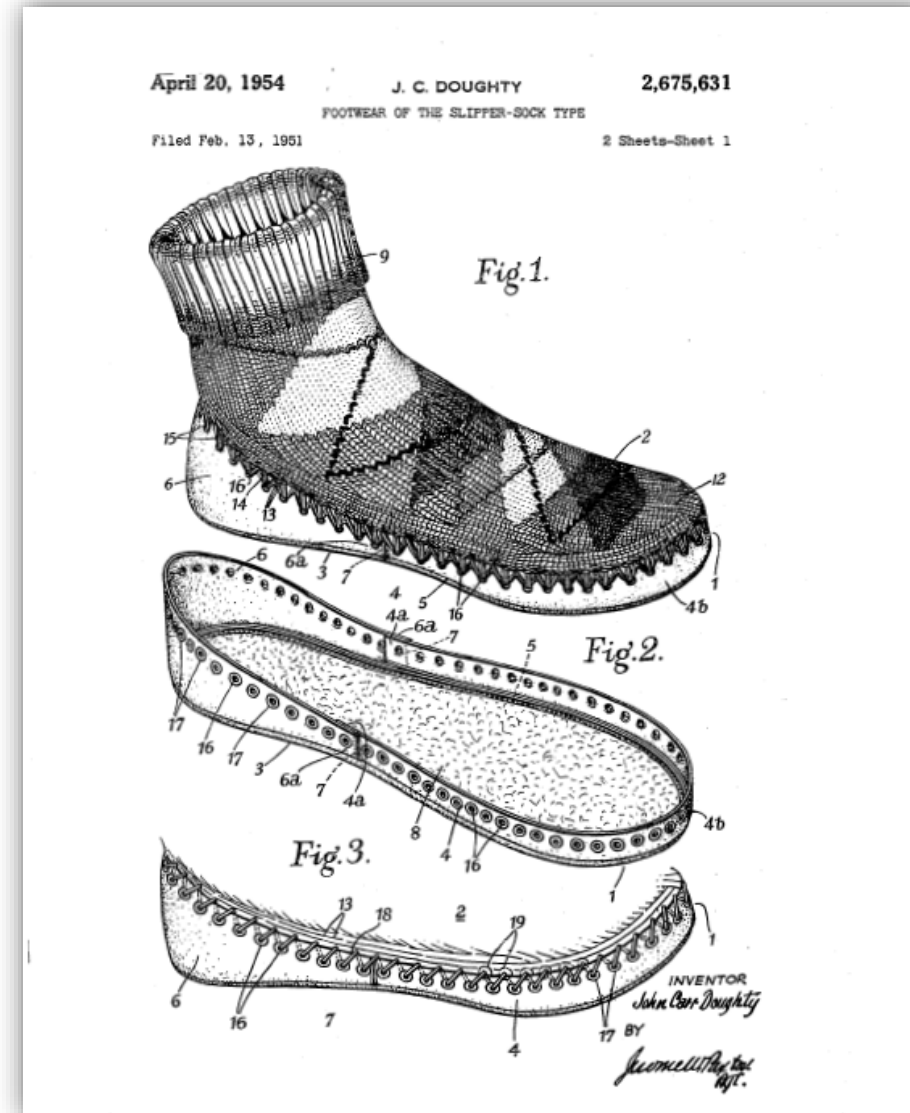


Zuckerman, Ex. 1008 at Cover



- Directed to a sock having a readily detachable separate foot bottom
- Foot bottom may be attached by stitching, sewing, or seaming

POR, Paper 15 at 12-13



Doughty, Ex. 1017 at Cover



File History



- Nishida (Ex. 1005) is virtually identical to the Nishida (U.S. Pat. No. 5,345,638) considered by the Examiner during prosecution
- Nike argued, as it does here, that Nishida fails to disclose “a knitted textile element *simultaneously* formed with a knitted textile structure during a knitting process”
- The Examiner issued two rejections over Nishida and then held an interview
- The Examiner was persuaded that “there is no clear disclosure ... that the textile element and the surround [sic] structure are simultaneously knitted.”

POR, Paper 15 at 6–7



supplies this limitation. Pet. 14–15. Nishida’s Figure 2, reproduced above (*see supra* Section II.C.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, 3:15–26. Moreover, as noted above,

[T]ongue 40, for example, according to FIG. 4, can be provided also in the course of producing the web of material 1 with different weave structures and/or weave patterns and/or embroideries or with one or with several prints or the like. On a web of material 1, different tongues 40 can be produced corresponding to a shoe shape and/or a shoe size both in shape, size, color or colors, patterns or the like. Preferably, in each case, related tongues 40 are produced simultaneously with a layout 2 on same web of material 1.

...

Preferably, each layout 2 has at least five, preferably more than ten, patterns and a tongue 40 has at least two, preferably at least three patterns produced or appearing, which are different from one another in each case.

Ex. 1009, 5:27–36, 41–44 (emphasis added). Thus, we determine that either

Ex. 1022, adidas IPR Remand Decision at 28–29 (cited in Petition, Paper 1 at 12–13)



Claim Construction



“surrounding textile structure”



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.

'749 Patent, Ex. 1001 at claim 1

13. A method of manufacturing an article of footwear, the method comprising:
knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure, 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;
removing the first and second knitted textile elements from the knitted textile structure;
incorporating at least one of the first and second knitted textile elements into the article of footwear.

'749 Patent, Ex. 1001 at claim 13



Nike's Construction	lululemon's Construction
textile structure completely or mostly surrounding the textile element	any textile area outside of the textile element

Sur-Reply, Paper 20 at 3

Reply, Paper 17 at 3, 5



lululemon's position:

This interpretation aligns with the '749 patent's specification, which states: “Textile element 40 may be formed as a part of a *larger* textile element,” and, to be used in the final product, “is then removed from the *larger* textile element.” Ex.1001, 5:45–48.² This description underscores the flaw in Nike's attempt to impose a narrowing limitation, as “larger” imposes no specific threshold but merely indicates excess material.

Reply, Paper 17 at 3

The '749 patent and its claims do not require the surrounding textile structure to contact “most” of the textile element's perimeter.

Reply, Paper 17 at 5

The district court rejected lululemon's construction



The Court has considered the parties' proposed constructions of "surrounding textile structure." The Court adopts Nike's proposed construction based on the plain and ordinary meaning of the term "surrounding"; the well-understood definition of the term as not simply referring to what is "outside" or "adjacent," but rather what is around or encircling, *see, e.g.,* Oxford English Dictionary (defining the adjective "surrounding" as "[t]hat is (or are) around; encompassing, circumjacent"); and the lack of any intrinsic evidence supporting a broader understanding of the term. Rather, the evidence there is in the '749 patent supports the Court's construction. *See, e.g.,* Fig. 9; Fig. 14.

SO ORDERED.

A handwritten signature in black ink, appearing to read "Arun Subramanian", is positioned below the "SO ORDERED." text.

Arun Subramanian, U.S.D.J.

Date: January 17, 2025

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Ex. 1027 at 4 (cited in Sur-Reply, Paper 20 at 4)

“Surrounding” is a commonly understood word



“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”

Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005)

Case referenced Sur-Reply, Paper 20 at 4

“Surrounding” is a commonly understood word



Laypersons use the word “surrounding” in everyday parlance to mean “enclosing or encircling.” *See* Ex. 1027, 2; *see also* *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 290 F.Supp.2d 508, 521 (M.D. Pa. Nov. 7, 2003) (relying on general purpose dictionaries defining “surrounding” as “to be situated or found around, about, or in a ring around” or “to cause to be encompassed, encircled, or enclosed with something”).

Sur-Reply, Paper 20 at 4–5

The intrinsic record supports Nike's construction

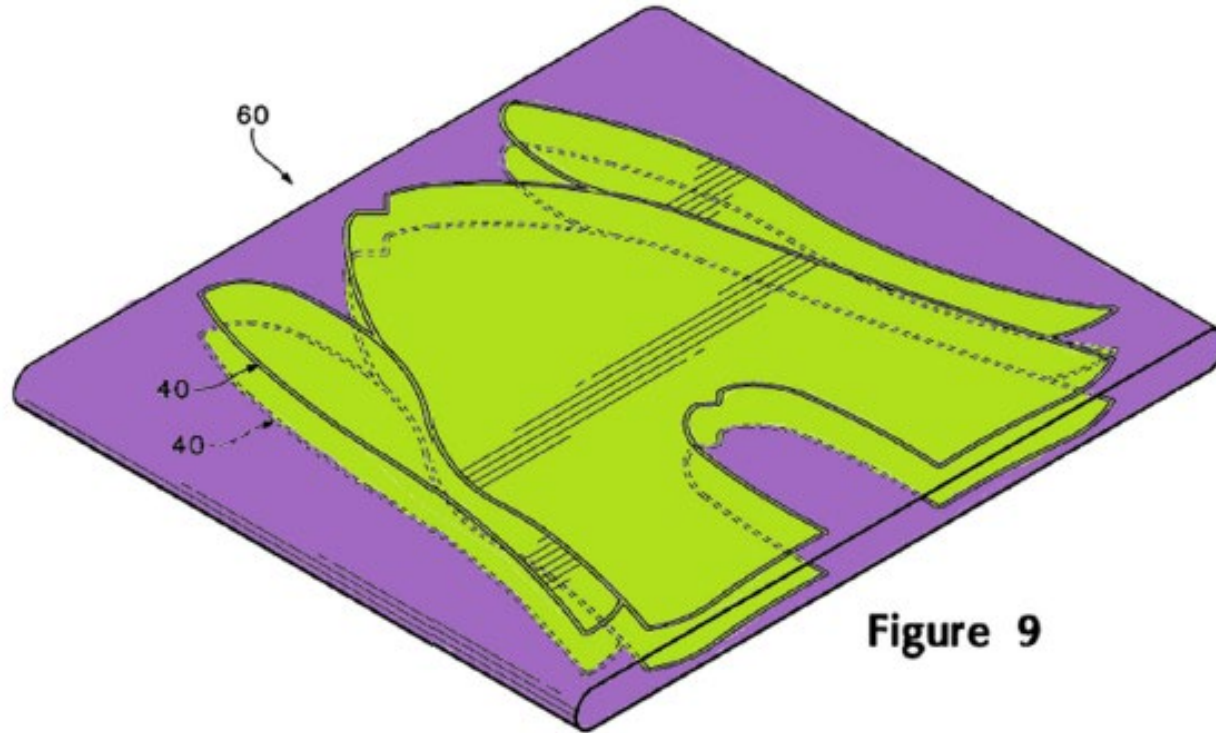


Figure 9

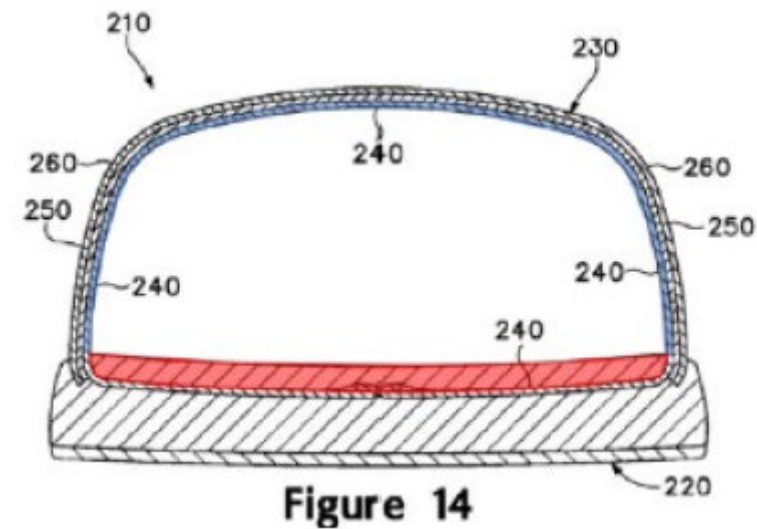
'749 Patent, Ex. 1001 at Fig. 9

The intrinsic record supports Nike's construction



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.

'749 Patent, Ex. 1001 at 10:45–48 (cited in Sur-Reply, Paper 20 at 5–6)



'749 Patent, Ex. 1001 at Fig. 14



Dr. Pastore testified that, if one end of the textile element 40 shown in Figure 9 of the '749 patent extended to the edge of the textile structure, the textile element could still have surrounding textile structure. Reply, 4 (citing Ex. 1025, 74:9–75:16). This is because even if one edge had no abutting textile structure, “that would still be mostly surrounded.” Ex. 1025, 74:9–75:16.

Sur-Reply, Paper 20 at 7



"Well, it wouldn't be completely surrounded, but I don't think the claim requires completely surrounded. So I suppose we would have to consider that to be surrounded as well."

Correct?

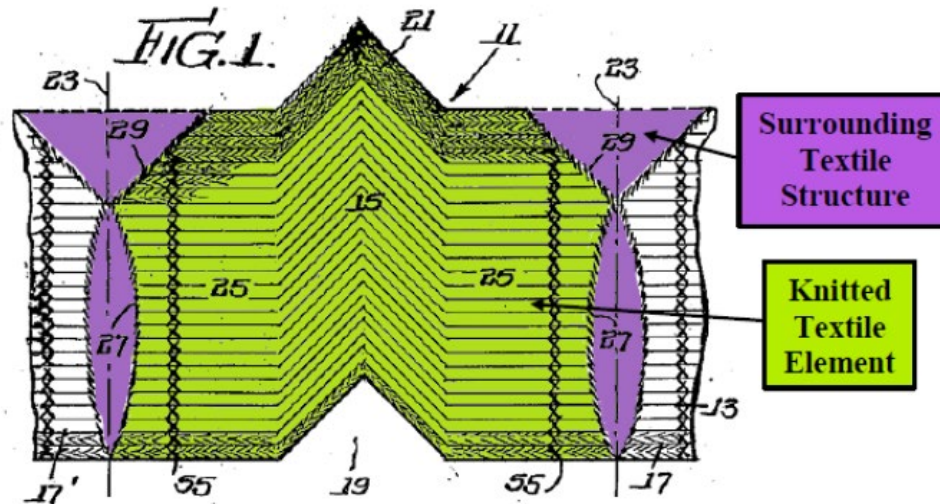
A. Correct.

Q. So in your opinion, if the edge went all the way down in Figure 9 as described in the deposition, that would still be mostly surrounded, correct?

MR. HARRIS: Objection, form, and scope.

THE WITNESS: Within this context, yes.

Ex. 1025 at 75:4–16 (cited in Sur-Reply, Paper 20 at 7)



Petition, Paper 1 at 59

53. Dr. Brookstein opines that the “portion of continuous strip 13 which surrounds blank 11” (shown in purple) is “a surrounding textile structure to the knitted textile element” (shown in green). I disagree. A POSITA at the relevant time would have understood that Zuckerman’s blank 11 is not knitted with a *surrounding* textile structure.

54. Zuckerman discloses two separate textile structures adjacent the blank—one on each side. And even if the two separate structures could be considered a single structure (which they cannot be), they abut only two sides of Zuckerman’s blank, with each structure abutting only about a quarter of the blank’s periphery. In my opinion, a POSITA would not have understood these two separate structures, designated by purple in the figure above, to be a textile structure “surrounding” the blank. Thus, Zuckerman does not disclose this limitation.

Pastore Decl., Ex. 2003 at ¶¶53–54 (cited in Sur-Reply, Paper 20 at 7)



Q. You just disagree that that fabric constitutes a surrounding textile structure, correct?

A. Correct.

Q. Now, your disagreement is based in part on your opinion that a person of ordinary skill in the art would understand that a surrounding textile structure extends around most or all of the periphery of the textile element, correct?

A. Correct.

Pastore Tr., Ex. 1026 at 51:17–52:5 (cited in Sur-Reply, Paper 20 at 7)



Nike's construction also conflicts with the goals of the '749 patent. According

* * *

However, requiring the surrounding textile structure to encircle "most" of the textile element's perimeter would exclude efficient layouts that encircle less of the perimeter, increasing waste and inefficiency. Nike's construction is therefore inconsistent with the '749 patent's purpose.

Reply, Paper 17 at 5

From the perspective of manufacturing, utilizing multiple materials to impart different properties to an article of foot-wear may be an inefficient practice.

'749 Patent, Ex. 1001 at 3:4–6 (cited in Sur-Reply, Paper 20 at 7)



“article of footwear”



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.

'749 Patent, Ex. 1001 at claim 1

13. A method of manufacturing an article of footwear, the method comprising:
knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure, 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;
removing the first and second knitted textile elements from the knitted textile structure;
incorporating at least one of the first and second knitted textile elements into the article of footwear.

'749 Patent, Ex. 1001 at claim 13



We conclude that Petitioner does not explain adequately why, on this record, a person of ordinary skill in the art would understand stockings to include a sole structure and an upper so as to be considered “an article of footwear” in the context of the ’749 patent.

Ex. 2006 at 14 (cited in POR, Paper 15 at 14)



**Ground 1: lululemon Fails To Show That Nishida Anticipates Claims
1–8 and 12–18**



Ground	35 U.S.C. §	Claims	Reference(s)
1	§ 102	1–8, 12–18	Nishida
2	§ 103	9–10, 19–20	Nishida
3	§ 102	1–3, 5–8, 11, 13–17, 21	Zuckerman
4	§ 103	3, 9–10, 14, 19–20	Zuckerman
5	§ 103	12	Zuckerman, Doughty
6	§ 103	11, 21	Nishida, Zuckerman



Nishida doesn't disclose "simultaneously knitting a textile element with a surrounding textile structure," recited in claims 1 and 13

“simultaneously knitting a textile element with a surrounding textile structure”



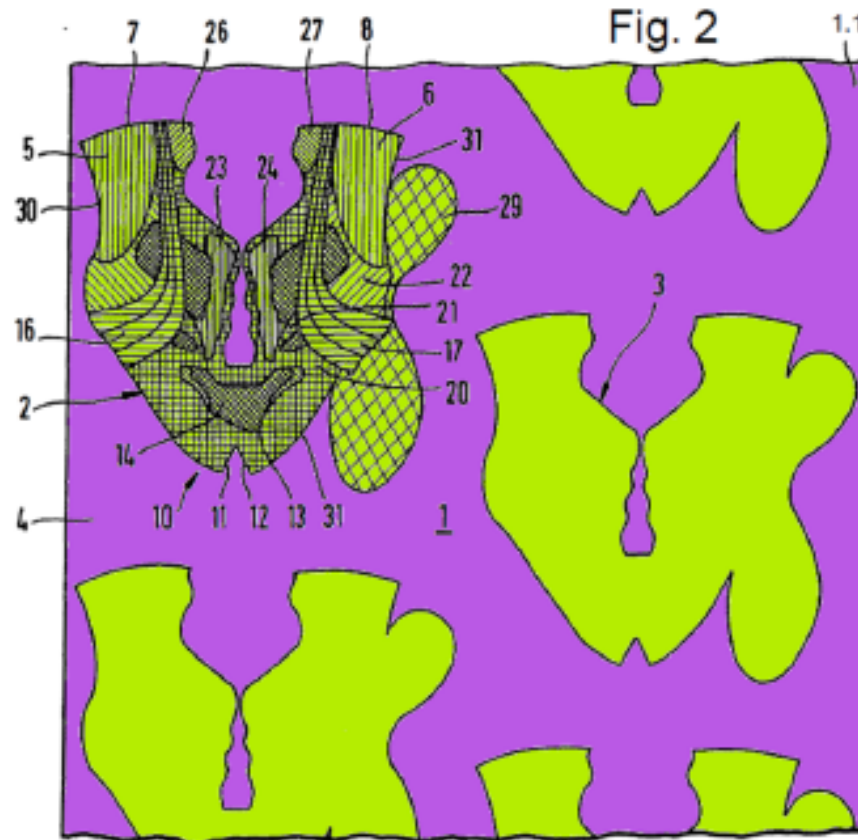
1. A method of manufacturing an article of footwear, the method comprising:
simultaneously knitting a textile element with a surrounding textile structure, the knitted textile element having at least one knitted texture that differs from a knitted texture in the surrounding knitted textile structure;
removing the knitted textile element from the surrounding knitted textile structure;
incorporating the knitted textile element into the article of footwear.

'749 Patent, Ex. 1001 at claim 1

13. A method of manufacturing an article of footwear, the method comprising:
knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure, 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;
removing the first and second knitted textile elements from the knitted textile structure;
incorporating at least one of the first and second knitted textile elements into the article of footwear.

'749 Patent, Ex. 1001 at claim 13

Nishida's material web 1 has two main components: base 4 and pattern elements 2



Nishida, Ex. 1005 at Fig. 2 (cited in Petition, Paper 1 at 38)

Nishida never discloses producing base 4 and pattern elements 2 in the *same* knitting process



41. In my opinion, Nishida does not disclose that pattern elements 2 and material web base 4 are *simultaneously* knitted. Instead, Nishida first produces a material web base and then produces the pattern elements on the preexisting base. *See* Ex. 1005 at 4–5. Nishida describes the construction of material web base 4 independently of pattern elements 2. For example, Nishida says that the base “may be a common woven or knitted fabric, e.g., consisting of warp and weft.” *Id.* at 5. Nishida then teaches printing or producing pattern elements 2 on the preexisting base. Specifically, the pattern elements 2 are printed using a fabric printing process or produced with a textile production process onto the preexisting base. *See id.* at 4–5, 7–9.

Pastore Decl., Ex. 2003 at ¶41 (cited in POR, Paper 15 at 19)

Nishida never discloses producing base 4 and pattern elements 2 in the same knitting process



The material web base 4 may be a common woven or knitted fabric, e.g., consisting of warp and weft. The unwound web part 2 is divided into different individual parts or areas, which are distinguished from each other by a different type of fabric and/or by different fibers or threads, e.g., of wool, wool with metal threads, silk, silk with metal threads or wool with synthetic fibers, and the like, and/or by different colors of the fibers or threads, including metal threads, or by different color prints and/or differently formed fiber strands or fiber strand compositions, such as twisted, processed in parallel, and the like.

Nishida, Ex. 1005 at 5 (cited in POR, Paper 15 at 18–19)

In Figs. 1 and 2, 1 indicates a material web which, during its production by a method customary in the textile industry, e.g., by weaving and/or knitting and/or embroidery, is provided with a single or a plurality of unwound web part(s) 2 for the shoe-upper shape 3, as shown, e.g., from the side in Fig. 3.

Nishida, Ex. 1005 at 5 (cited in POR, Paper 15 at 18–19)

Nishida never discloses producing base 4 and pattern elements 2 in the same knitting process



- during the production of the material web (1), both the patterns or partial patterns in the form of the shoe upper (3) unwound web part (2), as well as the patterns or partial patterns in the form of a sole part (29) are produced by a print process on the material web (1) and/or by a textile production method within the material web;

Nishida, Ex. 1005 at 9 (cited in POR, Paper 15 at 19)

and without waste of time. To this end, the invention proposes that, when the strip of material (1) is manufactured, the patterns (2) of the uppers are produced, at the same time as the strip of material (1) is produced, using different manufacturing techniques, such as different make-up, different yarn material, different color, different material thickness, single- or multi-layer material, etc., the patterns being cut from this strip and further worked to give shoe uppers.

Nishida, Ex. 1005 at Abstract (cited in Sur-Reply, Paper 20 at 10)

Nishida never discloses producing base 4 and pattern elements 2 in the same knitting process



42. Nishida explains that “the shoe upper or the associated sole part are produced in the required quality, thickness, multilayered, or the like,” while the “remaining area of the material web,” i.e. “surface areas 1.1,” are made of “simple, lightweight or inexpensive fabric quality.” Ex. 1005 at 4, 7. In my opinion, the mentions of producing “multilayered” pattern elements and the differential in quality between surface areas and the pattern elements means that the pattern elements are formed in a separate process from the material web base 4, which may be formed from “gauze or with a low to very low number of warps and/or wefts.” *Id.* In my opinion, Nishida uses material web base 4 as a mechanism for building pattern elements 2 by stacking layers of material formed by a number of processes, e.g., print processes or textile production methods (weaving and/or knitting and/or embroidering).

Pastore Decl., Ex. 2003 at ¶42 (cited in POR, Paper 15 at 19–20)

Nishida never discloses producing base 4 and pattern elements 2 in the same knitting process



In an advantageous further embodiment of the invention, the material web 1 is produced such that its surface areas 1.1, in which no unwound web part(s) 2 or tongue(s) 40 are provided, consist of a lightweight fabric quality being as simple and inexpensive as possible. For example, these surface areas 1.1 can be produced in the manner of a gauze or with a low to very low number of warps and/or wefts and/or, e.g., thin-threaded or the like. This ensures particularly efficient production of molded shoe parts, such as shoe uppers or shoe uppers in conjunction with soles and/or tongues, and the like.

Nishida, Ex. 1005 at 7 (cited in POR, Paper 15 at 19)



Q: So this document, Exhibit 9, is what you referred to in your report as the Nishida reference; is that right?

A: That is correct.

Q: It's actually an English translation of the Nishida reference?

A: It's a certified English translation, yes.

Q: Is it your opinion, Dr. Brookstein, that unwound parts number two disclosed in Nishida are simultaneously knit with the base material?

A: Not with the base material, no.

Q: No?

A: No.

Brookstein Tr., Ex. 2005 at 257:5–24 (cited in POR, Paper 15 at 21)



³ Nike doesn't dispute Nishida discloses that both the material web base 4 and pattern elements 2 may be knitted. Nike contends, however, that even if that is the case, those two components are formed in *separate* knitting processes, i.e., they are not simultaneously knitted, as recited in the claims.

Sur-Reply, Paper 20 at 13



And in an article that I co-authored in 1989, and which was published by the American Society of Mechanical Engineers, I describe and depict a process for knitting on top of an existing fabric. *Id.* at 2 (“Six layers of linear yarns can be assembled in various stacking sequences and stitched together by knitting needles piercing through the yarn layers.”), Fig. 8.

Pastore Decl., Ex. 2003 at ¶43 (cited in Reply, Paper 17 at 10)

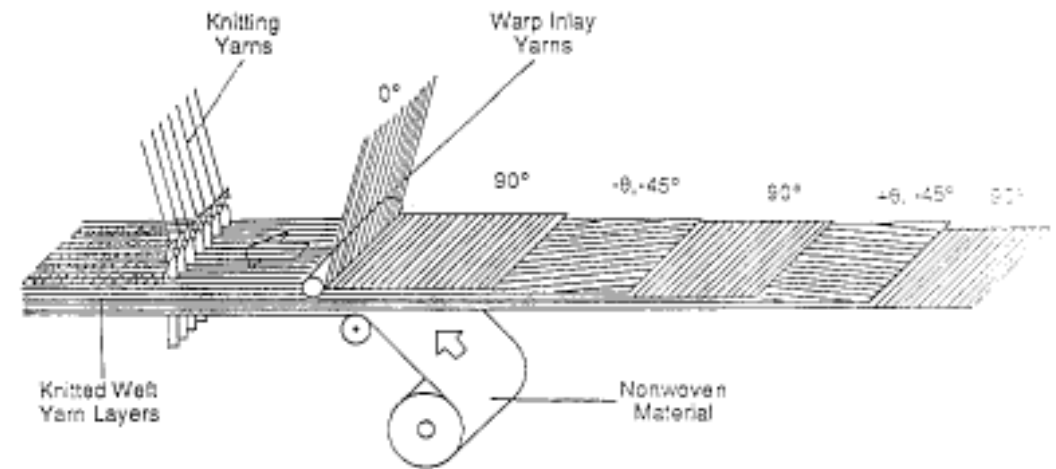


Figure 8. Process Schematic of Impaled MWK Fabric Production, Typical of LIBA or Hexcel Systems

Ex. 2010 at Fig. 8 (cited in Pastore Decl., Ex. 2003 at ¶43)



holding that “necessarily present” is more than “possibly present”

Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295 (Fed. Cir. 2002)

Case referenced POR, Paper 15 at 20



**Nishida doesn't disclose that the knitted textile element has a
“substantially planar configuration upon removal from the surrounding
knitted textile structure,” recited in claims 5 and 15**

“substantially planar configuration upon removal”



5. The method of claim 1, wherein the knitted textile element has a substantially planar configuration upon removal from the surrounding knitted textile structure.

'749 Patent, Ex. 1001 at claim 5

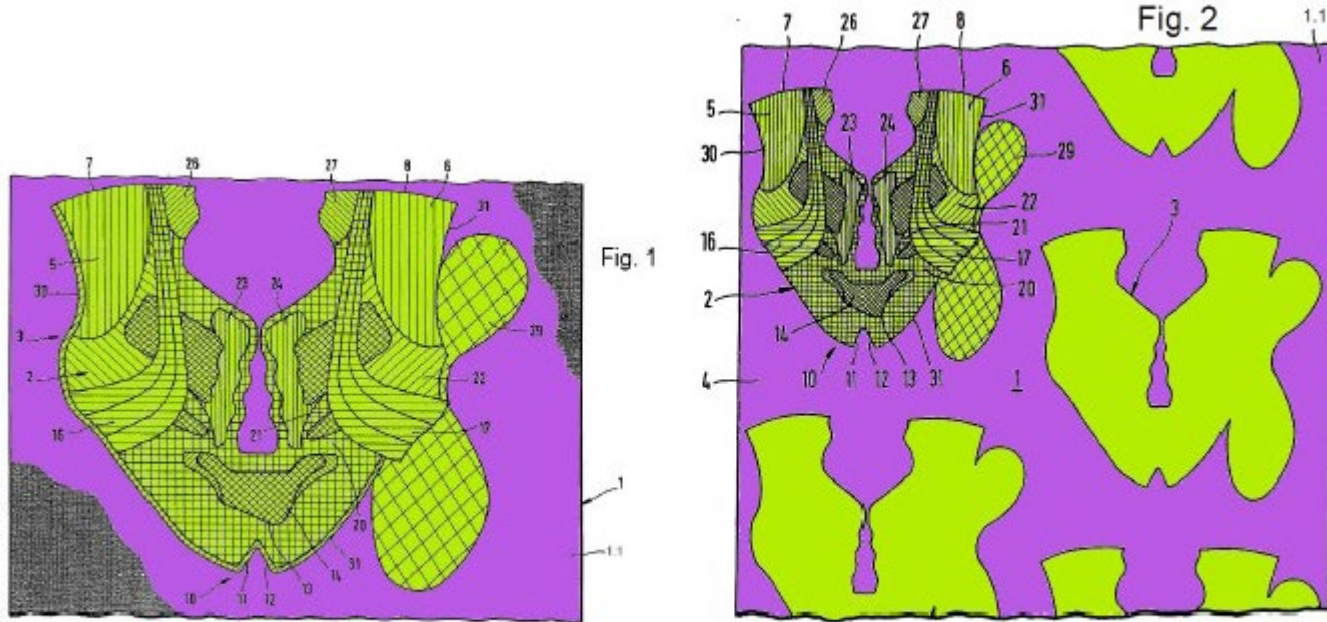
15. The method of claim 13, wherein the first and second textile knitted elements have substantially planar configurations upon removal from the surrounding knitted textile structure.

'749 Patent, Ex. 1001 at claim 15



47. Nishida's Figures 1 and 2 show pattern elements 2 formed on material web base 4. Neither Figures 1 and 2, nor any other disclosure in Nishida, shows the pattern elements after removal from material web 1. In my opinion, the varying processes that Nishida describes for forming pattern elements 2 may impart a curl or three-dimensional structure to a removed pattern element such that it is not substantially planar.

Pastore Decl., Ex. 2003 at ¶47 (cited in POR, Paper 15 at 23)



Figures 1 and 2 of Nishida (annotated)

Pastore Decl., Ex. 2003 at ¶46 (cited in POR, Paper 15 at 22)

Q: So these two figures don't show you what unwound web part 2 looks like upon removal from the material web; right?

A: That would be correct.

Brookstein Tr., Ex. 2004 at 101:20–24 (cited in POR, Paper 15 at 23)



Further, in my opinion, Nishida's disclosure of folding sole portion 29 "into the plane of the shoe sole" has no bearing on whether the pattern element 2 is substantially planar upon removal from material web 1. Of course additional shaping processes could be performed on pattern element 2, but that does not impact the shape of the unwound web part after removal from the material web.

Pastore Decl., Ex. 2003 at ¶47 (cited in POR, Paper 15 at 23)



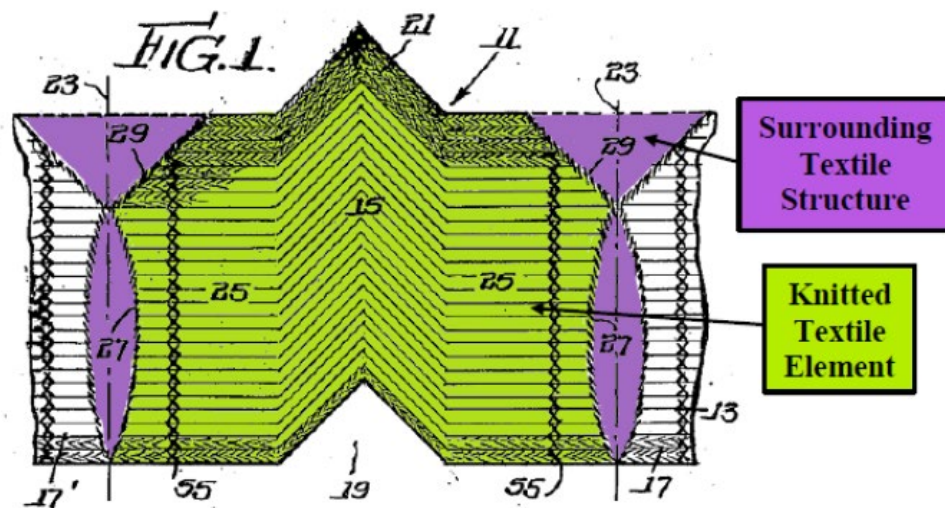
**Ground 3: lululemon Fails To Show That Zuckerman Anticipates
Claims 1–3, 5–8, 11, 13–17, and 21**



Ground	35 U.S.C. §	Claims	Reference(s)
1	§ 102	1–8, 12–18	Nishida
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5	§ 103	12	Zuckerman, Doughty
6	§ 103	11, 21	Nishida, Zuckerman



Zuckerman doesn't disclose "surrounding textile structure," recited in claims 1 and 13



Petition, Paper 1 at 59

53. Dr. Brookstein opines that the “portion of continuous strip 13 which surrounds blank 11” (shown in purple) is “a surrounding textile structure to the knitted textile element” (shown in green). I disagree. A POSITA at the relevant time would have understood that Zuckerman’s blank 11 is not knitted with a *surrounding* textile structure.

54. Zuckerman discloses two separate textile structures adjacent the blank—one on each side. And even if the two separate structures could be considered a single structure (which they cannot be), they abut only two sides of Zuckerman’s blank, with each structure abutting only about a quarter of the blank’s periphery. In my opinion, a POSITA would not have understood these two separate structures, designated by purple in the figure above, to be a textile structure “surrounding” the blank. Thus, Zuckerman does not disclose this limitation.

Pastore Decl., Ex. 2003 at ¶¶53–54 (cited in Sur-Reply, Paper 20 at 7)



55. I understand that Dr. Brookstein testified in deposition that Zuckerman’s strip 13 would still surround blank 11 even if it only had abutting material from which it was removed on one side of blank 11. Ex. 2004 at 35:7–36:2. In other words, if blank 11 were only removed from the purple portion shown on the right-hand side of annotated Figure 2. *Id.* In my opinion, a POSITA would not have considered this to be “surrounding textile structure.” Instead, a POSITA would have understood that a “surrounding textile structure” extends around most or all of the periphery of the textile element.

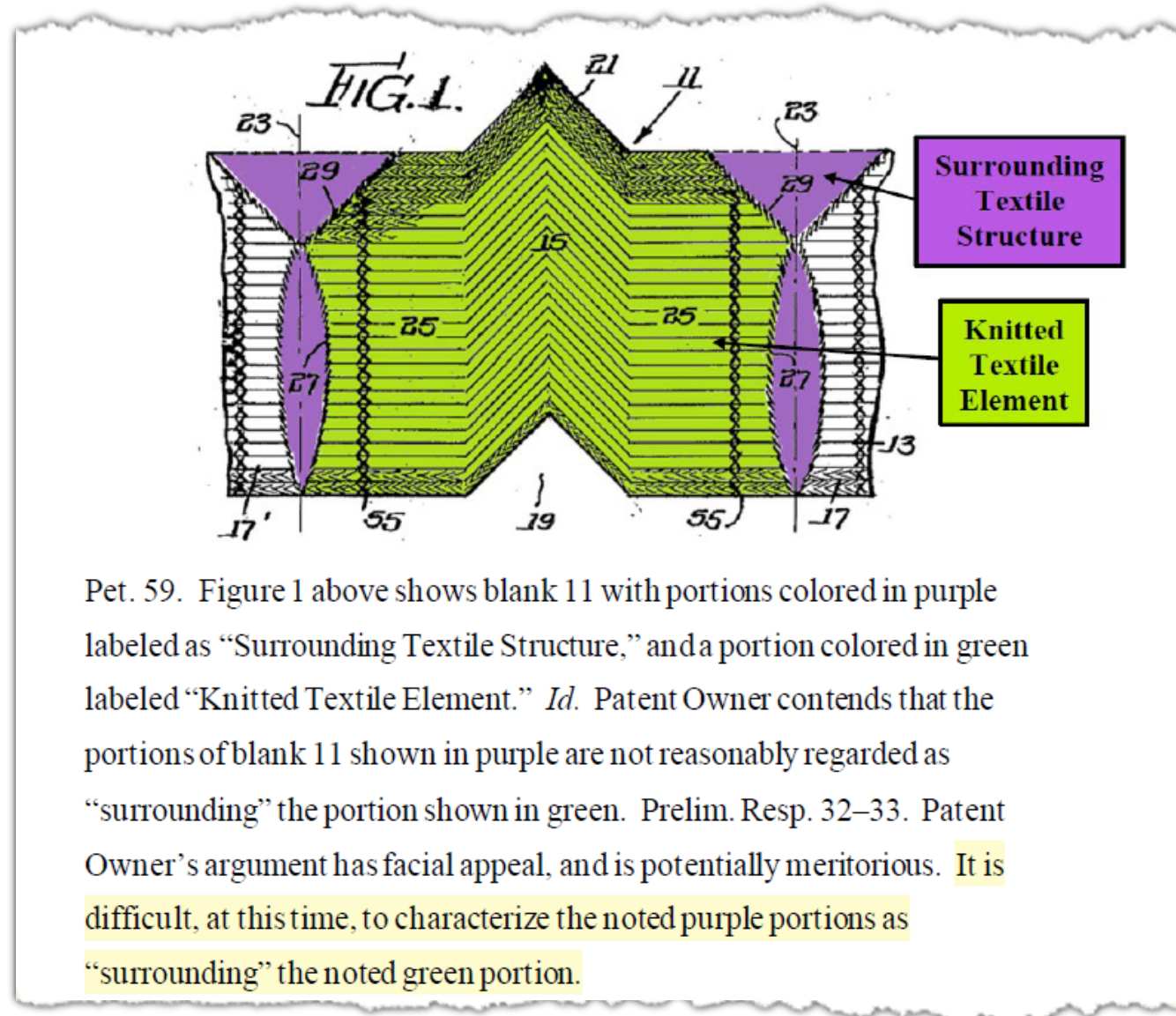
Pastore Decl., Ex. 2003 at ¶55 (cited in POR, Paper 15 at 26)

Q: And if you would imagine with me that only one side of a Blank 11 was cut away, so let’s say that the purple on the left side of Figure 1 isn’t there, and in order to make a blank, we’re only going to cut away the purple on the right side, would the Blank 11 be surrounded by the purple portion only on the right side of the figure?

Mr. Razai: Objection to form.

A: The textile element would be a surrounded textile element on the – I don’t know if you said the left side or the right side. But that side that the purple’s on.

Brookstein Tr., Ex. 2004 at 35:10–25 (cited in POR, Paper 15 at 26)



Institution Decision, Paper 8 at 26



Zuckerman doesn't disclose "incorporating the textile element into the article of footwear," recited in claims 1 and 13

“incorporating” the “textile element” into “the article of footwear”



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.

'749 Patent, Ex. 1001 at claim 1

13. A method of manufacturing an article of footwear, the method comprising:
knitting a first textile element and a second textile element simultaneously with knitting a surrounding textile structure, 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;
removing the first and second knitted textile elements from the knitted textile structure;
incorporating at least one of the first and second knitted textile elements into the article of footwear.

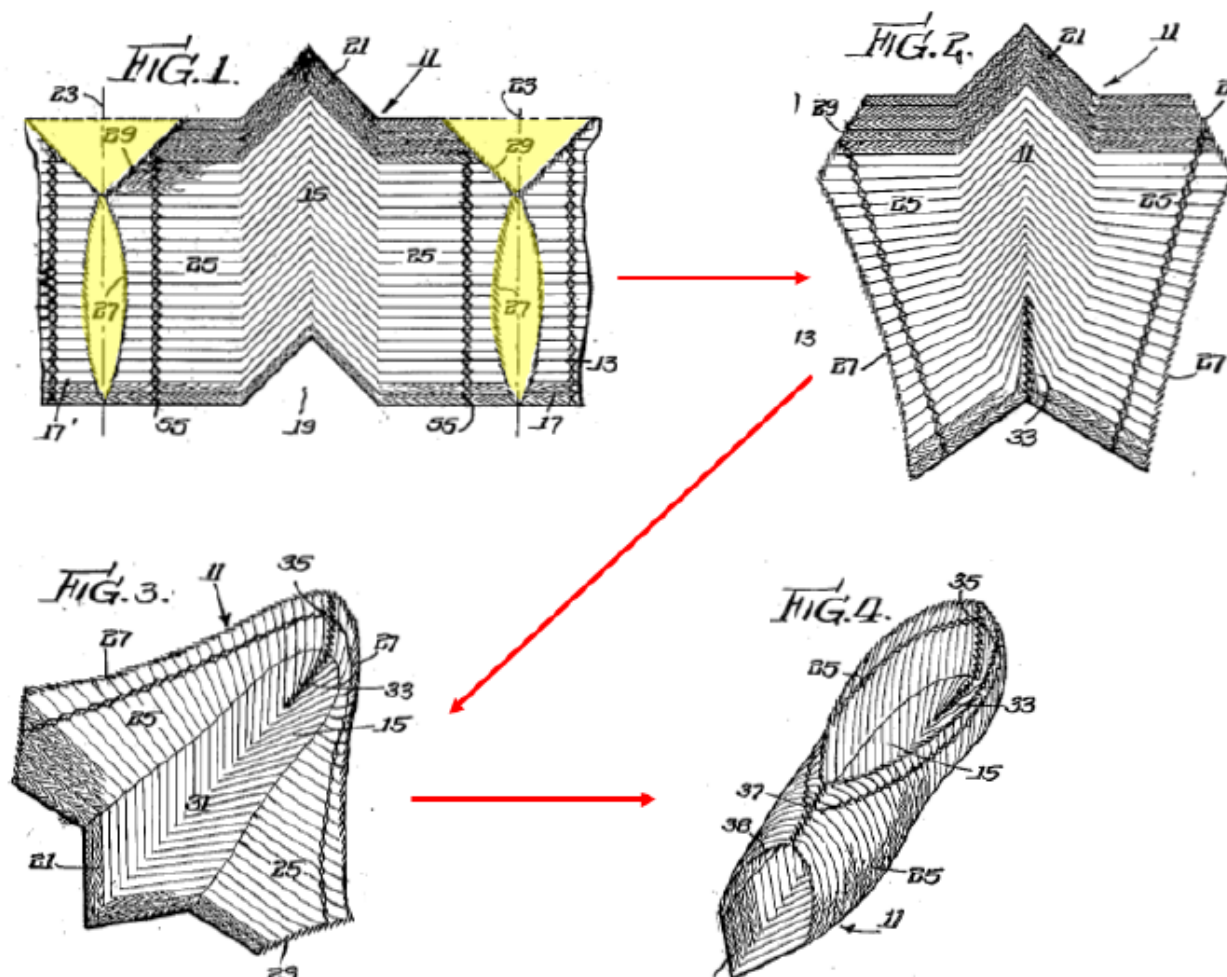
'749 Patent, Ex. 1001 at claim 13



There is no dispute that Zuckerman’s slipper constitutes an “article of footwear” that includes both an upper and a sole structure. *See* Reply, 20; Ex. 1026, 56:4–7. The parties dispute, however, whether claims 1 and 13 require incorporation of the textile element into a *separate* sole structure. Nike contends that, in the context of the ’749 patent, they do. This understanding is consistent with and supported by the plain language of the claims and the specification.

Sur-Reply, Paper 20 at 18

Zuckerman's Figures 1-4 show how its slipper is made



Figures 1-4 of Zuckerman

Zuckerman, Ex. 1008 at Figs. 1-4 (cited in POR, Paper 15 at 11)



57. In my opinion, Zuckerman does not disclose “incorporating the knitted textile element into the article of footwear,” as recited in claim 1. Zuckerman also fails to disclose a similar limitation in claim 13. Zuckerman’s blank 11 (“knitted textile element”) is not incorporated into an article of footwear—it is an “article of footwear,” as that term is properly construed. *See supra* § VIII.

Pastore Decl., Ex. 2003 at ¶57 (cited in POR, Paper 15 at 28)



The ‘749

patent further describes a separate sole structure (*e.g.*, Fig. 12, item 120) to which the upper is attached. *Id.*, 10:8–31. Thus, it is my opinion that Zuckerman does not disclose this limitation.

Pastore Decl., Ex. 2003 at ¶61 (cited in Sur-Reply, Paper 20 at 19)



The “incorporation” step requires a separate sole structure

In another aspect of the invention, an article of footwear has an upper and a sole structure secured to the upper. The

'749 Patent, Ex. 1001 at 3:48–49 (cited in Sur-Reply, Paper 20 at 19)

1 as being a sole structure 20 and an upper 30. Sole structure 20 is secured to a lower portion of upper 30 and provides a durable, wear-resistant component that imparts cushioning as footwear 10 impacts the ground. Upper 30 is at least partially

'749 Patent, Ex. 1001 at 4:44–45 (cited in Sur-Reply, Paper 20 at 19)

Sole structure 20 has a generally conventional configuration that includes a midsole 21 and an outsole 22. Midsole 21 is secured to a lower portion of upper 30 and is formed of a polymer foam material, such as ethylvinylacetate or polyurethane. Accordingly, midsole 21 attenuates ground reaction

'749 Patent, Ex. 1001 at 4:55–59 (cited in Sur-Reply, Paper 20 at 19)



The “incorporation” step requires a separate sole structure

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.

'749 Patent, Ex. 1001 at 8:6-8 (cited in Sur-Reply, Paper 20 at 20)

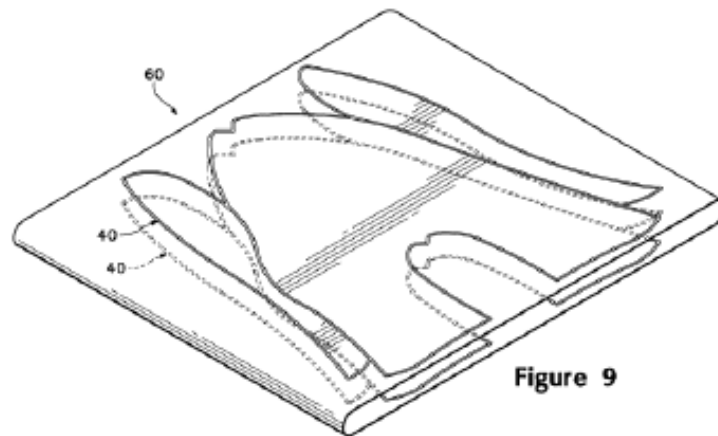


Figure 9

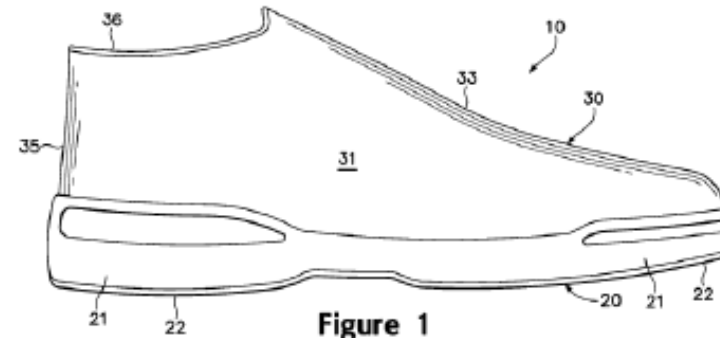


Figure 1

'749 Patent, Ex. 1001 at Figs. 1, 9 (cited in Sur-Reply, Paper 20 at 20)



60. Dr. Brookstein opines that, because other components—like a “toe covering portion”—may be added to Zuckerman’s slipper, the slipper is incorporated into the article of footwear. Ex. 1003 at ¶149 (citing Zuckerman at Fig. 7). I disagree. In my opinion, Zuckerman’s toe covering portion 47 or other adornments (e.g., edge 53 and pom-pom 51) shown in Figure 7 below are merely decorative finishings on Zuckerman’s shoe.

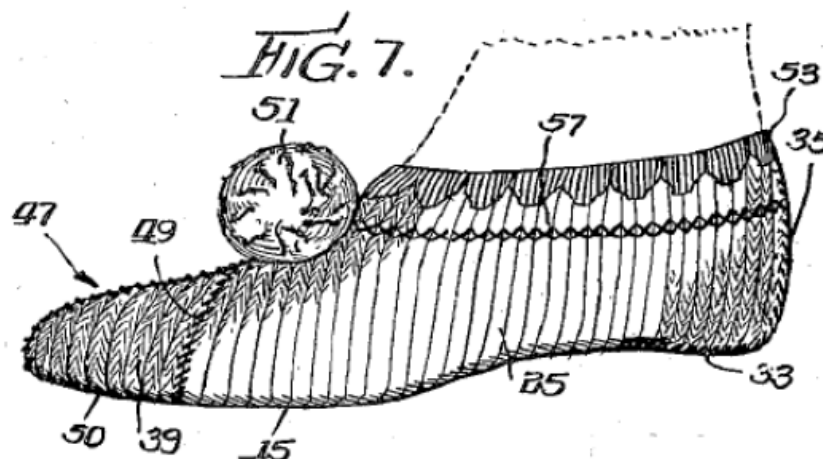


Figure 7 of Zuckerman

Pastore Decl., Ex. 2003 at ¶60 (cited in POR, Paper 15 at 28)



Q: And Figure 4 is still an incomplete article of footwear, correct?

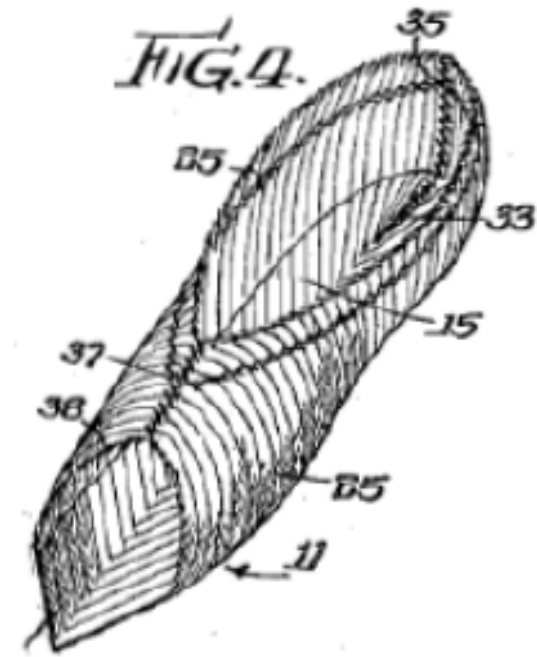
Ms. Staubach: Objection, form.

A: Figure 4 shows us the completed article of footwear.

Q: Why do you say Figure 4 is a completed article of footwear?

A: That is ready to wear. The toe can be sewn up, but as it is, it could be worn.

Pastore Tr., Ex. 1026 at 58:8–17 (cited in Sur-Reply, Paper 20 at 19)



Zuckerman, Ex. 1008 at Fig. 4 (cited in Sur-Reply, Paper 20 at 19)



Zuckerman doesn't disclose "knitting an outline," recited in claims 3 and 14



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.

'749 Patent, Ex. 1001 at claim 3

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.

'749 Patent, Ex. 1001 at claim 14



64. Dr. Brookstein purports to show a knitted outline in Zuckerman's Figure 1 by drawing a red outline (red) around blank 11. Ex. 1003 at ¶153. In my opinion, this annotated figure demonstrates that the upper and lower edges of blank 11 are not surrounded by any textile material within which a knitted outline would appear.

Pastore Decl., Ex. 2003 at ¶64 (cited in POR, Paper 15 at 30)

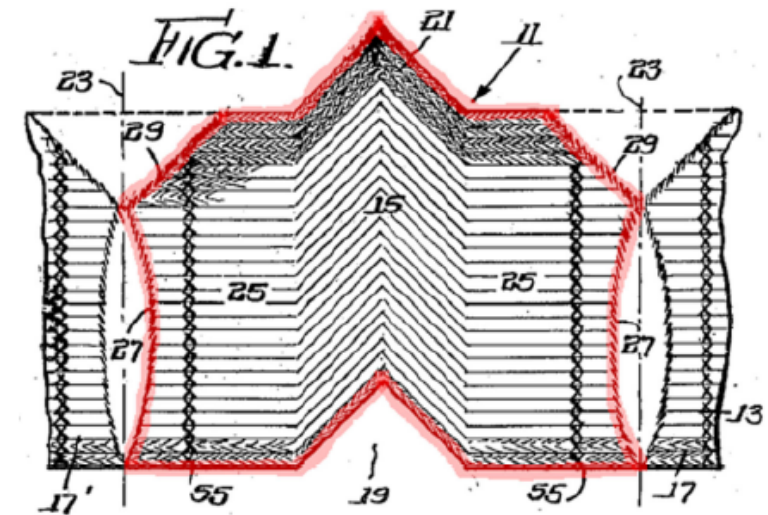


Figure 1 of Zuckerman (annotated)

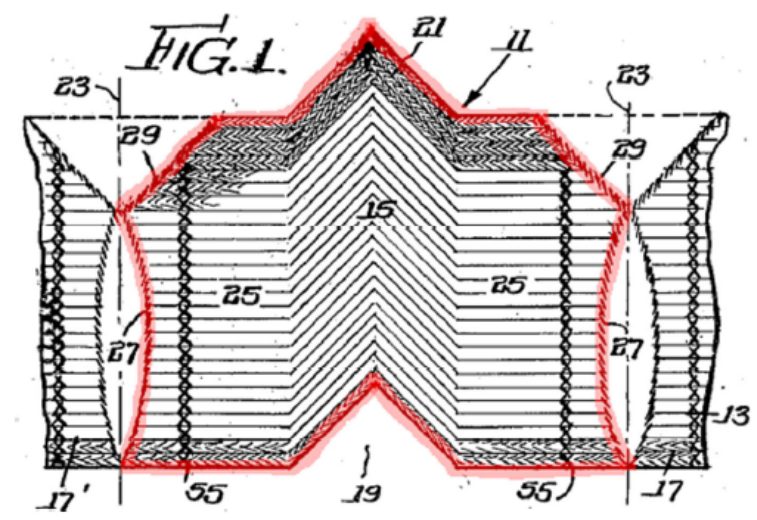
Pastore Decl., Ex. 2003 at ¶64 (cited in POR, Paper 15 at 30)



lululemon's entire argument:

D. Claim 3

Zuckerman discloses claim 3. Ex.1003, ¶¶152-153. Zuckerman provides that the simultaneously knitting includes knitting an outline (red) of the knitted textile element:

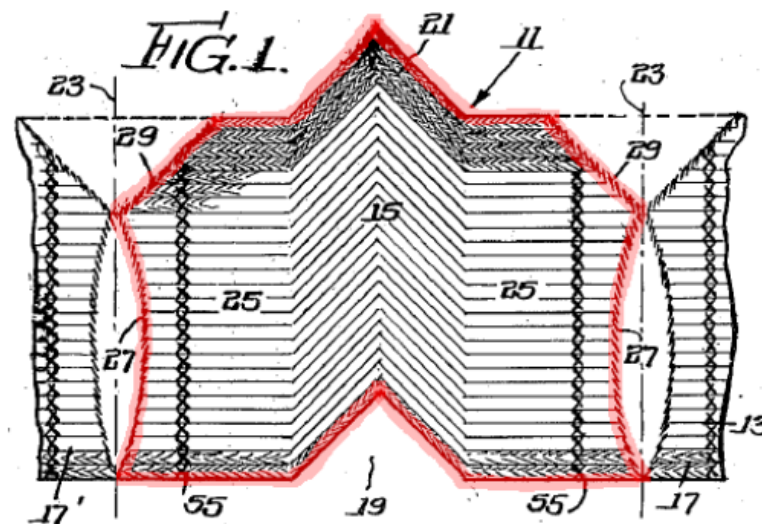


Ex.1008, Fig. 1 (annotated). As can be seen, Zuckerman discloses varying the stitches throughout continuous strip 13 to form an outline of the knitted textile element (blank 11) along lines 29 and 27. Ex.1003, ¶153.



Dr. Brookstein's opinion:

153. Zuckerman discloses claim 3. Zuckerman describes that the simultaneous knitting includes knitting an outline of the knitted textile element. Such an outline (colored red) of the knitted textile element is illustrated below.



Ex.1008, Fig. 1 (annotated). This figure shows varying stitches throughout continuous strip 13, forming an outline of the knitted textile element (blank 11) along lines 27 and 29. Thus, Zuckerman discloses claim 3.

Brookstein Decl., Ex. 1003 at ¶153 (cited in Petition, Paper 1 at 64)



65. Neither lululemon nor Dr. Brookstein point to anything aside from Figure 1 in Zuckerman as disclosing a knitted outline. Petition at 64; Ex. 1003 at ¶153. And Zuckerman never discloses that edges 27 and 29 are cut along a knitted outline. Zuckerman only describes edges 27 and 29 as cut edges or raw edges. E.g., Ex. 1008 at 2(L):22–34, 2(R):27–31, 2(R). In my opinion, this doesn't mean that there was a knitted outline where edges 27 and 29 were cut.

Pastore Decl., Ex. 2003 at ¶65 (cited in POR, Paper 15 at 31)

gularly arranged ribs thereof meet. The opposite cut edges of the blank are preferably formed as shown in Figure 1 of the drawing, the edges being curved inwardly toward the herring bone portion 15 as at 27 from the side of the blank containing the notches 19 toward the side of the blank containing the projections 21, the remaining edge being cut on a slant as shown at 29. The curved cut edges 27 at opposite ends of the blank co-operate to form the ankle receiving opening in the finished article while the diagonally cut edges 29 are secured together to form an instep covering portion.

Zuckerman, Ex. 1008 at 2(L):22–34

The slipper, if desired, may be embellished with a pom-pom 51 and it is preferable to pipe or otherwise finish the raw edges 27, which define the ankle opening as shown at 53 in order to prevent the knitted fabric from unravelling. A

Zuckerman, Ex. 1008 at 2(R):27–31



**Zuckerman doesn't disclose that the knitted textile element has a
“substantially planar configuration upon removal from the surrounding
knitted textile structure,” recited in claims 5 and 15**

“substantially planar configuration upon removal”



5. The method of claim 1, wherein the knitted textile element has a substantially planar configuration upon removal from the surrounding knitted textile structure.

'749 Patent, Ex. 1001 at claim 5

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.

'749 Patent, Ex. 1001 at claim 15



68. First, lululemon and Dr. Brookstein allege that Zuckerman's blank must be substantially planar because it is cut from a "strip of fabric." Petition at 64–65; Ex. 1003 at ¶155. Dr. Brookstein opines that the term "strip" mean "a long, narrow piece," and the term "fabric" means "the piece has length and width but limited thickness," which together forms a "flat piece of fabric and a plane." Ex. 1003 at ¶155. Dr. Brookstein provides no citations in support of his proposed definition of "strip of fabric." *Id.* I disagree with Dr. Brookstein's definition of "fabric." It is not clear what "limited thickness" means. To the extent Dr. Brookstein opines that the thickness of a fabric must be smaller than its length or width, I disagree. Nonetheless, in my opinion, Zuckerman's disclosure of a "strip of fabric" has no particular significance as to whether Zuckerman's blank 11 is substantially planar upon removal from the knitted strip 13.

Pastore Decl., Ex. 2003 at ¶168 (cited in POR, Paper 15 at 32)



69. Second, lululemon and Dr. Brookstein allege that Figure 1 shows a substantially planar knitted strip 13. Petition at 64–65; Ex. 1003 at ¶155. Figure 1 does not show blank 11 after removal from strip 13. Ex. 1008 at Fig. 1. And, in my opinion, it is unclear from Figure 1 that knitted strip 13 is substantially planar.

Pastore Decl., Ex. 2003 at ¶169 (cited in POR, Paper 15 at 32)



70. Third, lululemon and Dr. Brookstein allege that Zuckerman meets this limitation because it discloses joining edges of blank 11 “to form a rounded heel portion.” Petition at 65. Dr. Brookstein opines that the introduction of a “non-planar structure,” i.e., rounded heel portion, means that blank 11 has a substantially planar configuration upon removal from strip 13. Id.; Ex. 1003 at ¶156. In my opinion, stitching together seam 33 (see Zuckerman’s Figure 2 below) to “form a rounded heel portion” is entirely independent of the shape blank 11 takes upon removal from strip 13. Zuckerman never shows blank 11 after removal from strip 13, but before heel seam 33 is joined. Therefore, in my opinion, none of these disclosures establish that Zuckerman’s blank 11 is substantially planar upon removal from strip 13.

Pastore Decl., Ex. 2003 at ¶70 (cited in POR, Paper 15 at 33)

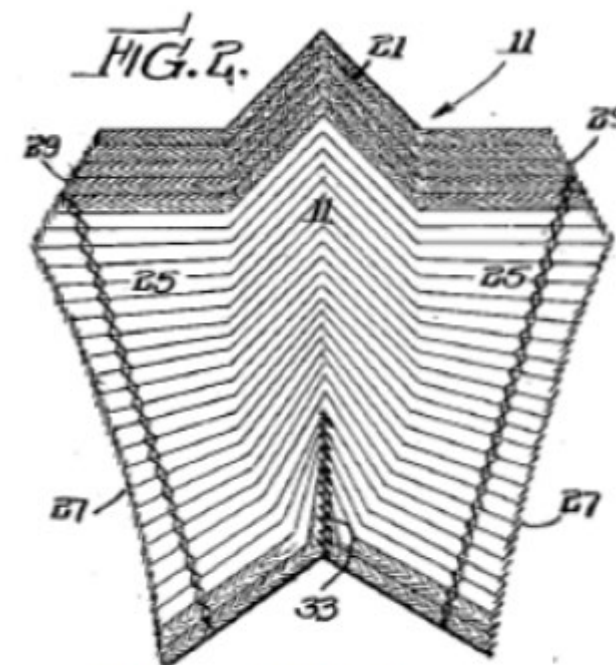


Figure 2 of Zuckerman

Zuckerman, Ex. 1008 at Fig. 2



**Ground 4: lululemon Fails To Show That Zuckerman Renders Obvious
Claims 3, 9–10, 14, and 19–20**



Ground	35 U.S.C. §	Claims	Reference(s)
1	§ 102	1–8, 12–18	Nishida
2	§ 103	9–10, 19–20	Nishida
3	§ 102	1–3, 5–8, 11, 13–17, 21	Zuckerman
4	§ 103	3, 9–10, 14, 19–20	Zuckerman
5	§ 103	12	Zuckerman, Doughty
6	§ 103	11, 21	Nishida, Zuckerman



**Zuckerman doesn't teach or suggest "knitting an outline," recited in claims
3 and 14**



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.

'749 Patent, Ex. 1001 at claim 3

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.

'749 Patent, Ex. 1001 at claim 14

lululemon simply states that a POSITA would have understood “how to knit an outline”



A POSA would have also understood how to knit an outline as part of a knit structure and the benefits of incorporating such an outline into a knit structure like Zuckerman's. *Id.*, ¶182.

Petition, Paper 1 at 74

It would
have been known by a POSA prior to 2004 how to knit an outline as part of a knit structure like Zuckerman's and the benefits of incorporating such an outline into a knit structure like Zuckerman's.

Brookstein Decl., Ex. 1003 at ¶182 (cited in Petition, paper 1 at 74)



This is evidenced by **Spencer (Ex.1009)**, which is a widely used reference book about knitting technology and commonly used in college courses that teach knitting. Spencer describes outlines in multiple chapters and highlights uses and benefits of outlines which would be generally known to a POSA. *See e.g.*, Ex.1009, **184** ("28 gauge (E 14) pillar inlay using outline threads [Karl Mayer]"), **30** ("cutting around the outline after finishing"), **90** ("[c]utting-out techniques vary widely, from marked lays whose outlines are followed by hand-guided cutting knives"), **106** ("production of a firm starting welt" where "[a] *welt* is an attractive and secure edge of a knitted article that helps to prevent laddering or unroving of a structure").

Brookstein Decl., Ex. 1003 at ¶182 (cited in Petition, Paper 1 at 74)



It is also possible to produce length sequences such as scarves with fringed ends, articles produced on double needle bar raschels based on the tubular knitting principle, and scalloped shaping of net designs by cutting around the outline after finishing.

Spencer, Ex. 1009 at 30 (cited in Petition, Paper 1 at 74)

Zuckerman's knitted strip 13. On page 30, Spencer refers to "scalloped shaping of net designs by cutting around the outline after finishing." Ex. 1009 at 30. Spencer gives no indication that this mention of an "outline" even refers to a knitted outline.

Pastore Decl., Ex. 2003 at ¶75 (cited in POR, Paper 15 at 35)



Cutting-out techniques vary widely, from marked lays whose outlines are followed by hand-guided cutting knives, to press cutter blades shaped to the outline of the garment part, and cutting blades guided by a computerised programme.

Spencer, Ex. 1009 at 90 (cited in Petition, Paper 1 at 74)

On page 90, Spencer refers to outlines of “marked lays” and “press cutter blades,” but these are items which are laid on top of a fabric, not knitted in the fabric.

Pastore Decl., Ex. 2003 at ¶75 (cited in POR, Paper 15 at 35)

Q: But a marked lay or a cutter blade are things that are laid on top of a fabric, right?

A: A cutter blade is not laid on top of a fabric.

Q: Well, it's initially set on top of a fabric and then forced through, right?

A: My understanding, yes.

Q: But neither of those are knitted outlines?

A: No. They're marked. They're marked.

Brookstein Tr., Ex. 2004 at 64:10–22 (cited in POR, Paper 15 at 35)



A *welt* is an attractive and secure edge of a knitted article that helps to prevent laddering or unroving of a structure. It is formed either during the knitting sequence (usually at the start, and parallel to the courses), or as a later seaming operation during making-up.

Spencer, Ex. 1009 at 106 (cited in Petition, Paper 1 at 74)

On page 106, Spencer refers to a “welt.” *Id.* at 106. Based on my experience, a “welt” is not an outline demarcating a textile element from a surrounding textile structure, it is the edge of a fabric.

Pastore Decl., Ex. 2003 at ¶75 (cited in POR, Paper 15 at 35)

Q: Page 106 of Spencer never talks about a welt being a knitted outline within a surrounding textile structure; right?

A: That is correct.

Brookstein Tr., Ex. 2004 at 69:23–70:2 (cited in POR, Paper 15 at 35)

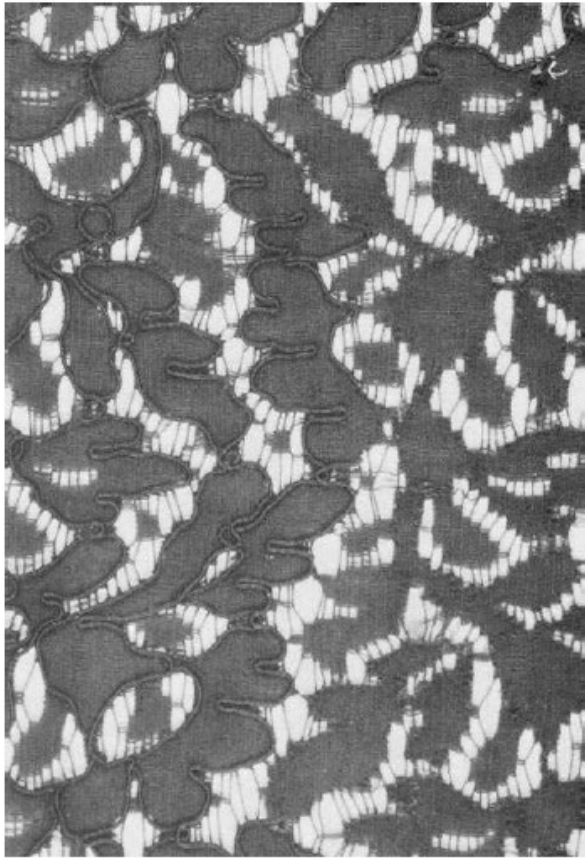


Fig. 28.6 28 gauge (E 14) pillar inlay using outline threads [Karl Mayer].

And finally, on page 184, Spencer discusses creating decorative lace on a raschel machine. *Id.* at 184.

Pastore Decl., Ex. 2003 at ¶75 (cited in POR, Paper 15 at 35)

Spencer, Ex. 1009 at 184 (cited in Petition, Paper 1 at 74)

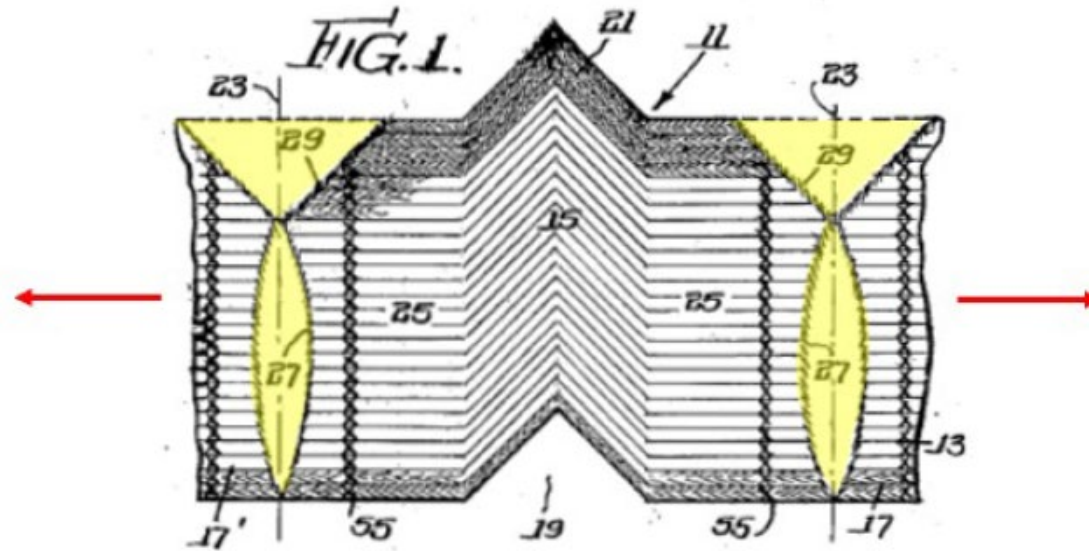


common sense or general knowledge “cannot be used as a wholesale substitute for reasoned analysis and evidentiary support, especially when dealing with a limitation missing from the prior art”

Arendi S.A.R.L. v. Apple Inc., 832 F.3d 1355, 1361–62 (Fed. Cir. 2016)

Case referenced POR, Paper 15 at 34

No motivation to knit an outline in Zuckerman's knitted strip



Zuckerman, Ex. 1008 at Fig. 1 (cited in Pastore Decl., Ex. 2003 at ¶74)

In my opinion, this projection and recess would have provided self-aligning features against which a POSITA could line up a fabric lay or a cutting die to remove blank 11 from knitted strip 13. And in my opinion, these methods of removal would have been far simpler than programming a knitting machine to change the stitching patterns within knitted strip 13 to form a knitted outline of blank 11.

Pastore Decl., Ex. 2003 at ¶75 (cited in POR, Paper 15 at 35)



**Ground 5: lululemon Fails To Show That Zuckerman in View of
Doughty Renders Obvious Claim 12**



Ground	35 U.S.C. §	Claims	Reference(s)
1	§ 102	1–8, 12–18	Nishida
2	§ 103	9–10, 19–20	Nishida
3	§ 102	1–3, 5–8, 11, 13–17, 21	Zuckerman
4	§ 103	3, 9–10, 14, 19–20	Zuckerman
5	§ 103	12	Zuckerman, Doughty
6	§ 103	11, 21	Nishida, Zuckerman



No motivation to secure Doughty’s “sole structure” to Zuckerman’s “upper



78. In my opinion, a POSITA in 2004 would not have been motivated to attach Doughty's sole structure to Zuckerman's slipper because it "permits easy washing." Zuckerman's slipper permits easier washing without having a sole structure attached. For example, the "stitching, sewing, or seaming" used to fasten Doughty's sole structure to its sock would need to be undone before the sock could be washed. Ex. 1017 at 3:73–4:1.

Pastore Decl., Ex. 2003 at ¶78 (cited in POR, Paper 15 at 37)



Q: You're proposing that it would be easy to wash because you could remove the sole by dissolving the stitches?

A: Easier.

Q: Easier than what?

A: Than washing it with the sole.

Brookstein Tr., Ex. 2004 at 78:19–79:1 (cited in POR, Paper 15 at 37)



79. In my opinion, a POSITA in 2004 would not have been motivated to attach Doughty's sole structure to Zuckerman's slipper because it would "reduce wear" on Zuckerman's slipper. Zuckerman envisages and structurally accounts for the bottom of its slipper functioning as a sole structure. Zuckerman at 2(L):39–44. Specifically, Zuckerman describes that sole portion 15 of its slipper is "heavier" and "more durable than that used in the remaining portions of the blank" so that it may withstand "heavy wear." *E.g.*, Ex. 1008 at Fig. 4, 1(L):27–32, 2(L):35–52. Thus, it would have been unnecessary to attach a sole structure to Zuckerman's slipper to enhance durability of the sole.

Pastore Decl., Ex. 2003 at ¶79 (cited in POR, Paper 15 at 38)



The herring bone portion forms the sole in the finished slipper and is preferably knitted from preferably dark colored yarn to contrast with lighter colored yarn of which the remainder of the blank is preferably made. The yarn, forming the sole portion 15, also may be heavier and more durable than that used in the remaining portions of the blank which, of course, form the upper in the finished article and are not subjected to the heavy wear which takes place in the sole. If desired, an extra thread or threads may be knitted into the fabric in forming the sole portion in order to re-enforce the same and the stitches in the sole portion in a zone 31 midway of the opposite ends of the sole portion may be knitted more tightly in order to shape the sole slightly by making it narrower in the instep portions between the toe and heel as shown in Figure 3.

Zuckerman, Ex. 1008 at 2(L):35-52 (cited in POR, Paper 15 at 37)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on May 5, 2025, I caused a true and correct copy of **PATENT OWNER'S DEMONSTRATIVE EXHIBITS** to be served by electronic mail on Petitioners' counsel at the following email addresses:

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