UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEW BALANCE ATHLETICS, INC.,

Petitioner,

v.

NIKE, INC.,

Patent Owner.

Case IPR2025-00020
Patent No. 8,898,932

DECLARATION OF M. COLEMAN HORN, IN SUPPORT OF NIKE, INC.'S PATENT OWNER'S PRELIMINARY RESPONSE

New Balance v. NIKE
IPR2025-00020
Patent No. 8,898,932
Ex. 2001

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IX. GROUNDS 1 AND 2: THE COMBINATION OF BECKER AND EITHER DOJAN OR WILDEMAN DOES NOT TEACH OR SUGGEST THE ELEMENTS OF INDEPENDENT CLAIM 11 17

A. Becker does not teach or suggest a "skin layer being absent from the ankle part of the knitted component," as recited in claim 11 17

B. The combination of Becker and either Dojan or Wildeman does not render obvious "a skin layer that is thermally bonded to the knitted component," as recited in claim 11 24

X. GROUND 3: THE COMBINATION OF FARYS AND THE KNOWLEDGE OF A POSITA DOES NOT RENDER OBVIOUS INDEPENDENT CLAIM 11 27

A. New Balance does not address how Farys teaches or suggests "an upper and a sole structure secured to the upper," as recited in claim 11 27

B. The combination of Farys and the knowledge of a POSITA does not render obvious a "skin layer being absent from the ankle part of the knitted component," as recited in claim 11 28

XI. CONCLUSION 30

I, M. Coleman Horn, declare as follows:

I. INTRODUCTION

1. I have been retained by Nike ("Patent Owner") as an independent expert in this *inter partes* review ("IPR") proceeding before the Patent Trial and Appeal Board ("PTAB"), which I understand involves U.S. Patent No. 8,898,932 (the "'932 patent"). I am being compensated for my time at my usual consulting rate of $660 per hour for my work associated with this matter. No part of my compensation is dependent on the outcome of this proceeding, and I have no other interest in this proceeding.

2. I understand that this proceeding involves Claims 11-15 (the "Challenged Claims") of the '932 Patent. I further understand that Petitioner New Balance Athletics, Inc. ("New Balance") raises three grounds in the Petition for *Inter Partes* Review, each against the challenged independent claim of the '932 Patent—independent claim 11. These grounds rely on the following prior art references:

Reference	Exhibit
U.S. Patent App. Pub. No. 2010/0313447 A1 ("Becker")	Ex. 1007
U.S. Patent App. Pub. No. 2011/0088285 A1 ("Dojan")	Ex. 1010
International Patent App. Pub. No. WO 2004/012544 ("Wildeman")	Ex. 1013
U.S. Patent No. 6,862,820 ("Farys")	Ex. 1011

3. For purposes of this declaration, I have been asked to provide certain opinions in response to Grounds 1-3. I understand that Ground 1 challenges claims 11-15 as obvious over Becker in view of Dojan. Petition at 17. I understand that Ground 2 challenges claims 11-14 as obvious over Becker in view of Wildeman. *Id.* at 45. I understand that Ground 3 challenges claims 11-14 as obvious over Farys in view of the knowledge of a person of ordinary skill in the art ("POSITA"). *Id.* at 51-52. I understand that these are the only grounds challenging independent claim 11. My opinions for these grounds are set forth below.

II. BACKGROUND AND EXPERIENCE

4. My qualifications for forming the opinions set forth in this declaration are summarized in the following paragraphs and explained in more detail in my curriculum vitae which is attached Exhibit A to this report.

5. I am the founder and Principle Designer for PHYLA Design, which works on diverse design and manufacturing projects focusing on the design, development, and sourcing in the footwear sector. I have a Bachelor of Fine Arts degree in Industrial Design from Rochester Institute of Technology.

6. I have worked in the footwear industry, including with knitted textiles since 1992. I have a broad range of experience working in different footwear categories and with different materials. I also have extensive experience working with a team with extensive knowledge and experience in garment manufacturing.

For example, while working with Morrow Snowboards as a Product Design Director, I was primarily responsible for the design of outerwear and technical snowboarding apparel. I also have experience (e.g., in my time at Saucony and Nike) working with a team of individuals having bachelor's degrees in chemical engineering, textile engineering, mechanical engineering, or a similar degrees and/or extensive experience working with different methods of applications for securing material to knitted textiles, including footwear.

7. Attached as Exhibit B is a list of cases in which I have provided testimony in the last five years. To the best of my knowledge, no court has ever excluded or prohibited me from providing trial testimony as an expert witness.

III. MATERIALS CONSIDERED

8. All my opinions are based on my knowledge and professional judgment, and the following documents that I considered:

- New Balance's Petition for *Inter Partes* Review of U.S. Patent No. 8,898,932;
- Exhibits 1001–1032; and
- all other materials discussed herein.

9. I reserve the right to amend or supplement the opinions provided in this declaration if this IPR is instituted.

IV. LEGAL STANDARDS

10. I am not an attorney. For purposes of this Declaration, I have been informed by counsel about certain aspects of the law that are relevant to my opinions. My understanding of the law is summarized below.

11. I understand from counsel that in an *inter partes* review, claim terms should be construed "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b). I understand from counsel that the ordinary and customary meaning is determined primarily in view of the patent's specification and prosecution history, but that extrinsic evidence such as dictionaries and treatises, as well as the opinions of persons of ordinary skill in the art, may also be taken into account.

12. I understand from counsel that, in this *inter partes* review, Petitioner has the burden of proving that each challenged claim is unpatentable by a preponderance of the evidence. I understand that New Balance has challenged independent claim 11 of the '932 patent under an obviousness theory.

13. I understand from counsel that obviousness requires demonstrating that the differences between the subject matter of the patent and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention to a POSITA. I understand that a patent claim is rendered obvious if it would have

been obvious to a POSITA to combine the teachings of the prior art to yield the patent claim. I also understand that for a patent claim to be found obvious, all the elements/limitations of the patent claim must be found in teachings of one or more references that would have been combined by a POSITA with a reasonable expectation of success. I have been informed by counsel that a proper analysis of whether an invention is unpatentable for obviousness includes a review of the scope and content of the prior art, the differences between the patent claims at issue and the prior art, the level of ordinary skill in the field of the invention at the time of the invention, and other objective considerations.

14. I understand from counsel that a showing of obviousness requires some articulated reasoning with a rational underpinning to support the combination of the references, *i.e.*, a motivation to combine the references. I understand from counsel that in consideration of the issue of obviousness, it is important to identify whether a reason existed at the time of the invention that would have led a POSITA to combine elements of the references in a way that yielded the claimed invention. I further understand that a reference teaches away from the invention when it would have discouraged a POSITA from practicing the claimed invention, or when such a person would be led in a different direction than practicing the claimed invention.

15. I also understand from counsel that along with motivation to combine, petitioner must also show a POSITA would have reasonably expected to succeed in making the proposed prior art combination.

16. I understand from counsel that a claim may be considered unpatentable for obviousness for various reasons. Counsel informed me that the following exemplary rationales may support a finding of obviousness:

- combining prior art elements according to known methods to yield predictable results;
- simply substituting one known element for another to obtain predictable results;
- use of a known technique to improve similar devices in the same way;
- applying a known technique to a known device ready for improvement to yield predictable results;
- choosing from a finite number of identified, predictable solutions with a reasonable expectation of success;
- known work in a field that prompts variations in the work in the same or a different field that leads to predictable results; and
- some teaching, suggestion, or motivation in the prior art that would have led a POSITA to modify a prior art reference or combine multiple prior art references or teachings to arrive at the claimed invention.

V. LEVEL OF ORDINARY SKILL IN THE ART

17. I understand from counsel that New Balance asserts a POSITA in the relevant field of the '932 Patent in November 2012 would have had at least a bachelor's degree in design, footwear design, textile design and technology, or a similar technical degree with at least 3 years of experience working with knitted textiles for use in fabric-based articles, including apparel such as footwear. Petition at 13; Ex. 1003, ¶25. I understand from counsel that New Balance also asserts a POSITA would have had worked with team members including those with knowledge and experience in garment manufacturing, and that the team would have included individuals with a bachelor's degree in chemical engineering, textile engineering, mechanical engineering, or a similar degree and at least 3 years of experience working with different methods of applications for securing material to knitted textiles, including footwear. Petition at 13. I also understand from counsel that New Balance asserts that, for individuals with different educational backgrounds, a person could still be of ordinary skill in the art provided that person's additional experience compensates for any differences in that person's education as stated above, and that, for individuals with different educational backgrounds, a person could still be of ordinary skill in the art provided that person's additional experience compensates for any differences in that person's education as stated

above. *Id.* For purposes of this declaration, I apply New Balance's definition of a POSITA.

18. In view of my experience and qualifications noted above, I am well positioned to opine as to what a POSITA at the time of the invention would have understood and done. Indeed, as of November 15, 2012, I met, and in fact exceeded, the qualifications of a person of ordinary skill in the art.

19. My opinions contained herein are from the perspective of a POSITA. My opinions reflect how a POSITA would have interpreted the claims, the prior art, and any available evidence.

20. My opinions are based on generally-accepted methodologies in the textile and knitting communities.

VI. THE '932 PATENT

21. The '932 patent describes an article of footwear having an upper that includes a knitted component and a skin layer. Ex. 1001, 3:66-67. The '932 patent explains that the knitted component of the article of footwear is formed of a unitary knit construction, and that this involves a knitting process that substantially forms the knitted component without the need for significant additional manufacturing steps or processes. *Id.* at 6:45-51. The '932 patent explains that, in some embodiments, the knitted component includes a plurality of protruding areas that extend outward and away from a void within the upper for receiving the foot of a

wearer. *Id.* at 5:8-12, 9:61-63. The '932 patent discloses that the skin layer is secured to the knitted component to form a portion of an exterior surface of the article of footwear. *Id.* at 9:2-4. In various embodiments, the skin layer is secured to the knitted component by thermally bonding the skin layer to the knitted component. *Id.* at 11:51-55.

22. The '932 patent explains that an article of footwear having both a skin layer and knitted component offers various advantages over conventional footwear. For example, a combination of the knitted component and skin layer may "impart a relatively tight and glove-like fit" to the upper that secures the foot within the footwear, for example, during walking, running, and other ambulatory activities. *Id.* at 6:11-16. The '932 patent further provides, "When formed as a soccer shoe, for example, the relatively tight and glove-like fit may provide the wearer with enhanced feel and control of a ball." *Id.* at 6:16-18. The '932 patent also explains that the skin layer may be utilized to reinforce areas of the upper by inhibiting stretch in the knitted component and enhancing the wear-resistance or abrasion-resistance of the upper. *Id.* at 6:18-22. This configuration may also "provide a relatively light weight or mass, support for the foot, uniform fit and conformance to a shape of the foot, and a relatively seamless interior with enhanced comfort for the wearer." *Id.* at 6:23-27.

23. Figure 12 of the '932 patent shows an example embodiment of an article of footwear having an upper 120 comprising a knitted component 130 and a

skin layer 140, and a sole structure 110 secured to upper 120. *See generally id.* at 14:25-15:50 (describing aspects of the embodiment depicted in Figure 12). I have reproduced Figure 12 of the '932 patent below.

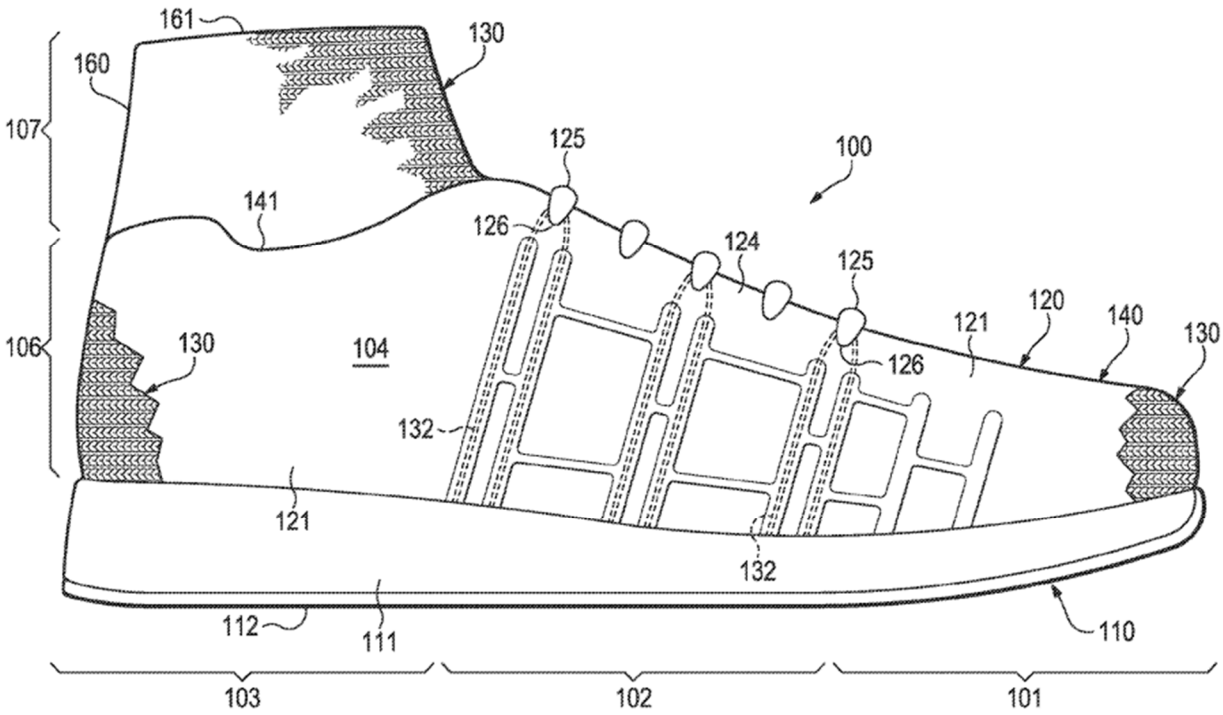


Figure 12

As is depicted in Figure 12, upper 120 may include a foot region that forms a foot part of knitted component 130 covering at least a portion of the foot of the wearer, and an ankle region 107 forming an ankle part of knitted component 130 covering at least a portion of the ankle of the wearer. *Id.* at 14:45-54. The '932 patent explains that the ankle part of knitted component 130 may have a continuous structure for extending entirely around the ankle of the wearer. *Id.* at 14:55-57. The '932 patent also explains that, in some embodiments, foot region 106 has less stretch than ankle

region 107. *Id.* at 15:14-18. In some embodiments, the '932 patent provides that the ankle part of knitted component 130 forms a portion of an exterior surface 121 and an interior surface 122 in ankle region 107. *Id.* at 15:22-25. As is depicted, for example, in Figure 12, skin layer 140 may be absent from the ankle part of knitted component 130. *See, e.g.*, *id.* at 15:21-22, 15:31-36.

VII. CLAIM CONSTRUCTION

24. I understand from counsel that the parties agree that the term "unitary knit construction" means "formed as a one-piece element through a knitting process," and that the term "thermally bonded" means "a securing technique between two elements that involves a softening or melting of a thermoplastic polymer material within at least one of the elements such that the materials of the elements are secured to each other when cooled." I have applied this construction throughout my analysis.

25. I understand that all other terms and phrases in the '932 patent claims have their ordinary and customary meanings and that no further construction is required. I reserve the right to offer opinions on any claim constructions that arise if this IPR is instituted.

VIII. OVERVIEW OF THE PRIOR ART REFERENCES

A. Becker

26. Becker relates to articles of footwear with a lightweight and flexible outer member. Ex. 1007, [0008]. Becker's Figure 9 and Figure 10 depict a preferred embodiment. *Id.* at [0079]. Becker explains that the article of footwear preferably includes an upper 112, an outer member 200, and an inner plate disposed between outer member 200 and upper 112. *Id.* at [0079]. With respect to the embodiment, Becker explains that article of footwear 100 includes an outer lining 902 and an inner lining 904. *Id.* at [0080]. Becker explains that "inner lining 904 may be a sock-like bootie that wraps around a wearer's foot within outer lining 902." *Id.* at [0080]. Becker also explains that "outer lining 902 may be configured to provide additional support or to reinforce inner lining 904." *Id.* at [0081]. I have reproduced Becker's Figure 9 on the next page.

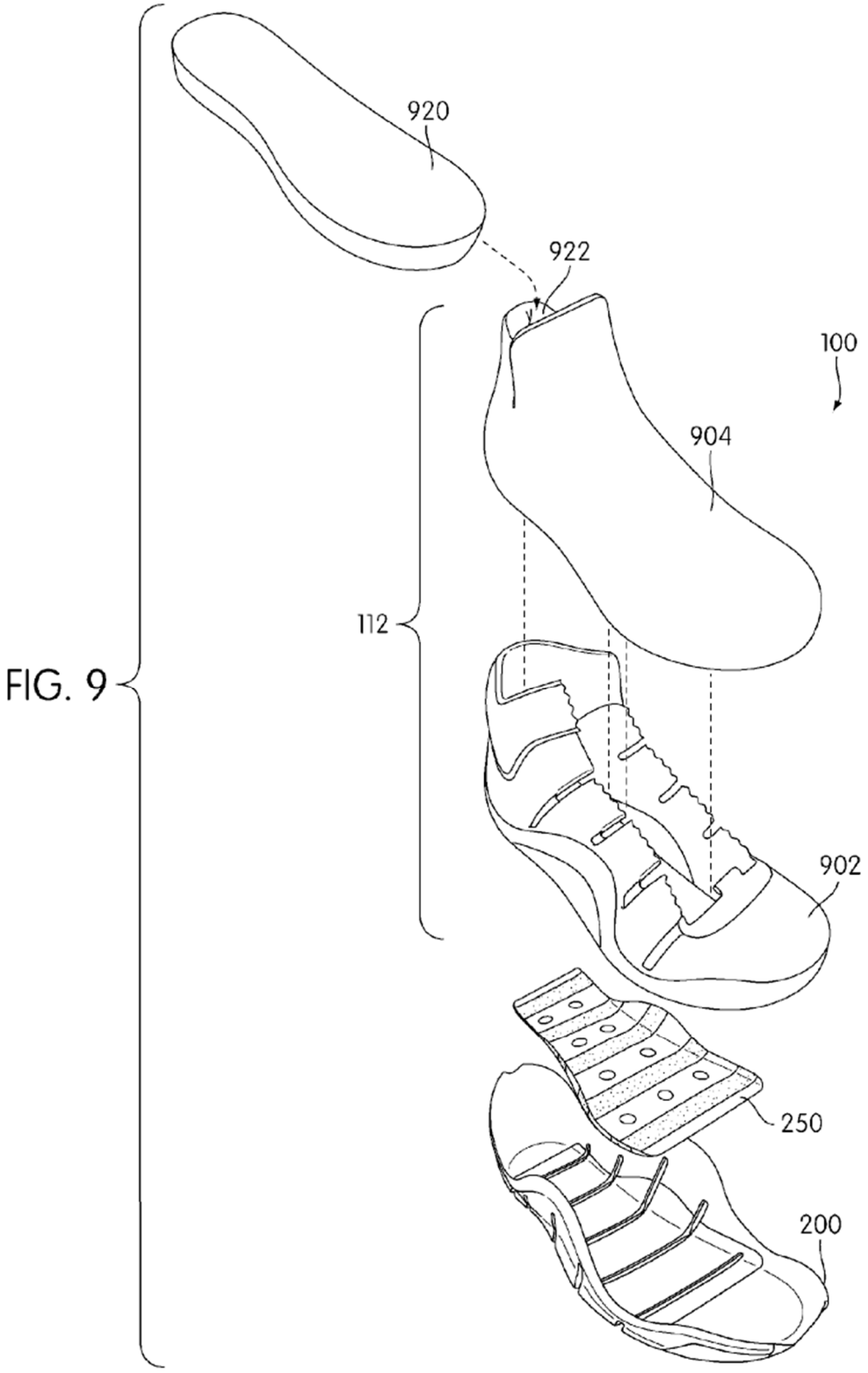


FIG. 9

Ex. 1007 (“Becker”), Figure 9

B. Dojan

27. Dojan is related to techniques for creating multi-layer bonded mesh composite panels for use in the upper of a shoe. Ex. 1010, [0004], [0034]. In order to create these multi-layer bonded mesh composite panels, Dojan describes tacking substrate layer, mesh layer, and skin layer panels together, placing the tacked layers together in a heated press, and applying heat and pressure to cause the various layers to bond to become a one-piece panel. *Id.* at [0034]. Dojan provides that the creation of the bonded mesh composite panel includes "assembling individual panels of material for the various layers in a flat configuration." *Id.* at [0046]. Dojan further provides that this "assembly undergoes a series of pressing operations to bond the assembled elements," which results in in "a flat, one-piece unibody upper shell." *Id.*

C. Wildeman

28. Wildeman relates to producing textile materials with incorporated heat activated coatings for use in shoe assembly. Ex. 1013, 1:10-16. Wildeman describes using heat and pressure, "such as in a hot press or the like," to melt bond a base textile to a second surface material. *Id.* at 3:6-13, FIG. 6. Wildeman provides that "during the actual shoe manufacturing process the blanks of material cut from the coated substrate may be adhered in bonded juxtaposed relation to other surfaces such as leather, plastic, fabric, foam and the like to make up multi-layered structures suitable for formation into portions of a shoe." *Id.* at 8:13-16. According to

Wildeman, this procedure is performed at an assembly station 50 (such as depicted in Figures 5 and 6 below), which "includes a large turntable work top 52 divided into two substantially identical hemispheres 54, 56." *Id.* at 8:16-20. I have reproduced Wildeman's Figures 5 and 6 below.

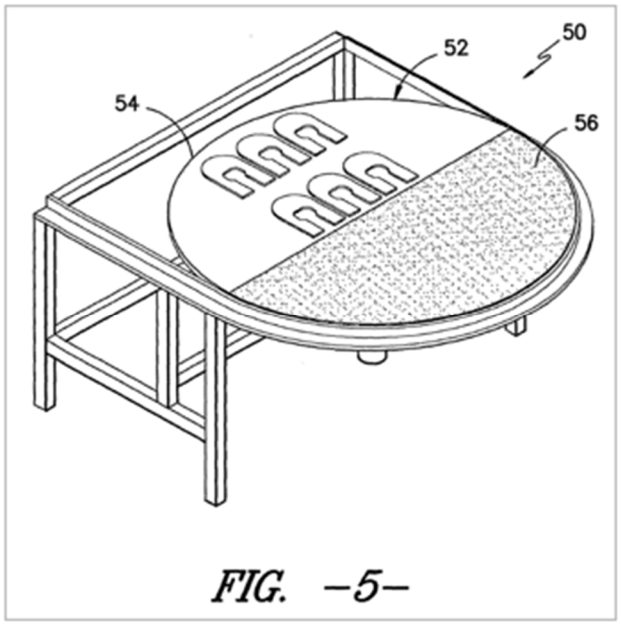


FIG. –5–

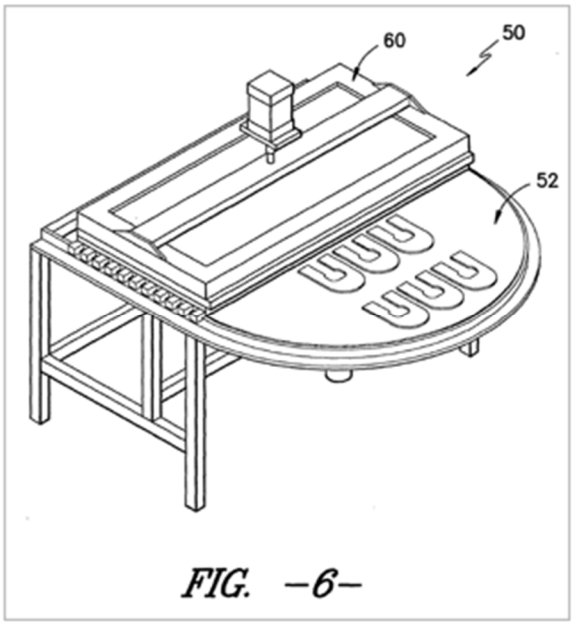
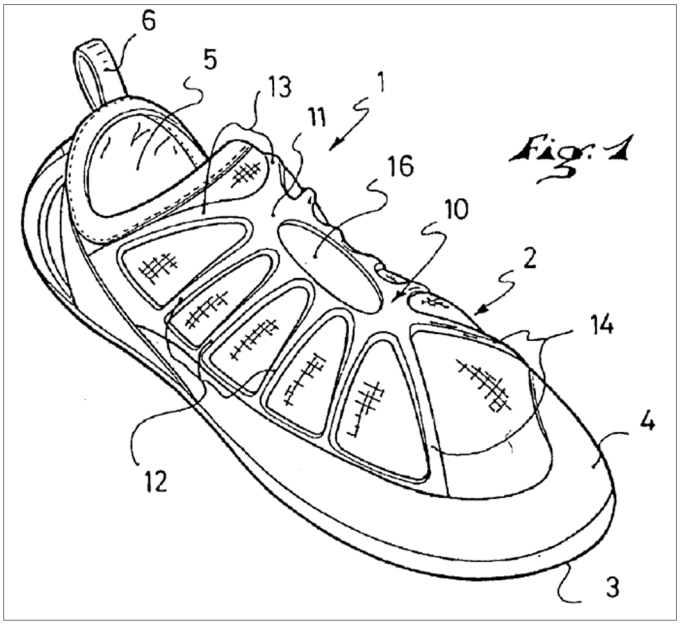


FIG. –6–

Wildeman provides, "During operation, one or more operators places parts for lamination such as shoe uppers or the like in a pattern across one of the hemispheres. The precut blanks of coated substrate material are thereafter placed on top of these parts in a desired spatial relation with the hot melt adhesive copolyester oriented in sandwiched relation between the layers. The work top 52 is then rotated through a 180 degree angle and a hot plate 60 is activated to apply heat and pressure to the arranged parts." *Id.* at 8:20-26.

D. Farys

29. Farys is generally directed to an article of footwear having a sole, a low upper that is at least partially elastic, and an elastic tightening system that extends from the top of the instep to the sole area almost over the entire volume of the foot. Ex. 1011, 1:51-59. Figure 1 of Farys depicts an embodiment having each of the foregoing component parts. *Id.* at 30-33. I have reproduced Farys's Figure 1 below.



Farys provides that "upper 2 is low, meaning that it extends below the malleoli so as not to hinder the ankle articulation." *Id.* at 2:34-35. Farys also explains, however, that "the upper 2 could also be mid-high, i.e, covering the malleoli without nevertheless hindering the mobility of the ankle." *Id.* at 2:35-38.

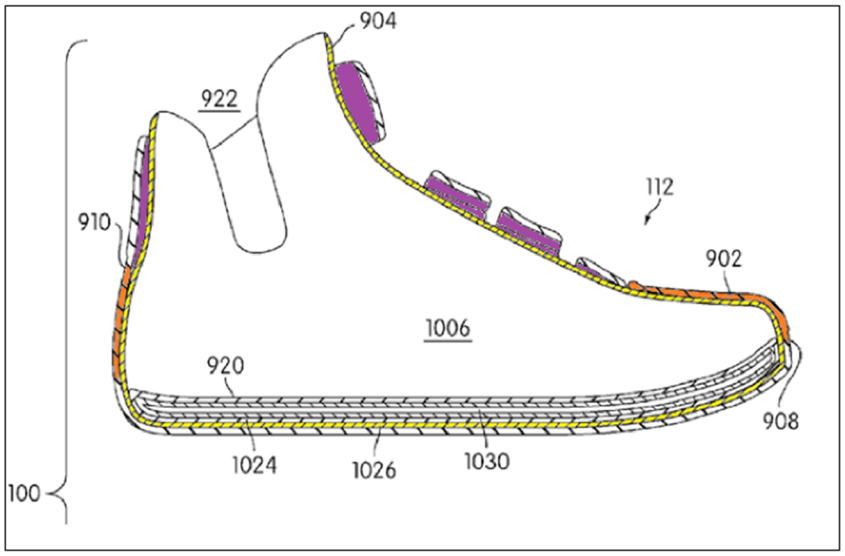
IX. GROUNDS 1 AND 2: THE COMBINATION OF BECKER AND EITHER DOJAN OR WILDEMAN DOES NOT TEACH OR SUGGEST THE ELEMENTS OF INDEPENDENT CLAIM 11

30. In my opinion, Becker in view of Dojan and/or Wildeman fails to teach or suggest independent claim 11.

A. Becker does not teach or suggest a "skin layer being absent from the ankle part of the knitted component," as recited in claim 11

31. In my opinion, Becker does not teach or suggest a "skin layer being absent from the ankle part of the knitted component," as recited in independent claim 11.

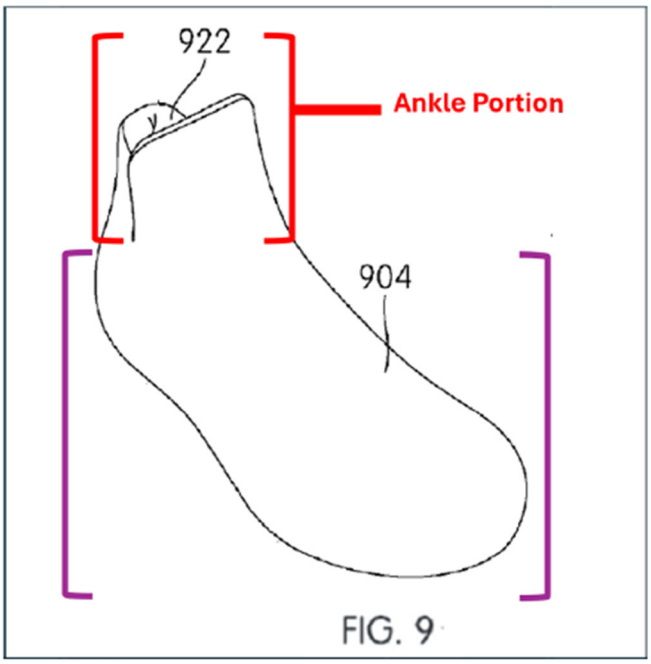
32. New Balance contends that Becker's upper lining 904 discloses a knitted component comprising a foot part and an ankle part for covering at least a portion of an ankle of the wearer (Petition at 21-26), and that Becker's outer lining 902 discloses a skin layer (*id.* at 28). New Balance further contends that Becker's outer lining 902 does not cover the ankle portion of the shoe and is thus absent from the ankle part of the upper lining 904. *Id.* at 31. In support of this final contention, New Balance provides an annotated version of Becker's Figure 10. *Id.* at 32. However, in my opinion, New Balance incorrectly annotates Becker's Figure 10 to identify only a portion of outer lining 902. I have reproduced a copy of New Balance's annotated version of Becker's Figure 10 below.



Petition at 32 (annotated Fig. 10). In New Balance's annotated version of Becker's Figure 10 shown above, New Balance identifies Becker's outer lining 902 in orange. In my opinion, however, New Balance incorrectly identifies only a portion of outer lining 902. In my opinion, Becker's figures clearly depict outer lining 902 extending up to cover at least a portion of the ankle part of a wearer, like inner lining 904.

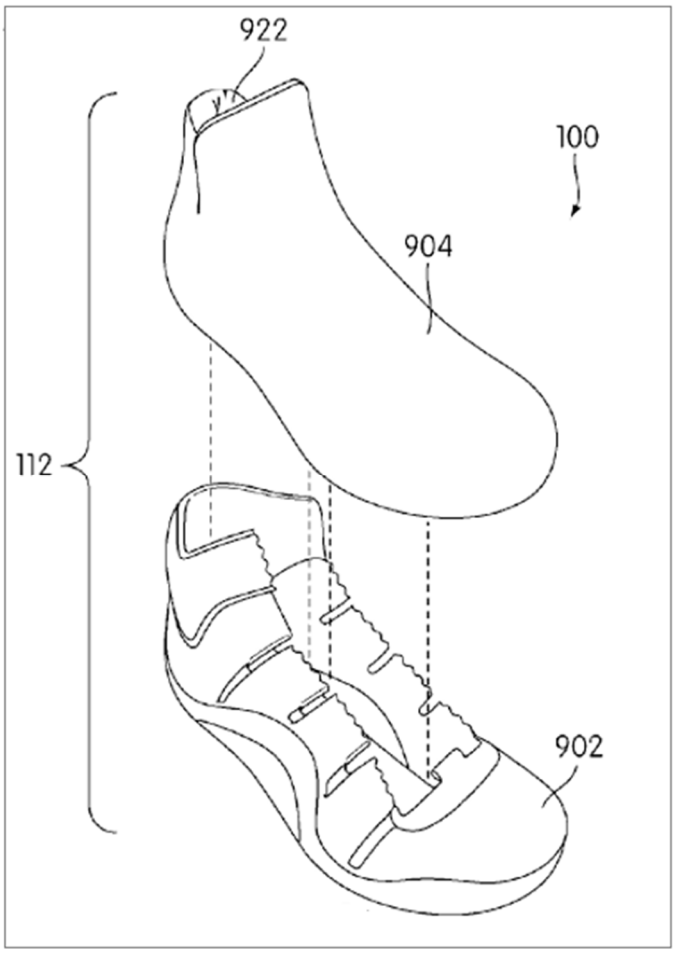
33. New Balance's annotations (and accompanying contentions) are also contradictory to assertions made elsewhere regarding the "ankle part for covering at least a portion of an ankle of the wearer," as recited earlier in independent claim 11. *See* Petition at 24. For example, New Balance asserts that "it would have been obvious to a [POSITA] that the embodiment disclosed in Figures 9 and 10 of Becker would cover at least a portion of the ankle of a wearer." *Id.* In support of this assertion, New Balance provides an annotated version of Becker's Figure 9 identifying an ankle portion (in red) and a foot portion (in purple) of inner lining

904. I have reproduced a copy of New Balance's annotated version of Becker's Figure 9 below.

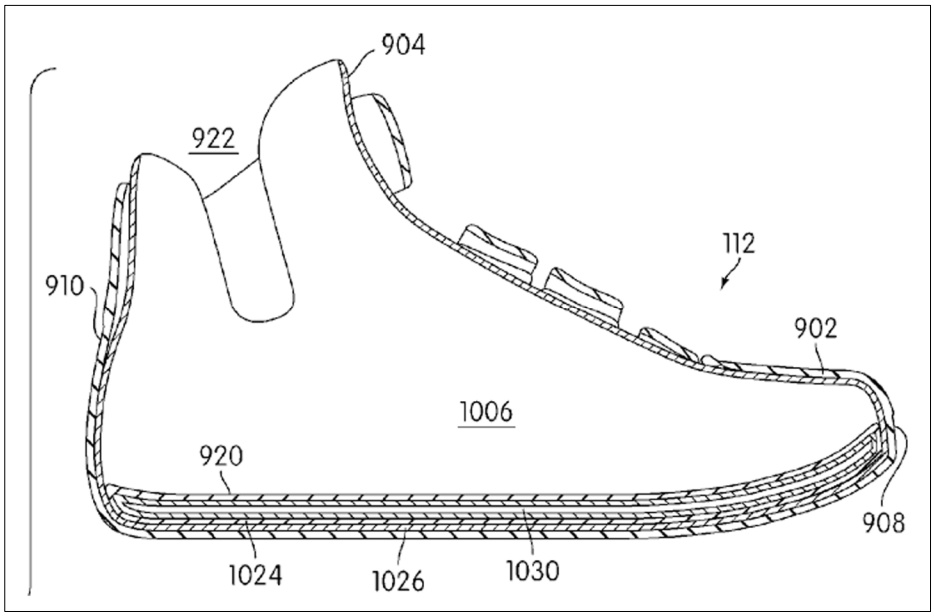


Petition at 25 (annotated Fig. 9). In my opinion, however, if Becker's Figures 9 and 10 depict inner lining 904 covering at least a portion of the ankle of a wearer (as New Balance contends), Figures 9 and 10 similarly depict outer lining 902 covering at least a portion of the ankle of a wearer.

34. In my opinion, Becker's Figures 9 and 10 depict inner lining 904 and outer lining 902 similarly in terms of their size and shape. For example, like inner lining 904, Figure 9 similarly depicts outer lining 904 as including a portion shaped to cover at least a portion of the ankle of a wearer. I have reproduced the portion of Becker's Figure 9 depicting outer lining 902 and inner lining 904 below.



Ex. 1007, Fig. 9 (excerpted). Notably, Becker's Figure 10 also depicts the same outer lining 902 extending up towards the upper edge of inner lining 904. Becker's Figure 10 also depicts outer lining 902 covering the portion of inner lining 904 New Balance contends covers an ankle of the wearer. I have produced a clean copy of Becker's Figure 10 below.



Ex. 1007, Fig. 10. Thus, in my opinion, if New Balance is correct in alleging that inner lining 904 includes an ankle portion corresponding to the claimed "ankle part of the knitted component," it follows that outer lining 902 also includes an ankle portion.

35. New Balance contends that the upper portion of outer lining 902 is not part of the skin layer because it "is not bound to inner lining 904 around the ankle." Petition at 32. However, Becker does not describe outer lining 902 as attached to inner lining 904. Becker discloses only that "[i]nner lining 904 may be a sock-like bootie that wraps around a wearer's foot within outer lining 902." Ex. 1007, [0080]. With respect to outer lining 902, Becker discloses only that "outer lining 902 may be configured to provide additional support or to reinforce inner lining 904." *Id.* at [0081]. Accordingly, in my opinion, whether outer lining 902 is attached to (or in

contact with) inner lining 904 is immaterial to whether outer lining 902 is present at the ankle part of inner lining 904.

36. New Balance relies on the depiction of a gap in Becker's Figure 10 between outer lining 902 and inner lining 904 around the ankle in support of the contention that outer lining 902 does not cover the ankle portion of the shoe. Petition at 33. In my opinion, however, it is obvious that such a gap would not be present when the ankle strap is used to tighten opening 102 around a wearer's ankle. Ex. 1007, [0053]. Indeed, Becker discloses that upper 112 may include an ankle strap 140 configured to wrap around upper 112 at an ankle portion 142. *Id.* Such an ankle strap is not described with respect to the embodiment of Figures 9 and 10 reproduced above. However, the ankle strap is nevertheless depicted at least in Figure 10. *See* Petition at 25 n.1 (acknowledging the same). New Balance contends that the "ankle strap is not part of the skin layer because it is not attached to the knitted component." Petition at 33. I disagree with this contention because the ankle strap is part of the outer lining 902, regardless whether the ankle strap is attached to the inner lining 904. Ultimately, a skin layer may be present (and not "absent") at the ankle part of the knitted component without necessarily being attached to (or in contact with) the knitted component at the ankle part.

37. I understand New Balance alternatively contends that a POSITA would have considered removing the ankle strap of Becker "to allow for greater mobility

of the ankle." Petition at 34. However, New Balance contends that the foregoing is already achieved by the outer lining not being adhered to the ankle portion. *Id.* at 33. For example, New Balance asserts that "[a POSITA] would have further understood that the stiffer, more durable outer lining material would not be applied to the ankle portion, as it would restrict the mobility of the ankle and would not allow for tightening." EX1003, ¶ 122. Thus, there would be no reason to remove the ankle strap as New Balance suggests. New Balance also separately relies on the inclusion of the ankle strap when contending that "the upper must necessarily cover at least a portion of the ankle." Petition at 25. And New Balance has not explained why the "ankle portion" of inner lining 904 would not also be removed if the ankle strap was removed. Finally, even if the ankle strap of Becker were to be removed, this does not mean the remainder of the upper portion of outer lining 902 would also necessarily be removed. For example, Becker's Figure 9 already depicts outer lining 902 and inner lining 904 without an ankle strap. New Balance does not also suggest that the portion of outer lining 902 extending up and covering the ankle part of inner lining 904 that is depicted in Figure 9 would similarly be removed.

38. In my opinion, because New Balance asserts that Becker's outer lining 902 comprises the claimed "skin layer," and Figures 9 and 10 of Becker clearly depict outer lining 902 extending up to and covering at least a portion of the inner

lining 904 allegedly comprising the "ankle part" of inner lining 904, Becker does not disclose outer lining 902 absent from the ankle part of inner lining 904.

B. The combination of Becker and either Dojan or Wildeman does not render obvious "a skin layer that is thermally bonded to the knitted component," as recited in claim 11

39. New Balance contends the combination of Becker and Dojan and the combination of Becker and Wildeman each teach or suggest "a skin layer that is thermally bonded to the knitted component," as required by independent claim 11. Petition at 28-31, 47-79. However, in my opinion, a POSITA would not have been motivated to combine Becker with either Dojan or Wildeman as suggested by New Balance, for at least the reasons I explain further below.

40. As an initial matter, in my opinion, it would not have been obvious to a POSITA to look for means of attaching Becker's outer lining 902 and inner lining 904. Indeed, as I discussed above, Becker does not describe outer lining 902 as attached to inner lining 904. Rather, Becker discloses only that "[i]nner lining 904 may be a sock-like bootie that wraps around a wearer's foot within outer lining 902," and that "outer lining 902 may be configured to provide additional support or to reinforce inner lining 904." Ex. 1007, [0080], [0081]. Notably, New Balance also does not assert that a POSITA would have understood Becker to disclose securing outer lining 902 to inner lining 904.

41. New Balance also does not explain ***how*** Becker would be combined with the teachings of Dojan or Wildeman to utilize thermal bonding to attach Becker's outer lining 902 to inner lining 904. This is unsurprising because a POSITA would not elect to use thermal bonding techniques, such as those described in Dojan or Wildeman, to combine a non-flat (or irregularly) shaped component, such as Becker's outer lining 902, with another component, such as Becker's inner lining 904.

42. Indeed, the alleged "thermal bonding" techniques in both Dojan and Wildeman involve applying heat and pressure to multiple generally flat components to bond the components together. For example, Dojan describes techniques for creating a multi-layer bonded mesh composite panel to be included in the upper of a shoe. Ex. 1010, [0004], [0034]. Dojan explains that this involves tacking substrate layer, mesh layer, and skin layer panels together, placing the tacked layers together in a heated press, and applying heat and pressure to cause the various layers to bond to become a one-piece panel. *Id.* at [0034]. Dojan also explains that creating the bonded mesh composite panel includes "assembling individual panels of material for the various layers in a flat configuration," and that this "assembly undergoes a series of pressing operations to bond the assembled elements," resulting in "a flat, one-piece unibody upper shell." *Id.* at [0046]. Wildeman is directed to "textile materials incorporating heat activated coatings for use in shoe assembly." Ex. 1013,

1:10-16. Wildeman, like Dojan, similarly describes using heat and pressure, "such as in a hot press or the like," to melt bond a base textile to a second surface material. *Id.* at 3:6-13, FIG. 6.

43. In my opinion, a POSITA would have understood that thermal bonding generally involves bonding two or more flat layers together using a press, as described in Dojan and Wildeman. This is further supported by the '932 patent itself, which also describes thermal bonding as including use of a press with substantially planar press portions to compress the knitted component and skin layer together. Ex. 1001 at 12:18-24. Accordingly, in my opinion, it is not at all readily apparent how New Balance suggests a POSITA would have combined the teachings of Becker and either Dojan or Wildeman.

44. In my opinion, New Balance also does not identify any motivation to combine either Dojan or Wildeman with Becker that would apply to Becker. New Balance lists several advantages of thermal bonding generally. For example, New Balance asserts that "thermal bonding was known to provide 'fast, relatively easy, and economical bonds that are generally 80-100 percent the strength of the parent plastic.'" Petition at 29, 48 (quoting Ex. 1005, ¶¶ 29). New Balance also contends that "a [POSITA] would have been aware of the advantages of thermal bonding, including time, efficiency, and decreased environmental damage and health concerns." Petition at 29 (citing Ex. 1005, ¶ 44-45); *see also* Petition at 49 (noting

generalized benefits of thermal bonding technique described in Wildeman, including "allowing for unused portions of the thermoplastic coated textile to be recycled back into the useable fiber"). However, New Balance does not explain how any of these generalized advantages relate to Becker.

45. Finally, in my opinion, and contrary to the assertions made by New Balance, a POSITA would not have had a reasonable expectation of success in using the thermal bonding methods in Dojan or Wildeman to attach the layers in Becker based at least on the differences (in shape and size) between the components to be bonded in Becker.

46. In my opinion, the combination of Becker and either Dojan or Wildeman does not render obvious "a skin layer that is thermally bonded to the knitted component," as recited in claim 11, for at least the foregoing reasons.

X. GROUND 3: THE COMBINATION OF FARYS AND THE KNOWLEDGE OF A POSITA DOES NOT RENDER OBVIOUS INDEPENDENT CLAIM 11

47. In my opinion, the combination of Farys and the knowledge of a POSITA fails to teach or suggest independent claim 11.

A. New Balance does not address how Farys teaches or suggests "an upper and a sole structure secured to the upper," as recited in claim 11

48. I understand that the "[a]n article of footwear having an upper and a sole structure ***secured to the upper***" is recited in the preamble of independent claim

11. With respect to "[a]n article of footwear having an upper and a sole structure secured to the upper," as recited in the preamble of independent claim 11, New Balance asserts only that "Farys recites a shoe with a sole and upper" and "Figure 1 portrays the upper 2 and outer soul [*sic*] 3." Petition at 53. In my opinion, New Balance does not address how Farys teaches or suggests outer sole 3 being secured to upper 2. Indeed, New Balance does not appear to address this limitation at all. Thus, in my opinion, there is no explanation provided in the Petition for "[a]n article of footwear having an upper and a sole structure ***secured to the upper***."

B. The combination of Farys and the knowledge of a POSITA does not render obvious a "skin layer being absent from the ankle part of the knitted component," as recited in claim 11

49. New Balance asserts that Farys in combination with the knowledge of a POSITA renders obvious a "skin layer being absent from the ankle part of the knitted component," as required by independent claim 11. Petition at 61-63. Specifically, New Balance contends that Farys discloses that upper 2 may be "mid-high" and that such an upper would cover the malleoli without hindering the mobility of the ankle. *Id.* at 56, 62; *see also* Ex. 1011, 2:34-39 ("The upper 2 is low, meaning that it extends below the malleoli so as not to hinder the ankle articulation. As the case may be, the upper 2 could also be mid-high, i.e., covering the malleoli without nevertheless hindering the mobility of the ankle."). New Balance contends that a POSITA "would have understood that, to avoid impeding the mobility of the ankle,

the elastic tightening system of Farys's 'mid-high' upper would not extend up the ankle portion." Petition at 62. New Balance further alleges that a POSITA would have known that "the elastic tightening system was used to tighten and secure the shoe to the foot of the wearer and would thus restrict some degree of movement," and, as such, "would have been motivated to refrain from adding the tightening system to the ankle portion to keep the stretch and mobility provided by the knitted component, so as not to impede the mobility of the ankle." Petition at 62 (citing Ex. 1003, ¶ 193).

50. In my opinion, while Farys does briefly describe an embodiment where the upper may be "mid-high" and that such the upper would cover the malleoli, Farys does not disclose that the elastic tightening system would not similarly extend up to this part of the upper. Farys explains that the elastic tightening system extends substantially over the entire volume and length of the foot in embodiments where the upper only covers the foot and does not extend up to cover the malleoli. *See, e.g.*, Ex. 1011, 1:56-59 (describing "the elastic tightening system extend[ing] almost over the entire volume of the foot"), 2:42-46 (describing the elastic tightening system 10 "extending over the top of the instep and substantially over the entire length thereof"), 2:57-61 (describing the elastic tightening system as "a type of elastic 'cage' that completely envelops the foot from the area of the instep toward the heel and toes"). Accordingly, in my opinion, a POSITA would have understood

Farys to suggest that the elastic tightening system should extend out and cover any portion of the upper, including the portions added by the mid-high embodiment.

51. New Balance (and their expert, Ann Williams) do cite one piece of evidence—the Nadler reference—in support of the assertion that a POSITA "would have been aware of shoe designs wherein the outer linings do not cover the entire inner lining and provide an inner component that extended above the outer lining allowing for greater mobility." Ex. 1003, ¶ 193 (citing U.S. Patent No. 3,319,360 ("Nadler"; Ex. 1012)). However, the Nadler reference does not teach or suggest the described "upper 14 of the foot covering" as extending above the outer lining, as alleged. Rather, the Nadler reference describes a separate sock-like liner 21b that extends upwardly beyond the top edge 15b of a leg cover 1211. Ex. 1012, 2:62-64 (describing Figure 5).

52. In my opinion, the combination of Farys and the knowledge of a POSITA does not render obvious a "skin layer being absent from the ankle part of the knitted component," as recited in claim 11, for at least the foregoing reasons.

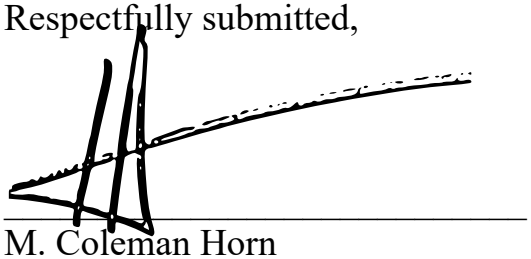
XI. CONCLUSION

53. I declare that all statements made herein of my knowledge are true, and that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the

like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: March 20, 2025

Respectfully submitted,



M. Coleman Horn

Exhibit A

M Coleman Horn

Cape Neddick Maine

***C:** 805 886 9426 **E:** m@phy.la*

Technical Design and Development Director with expertise in supply chain origination and production commercialization; focusing in Knits & Technical Athletic Footwear.

Areas of focus:

- *Footwear Design*
- *Technical Knit Design*
- *Footwear Development*
- *Sew-Free Textile Bonding & Thermoforming*
- *Circular & Flat Knitting*
- *Branding*
- *Timeline/Budget Development*
- *Production Commercialization*
- *Strategic Planning*

PHYLA DESIGN Inc. San Francisco, Ca. / Cape Neddick, Me. 2000-Present

Founder and Principle Designer.

PHYLA works on diverse design and manufacturing projects: Focusing on Design, Development and Sourcing in the Footwear sector.

- ISPO Award 2024 for Gordini Twin-Layer Ski Socks.
- Gordini, Developed Circular Knit technology with BUSI knit machines for FW24 Sock Launch (Ongoing)
- Carhartt, designed sourced and developed new Technical knit sock program. SP22 (Ongoing)
- Triple Aught Design, designed and Developed men's outdoor footwear for launch SP22.
- Philips, inc. Designed & developed Knit face mask. Awarded patents & IF design award 2020.
- AETHER, Designed, Developed Footwear Program for Boots & Sneakers. Sourced Portugal production.
- Burton Snowboards, Designed and developed casual boot line. Will launch Winter 2020.
- Rothy's Knit footwear. 3 years Design, Technical Knit & Production development. Sourced all factories, set up supply-chains and vendor systems in Lewiston Maine and Dongguan, China. Full development of 3D flat knit process as applied to footwear.
- GIRO, Designed and developed 5 seasons Cycling shoes from '12-'16. Sourced all factories, set up supply-chain and vendor system. Developed industry 1st knit cycling footwear, new welding and seamless composite construction methods. Multi-awards granted for shoes.
- Designed, Developed and awarded Patents for "GC_Tech" Waterproof Bonded Soft-shell shoe-covers.
- Partnered with Shawn Stussy to launch his new brand S/Double. Developed product and created supply chain.
- Designed 3 seasons of Timberland's Abington line.
- Creative Consultant for "ELIZABETHTOWN" Feature film by Paramount and Cameron Crowe. Created Props, Shoes and character development for Orlando Bloom's part.
- POLO RLX, Designed Outdoor Boots & Bags. Runway Introduced: Fashion Week Milan 2009.
- Patagonia, Designed conceptual direction, initial samples and product language for footwear launch.
- Designed footwear line for NIKE based on Mark Newson's designs.
- Designed Limited AIR FORCE 1 footwear package for NIKE.
- Lectured at Stanford "D-School" on Sourcing and design 2010-2012.
- Clients of PHYLA include: Levi's, Apple, Nixon, Nike, K2 Snowboards, Ralph Lauren, Burton, LMU, Art Academy. SF.

The VÆL Project. Santa Barbara/San Francisco Ca. 2007-2010

Founder/ Design Director.

Founded the brand, Designed and Developed 6 seasons of footwear and accessories. Growth-Hacked supply-chain for overseas production of shoes, bags, watches & apparel. Created budgets and timelines for all product. Created look and feel of brand. Grew brand from 0 to 4M in sales. "Paused" in 2012 due to US retail meltdown.

- Managed all Production and Design. (Projection and goal setting, creating all VÆL Project's touch-points, advertising direction)
- Strategically led SRM's (supplier relationship management) within VÆL Project's supply chain.
- Managed budgets, banking relationships, P&L, expense reduction & forecasting. Raised capital for survival.
- Managed trade-shows, samples, sales meetings and catalog production.
- Created and founded brand and put in place executive. team. Registered worldwide trademarks.
- Created world-wide distribution network and domestic sales team with 6 regions in the US.

MEDIUM DESIGN GROUP, Santa Barbara, Ca. 2002-2007

Owner/Co-Founder/ Director Product Design, Development & Brand Transmission.

Founded, Designed and Developed 8 seasons of footwear and accessories. Developed supply-chain for overseas production of shoes, bags, watches & apparel. Created budgets and timelines for all product. Created look and feel of brand. Grew brand from 0 to 8M in sales. MEDIUM was sold in 2007 to Pentland.

- Managed all Production and Product Design. (Projection and goal setting, building and developing MEDIUM's image, event promotions, advertising direction)
- Strategically led SRM's (supplier relationship management) within MEDIUM's supply chain.
- Managed budgets, banking relationships, P&L, expense reduction & forecasting.
- Managed trade-shows, samples, sales meetings and catalog production.
- Generated long-term, profitable, and sustainable revenue streams by expanding into new markets, including watches and apparel.
- Developed Collaborative projects between MEDIUM and ADOBE, Dwell Magazine and HOUSE INDUSTRIES.
- Awarded Footwear Brand Launch of the Year, Footwear News Award, 2002.

UGG / Simple, Deckers Inc. . Creative Director, Santa Barbara, Ca. 1998-2000

Created design direction and product architecture for Simple and Ugg. Worked closely with Scott Milden and Ruth Davis on building UGG to reach it's renown today. Designed the Butte boot, which after 25 years, remains the star of the line and determines the overall design language for UGG.

- Designed 6 Seasons UGG and Simple Mens product.
- UGG Direction & DNA designed in '00 still embodies current product offering in '24.
- Developed vertical print ads and New POP system for in-store sales.
- Communicated directly with Asian production teams and oversaw timelines.
- Responsible for design budget and tooling costs.

MORROW SNOWBOARDS. Product Design Director, Salem Or. 1997-1998

Recruited by Neil Morrow to create a cohesive product language for the Morrow brand.

- Developed and designed a new step-in snowboard binding and boot system "ENGAGE" which was industry lauded as the pinnacle system.
- Developed composite constructions for the boot to have the "highback" support inside the boot.
- Realized a 22 percent sales increase across the line through new product developments.
- Designed a new corporate identity system, including logos, packaging and POP display items.
- Designed new lines of technical outdoor snowboarding apparel for the Morrow owned company Westbeach & Morrow's own label.
- Designed vertical print ads and snowboard graphics.

POLO, Ralph Lauren, RLX, Reebok, Inc. Senior Designer, 1997

Recruited to work between two corporations: Polo, Ralph Lauren, and Reebok, as a senior FOOTWEAR and PRODUCT designer, while the corporations entered a licensing agreement together to produce athletic footwear.

- Designed and Developed full lines of footwear ranges for tennis, running, casual, hiking, and fashion.
- Strategically Co-Developed initial product marketing direction and product briefs with the Marketing team.
- Developed logo system for Polo sport footwear, used in print, packaging, and product branding.
- POLO RLX hiking shoe on display at the Museum of Modern Art in San Francisco (MOMA) show "DESIGN AFOOT: Athletic Shoes 1995 - 2002"

NIKE, Inc. Staff Designer, Portland Or. 1993-1997

Staff designer responsible for footwear categories: Men's running and ACG, (All Conditions Gear).

- Technical athletic design, research and product development with Pac-Rim manufacturing.
- Secondary focus was technical manufacturing and material innovations for footwear.
- Designed Footwear that helped Nike achieve it's boom in the mid 90's. Annual estimate of sales generated from 14 designs per annual seasons: 95 million dollars.
- Awarded 2 US patents for developing innovations in athletic footwear.

SAUCONY, Inc. Staff Designer, Boston Ma. 1992-1993

Worked with marketing and engineering as staff designer, creating 5 seasons of technical running footwear and apparel for the sports industry.

- Job focus was technical athletic design and development with Pacific rim manufacturing.
- Developed new footwear logo for all Saucony shoes. This logo is used currently in 2024 on all product.
- Designed "core" running products for Saucony which generated 20 million in annual sales.
- Awarded KUZAMI (Japan) design award for footwear.

Formal Education:

Rochester Institute of Technology (RIT)
Department of Industrial Design. Majored in Industrial Design.
Awarded Bachelor of Fine Arts degree, May 1991

Portland State University (evening) 1994/96
History

Harvard Extension, Business School (evening) 1996/97.
Business.

University California, Santa Barbara. (evening) 98/00
Business. Engineering.

PORTFOLIO
www.phy.la

Exhibit B

M. Coleman Horn Testimony List

- *In re Matter of Certain Knitted Footwear*, Inv. No. 337-TA-1289 (ITC) (2022)