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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LULULEMON USA INC.,
Petitioner,

v.

NIKE, INC.,
Patent Owner.

Case IPR2024-00159
Patent 9,375,046

**PETITIONER'S REPLY IN SUPPORT OF PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 9,375,046**

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1004	Curriculum Vitae of Dr. David S. Brookstein
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1006	U.S. Patent No. 391,005 to Munsing (“Munsing”)
1007	U.S. Patent App. Publ. No. 2014/0130374 to Minami, et al. (“Minami”)
1008	U.S. Patent No. 5,118,569 to Kuroda, et al. (“Kuroda”)
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I. INTRODUCTION

Good anticipates at least independent claim 1 of the '046 patent. In response, Nike argues that Good fails to teach the “tubular structures” required by this claim, asserting that “tubular structures” must have a “closed periphery or circumference.” But neither the intrinsic nor extrinsic records require such a limiting construction, and Nike’s argument fails.

In its POPR, Nike misled the Board by baldly asserting that both parties agree that a “tubular structure” must be a closed-loop structure. Petitioner has never agreed to such a limiting construction. The Institution Decision adopted Nike’s erroneous construction of “tubular structures,” largely based on Nike’s misrepresentation of mutual agreement on this construction. This construction lacks any supporting lexicography, disclaimer, or disavowal in the record. Moreover, Nike’s narrow construction improperly excludes embodiments with channel configurations—explicitly identified as “tubular structures” in the '046 patent—*and* runs afoul of the doctrine of claim differentiation. The claim term “tubular structure” should be afforded its full scope, as construed by the district court, encompassing any “tube-like structure.” Under this construction, Nike does not dispute that Good discloses the claimed tubular structures.

Likewise, Nike does not dispute that Minami discloses “tubular rib structures” under any reasonable construction. Minami’s figures clearly show tubular rib

structures with one curve length greater than the other. Nike’s attempt to disregard this clear disclosure in Minami’s figures is unsupported and contrary to well-established legal precedent.

II. CLAIM CONSTRUCTION

In its POPR, Nike expressly represented that both parties agreed “tubular structures” must have a “closed-loop structure.” POPR, 17. But this representation was false. Petitioner has never suggested, let alone agreed, that a “tubular structure” requires a closed-loop configuration. *See e.g.*, Pet., 14-16; Ex. 1003 ¶¶38-40; Ex. 2007, 39:14-18 (Dr. Brookstein explaining that he never agreed with Nike’s construction).

Nike’s misrepresentation led the Board to construe “tubular structures” as requiring a “closed periphery or circumference”:

The *parties agree* that, under either construction, a ‘tubular structure’ must be a closed-loop structure that is shaped like a tube. [...] Thus, for purposes of institution and *consistent with the parties’ positions*, we construe the claimed “tubular structures” as at least having a closed periphery or circumference.

ID, 8 (internal citations omitted).¹

¹ Emphasis added unless otherwise noted.

However, this construction relies on Nike’s misrepresentation of the record. At no point did Petitioner agree that a “tubular structure” must have a closed periphery or circumference. In fact, before the district court, Petitioner advocated for the plain and ordinary meaning of “tubular structures” as “elongated hollow structures.” Ex. 1014, 3-6. Nike endorsed a plain and ordinary meaning interpretation, but proposed “tube-like structures” that “need not be hollow.” *Id.*; Pet., 14-15. Neither Petitioner nor its expert have ever suggested that a “tubular structure” must have a closed loop. Moreover, neither party’s construction before the district court included any closed-loop or closed periphery requirement. Thus, the Institution Decision’s construction rests primarily on Nike’s misrepresentation.

The record does not support limiting “tubular structures” to require a closed periphery or circumference. “There is a heavy presumption that claim terms are to be given their ordinary and customary meaning.” *Aventis Pharms. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013). “Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language.” *Aug. Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1286 (Fed. Cir. 2011); *see also Thorner v. Sony Comput. Ent. Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). A “patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.” *Thorner*, 669 F.3d

at 1367. Here, there is no lexicography or disavowal. In prior litigation against Puma involving the '046 patent, Nike itself confirmed that “tubular structures” should retain the full ordinary meaning, stating “[t]he inventors did not act as their own lexicographers, and the inventors did not disavow the full scope of the term in the specification or during prosecution.” Ex. 1020, 23.

As an initial matter, the claim term at issue is not “tube” but “**tubular** structure.” Both parties, along with the district court, agree that “tubular” means “tube-like” and does not require all properties of an actual tube. *See, e.g.*, (Ex. 1012, 16 (Court in Puma Litigation noting that the '046 patent “specification provides that the tubular structure can **vary in shape and dimensions**”); Ex. 1021, 24 (Nike arguing in Puma Litigation that “ordinary meaning of ‘tubular’ or ‘tube-like’ [] is broader than ‘tube’ because it can encompass something that **merely resembles a tube**”); Ex. 1022, 13 (Nike arguing in Puma IPR that “ordinary meaning of ‘tubular’ or ‘tube-like’ [] is broader than ‘tube’ because it can encompass something that **merely resembles a tube**” and “**the ‘046 Patent does not limit the shape or dimension of the ‘tubular structure,’**” (Ex. 1001, 7:34-44), which means ‘tubular structures’ do not have to be ‘tubes’”); Ex. 1023, 18 (Nike’s expert in Puma IPR asserting that “[a] **structure can be ‘tubular’ without having a tube shape**[,] [f]or example, a structure may be tube-like but not have a tube shape”). Nike’s own

assertions confirm the intrinsic record supports a broad scope for “tubular structures.”

The '046 patent explicitly discloses that “tubular structures” include open-periphery configurations such as channels, contradicting any requirement that these structures be closed loop. As the Federal Circuit has explained, the specification “is the single best guide to the meaning of a disputed term.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc). The '046 patent specifically describes tubular structures² that include open structures like “channels”: “A hollow tube 112 may be a generally unsecured area disposed between first curved portion 416 and second curved portion 418 ***of tubular rib structure that has the configuration of a tunnel or channel.***” Ex. 1001, 10:66-11:3.³ The '046 patent also explains that the channels may be “recessed channels,” stating “knitted component 100 can include ribs, tunnels, peaks and troughs, corrugations, steps, raised ridges and recessed channels, or other uneven features.” *Id.*, 7:4-7. This

² The parties agree that “tubular structures” refer to the same structures as “tubular rib structures.” POR, 2; Pet., 15.

³ This contrasts with “rib structures,” described as having a “wavy, undulating, corrugated, or otherwise uneven appearance.” Ex. 1001, 5:34-37.

language confirms that the '046 patent contemplates open-periphery tubular structures, such as channels (e.g., grooves^{4,5}). *See also* Ex. 2007, 39:19-40:8.

A proper construction of “tubular structures” must encompass all disclosed embodiments. *See Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1281-82 (Fed. Cir. 2017) (construing “emittance” to encompass both wireless and wired transmissions as disclosed). Excluding open configurations disclosed in the '046 patent, such as a channel, is legally impermissible. *See id.* at 1280 (“We normally do not interpret claim terms in a way that excludes disclosed examples in the specification.”); *see also, Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276-77 (Fed.

⁴ U.S. Patent No. 8,479,415 (“the '415 patent”) was issued to Nike one year before Nike filed the application that issued as the '046 patent. Ex. 1016. Nike's '415 patent discloses that “[i]n an exemplary embodiment, channel 500 may include a groove 602 formed in midsole 200 at midfoot region 12 of sole structure 101.” *Id.*, 10:33-35.

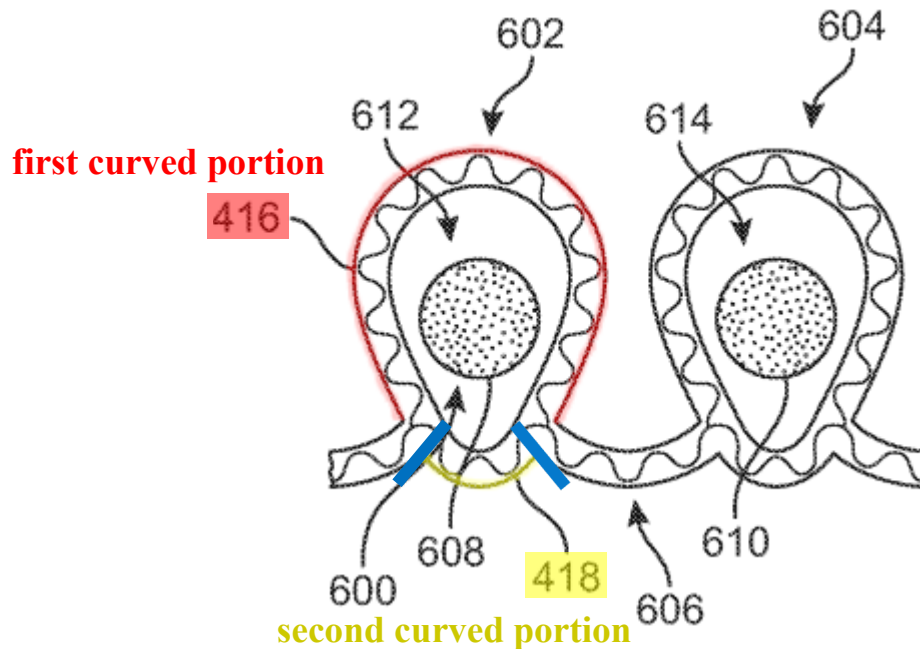
⁵ Nike filed the application that issued as U.S. Patent No. 9,833,039 (“the '039 patent”) one year before the application that issued as the '046 patent. Ex. 1017. Nike's '039 patent discloses that “[t]he terms ‘deep channel,’ ‘deep groove,’ and ‘primary groove’ are used interchangeably and synonymously in this specification.” *Id.*, 6:27-29.

Cir. 2008) (“At leas[t] where claims can reasonably [be] interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence [to] the contrary.”); *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1369 (Fed. Cir. 2003); *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007).

The doctrine of claim differentiation further demonstrates the error in Nike’s proffered construction. During prosecution of a continuation of the ’046 patent, Nike confirmed that “tubular structures” are not limited to closed peripheries or circumferences. Although the ’046 patent specification includes examples of tubular structures formed by joining two curved portions at two edges, Nike’s continuation claims reflect that a tubular structure can also include an open configuration, where the two curved portions are joined at only one edge. For instance, the ’046 patent describes an example of a tubular structure with two edges connected:

Generally, tubular rib structures 126 can be areas of knitted component 100 constructed with two or more co-extensive and overlapping knit layers. [...] Although *the sides or edges* of the knit layers forming tubular rib structures 126 *may be secured to the other layer*, a central area is generally unsecured to form a hollow between the two layers of knitted material forming each knit layer.

Ex. 1001, 7:14-25. This example, illustrated in Figure 6, shows a first curved portion 416 is attached to a second curved portion 418.



Id., Fig. 6 (annotated).

Claim 10 of Nike’s U.S. Patent No. 10,273,604 (the “’604 patent”)⁶ recites “a second curved portion, wherein the first curved portion and the second curved portion are attached together to define a tube forming a tubular rib structure.” Ex. 1018, Claim 10. This language merely specifies the attachment of the two curved portions. Dependent claim 11, however, narrows claim 10 by specifying a closed periphery: “the second curved portion is attached to the first curved portion at the

⁶ Nike filed a divisional based on the ’046 patent, from which it subsequently filed a continuation that issued as the ’604 patent. Ex. 1018.

first edge and the second edge.” *Id.*, Claim 11. To narrow claim 10’s scope, claim 10 must necessarily encompass a tubular rib structure that is not attached at both edges—thus lacking a closed periphery or circumference. *See Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380-81 (Fed. Cir. 2006) (The doctrine of “claim differentiation” provides that a claim should not be construed as requiring a limitation added by a dependent claim.)⁷. This further confirms that “tubular structures” in the ’046 patent are not limited to those with closed peripheries or circumferences.

The specification of the ’046 patent does not support the adopted construction. While the Institution Decision cited various passages from the specification (ID, 8), none of these statements limit the meaning of “tubular structures.” For example, the Institution Decision cited the specification’s statement: “***In some cases***, rib structures can be hollow tubes formed in the knitted component 100 by co-extensive and overlapping knit layers that are closed to form the tube.” Ex. 1001, 4:58-61. This statement, however, refers to “some cases” and does not limit all disclosed tubular structures to exclude channel configurations. The Institution Decision also referenced additional specification passages, including (i) column 17, lines 43-46

⁷ Nike cited this case for this proposition in its Patent Owner Preliminary Response during the Puma IPR, where Puma challenged the ’046 patent. Ex. 1022, 12.

(“at least one tubular course 804 **may be joined** by knitting to at least one web course 806 so as to form a loop and close tubular rib structure 126”), (ii) column 20, lines 3-5 (“course 1002 **may form** the second curved portion of tubular rib structure 126 that closes tubular rib structure 126 and forms a hollow tunnel”), and (iii) column 10, lines 20-32 (“first curved portion 416 and second curved portion 418 **may be knitted together** to define the tube forming tubular rib structure 126”). Each of these statements uses conditional language, which further demonstrates an intent not to limit the scope of “tubular structures.”

The specification’s repeated use of non-limiting phrases, such as “in some cases” and “may,” indicates no intent to disclaim or disavow claim scope. *See, e.g., In re Lockwood*, 679 Fed. App’x 1021, 1027 (Fed. Cir. 2017) (use of “may” and “for example” does not rise to the level of disclaimer or disavowal) (non-precedential); *see also Cont’l Cirs. LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019) (“[P]hrases such as ‘one technique,’ ‘can be carried out,’ and ‘a way’ indicate that using Probelec XB 7081 is only one method for making the invention and does not automatically lead to finding a clear disavowal of claim scope.”); *see also Sri Int’l, Inc. v. Dell Inc.*, No. CV 13-1534-SLR, 2015 WL 2265756, at *3 (D. Del. May 14, 2015) (“Under the most straightforward reading of this disclosure, the conditional language ‘may be used’ demonstrates the patentee’s unwillingness to make control by a single organization a necessary feature of the invention.”), *aff’d sub nom. SRI*

Int'l, Inc. v. Cisco Sys., Inc., 918 F.3d 1368 (Fed. Cir. 2019). Moreover, courts have established that “it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

Nike has confirmed that the intrinsic record neither defines “tubular structures” nor includes any disclaimer limiting the phrase to a “closed periphery or circumference.” Thus, the '046 patent's broad disclosure includes not only closed-loop tubular structures, but also open-periphery tubular structures, such as “channels.” *Thorner*, 669 F.3d at 1367.

III. GROUND 1

A. Claims 1 and 20: Good discloses “tubular structures”

As detailed in the Petition, Good discloses an article of clothing, such as a sock, with tubular rib portions adjacent to webbed areas. Pet. 21-22. Good's rib portions are tubular, with ends that roll together, maintaining an outwardly rolled configuration. *Id.*

Nike argues that Good's rib portions are not tubular structures because they allegedly become “essentially linear” when stretched. POR, 19-20. This argument, however, incorrectly assumes that Good's rib portions must retain a tubular form

under all conditions to qualify as tubular structures. This is not the case; Good’s rib portions meet the tubular structures limitation as long as they are tubular structures in at least one configuration or mode of operation. *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1363 (Fed. Cir. 2018) (“[I]nfringement is not avoided merely because a non-infringing mode of operation is possible.”); *Omega Patents, LLC v. CalAmp Corp.*, 920 F.3d 1337, 1344 (Fed. Cir. 2019) (finding that substantial evidence supported the jury’s verdict of infringement where the accused infringer’s witness testified that 95% of the time the accused product operated in a way that did not infringe); *CommScope Techs. LLC v. Dali Wireless Inc.*, 10 F.4th 1289, 1294 (Fed. Cir. 2021) (“Although the questions of infringement and anticipation are separate inquiries, the two are related. As the Supreme Court has stated, ‘[t]hat which infringes, if later, would anticipate, if earlier.’” (internal citations omitted)). As explained in the Petition, Good’s rib portions are tubular structures under at least some conditions. Pet., 28-30.

Even if retaining a consistent tubular form were required, Good discloses that its rib portions are tubular structures in both relaxed and extended positions. Nike’s contrary assertion relies solely on its expert’s unsupported opinion regarding the shape of the rib portions in the extended position, as depicted in Good’s figures. POR, 19-20. (citing Ex. 2006, ¶48). Both Nike and its expert overlook Good’s explicit disclosure: “in both the relaxed and extended conditions of the cuff member

10,110, *the rib portions 22 maintain their outwardly rolled configuration* to provide a unique and pleasing decorative appearance in each case.” Ex. 1005, 12:55-59. This statement confirms that Good’s tubular structures retain their tubular characteristics in each position. *See also* Ex. 2007, 45:18-24, 42:21-43:7.

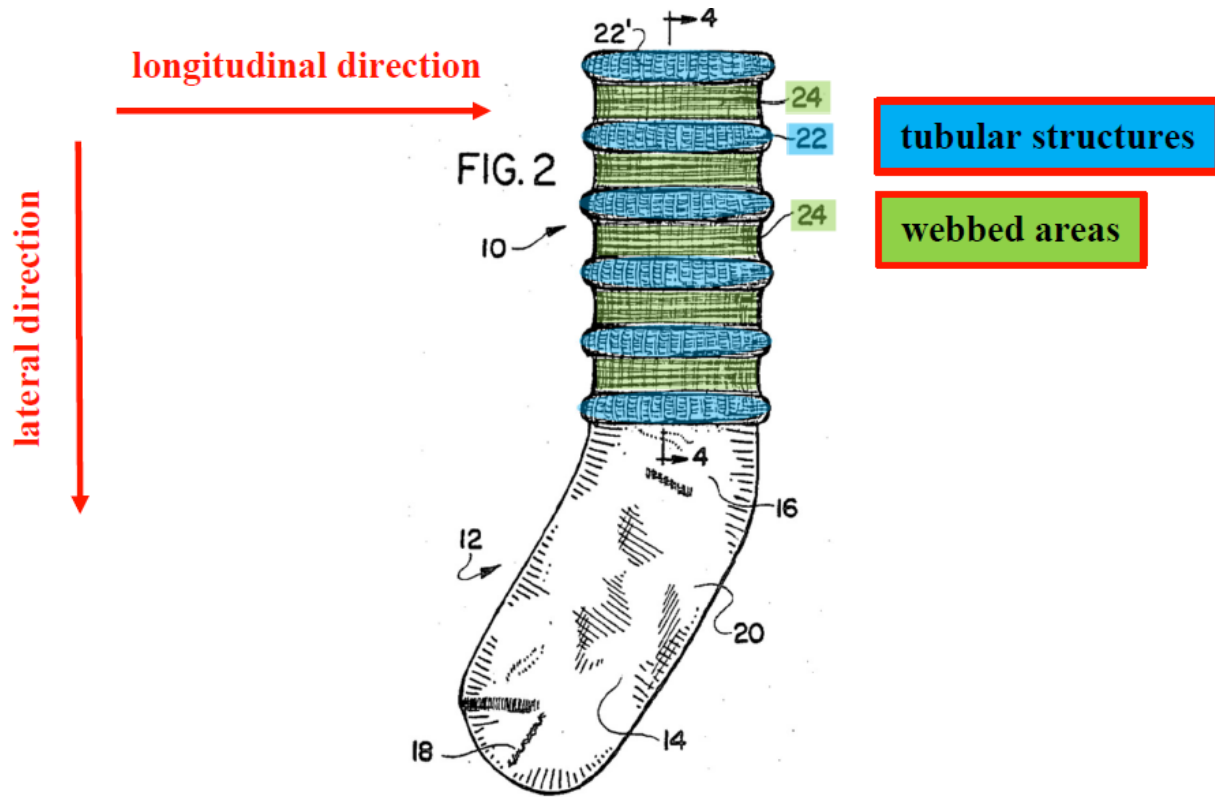
As noted above, Petitioner and Nike asked the Court to apply the plain and ordinary meaning to “tubular structures,” although the parties differed in their interpretations of that meaning. *Supra* §II. Petitioner explained that the plain and ordinary meaning is “elongated hollow structures,” while Nike proposed “tube-like structures” that “need not be hollow.” *Id.* Under either construction, Good’s rib portions are “tubular structures.” As explained in the Petition, the rib portions are both “elongated hollow structures” and “tube-like structures.” Pet., 60-66. Neither party’s proposed construction requires a closed periphery or circumference; rather, both encompass tube-like forms, including those with a channel configuration, as explicitly described in the ’046 patent (Ex. 1001, 10:66-11:3). Good’s rib portions satisfy both constructions of tubular structures, as confirmed by Good’s explicit disclosure and figures. Ex. 1005, 12:55-59, Figs. 1-4.

Therefore, Good’s rib portions are tubular structures, and Good anticipates independent claims 1 and 20 and also anticipates and/or renders obvious the challenged dependent claims.

B. Claim 2: Good’s webbed areas and tubular structures extend along a longitudinal direction

Nike argues that Good fails to disclose claim 2’s requirement that the plurality of webbed areas and tubular structures extend along the article’s longitudinal direction. Specifically, Nike contends that because Good’s webbed areas and tubular structures are arranged circumferentially around the cuff member, they are not straight and thus cannot extend in the longitudinal direction. POR, 22-24; Ex. 2006 ¶ 52; Ex. 1019, 37:22-43:3. But Nike’s argument improperly narrows the scope of this limitation by requiring the webbed areas and tubular structures to extend in a *straight line*.

Claim 2 simply requires that the webbed areas and tubular structures “extend along” the longitudinal direction without prohibiting them from extending along additional directions. Nike overlooks that a structure can extend along multiple directions simultaneously. As explained in the Petition, and as shown in the figure below, Good’s webbed areas and tubular structures extend along a longitudinal direction while also being spaced apart in a lateral direction. Pet., 35.



Id. The fact that the tubular structures also extend along a third dimension—perpendicular to both the longitudinal and lateral directions (such as into the page)—does not negate their extension along the longitudinal direction. This is supported by Nike’s expert, who acknowledges that, in a 3D coordinate system, “a line [can] extend in the X direction and the Z direction simultaneously.” Ex. 1019, 47:3-8. Additionally, Good’s figure clearly shows the connection portions and tubular structures extending both circumferentially and along the longitudinal direction.

Accordingly, Good anticipates dependent claim 2 and both anticipates and renders obvious its challenged dependent claim.

IV. GROUND 3

A. **Claim 8: Minami discloses tubular rib structures with “a first curved portion with a first curve length” that is “greater” than “a second curve length” of a “second curved portion”**

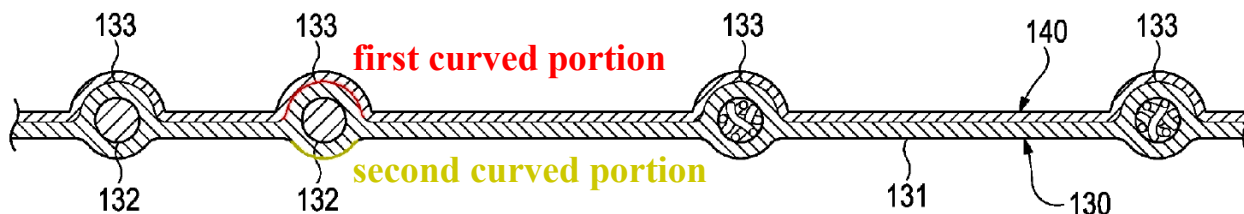
Nike does not dispute that Minami discloses “tubular rib structures,” but it argues that Minami fails to disclose a tubular rib structure in which the first curved portion has a curve length greater than the second curved portion. POR, 32-35. However, the Petition demonstrated that Minami discloses this limitation in at least Figure 7A, which clearly shows the first curve length as greater than the second. Pet., 64-66. Nike does not—and cannot—dispute that Figure 7A shows these differing lengths; instead, it argues that relying on Figure 7A for this limitation is improper, citing *Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc.*, 222 F.3d 951 (Fed. Cir. 2000). POR, 34. But Nike misapplies the law and ignores Minami’s clear disclosure in Figure 7A.

Claim 8 requires merely that the first curved portion have a greater curve length than the second. Courts and the Patent Office have found that such qualitative relationships can be discerned from a patent’s figures. *See e.g., In re Mraz*, 455 F.2d 1069, 1072 (CCPA 1972) (“Here, Fig. 3 in the Wilson reference focuses on the edge rolls, showing them with great particularity and showing the grooves thereon to have an angularity well within the range recited in appellant’s claims. Wilson, therefore, shows this aspect of subject matter lying within appellant’s claims to be old.”); *In re*

Aslanian, 590 F.2d 911, 914 (CCPA 1979) (invalidating claims based on patent figures and confirming that courts “evaluate and apply the teachings of all relevant references on the basis of what they reasonably disclose and suggest to one skilled in the art”); *Nested Bean, Inc. v. Big Beings USA Pty. Ltd.*, IPR2020-01234, Paper 34 (Final Written Decision), at 29-30, 35-36 (P.T.A.B. Jan. 24, 2022) (“Here, the limitation is a very broad qualitative limitation. We find that Petitioner’s analysis of Figure 1 is sufficient to show that ‘width of the suit between the wing portions is greater than the width of the bodice portion.’”); *Ex parte Jurek*, Appeal No. 2018-006215, Appl. No. 14/608,304, at 5-9 (P.T.A.B. April 19, 2019) (“[A] person of ordinary skill in the art would readily observe in Praisner’s Figure 3 that the ratio of the axial distance d_1 of the first gap and the axial distance d_2 of the second gap, illustrated as substantially or approximately the same length, ‘is less than 2.0.’ Such a determination is not the result of measurements to determine *precise* proportions or *particular sizes* of elements. Rather, it is based on what is illustrated in Praisner’s Figure 3 to a person of ordinary skill in the art by mere viewing and comparing two dimensions, that is, the length of the first axial distance d_1 to the length of the second axial distance d_2 .”) (emphasis original); *Ex parte De Coninck et al.*, Appeal No. 2017-003938, Appl. No. 13/475,013, at 6-8 (P.T.A.B. April 12, 2017) (“We thus agree with the Examiner that a simple observation of Gruskin’s Figure 6 reveals to a person of ordinary skill in the art that the top surface T of handle 50 forms an angle

of about 90° with a vertical axis passing through the top and bottom of container 10. As 90° is greater than about 50°, Gruskin discloses an angle “a”, as called for by claim 1. Such a determination is not the result of measurements to determine *precise* proportions or *particular* sizes of elements. Rather, it is based on what is clearly shown in Gruskin’s Figure 6 to a person of ordinary skill in the art.”) (emphasis original) (internal citations omitted).

As the Petition and the expert declaration explained, Figure 7A of Minami shows that the curved portion extending from the front side (shown in red in Figure 7A below) has a greater curve length than the curved portion extending from the back side (shown in yellow in Figure 7A below). Pet., 64-66, 62; Ex. 1003, ¶¶131-133, 129.



Ex. 1007, Fig. 7A (annotated). Thus, Minami discloses tubular rib structures with a first curved portion that has a greater curve length than a second curved portion.

Nike next argues that Minami’s Figure 7A “never intended to show the dimensions of anything.” POR, 37. This assertion, however, lacks support from Nike’s expert and is speculative. By contrast, Petitioner’s expert, Dr. Brookstein,

explained that a POSITA would have observed the differences in the curved portions in Minami's Figure 7A and found that disclosure significant. Ex. 1003, ¶¶129-133. *See Aslanian*, 590 F.2d at 914 (holding that patent drawings are useful for all they reasonably teach to a POSITA); *see also Mraz*, 455 F.2d at 1072 ("Description for the purposes of anticipation can be by drawings alone as well as by words." (citation omitted)). When asked if Figure 7A shows a longer upper curve length, Nike's expert conceded that "that might be true," admitting that "the top might be longer than the bottom" and, after viewing Dr. Brookstein's annotations, acknowledged, "I can see what he meant." Ex. 1019, 62:4-67:3.

Nike's reliance on *Hockerson-Halberstadt* to argue that Minami's Figure 7A does not disclose relative lengths is misplaced. POR, 34-37. *Hockerson-Halberstadt* involved a "quantitative relationship" requiring specific measurements between a groove and a fin. 222 F.3d at 956. By contrast, Minami's Figure 7A supports a visual comparison of relative curve lengths within a single element rather than precise proportions or specific sizes, enabling a POSITA to recognize structural differences without precise dimensions. Ex. 1003, ¶¶129-133.

Similarly, Nike's reliance on *In re Olson*, 212 F.2d 590 (CCPA 1954), *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136 (Fed. Cir. 2005), and *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343 (Fed. Cir. 2013), is misplaced. POR, 34-35. While *Olson* noted that ordinarily patent drawings "do not define the *precise proportions* of

elements relied upon” (*Olson*, 212 F.2d at 592), and *Nystrom* advised against “reading ***precise proportions*** into patent drawings which do not expressly provide such proportions” (*Nystrom*, 424 F.3d at 1149), these cases, like *Hockerson-Halberstadt*, focus on precise measurements. Similarly, *Plantronics* observed that a specific patent’s figures “do not evidence ***actual dimensions***.” *Plantronics*, 724 F.3d at 1351. Here, the Petition relies on a visual comparison of relative lengths in Figure 7A—a qualitative relationship that does not require precise measurements or actual dimensions.

Nike also argues that “Minami expressly states that the drawings ‘are not’ drawn to scale.” POR, 35 (emphasis removed). Nike’s expert asserts similarly that Minami’s Figure 7A “is a not-to-scale drawing.” Ex. 1019, 66:9-12. However, both mischaracterize Minami’s disclaimer, which only notes that “[t]he components in the figures are ***not necessarily*** to scale.” Ex. 1007, [0010]. This general disclaimer does not undermine Figure 7A’s clear disclosure. A POSITA would have understood Figure 7A as providing observable information about the relative length of the sides of the tubular rib structure. Ex. 1003, ¶¶132-133.

The court in *Hockerson-Halberstadt* based its reluctance on the absence of an indication that drawings reflected scale. 222 F.3d at 956. By contrast, Minami’s disclosure does not preclude its figures from reflecting relative proportions, allowing

a POSITA to reasonably interpret Figure 7A as illustrating relative curve lengths (Ex. 1003, ¶¶132-133).

Minami’s disclosure aligns more closely with the prior art applied in *In re Mraz*, 455 F.2d 1069 (CCPA 1972). In *Mraz*, a prior art patent drawing “focus[ed] on the edge rolls, showing them with great particularity and showing the grooves thereon to have an **angularity** well within the range recited in appellant’s claims.” 455 F.2d at 1072. The court confirmed that, while patent drawings are not working drawings, this does “not mean that things patent drawings show clearly are to be *disregarded*.” *Id.* (emphasis original). Contrary to Nike’s assertions, the court in *Mraz* emphasized that “[d]escription for the purposes of anticipation can be by drawings alone as well as by words” (*Id.*), underscoring the validity of that clear visual disclosures, as in Figure 7A here, which provides significant information on relative lengths (Ex. 1003, ¶¶132-133).

Nike’s assertion that using an “enlarge[d]” depiction of Figure 7A is improper is incorrect. POR, 36-37. The magnified view merely highlights a feature already apparent in the original figure. Ex. 2007, 69:9-18.

The circumstances here are also similar to *Aslanian*, where the court found that figures alone disclosed “a longitudinally convex portion ... having a **height** approximately corresponding to said first convex portion.” *Aslanian*, 590 F.2d at

912, 915. The court affirmed that patent drawings convey information valuable to a POSITA. *Id.* at 914.

Finally, Nike argues that Minami is “entirely silent as to as the lengths of the ‘first curved portion’ and the ‘second curved portion.’” POR, 33. Although Minami does not explicitly state these lengths, the disclosed function of the tubular rib structures suggests this difference. Minami’s upper is designed for a soccer shoe, where tubular rib structures enhance ball control. Ex. 1007, [0062]; Ex. 1003, ¶¶143-144, 151. This functional and structural context would have led a POSITA to understand that Minami’s outward-facing tubular rib portions are intended to protrude more prominently from the webbed area than the foot-facing portions, thus providing the performance benefits disclosed in Minami while maintaining comfort for the wearer.

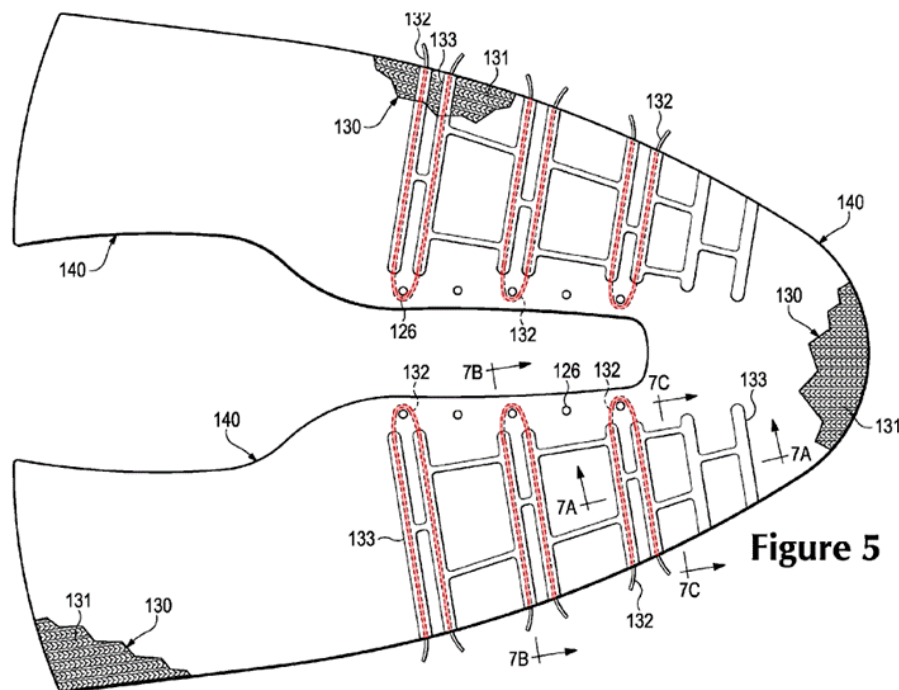
B. Claim 8: Minami discloses “webbed areas” that are “configured to move between a neutral position and an extended position”

Nike argues that Minami does not disclose webbed areas configured to move between a neutral position and an extended position for two reasons. POR, 37-40.

First, Nike asserts that “Minami’s knit element is expressly configured not to stretch.” *Id.*, 38 (emphasis removed). To support this assertion, Nike points to a “skin layer” in Minami that may coat the knit element to inhibit stretch. *Id.* But, as the Institution Decision correctly noted (ID, 16 fn. 6), Minami explicitly discloses that the skin layer is absent in some embodiments (Ex. 1007, [0054]), which directly

undermines Nike’s assertion. In fact, Minami explains that “the presence of protruding areas 133 when skin layer 140 is absent may impart additional thickness or loft to upper 120, **while also varying the stretch properties of upper 120**” (*id.*, [0054]), confirming that Minami’s upper and its knit element are configured to stretch. Moreover, even when present, the skin layer only “form[s] a majority or a relatively large portion of exterior surface” and is “utilized to reinforce areas of [the] upper,” rather than covering the entire surface. *Id.*, [0043]-[0044].

Nike also points to Minami’s inlaid strand as further support. POR, 38. However, as shown in Figure 5 below, the inlaid strand 132 (red) is incorporated only around a small portion of the knit element 131.



Ex. 1007, Fig. 5 (color added). Consequently, the presence of the inlaid strand does not demonstrate that the rest of the knit element are not configured to stretch. On

the contrary, Nike’s expert conceded that the inclusion of the inlaid strand actually confirms the webbed areas stretch, agreeing that “the knit element of the webbed portions stretches more than the inlaid strands.” Ex. 1019, 58:14-60:13.

Furthermore, even if Minami were limited to having an inlaid tensile strand in its tubular structures, this would not prevent the webbed areas from stretching. The ’046 patent includes embodiments where the tubular structures incorporate inlaid tensile elements without preventing stretch in the webbed areas or the knit element as a whole. *See e.g.*, Ex. 1001, Claims 5 (covering “a plurality of webbed areas ... , the webbed areas configured to move between a neutral position and an extended position,” “a plurality of tubular structures that are adjacent to the webbed areas,” and “at least one tubular structure of the plurality of tubular structures includes a tensile element disposed in a central unsecured area within the hollow between the two knit layers”), 13 (covering “a plurality of webbed areas and a plurality of tubular rib structures,” “the webbed areas configured to move between a neutral position and an extended position,” and “a tensile element disposed within at least one of the plurality of tubular rib structures”), 8:18-20 (“Webbed areas 128 and/or tubular rib structures 126 can flex, deform, or otherwise move as knitted component 100 stretches.”) *along with* 7:26-30 (“[T]he central area of tubular rib structures 126 may be configured such that another element (e.g., a tensile element)

may be located between and pass through the hollow between the two knit layers forming tubular rib structures 126.”).

Nike goes on to state that Minami’s webbed areas are not “designed to” stretch. POR, 38-39. This argument is unsupported. Minami explains that the majority of its upper is formed from a knitted component (Ex. 1007, [0042]), which includes both the knit element and an inlaid strand (*id.*, [0048]). Notably, claim 1 of Minami specifies “the upper comprising: ... the foot region having a first degree of stretch; and ... the ankle region having a second degree of stretch; ... the first degree of stretch being less than the second degree of stretch.” Ex. 1007, Claim 1. This disclosure clearly indicates that Minami’s upper, including its webbed areas, is designed to stretch across different regions.

Second, Nike argues that even if Minami’s knit element is configured to stretch, its webbed areas are not configured to move between two distinct configurations: a neutral position and an extended position. POR, 39-40. Specifically, Nike asserts that Minami does not disclose—and Petitioner has not identified—“any ‘extended position’ into which the portions between Minami’s protruding areas 133 move.” *Id.* But this argument is based solely on the unsupported opinion of Nike’s expert, who arrived at this conclusion based on the incorrect understanding that Minami’s knit element is not configured to stretch (Ex. 2006, ¶66). As discussed in the preceding two paragraphs and detailed in the Petition

and its expert declaration (Pet., 66-68; Ex. 1003, ¶¶134-138), Minami’s knit element and its webbed areas are indeed configured to stretch and to move between a neutral position and an extended position.

Furthermore, Nike’s argument implies that an “extended position” must be a specialized configuration rather than simply a position relative to the neutral position. In reality, the extended position is merely the natural result of stretching from the neutral position, as expected for a knit element designed to move and adapt. By implying that the extended position must be specialized relative to the neutral position—rather than simply a stretched position—Nike imposes a requirement that neither claim 8 nor the ’046 patent’s specification demands. Minami’s knit element’s ability to reach an extended position relative to its neutral position aligns with the plain and ordinary meaning of these phrases, as well as with the stretchable configurations disclosed.

Therefore, Minami anticipates independent claim 8 and also anticipates and/or renders obvious its challenged dependent claims.

Respectfully submitted,

Dated: November 8, 2024

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this **PETITIONER’S REPLY TO PATENT OWNER’S RESPONSE** contains 5,499 words according to the word-processing program used to prepare this paper. The foregoing word count complies with the 5,600-word type-volume limit specified by 37 C.F.R. § 42.24(c)(1).

Dated: November 8, 2024

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CERTIFICATE OF SERVICE

The undersigned hereby certifies service on the Petitioner, pursuant to 37 C.F.R. § 42.6(e) and by agreement of counsel, by electronic (e-mail) delivery of a true copy of the foregoing **REPLY IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW AND EXHIBITS 1016-1023** was served on November 8, 2024 to the following Counsel for Patent Owner via email:

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