UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOP GLORY TRADING GROUP INC. and

DP DREAM PAIRS, INC.,

Petitioners,

v.

COLE HAAN LLC,

Patent Owner.

IPR2025-01394

U.S. PATENT NO. 11,041,262

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Exhibit No.	Description
2001	Cole Haan Infringement Letter to Top Glory, dated July 19, 2022
2002	Cole Haan – Top Glory Settlement Agreement, dated November 15, 2022
2003	Cole Haan – Top Glory Correspondence, dated September 8, 2023 to January 24, 2024
2004	Complaint for Patent Infringement against operators of wearbreeze.co, filed February 6, 2025
2005	Petitioners' Corporate Disclosure Statement, dated March 14, 2025
2006	Cole Haan's Opposition to Petitioners' Motion to Stay
2007	Bruno Marc sales webpage on Dream Pairs website, available at https://www.dreampairs.com/brand/bruno-marc
2008	Cole Haan's Product Patent webpage, available at https://www.colehaan.com/Patents.html
2009	Declaration of Thomas Linko, dated November 12, 2025
2010	Cole Haan's Product Patent dated August 12, 2019 and Email Confirmation
2011	Cole Haan's Product Patent webpage dated December 16, 2019 and Email Confirmation
2012	Cole Haan's Product Patent webpage dated October 11, 2021 and Email Confirmation
2013	Julie Zerbo, Protecting Fashion Designs: Not Only "What?" But "Who?", 6 Am. U. Bus. L. Rev. 595 (2017)
2014	Cole Haan's About Us webpage, available at https://www.colehaan.com/about-us

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2015	Lisa Wang, The Copying of Independent Fashion Designers: Perils and Potential Remedies in a Post-Star Athletica World, 75 Stan. L. Rev. 979 (2023)
2016	Petitioners' Invalidity Contentions served October 21, 2025
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2018	PR Newswire's June 21, 2022, article announcing Miracle Miles Group's closing of Series A funding, available at https://www.prnewswire.com/news-releases/miracle-miles-group-inc-closes-100m-series-to-accelerate-growth-301571802.html
2019	U.S. Patent No. 10,333,768
2020	U.S. Patent No. 10,339,825
2021	U.S. Patent No. 10,475,737
2022	PR Newswire's August 30, 2024, article announcing Bruno Marc's Flex Oxford Collection Launch, available at https://www.prnewswire.com/news-releases/bruno-marc-launches-flex-oxford-collection-mens-oxfords-redefined-with-classic-elegance-and-sneaker-comfort-302234986.html
2023	Cole Haan's Opposition to Petitioners' Motion to Dismiss
2024	Petitioners' Reply in Support of 12(b)(6) Motion to Dismiss
2025	Judge Esther Salas 12(b)(6) Motion to Dismiss Pendency Statistics
2026	U.S. Patent No. 7,347,011 ("Dua'011")
2027	U.S. Patent No. 2,312,078 ("Crannell")
2028	Cole Haan's Men's Stitchlite webpage, available at https://www.colehaan.com/mens-stitchlite

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2029	Bruno Marc's KnitFlex Sales webpage, available at https://www.brunomarc.com/search?keyword=knitflex
2030	Bruno Marc's MaxFlex Sales webpage, available at https://www.brunomarc.com/search?keyword=maxflex
2031	Dream Pairs' KnitFlex Sales webpage, available at https://www.dreampairs.com/search?keyword=knitflex
2032	Dream Pairs' MaxFlex Sales webpage, available at https://www.dreampairs.com/search?keyword=maxflex
2033	A New Level of Lite: Cole Haan Launches ZERØGRAND Stitchlite™ webpage, available at https://www.prnewswire.com/news-releases/a-new-level-of-lite-cole-haan-launches-zerogrand-stitchlite-300404460.html
2034	Cole Haan LLC's Exchange of Preliminary Claim Constructions and Extrinsic Evidence, dated December 5, 2025
2035	Defendants' Preliminary Claim Constructions, dated December 5, 2025

CLAIM LISTING

The challenged claims in this proceeding are claims 1–13 of U.S. Patent No. 11,041,262 ("the '262 Patent"), reproduced below:

Claim 1	
[1.pre]	A method of manufacturing an article of footwear having a knit upper and a sole, the method comprising:
[1.a.i]	knitting with a knitting machine to form a knitted element of the knit upper such that the knitted element is of a unitary one-piece construction comprising
[1.a.ii]	a knitted upper heel region, a knitted upper lateral midfoot region, a knitted upper medial midfoot region, a knitted upper metatarsal region including an upper lateral metatarsal region and an upper medial metatarsal region, a knitted upper lateral ball region, a knitted upper medial ball region, a knitted upper toe region,
[1.a.iii]	a knitted upper lateral side region including the knitted upper lateral midfoot region, the knitted upper lateral metatarsal region, and the knitted upper lateral ball region, a knitted upper medial side region including the knitted upper medial midfoot region, the knitted upper medial metatarsal region, and the knitted upper medial ball region,
[1.a.iv]	a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions,
[1.a.v]	the first area having a rear boundary, the second area having a forward boundary, the rear boundary of the first area and the forward boundary of the second area being coincident and coextensive with each other and defining a boundary line between the first and second areas,
[1.a.vi]	and a line of broguing adjacent the boundary line; and
[1.a.vii]	attaching the sole to the knit upper;
[1.b]	the knitted upper toe region being seamlessly knitted with the knitted upper medial and lateral ball regions during the knitting step, the knitted upper medial and lateral ball regions being seamlessly knitted with the knitted upper metatarsal region during the knitting step, the knitted upper metatarsal region being seamlessly knitted with the knitted upper lateral and medial midfoot regions during the knitting step, and
[1.c]	the first and second areas being knitted during the knitting step.

Claim 2	
2	A method as set forth in claim 1, further comprising a medial boundary line and a lateral boundary line of the boundary line being formed during the knitting step; and a medial line of broguing and a lateral line of broguing of the line of broguing being formed during the knitting step; the medial line of broguing being adjacent the medial boundary line, the lateral line of broguing being adjacent the lateral boundary line, the medial line of broguing comprising a curved line of holes, and the lateral line of broguing comprising a curved line of holes.
Claim 3	
3	A method as set forth in claim 1, wherein the knit upper is knitted during the knitting step with at least first and second yarns, the first yarn being of a hot melt yarn, the second yarn being of a yarn other than a hot melt yarn.
Claim 4	
[4.pre]	A method as set forth in claim 3, further comprising:
[4.a]	placing the knit upper around a last;
[4.b]	applying heat to the knit upper while the knit upper is around the last to cause the hot melt yarn to affix to the second yarn.
Claim 5	
[5.pre]	A method as set forth in claim 1, wherein
[5.a]	the knitted element further includes a knitted lateral eyestay area and a knitted medial eyestay area, each knitted during the knitting step;
[5.b]	the knitted upper lateral midfoot region includes a knitted lateral midfoot area knitted during the knitting step;
[5.c]	the knitted upper medial midfoot region includes a knitted medial midfoot area knitted during the knitting step; and
[5.d]	the knitted element includes additional lines of broguing between the lateral midfoot area and the lateral eyestay area and between the medial midfoot area and the medial eyestay area, the additional lines of broguing being formed during the knitting step.
Claim 6	
[6.pre]	A method as set forth in claim 1, wherein
[6.a]	the knitted upper lateral midfoot region includes a knitted lateral midfoot area knitted during the knitting step;
[6.b]	the knitted upper medial midfoot region includes a knitted medial midfoot area knitted during the knitting step; and
[6.c]	the knitted element includes additional lines of broguing between the lateral midfoot area and the second area and between the medial midfoot

	area and the second area, the additional lines of broguing being formed during the knitting step.
Claim 7	
[7.pre]	A shoe comprising:
[7.a]	a knit upper;
[7.b]	a sole secured to the knit upper;
[7.c.i]	the knit upper having a knitted element, the knitted element being formed of a unitary one-piece construction during a knitting process on a knitting machine,
[7.c.ii]	the knitted element comprising a knitted upper lateral midfoot region, a knitted upper medial midfoot region, a knitted upper metatarsal region, a knitted upper lateral ball region, a knitted upper medial ball region, a knitted upper toe region
[7.c.iii]	and a line of broguing;
[7.d]	the knitted upper metatarsal region including a knitted upper lateral metatarsal region and a knitted upper medial metatarsal region,
[7.e]	the knitted element having a knitted upper lateral side region and a knitted upper medial side region, the knitted upper lateral side region including the knitted upper lateral midfoot region, the knitted upper lateral metatarsal region, and the knitted upper lateral ball region, the knitted upper medial side region including the knitted upper medial midfoot region, the knitted upper medial metatarsal region, and the knitted upper medial ball region,
[7.f.i]	the knitted element comprising a first area of a jersey stitch knit and a second area of a pointelle stitch knit, the first area being at least in the knitted upper toe region, the second area being at least in the knitted upper lateral and medial metatarsal regions,
[7.f.ii]	the first area having a rear boundary, the second area having a forward boundary, the rear boundary of the first area and the forward boundary of the second area being coincident and coextensive with each other and defining a boundary line between the first and second areas,
[7.f.iii]	the boundary line being adjacent the line of broguing; and
[7.g]	the knitted upper toe region being seamlessly knitted with the knitted upper medial and lateral ball regions during the knitting process, the knitted upper medial and lateral ball regions being seamlessly knitted with the knitted upper metatarsal region during the knitting process, the knitted upper metatarsal region being seamlessly knitted with the knitted upper lateral and medial midfoot regions during the knitting process, and
[7.h]	the first and second areas being knitted during the knitting process.

Claim 8	
8	A shoe as set forth in claim 7, wherein the boundary line comprises a medial boundary line and a lateral boundary line, and wherein the line of broguing includes a medial line of broguing and a lateral line of broguing, the medial line of broguing being adjacent the medial boundary line, the lateral line of broguing being adjacent the lateral boundary line, the medial line of broguing comprising a curved line of holes, and the lateral line of broguing comprising a curved line of holes.
Claim 9	
9	A shoe as set forth in claim 7, wherein the knit upper is knitted during the knitting process with at least first and second yarns, the first yarn being of a hot melt yarn, the second yarn being of a yarn other than a hot melt yarn.
Claim 10	
10	A shoe set forth in claim 9, further comprising the hot melt yarn being affixed to the second yarn by heat applied to the knit upper while the knit upper is positioned around a last.
Claim 11	
[11.pre]	A shoe as set forth in claim 7, wherein.
[11.a]	the knitted element further includes a knitted lateral eyestay area and a knitted medial eyestay area,
[11.b]	the knitted upper lateral midfoot region including a knitted lateral midfoot area,
[11.c]	the knitted upper medial midfoot region including a knitted medial midfoot area, and
[11.d]	wherein broguing holes forming additional lines of broguing are between the lateral midfoot area and the lateral eyestay area and between the medial midfoot area and the medial eyestay area, wherein the knitted element is knitted with the broguing holes during the knitting process.
Claim 12	
[12.pre]	A shoe as set forth in claim 7, wherein
[12.a]	the knitted upper lateral midfoot region includes a knitted lateral midfoot area and
[12.b]	the knitted upper medial midfoot region includes a knitted medial midfoot area, and
[12.c]	wherein broguing holes forming additional lines of broguing are between the lateral midfoot area and the second area and between the medial midfoot area and the second area, wherein the knitted element is knitted with the broguing holes during the knitting process.

Claim 13	
13	A shoe as set forth in claim 7, wherein the knitted element further includes a knitted upper heel region formed during the knitting process.

I. INTRODUCTION

Patent Owner Cole Haan LLC ("Patent Owner") submits this preliminary response to the Petition filed by Petitioners Top Glory Trading Group Inc. and DP Dream Pairs, Inc. ("Petitioners") requesting *inter partes* review ("IPR") of claims 1-13 (the "Challenged Claims") of U.S. Pat. No. 11,041,262 (the "'262 Patent").

Institution should be denied because the Petition fails to demonstrate a reasonable likelihood that the Challenged Claims of the '262 Patent are unpatentable. Contrary to Petitioners' arguments: (1) all the claim limitations of the '262 Patent are entitled to patentable weight; and (2) when given proper weight, the Petition's asserted references and arguments—which are cumulative of the art and arguments cited during prosecution of the '262 Patent and its parent, U.S. Patent No. 10,327,511 (the "'511 Patent")[1]—fail to render the claims obvious.

[1] As explained in Patent Owner's Request for Discretionary Denial (Paper 10), Petitioners' invalidity grounds are substantively identical to art and arguments Patent Owner overcame during prosecution of the '511 Patent, of which the '262 Patent is a continuation. In fact, Petitioners' grounds are so similar that Patent Owner overcame the same and similar art authored by the same inventor as Petitioners' primary reference here, Dua'256. EX1012, 108; Paper 10, 8-11.

First, the so-called "ornamental" limitations are anything but—these limitations provide structure and function to the claimed shoe and, as such, are entitled to patentable weight. Even if this was a proper forum in which to challenge patentable weight (and it is not), Petitioners' asserted references and expert acknowledge the structural and functional roles of these limitations. *See, e.g.*, EX1004, [0035] ("[A] flat knitting process may be utilized to substantially form upper 30 to have various ***properties and structural features*** that are advantageous to footwear.")[2]; EX1003, ¶145 (Petitioners' expert citing EX1004, [0035]); EX1007, 10 ("Shoes are perhaps the most functional item in a man's wardrobe.").

Next, all invalidity grounds advanced in the Petition are based only on obviousness rooted in impermissible hindsight. The combinations of asserted references leave missing critical limitations claimed in the '262 Patent, and Petitioners fail to show that a person of ordinary skill in the art ("POSITA") would have been motivated to supply those missing limitations. Specifically, Petitioners' asserted references fail to disclose or render obvious at least one limitation from each independent claim of the '262 Patent, including one or more of: [1.a.iv], [1.a.vi], [1.c], [7.c.iii], [7.f.i], and [7.f.iii].

[2] Emphasis added throughout unless indicated otherwise.

With respect to these limitations, Petitioners' arguments rely on the knowledge of a POSITA rather than the references' express disclosures. And the POSITA's supposed knowledge is supplied solely by conclusory, *ipse dixit* expert argument that attempts to gap-fill between the references' disclosures and the claimed limitations, contrary to 37 C.F.R. § 42.104(b)(4). None of Petitioners' asserted references disclose or suggest a knitted upper element having the claimed broguing required by the Challenged Claims. And, despite offering numerous unfounded arguments as to why a POSITA would have found it obvious to modify Petitioners' base reference to include the missing limitations, neither Petitioners nor their expert sufficiently explain ***how or why*** a POSITA would have made Petitioner's proposed modifications or had a reasonable expectation of success in making them.

Petitioners do not carry their burden to demonstrate with reasonable likelihood that any of the Challenged Claims are unpatentable. Accordingly, the Petition should be denied, and this proceeding should be terminated.

II. SUMMARY OF THE '262 PATENT

The '262 Patent is directed to a shoe comprising a knit upper and a sole secured to the upper, the knit upper having a knitted element, and the knitted element being formed of a unitary one-piece construction. EX1001, Claim 1. The knitted element includes multiple regions, including lateral and medial midfoot regions, lateral and medial metatarsal regions, lateral and medial ball regions, and the toe

region. *Id.*, 2:35-42. Each of these regions is seamlessly knitted with its abutting region as part of the unitary one-piece construction process. *Id.*, 6:2-45.

A. Knit Upper Having a Knitted Element with a Unitary One-Piece Construction

One aspect of the invention taught by the ’262 Patent is a knit upper having “a knitted element [being] formed of a unitary one-piece construction during a knitting process on a knitting machine.” *Id.*, 1:65-66. The ’262 Patent teaches that multiple areas of varying knit structures can be knitted into the knitted element of the upper during the unitary one-piece construction process. *Id.*, 4:63-66. Each region of the knit upper’s knitted element, including “the upper lateral and medial heel regions,” “the upper lateral and medial midfoot regions,” “the upper lateral and medial metatarsal regions,” “the upper lateral and medial ball regions,” and “the upper lateral and medial toe regions,” may correspond to a different knit stitch type; although, the ’262 Patent explains that the various knit structures can span across multiple areas of the knitted element. *See generally id.*, 4:21-31. Certain knit structures, such as a jersey stitch knit “may be more tightly knit than” others, such as a pointelle stitch knit. *Id.*, 5:43-48. Altogether, these knit regions “are knitted as a…unitary one-piece construction…formed together via the knitting process, as opposed to being formed separately and then sewn or bonded together.” *Id.*, 6:5-10.

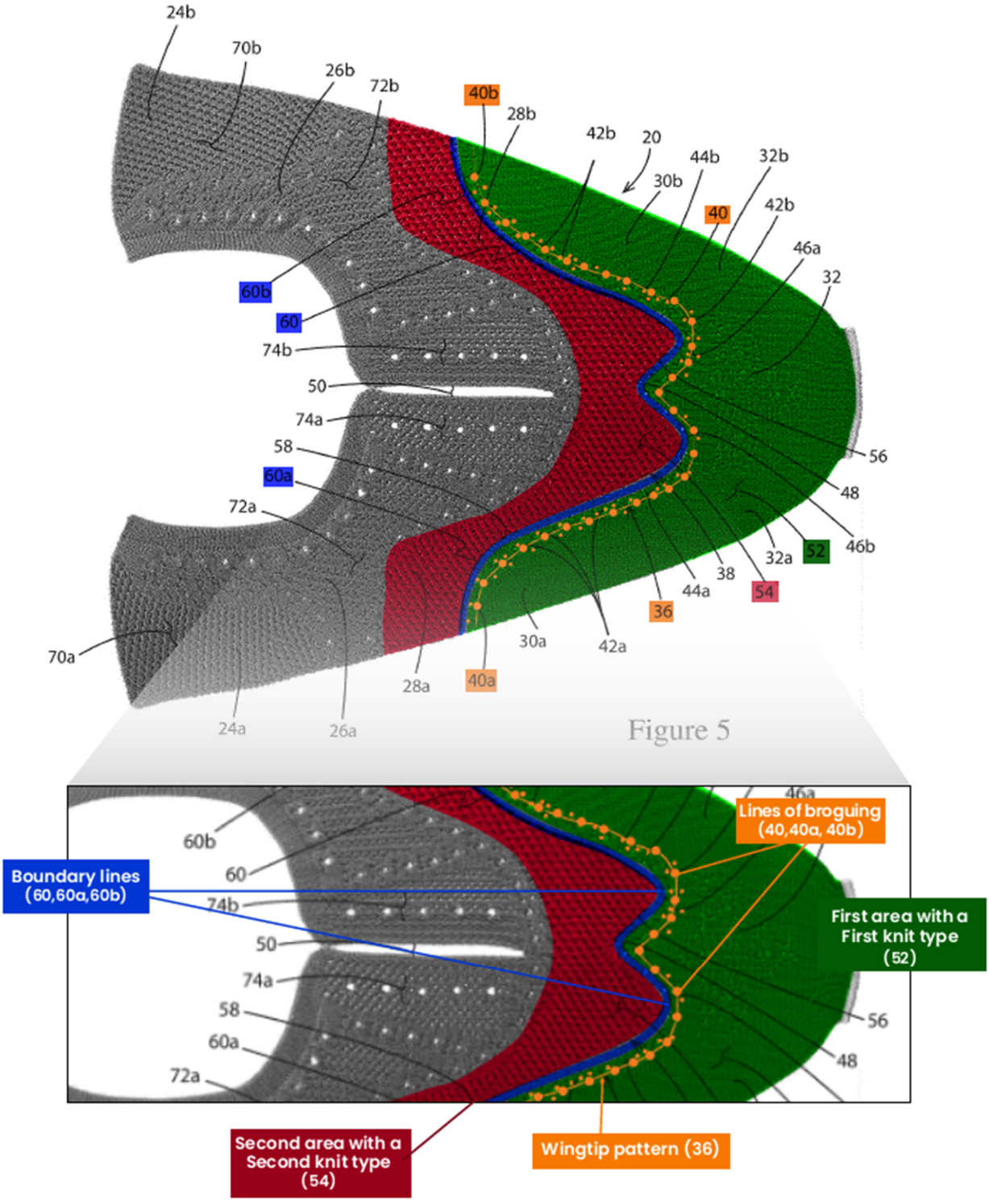
A related, unconventional aspect of the knitted element claimed in the ’262 Patent is the seamless joinder of various regions. *Id.*, 6:19-33. “By being knitted as

a…unitary one-piece construction, it is to be understood that these various regions of the knitted element are formed together via the knitting process, as opposed to the regions being formed separately and then sewn or bonded together." *Id.*, 6:19-24. Knitting each of the knitted element's regions "seamlessly" and "during the knitting step" provides a shoe having a knit upper with a one-piece knitted element having multiple features but without the drawbacks of additional seams or sewing.

B. Wingtip and Broguing

The '262 Patent further discloses knitting at least one wingtip pattern into the knitted element of the knit upper. According to the '262 Patent, "[t]he knitted element includes a first wingtip pattern…and a second wingtip pattern." *Id.*, 4:35-37. "Each of the first and second wingtip patterns…comprises portions of at least the upper toe region[,] the upper lateral and medial ball regions[,] and the upper lateral and medial metatarsal regions[.]" *Id.*, 4:37-41. These regions, "collectively are knitted with the first and second wingtip patterns…during the knitting process." *Id.*, 4:41-45.

As shown below in the annotated Figure 5 of the '262 Patent, the first wingtip pattern 36 (**orange** line) "comprises a line of broguing…comprising a lateral line of broguing…and a medial line of broguing" (**orange** dots), *id.*, 4:46-48:



Both the lateral line and medial lines of broguing "comprise[] a wing-shaped curved line of holes." *Id.*, 4:52-53. "The lateral line of broguing…comprises a lateral

side broguing portion extending forward from at least the upper lateral metatarsal region…to the upper toe region[,] and a central broguing portion…extending rearward from the upper toe region." *Id.*, 4:53-57. "The medial line of broguing…comprises a medial side broguing portion…extending forward from at least the upper medial metatarsal region…to the upper toe region[,] and a central broguing portion…extending rearward from the upper toe region." *Id.*, 4:61-66. The central broguing portions ultimately converge rearwardly toward each other and meet to constitute a rearwardly pointing apex. *Id.*, 5:2-4.

Unlike more traditional broguing, which required the "removal of material such as by cutting or punching," "the holes…of the lateral and medial lines of broguing" described embodiments of the '262 Patent are included "in the [unitary one-piece construction of the] knitting element." *Id.*, 5:6-9; 6:39-60. In this way, the '262 Patent departs from the traditional use of broguing in leather to allow for the use of knit uppers having a unitary knitted element while still offering the breathability and permeability benefits provided by early brogues. *Cf.* EX1047, 20.

The second wingtip pattern 38 comprises a boundary line 60 (**blue**). EX1001, 5:20-21. Like the first wingtip pattern, the second wingtip pattern 38 "comprises portions of at least the upper toe region 32, the upper lateral and medial ball regions 30*a*, 30*b*, and the upper lateral and medial metatarsal regions 28*a*, 28*b*" and

these regions "collectively are knitted with the first and second wingtip patterns." *Id*., 4:37-45.

C. Knitted Element with Different Areas Having Different Knit Structures, Including Jersey and Pointelle Stitch Knit

Another aspect of the '262 Patent is its integration of multiple areas having different knit structures into the upper's knitted element. *See generally id.*, 5:10-50. As shown above in annotated Figure 5 from the '262 Patent, "[t]he rear boundary 56 of the first area 52 [**green**] and the forward boundary 58 of the second area 54 [**red**] is coincident and coextensive with each other and define [the] boundary line 60 [**blue**] between the first and second areas 52, 54." *Id.*, 5:17-20. "[T]he lateral and medial lines of broguing 40*a*, 40*b* are adjacent the boundary line 60." *Id.*, 5:23-24. "The boundary line 60 has a lateral boundary line 60*a* and a medial boundary line 60*b*," each "compris[ing] a wing-shaped curved line having a…side portion [62*a*, 62*b*] extending forward from at least the upper…metatarsal region [28*a*, 28*b*] to the upper toe region 32, and a central portion [64*a*, 64*b*] extending rearward from the upper toe region 32." *Id.*, 5:26-38. "The central portions 64*a*, 64*b* of the lateral and medial boundary lines 60*a*, 60*b* converge rearwardly toward each other, and meet to constitute a rearwardly pointing apex 66." *Id.*, 5:38-41.

In one embodiment, the '262 Patent describes a "first area of a jersey stitch knit" structure on the knitted element in the upper toe region that is joined seamlessly with a "second area of a pointelle stitch knit" in the upper lateral and medial

metatarsal regions. *Id.*, 3:19-26. Relatedly, the '262 Patent explains that the "first type of knit structure (that is, the knit structure of the first area) may be more tightly knit than the second type of knit structure (that is, the knit structure of the second area)." *Id.*, 5:42-46.

III. PROSECUTION HISTORY

A. '262 Patent

Application No. 16/577,697 ("'697 Application"), which issued as the '262 Patent, was filed on May 13, 2019, with two independent claims (Claims 1 and 7) and eleven dependent claims. EX1002, 32-37; EX1001, Cover. The '697 Application was filed as a continuation of Application No. 16/409,970, which issued as U.S. Patent No. 10,442,163 ("'163 Patent"), which further was a continuation of Application No. 15/205,672, which issued as U.S. Patent No. 10,327,511 ("'511 Patent"). EX1002, 11, EX10011, Cover.

During prosecution of the '262 Patent, Patent Owner submitted, and Examiner considered, certain printed publications including U.S. Patent No. 7,347,011 ("Dua'011," EX2026), U.S. Patent No. 6,910,288 ("Dua'288," EX1006), and U.S. Patent No. 2,312,078 ("Crannell," EX2027). *Id.*, 54-55, 72-73. A non-statutory double patenting rejection in view of the application leading to the '511 Patent was issued on July 11, 2019. *See id.*, 67-70. In response, Patent Owner filed, and the

USPTO approved, a terminal disclaimer on August 9, 2019. *Id.*, 88, 90, 97. A notice of allowance was issued on February 5, 2021. *Id.*, 98.

B. ’511 Patent

During the prosecution of the ’511 Patent, the Examiner rejected the independent claims as obvious over Dua’011 in view of Crannell. EX1012, 108-113. The Examiner asserted that Dua’011 could be modified with Crannell to achieve the “aesthetic appeal” of the claimed “wingtip” and “broguing” features. *Id.*, 108-111.

In a response filed April 3, 2019, Patent Owner argued Dua’011 fails to disclose a wingtip pattern comprising broguing that is seamlessly knit with and into the upper’s knitted element. *See generally id.*, 133-141. More particularly, Patent Owner explained that the “knitted design patterns disclosed in Dua[’011]…do not extend into ***both*** the toe region ***and*** the metatarsal region. The individual patterns of Dua[’011] are isolated and separated without extending into multiple regions.” *Id.*, 134. Patent Owner further explained that Crannell failed to remedy Dua’011’s shortcomings because “Crannell does not disclose shoe regions and lines of broguing seamlessly constructed.” *Id.*, 135. At most, Patent Owner explained, “a modification of Dua[’011] based on Crannell would result in a shoe in which the broguing is not seamless with the rest of the upper but is rather added in post processing steps.” *Id*.

Patent Owner further rebutted Examiner’s motivation to combine rationale, explaining that “aesthetic appeal” alone was insufficient to establish a *prima facie*

case of obviousness. *Id.*, 138 (citing M.P.E.P. § 2144.04). Patent Owner explained that the claimed knitting with "broguing" "inherently has mechanical function as it is incorporated in and forms a portion of the upper." *Id.* Moreover, aesthetic appeal cannot be a result-effective variable that justifies a modification because the aesthetic appeal is subjective in nature. *Id.*, 139.

The Examiner accepted Patent Owner's arguments, and a notice of allowance was issued on April 23, 2019. *Id.*, 152.

IV. BACKGROUND OF THE ART

"Wingtip" and "brogue" leather shoes have been around for ages. The term "brogue" is generally understood to be derived from the Gaelic *bróg*, "which meant to push an awl through, as was done in the stitching of leather." EX1047, 20. Broguing on leather shoes traditionally served the function "to let water drain out of these early Scottish shoes, which were often worn while fording a stream or crossing marshy land." *Id.*

Wingtip shoes styled in conjunction with "broguing" were historically known as "full brogue[s]," and were viewed as a rugged shoe that similarly functioned to let water drain out of shoes crossing marshy land. EX1007, 13; *Cf.* EX1047, 19, 20. In twentieth century, the brogue wingtip shoe became less associated with crossing marshy land and more associated with business fashion; although, the functional permeability remained for punched brogues. *See* EX1007, 13. As a result, the

wingtip shoe was associated with leather shoes. *E.g.*, *id.*, 10-14; EX1008, 6:16-17 ("the upper can be provided by the choice of leather"); EX1047, 14.

V. ASSERTED REFERENCES

A. Dua'256 (EX1004)

U.S. Patent Application Publication No. 2010/0154256 ("Dua'256") describes a shoe having an "upper that includes a knitted component and a sole structure secured to the upper." EX1004, Abstract. Dua'256 teaches that the knitted upper may "incorporate[] various knit types that impart different properties to separate areas of the upper," including "apertures 41" in the "forefoot region 11, whereas many other areas of upper 30 have a more continuous or less-apertured configuration." *Id*., [0022].

B. Dua'762 (EX1005)

U.S. Patent No 6,931,762 ("Dua'762") teaches a shoe with a knitted upper with "a plurality of sections formed of different yarns and knits to provide the sections with different physical properties," where the different sections are joined by a tuck stitch. EX1005, Abstract.

C. Dua'288 (EX1006)

U.S. Patent No. 6,910,288 ("Dua'288") describes a knitted upper for a shoe including "fusible filaments or fibers" where the filaments can be heated to form fused areas, and that the fused areas may impart desirable properties like "greater stretch resistance, stability, support," and durability. EX1006, Abstract.

D. Flusser (EX1007)

Alan Flusser's *Clothes and the Man* ("Flusser") discloses "approximately seven" leather or suede shoe styles "that tradition and good taste dictate as appropriate for business wear," including a "wing-tip shoe." EX1007, 13-15. Flusser describes production of "fine-quality wing-tips" and "brogues" as including a "narrow strip of leather stitched to the shoe upper." *Id*., 11.

E. Litke (EX1008)

U.S. Patent No. 7,949,570 ("Litke") describes a two-step construction process using "different machines operated in a series" for customizing a shoe upper. EX1008, 6:16-32, 8:2-5. Litke teaches "apply[ng] or form[ing]" a "pattern on the upper" that may include, among others, "stitching [and] holes, … or no pattern could be specified so that the leather is smooth." *Id*., 6:16-25.

VI. CLAIM CONSTRUCTION

For purposes of determining whether to institute based on the Petition only, Patent Owner does not construe any claim terms of the '262 Patent, and each term is given its plain and ordinary meaning.[3]

[3] Patent Owner reserves its rights to propose new or additional constructions in litigation involving the '262 Patent, or later in this proceeding should IPR be instituted.

The parties have exchanged preliminary claim constructions for several terms in the parallel district court proceeding, including the terms "line of broguing" and "pointelle stitch knit." EX2034; EX2035. For the reasons provided below, the asserted references do not disclose or render obvious the identified limitations containing these terms under the plain and ordinary meaning or either sides' preliminary construction, especially because the below arguments do not depend on a particular construction of any terms. Notably, however, the Petition fails to address or apply Petitioners' own construction for "line of broguing" or provide any explanation for why an inconsistent claim construction position was advanced; Petitioners' failure to address this inconsistency is grounds for denial of institution. *See Tesla Inc. v. Intellectual Ventures II LLC*, IPR2025-00340, Paper 18 at 2-4 (P.T.A.B. Nov. 5, 2025) (vacating institution decision where petitioner did not sufficiently explain inconsistent claim construction positions).

VII. PETITIONERS' PATENTABLE WEIGHT ARGUMENT SHOULD NOT BE CREDITED

Petitioners assert that certain claim limitations purportedly reciting "ornamental/aesthetic features" are not entitled to patentable weight. Pet., 16-22. These arguments are incorrect and should not be credited for two reasons. First, Petitioners have admitted in the district court that their arguments regarding these limitations are based on patent eligibility under 35 U.S.C. § 101—not §§ 102 or 103—and as such, these arguments are not appropriate for an IPR. Second, the

prosecution history and Petitioners' asserted references make clear that these features are not merely ornamental but, rather, provide significant function and structure. As such, they are entitled to patentable weight, even under Petitioners' own cited (and flawed) cases.

A. Petitioners' "Patentable Weight" Argument is Rooted in Section 101.

Petitioners advance the same "patentable weight" argument based on the similar case law in both the Petition and the parallel district court proceeding. *Compare* EX2017, 1, 10, 11, 13-14 (citing *In re Seid*, 161 F.2d 229, 231 (C.C.P.A. 1947); *Crocs, Inc. v. Polliwalks, Inc.*, IPR2014-00423, Paper 8 at 10-11 (P.T.A.B. Aug. 20, 2014)) *with* Pet., 16, 17, 20-22 (relying upon the same cases); *see also* Paper 10, 7, 8, 12, 14, 15. More specifically, Petitioners assert that certain limitations (*i.e.*, the "broguing" and "knit structure" limitations) that distinguish Petitioners' asserted references (§VIII) are "purely ornamental/aesthetic features" and therefore are not entitled to patentable weight. Pet., 16-22.

Notably absent from the Petition, however, are Petitioners' ***repeated*** assertions in the parallel litigation that this argument "***is grounded in § 101***," which is outside the statutorily-limited scope of IPR proceedings:

- "In utility patents, claim limitations reciting purely ornamental/aesthetic features are not entitled to patentable weight because those limitation are patent ineligible under 35 U.S.C. § 101." EX2017, 10;

- The "doctrine of assigning no patentable weight to unpatentable ornamental limitations ***is grounded in § 101***." EX2024, 1;

- "Ornamental features are protectable only in *design* patents. ***That principle is grounded in § 101***. The claimed ornamental features here are ***patent ineligible and not entitled to patentable weight***." *Id.*, 3;

- "And *Marco Guldenaar* is relevant because shows [*sic*] that claims limitations directed to ***patent-ineligible subject matter***, like the ornamental features here, are not afforded patentable weight." *Id.*, 9 citing *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1161-62 (Fed. Cir. 2018));[4]

Petitioners' omission of any reference to Section 101 and "patent-eligibility" in the Petition highlights their gamesmanship in seeking a second bite at the apple in this forum. *See* Paper 10, 15. It is well-established that IPR proceedings are expressly reserved for validity challenges arising under Sections 102 or 103. *See* 35 U.S.C. § 311(b). Indeed, the Board has found that it "may not institute a trial in an *inter partes* review to determine whether the claims are directed to ineligible subject matter under § 101." *Volvo Penta of the Americas, LLC v. Brunswick Corp.*, IPR2022-01424, Paper 12 at 19 n.13 (P.T.A.B. Feb. 16, 2023). As such, the Director is without statutory authority to determine whether the so-called "purely ornamental/aesthetic" limitations are entitled to patentable weight. Thus, institution should be denied on this basis or, at a minimum, Petitioners' "patentable weight"

[4] Evidently recognizing that *In re Marco Guldenaar* is relevant only to a Section 101 analysis, Petitioners have omitted that case from their Petition.

arguments should be disregarded by giving each and every limitation in the '262 Patent's claims patentable weight.

B. Petitioners' "Patentable Weight" Argument Violates Canons of Claim Construction and is Not Supported by Case Law.

Petitioners incorrectly couch their "patentable weight" argument as an issue of claim construction. *See* Pet., 16-22. As discussed above, it is not. Moreover, a proposed construction that entirely disregards these terms would violate widely-accepted claim construction principles and is not supported by Petitioners' cited cases.

Terms of a patent must be construed in IPR proceedings in accordance with the "ordinary and customary meaning of such claims as understood by one of ordinary skill in the art and the prosecution history" of the patent. 37 C.F.R. § 42.100(b); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). "It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous." *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 810 (Fed. Cir. 2021) (internal quotations omitted).

Here, Petitioners' proposed "no patentable weight" construction is "highly disfavored" because it would require disregarding the entirety of limitations [1.a.iv], [1.a.vi], [2], [5.d], [6.c], [7.c.iii], [7.f.i], [7.f.iii], [8], [11], and [12]. Pet., 18-20; *Intel Corp.*, 21 F.4th at 810. Indeed, this exclusionary approach is precisely what the Board of Patent Office Appeals cautioned against in *Ex Parte Hilton*, 148 U.S.P.Q.

356, 1966 WL 6407 (Bd. App. Jan. 18, 1965). In *Hilton*, the Board explicitly rejected the Examiner's patentable weight argument, finding the allegedly "ornamental" features of the claimed invention (i.e., the shape of a "fried potato chip") distinguished it from the cited prior art (which taught a french fry), because the shape "result[ed] in a different product which is distinct from the reference product." *Id.* at *1-2. The same is true here; the file history of the '511 Patent confirms the Patent Owner was the "first to recognize the desirability" of knitting "broguing" into a knitted element having a unitary one-piece construction for a shoe upper, and these limitations render the shoe claimed in the '262 Patent "a different product" separate and distinct from the prior art shoes including uppers that have been stitched, punched, and/or cut to form "broguing." *See* EX1012, 133-142 (analogizing the patented upper to *Ex Parte Hilton*).

Neither of the cases Petitioners rely on to support their "patentable weight" argument justifies departing from well-settled claim construction principles for the "highly disfavored" approach Petitioners advance. Pet. at 16-18 (citing *Seid*, 161 F.2d at 231; *Crocs*, IPR2014-00423, Paper 8 at 10-11). Instead, these cases suggest just the opposite—the limitations challenged by Petitioners ***are*** entitled to patentable weight.

Petitioners' principal authority (which they also raised in district court (*see* EX2017, 1)) is *In re Seid*, a 1947 decision by the C.C.P.A with questionable

applicability post-enactment of the 1952 [Patent] Act (*see* EX2023, 15) and post-issuance of the Supreme Court's obviousness standard in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). *Seid* is also distinguishable on the facts. The claims appealed[5] in *Seid* related to "a display made up of an ordinary bottle of the type in which beer or soft drinks are commonly sold, together with a hollow member which represents a human figure from the waist up." *Seid*, 161 F.2d at 230. The issue presented was whether such claims were obvious in view of a combination of references. *Id.* at 231. The Board of Patent Appeals held, and the C.C.P.A. affirmed, that "[t]he particular shape and arrangement of the upper part of the body in appellant's figure, including the arrangement of the arms" "relate to ornamentation only and ***have no mechanical function whatsoever***." *Id*. Therefore, the C.C.P.A. concluded that, because "the appealed claims are not directed to a design but are structural claims," such purely ornamental limitations "cannot…properly be relied on" for purposes of establishing non-obviousness. *Id.*

[5] [5] Notably, *Seid* involved an appeal of a rejection raised during prosecution based on the non-statutory "invention" requirement that was subsequently overturned with the 1952 Act. Moreover, there was not presumption of validity like with the '262 Patent at issue here. 35 U.S.C. § 282 ("A patent shall be presumed valid").

In other words, *Seid*—to the extent it even applies to current § 103—supports the proposition that ornamental changes, without any mechanical or structural function, cannot serve as a basis for establishing non-obviousness, not the proposition that Petitioners now advance—namely, that purely ornamental changes can be disregarded entirely. Indeed, even in *Seid*, the prior art was found to disclose all limitations of the appealed claims, including the purported ornamental limitations. *Id.* at 231. Moreover, as noted above, the Supreme Court's 2007 *KSR* decision changed the obviousness standard, and the applicability of *Seid*'s rationale has not been substantively addressed or examined by the Federal Circuit under *KSR*.[6] Regardless, the claim limitations at issue here are readily distinguishable from those in *Seid* because the "broguing" and "knit area" limitations each have structural and mechanical function and thus are not "purely ornamental" as Petitioners assert. § VII.C.

[6] *Seid* is cited in only one Federal Circuit case for a different proposition. *See PlaSmart, Inc. v. Kappos*, 482 F. App'x 568, 573 (Fed. Cir. 2012) (citing *Seid* concerning the interpretation of prior art).

Crocs[7] also does not stand for the proposition that Petitioners seek to impart to it—that purportedly "ornamental" limitations can be entirely excluded from an invalidity analysis. Rather, the Board in the *Crocs* case acknowledged that the parties proposed interpretations for the term "three dimensional animal or character figure," but declined to credit either party's proposed construction, finding instead that the features "have no mechanical function whatsoever." *Crocs*, IPR2014-00423, Paper 8 at 10-11 (quoting *Seid*, 161 F.3d at 231). Here, as explained below, the relevant limitations each have structural and functional benefits for the shoe. Moreover, in that case, the parties disputed whether the claimed "three dimensional animal shape or character figure" invoked the "printed matter doctrine,"[8] which Petitioners do not allege is present here. *Id*. Nor could they, because the '262 Patent does not claim any

[7] The portion of *Crocs* that Petitioners rely upon is dicta; the Board's decision to not construe the term "three dimensional animal or character figure" was not necessary to its decision to institute. *See Crocs*, IPR2014-00423, Paper 8 at 10-11.

[8] Under the printed matter doctrine, a claim limitation is not entitled to patentable weight ***only if*** the limitation "claims the content of information" that is "not functionally or structurally related to the associated physical structure." M.P.E.P § 2111.05 (quoting *In re DiStefano*, 808 F.3d 845, 848 (Fed. Cir. 2015)). "

"content of information." As explained further herein, *Crocs* also is inapposite to this case where the claim limitations provide structure and function.

Finally, Petitioners cite M.P.E.P. § 2144.04 (Pet., 17), which cites *Seid* as an example of legal precedent as a source of a rationale supporting obviousness, to support their patentable weight argument. This authority is unavailing, too, as M.P.E.P. § 2144.04 states that, "[i]f the applicant has demonstrated ***the criticality of a specific limitation***, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection." M.P.E.P. § 2144.04. Petitioners' assertion of obviousness based solely on case law (*i.e.*, *Seid* and *Crocs*) contradicts the M.P.E.P.'s guidance. Indeed, Patent Owner cited this same M.P.E.P. provision during prosecution of the grandparent '511 Patent, and demonstrated the criticality of the challenged limitations (i.e., the mechanical function) and the Examiner withdrew the obviousness rejection in response. §VII.C; Paper 10, 7-12. Petitioners do nothing to address that criticality, and in fact, their own expert agrees that the challenged limitations import structure and function. §VII.C.

C. The "Broguing" and "Knit Area" Limitations Provide Structure and Function and Are Entitled to Patentable Weight.

Even if Petitioners' arguments regarding the eligibility of these limitations were properly considered in this IPR proceeding (they are not) and did not violate basic tenets of claim construction (they do), Petitioners' patentable weight argument should still be disregarded as it is plainly incorrect: each of the limitations that

Petitioners argue are "ornamental" or "aesthetic" provide structure and function to the claimed shoe. Notably, Petitioners do not argue in the district court that the terms "jersey stitch knit" and "pointelle stitch knit" are not entitled to patentable weight. *Compare* Pet., 18-22 with EX2035. As such, Petitioners' argument regarding the patentable weight of the "knit area" limitations should be disregarded in this proceeding. *See Tesla*, IPR2025-00340, Paper 18 at 2-4.

Petitioners' arguments hinge on an assumption that the purpose of a claim limitation is mutually exclusive: it is either structural/functional or ornamental, but not both. That assumption is baseless; a claim can describe something that makes up part of a design but also serves a functional and/or structural purpose. *See, e.g.*, M.P.E.P. § 1502.01 ("Both design and utility patents may be obtained on an article if invention resides both in its utility and ornamental appearance"); *Sport Dimension, Inc. v. Coleman Co., Inc.*, 820 F.3d 1316, 1320 (Fed. Cir. 2016) ("[A] design may contain both functional and ornamental elements"). Indeed, a patent owner may have both design patents and utility patents covering *the same product*; the utility patents cover "the way an article is used and works," and a design patent protects "the way an article looks." M.P.E.P. § 1502.01.

In any event, the "broguing" and "knit area" limitations provide several structural and functional benefits for the knitted shoe: each allows breathability and permeability while maintaining the requisite structure in the shoe, including

allowing for certain portions to be more reinforced or have more stretch as necessary.[9] As discussed in the below, §IV, broguing has long been recognized as providing breathability. Patent Owner similarly recognizes that its Stitchlite shoes that practice the '511 Patent include "zonally designed dynamic stitching and static tight gauge-stitching to create a customized, ***foot-hugging fit*** while open, pointelle-style stitching details improve the ***breathability and moisture control***." *See* EX2033; EX2009, ¶3.

Both the prosecution history of the '511 and '262 Patents and Petitioners' asserted references further demonstrate the structure and function of the challenged claim limitations. First, Petitioners fail to acknowledge that the PTO has already found that these claim limitations provide structure and function during prosecution of the '511 Patent. Specifically, in arguing against the Examiner's rejection of the independent claims, Patent Owner explained that "aesthetic design change" was not a proper rationale to modify Dua'011 to arrive at the claim limitations, such as the

[9] Additionally, the specific claimed locations of these features on the shoe further contribute to these structural and functional benefits. For example, the broguing in the medial and lateral midfoot region as opposed to the heel region provides breathability and permeability in those regions while allowing the heel region to remain sufficiently stiff to maintain a more rigid structure.

"broguing" and "knit area" limitations, because the claims were distinguishable from cases where "matters relating to ornamentation…have no mechanical function." EX1012, 138; *see also* Paper 10, 7-12. Patent Owner explained that the "claimed knit pattern," including the "broguing," "inherently has mechanical function as it is incorporated in and forms a portion of the upper." EX1012, 138. The Examiner allowed the '511 Patent's claims in response, acknowledging that these limitations provide mechanical function. *Id*., 152-157.

Second, Petitioners' primary reference, Dua'256, admits that features like apertures and different knit structures, which the Petition reads on the claimed "broguing" and "knit areas" (*see* Pet. at 35-38, 40-42), provide structure and function to a shoe upper. Specifically, Dua'256, states the "flat knitting process may be utilized to substantially form upper 30 to have various ***properties and structural features*** that are advantageous to footwear 10." EX1004, [0035]. Dua'256 further recognizes that an "apertured configuration," which the Petition reads on the claimed broguing and pointelle stitch knit (Pet. at 35-38, 40-42), serves both functional and structural purposes: "in addition to imparting greater ***permeability***, which allows air to circulate within upper 30, apertures 41 may ***increase both the flexibility and stretch*** of upper 30." EX1004, [0035]. As another example, Dua'256 explains that properties of the shoe "may be varied through selecting particular knit types for a particular area of knitted component," which the Petition reads on the claimed jersey

and pointelle stitch knits (Pet. at 35-38); such properties including "permeability to liquids, the directions in which knitted component 40 stretches or resists stretch, the stiffness of knitted component 40, and the compressibility of knitted component 40." EX1004, [0035]. Dua'256 notes that "the density of the knit within knitted component 40," which the Petition reads on the claimed jersey and pointelle stitch knits (Pet. at 35-38), may vary among separate areas of upper 30 to, for example, make less-permeable or stiffer portions." EX1004, [0035]. These disclosures demonstrate that elements of a shoe, like knit area and broguing, allow the designer to change the properties "depending upon the particular knit type that is selected for the areas" (*see* EX1004, [0035]), providing structural and functional benefits. Petitioners' expert Dr. Adanur even admits that jersey "stretch[es] equally in both the lengthwise and crosswise directions" and pointelle is "more breathable" than other knit structures. EX1003, ¶¶61.

As such, these limitations are entitled to patentable weight and must be clearly disclosed or suggested by the prior art to render the '262 Patent's claim unpatentable. However, as explained below, they are not.

VIII. NO REVIEW SHOULD BE INSTITUTED

As explained in detail below, the Petition fails to establish a reasonable likelihood that the Challenged Claims are unpatentable. The Petition proposes 6 separate grounds that are each addressed herein.

The asserted references, either individually or collectively, do not disclose, teach, suggest or otherwise motivate all limitations of the Challenged Claims, and thus, IPR based on obviousness cannot be instituted. *See CustomPlay, LLC v. ClearPlay, Inc.*, IPR2013-00484, Paper 29 at 12-13 (P.T.A.B. Nov. 5, 2014). Similarly, institution should be denied where, as here, a Petition fails to demonstrate a motivation to combine the asserted references with a reasonable expectation of success and simply relies upon conclusory expert testimony to backfill the motivation. *See Microsoft Corp. v. Bradium Techs. LLC*, IPR2015-01435, Paper 15 at 22 (P.T.A.B. Dec. 23, 2015) (citing *KSR*, 550 U.S. at 421) (denying institution where expert testimony "is conclusory and provides insufficient explanation" for motivation to combine, as "[t]he lack of adequate reasoning…indicates that [petitioner's expert] relies on impermissible hindsight."); 37 C.F.R. § 42.104(b)(4); July 31, 2025 Memorandum from Acting Director Stewart ("[E]nforcement of Rule 104(b)(4) means that…expert testimony…may not be used to supply a missing claim limitation.").

A. Grounds 1-2: Dua'256, Alone or in Combination With Either Dua'762 and/or Dua'288, Does Not Render Obvious the Challenged Claims.

Dua'256, alone or in combination with Dua'762 and/or Dua'288, does not render obvious the Challenged Claims at least because those references fail to disclose, teach, suggest or otherwise suggest several claim limitations within the

independent claims. Moreover, the Petition fails to establish a motivation to combine these references with a reasonable expectation of success.

1. Dua'256, Alone or in Combination With Either Dua'762 and/or Dua'288, Does Not Disclose, Teach or Suggest All Claim Limitations.

a. *Claim 1*

(1) [1.a.iv]: "a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions"

Petitioners rely on Dua'256's generic disclosures of "various knit types" and "knit density" and their expert's gap-filling to assert that "Dua discloses, or at minimum renders obvious," this limitation *See* Pet., 35.[10] However, Petitioners' arguments fall short, as none of the asserted Dua references discloses or suggests "a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions."

Regarding "a pointelle stitch knit…in the knitted upper lateral and medial metatarsal regions," Petitioners assert that Dua'256's "apertured configuration"

[10] Emphasis contained within the Petition is omitted unless indicated otherwise.

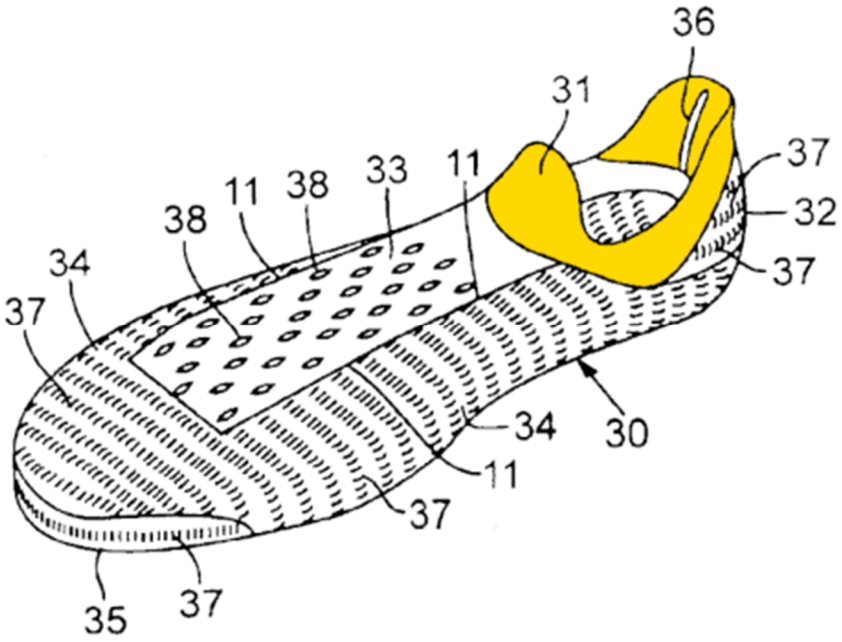
meets the "pointelle stitch knit" element of limitation [1.a.iv].[11] *Id.*, 35-36. Petitioners admit that Dua'256's "apertured configuration is depicted in the toe region," but nevertheless argue it would have been obvious "to apply the apertured configuration in other areas of the shoe (including the lateral and medial metatarsal regions." *Id*., 36-37. But that assertion mischaracterizes Dua'256's disclosure. Dua'256 teaches that the more apertured (or less-dense) knits should be in the forefoot (i.e., toe) region and that ***other*** areas, like the metatarsal regions, should be "***less***-apertured" (or more-dense) knits. *See* EX1004, [0022]; *see also id.*, Figs. 2 and 3 (showing apertures 41 located in forefoot region 11), Figs. 6, 7A to 7G (same).

Dua'256 does not disclose an apertured configuration in the knitted upper lateral and medial metatarsal regions. Rather, Petitioners only arrive at such a configuration through their expert's unsupported modification of Dua'256 upper to reshape and extend the "apertured configuration" to other areas of the shoe, speculating that the apertures could be re-sized "to fit in these regions." Pet., 37. However, for the reasons explained below with respect to the lines of broguing,

[11] While Patent Owner has proposed a preliminary construction of "pointelle stitch knit" to mean "[a] stitch knit characterized by knitted openings forming a breathable structure," Patent Owner's arguments as to the lack of disclosure of limitation [1.a.iv] applies regardless of how "pointelle stitch knit" is construed.

Petitioners fail to establish that it would have been obvious to move the apertures to the lateral and medial metatarsal regions as required by limitation [1.a.iv]. § VIII.A.1.a.(3).

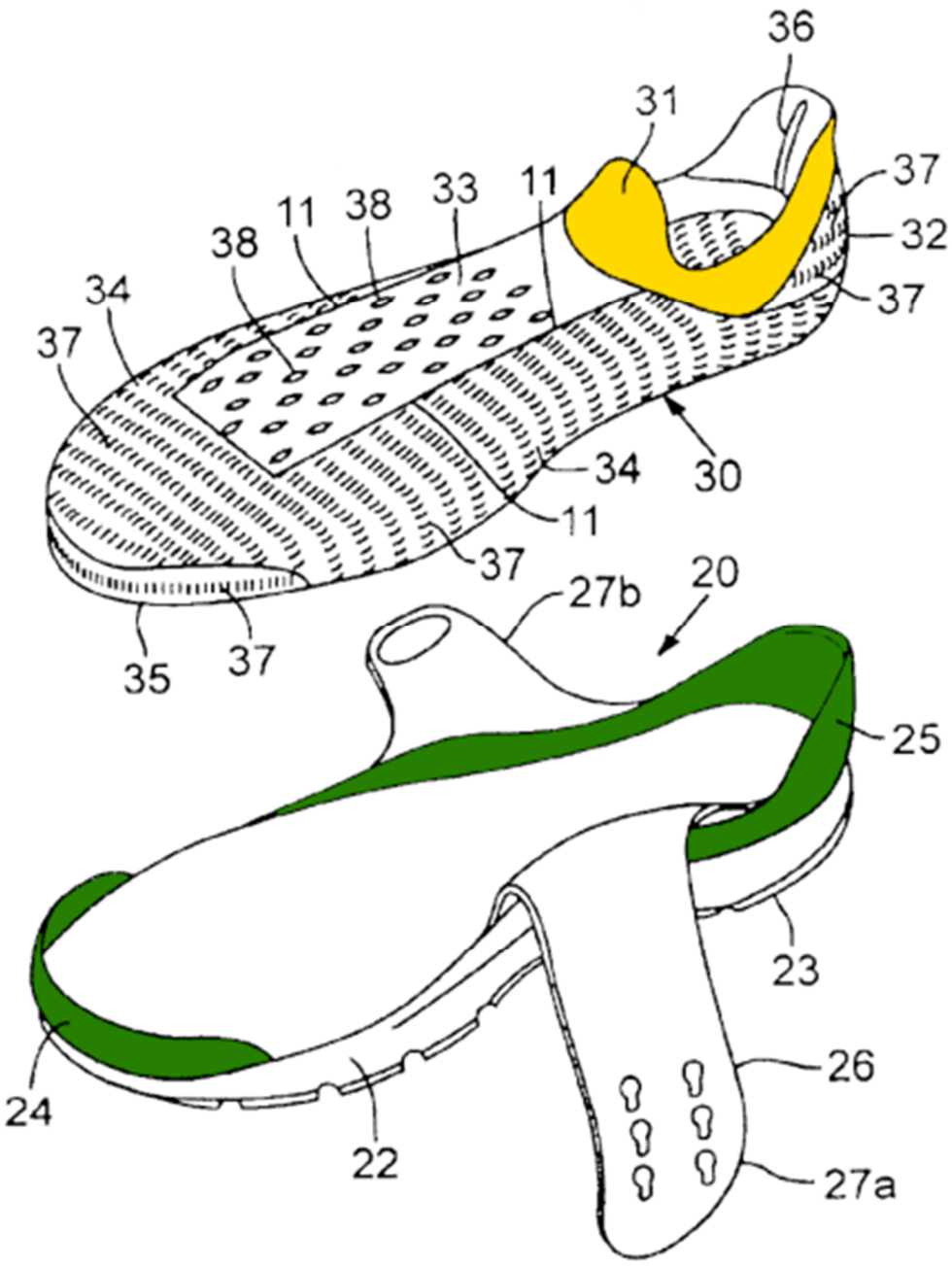
Regarding the "jersey stitch knit" in "the upper toe region," Petitioners assert that "Dua['256] discloses a dense area (48 in Fig. 7D) that has an increased 'knit density' (such as a 'jersey knit') in the forefoot region 11 (including the toe region)." Pet., 35. In doing so, Petitioners imply that Dua'256 uses the quoted term "jersey knit," but it does not. Rather, the quoted term "jersey knit" comes from Dua'762's cited disclosure of a "jersey knit" structure that "contracts to recover the unstretched shape and ***comfortably conform to the shape of the ankle***" as part of "[a]nkle section 31" (**yellow** below), EX1005, 4:17-38; Pet., 35 (citing EX1005, 4:17-38):



EX1005, Fig. 1 (excerpted and annotated).

Dua'762's disclosure of a jersey stich knit in the ***ankle*** section is irrelevant to whether it would have been obvious to use jersey knit stitch in the claimed upper toe region. It would have been readily apparent to a POSITA from the disclosures of Dua'256 and Dua'762 that the structures required in the toe region and the ankle region are different to serve different purposes.

For example, Dua'762 does not teach or suggest using jersey knit in the toe and heel regions, but instead "includes a toe support 24" and "a heel support 25" (**green** below) within "[s]ole structure 20 provides ***a durable, ground-contacting surface*** and attenuates ground reaction forces and absorbs energy as footwear 10 contacts the ground," EX1005, 3:13-16, 3:33-34.



EX1005, Fig. 1 (excerpted and annotated).

Similarly, the dense areas 48 (**green**) in Figure 7D of Dua'256 on which Petitioners rely are in the toe and heel regions:

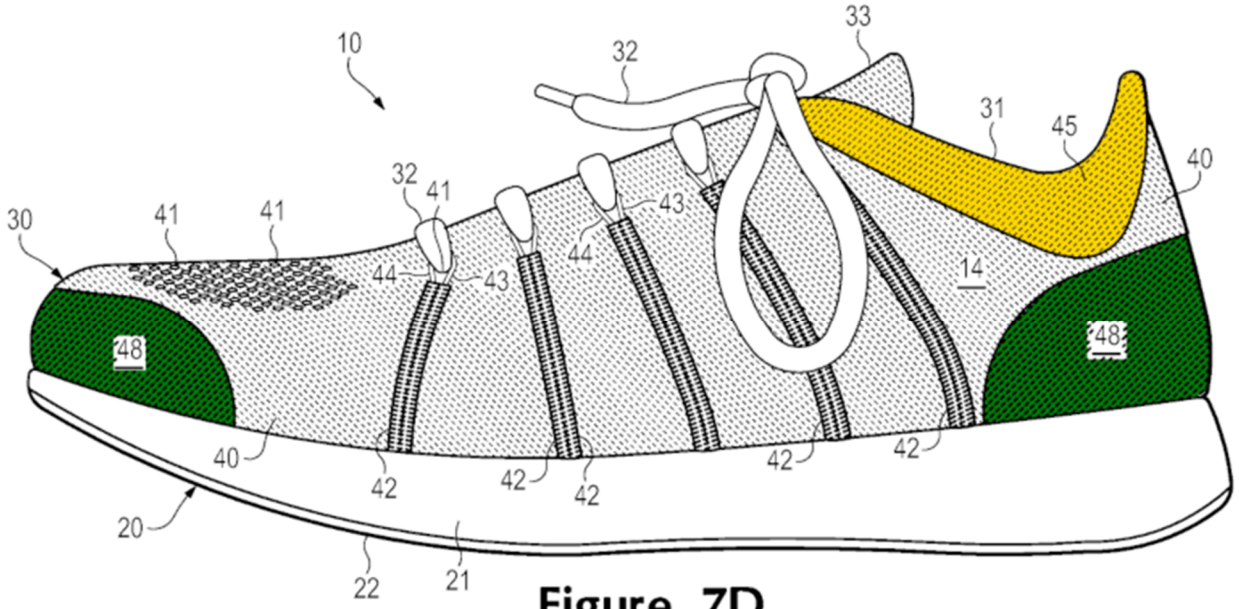


Figure 7D

EX1004, Fig. 7D (annotated). Dua'256 discloses that "[o]ne of dense areas 48 is in heel region 13 and ***may impart greater stiffness*** in order to effectively provide a heel counter to footwear 10" and that "[a]nother of dense areas 48 is in forefoot region 11 and ***may impart greater wear-resistance to the forefoot area***." *Id.*, [0044]. In contrast, the ankle region of Dua'256 is "a padded collar 45" "formed by two overlapping and at least partially coextensive layers of knitted material (i.e., a tubular structure) and a plurality of floating yarns [] extending between the layers" that, like Dua'762's ankle section 31, "imparts a compressible aspect to collar 45, thereby ***enhancing the comfort of footwear 10 in the area of ankle opening 31***." *Id.*, [0029]-[0031].

Based on these disclosures, a POSITA would not have been motivated to use the jersey knit stitch from Dua'762's ankle region in the toe region of Dua'256's upper. Neither Petitioners nor Dr. Adanur offer any explanation for why a POSITA would have been motivated to use the jersey stitch knit of Dua'762's "ankle section" in the upper toe region of Dua'256. Accordingly, Petitioners do not establish a motivation to modify Dua'256 in view of Dua'762 to include a first area having a jersey stitch knit in the upper toe region of Dua'256

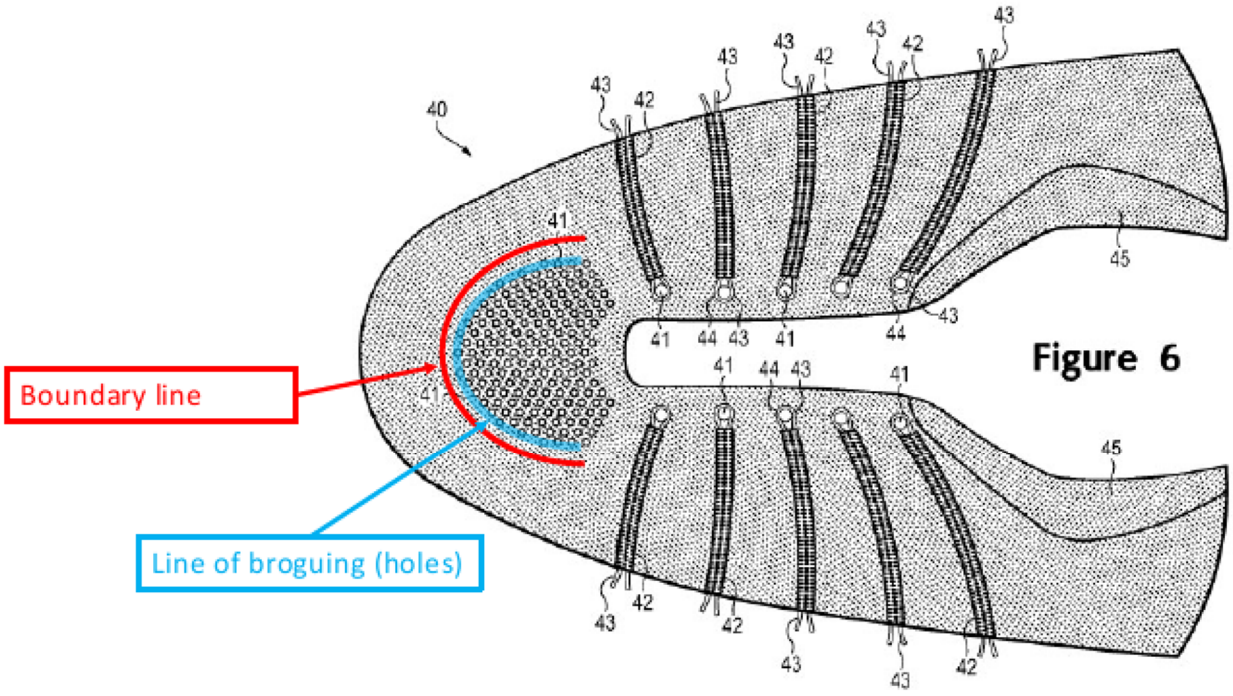
At bottom, Petitioners' analysis on limitation [1.a.iv] is a classic hindsight attempt to map the prior art onto the claimed invention. *See Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013) ("Obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention."); *see also Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1367 (Fed. Cir. 2017) ("[W]e also recognize that we cannot allow hindsight bias to be the thread that stitches together prior art patches into something that is the claimed invention."). Petitioners rely on Dua'256's generic "apertured configuration" and "various knit types" for ***both*** the specific "jersey stitch knit" and "pointelle stitch knit" elements—demonstrating that: (1) neither the jersey stitch knit nor the pointelle stitch knit is disclosed in Dua'256, much less in the claimed areas of the shoe, and (2) only hindsight compels a finding that this limitation would have been obvious. Although

Petitioners recognize certain functional purposes of the claimed knits purportedly known to a POSITA, *see* Pet., 36, Petitioners do not offer an adequate rationale as to why a POSITA would have been motivated by Dua'256's generic "knit types" disclosures and Dua'762's unrelated "jersey knit" disclosures to modify Dua'256's upper to include the specific jersey stitch knit in the particular upper toe region and the specific pointelle stitch knit in the particular metatarsal region, as claimed, particularly in view of Dua'256's teaching that apertures (i.e., pointelle according to Petitioners) should only be located in the "forefoot region." EX1004, [0022]; *see In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.").

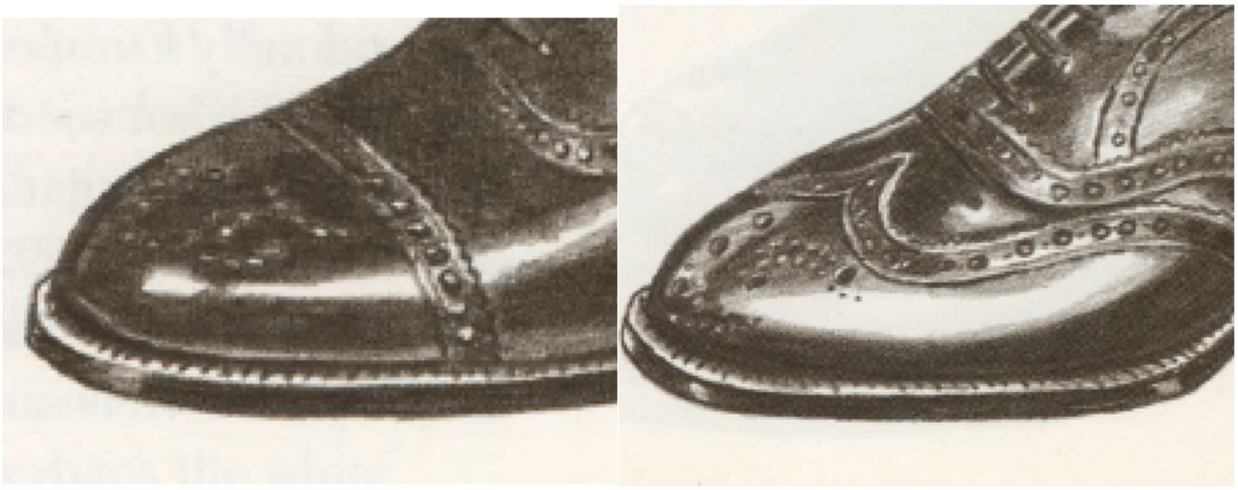
Therefore, Dua'256, alone or in combination with Dua'762 or Dua'288, does not teach, suggest or otherwise motivate limitation [1.a.iv], and fails to render obvious claim 1.

(2) [1.a.vi]: "a line of broguing adjacent the boundary line [between the first and second areas]"

Petitioners argue this limitation is disclosed by Dua'256's "'apertures 41' in various 'areas of the upper,'" and its supposed teaching of "complex patterns." Pet., 41. More specifically, Petitioners' expert draws an arbitrary line within a semi-circular cluster of apertures 41 in Dua'256 and declares it a "line of broguing":



Id., 41 (citing EX1003, ¶¶139-140). But this arbitrarily-selected portion of a broader cluster of apertures is not a "line" of broguing. Indeed, it looks drastically different than the various lines of broguing depicted in Flusser:



See EX1007, 13-15.

Moreover, Petitioners tacitly admit that Dua'256 does ***not*** disclose "a line of broguing adjacent the boundary line" by contending that "applying a line of broguing adjacent the boundary line would be as simple as applying a pattern." Pet., 41-42. Petitioners' assertion is also flawed because Dua'256 does not disclose or even reference any pattern whatsoever. Rather, Petitioners rely on Dua'762's reference to "complex patterns" and Dua'256's generic disclosure of "apertures" as supposedly motivating the inclusion of a line of broguing adjacent the boundary line in Dua'256's upper. *See id.*. Specifically, Petitioners misleadingly suggest that Dua'762's "complex patterns" are formed by Dua'256's "apertures." *Id*., 42 (citing Dua'762 and "Dua" (i.e., Dua'256) within a single sentence). But that is not so. Dua'762's reference to "complex patterns" relates to an X-MACHINE® industrial knitting machine that "has been used to produce argyle-style ***socks*** where multiple colored yarns form argyle and other ***complex patterns***." EX1005, 7:63-8:5; *see also* Pet., 41 (citing EX1005, 7:63-8:5); EX1003, ¶139 (citing EX1005, 7:63-8:5). Petitioners do nothing to connect the dots between the disparate disclosures of Dua'762's complex patterns formed by multiple colored yarns in socks to Dua'256's "apertures" used in shoe uppers.

Citing only their expert's *ipse dixit*, Petitioners further argue that a POSITA would have found it obvious "for the pointelle stitching in the second area to be placed in the lateral and medial metatarsal regions where those regions would

include a line of broguing adjacent to the boundary line."[12] Pet., 42. However, Dr. Adanur's testimony underlying Petitioners' argument is flawed for several reasons.

First, he relies on the same faulty premise that Dua'256 and Dua'762 disclose "complex patterns" in knitted uppers. Like the Petition, Dr. Adanur fails to identify anything within Dua'256 or Dua'762 that would motivate a POSITA to include a pattern within Dua'256's upper, much less the specific line of broguing adjacent the boundary line between the claimed areas in the claimed regions of the upper's knitted element. Dr. Adanur's *ipse dixit* "analysis" should be afforded little weight as he does not provide any "factual analysis or cit[e] any supporting objective proof." *Initiative for Medicines, Access & Knowledge v. Gilead Pharmasset LLC*, IPR2018-00390, Paper 7 at 14-15 (P.T.A.B. July 29, 2018) (denying institution where expert opinion "merely repeats verbatim the conclusory statements set forth in the Petition, without providing any factual analysis or citing any supporting objective proof.").

[12] Petitioners admit through this argument that, because the boundary line is between the first and second areas (the latter of which extends into the knitted upper lateral and medial metatarsal regions), the boundary line—and therefore the adjacent line of broguing—must similarly extend into the knitted upper lateral and medial metatarsal regions.

Second, Dr. Adanur's suggestion to move the "pointelle stitching in the second area," which he reads on Dua'256's apertures 41, to the "lateral and medial metatarsal regions where those regions would include a line of broguing adjacent to the boundary line" (EX1003, ¶140), disregards Dua'256's disclosure that "apertures 41" sonly "extend through the upper 30 in forefoot region 11"—a single region—"whereas many other areas of upper 30 have ***a more continuous or less apertured*** configuration." EX1004, [0022]. Despite Petitioners' assertion that their fictious "patterns can be portions of 'many regions of the upper,'" EX1003, ¶141) Dua'256 does not actually teach or suggest using different knit structures that stretch across in the claimed areas or any area outside the disclosed apertures in the forefoot region.

In fact, the only time Dua'256 teaches or otherwise suggests non-uniform knit structures with any specificity is through its discussion of tubes and an overlapping collar, and neither Dua'256's tubes nor its collar extend beyond an isolated region in the upper. EX1004, [0037]; EX1004, FIG. 7C. That is, a tube beginning in Dua'256's lateral metatarsal region will remain in the lateral metatarsal region. Similarly, Dua'256's collar is restricted to the hindfoot region of the foot, near the "ankle opening." *Id.*, [0029]. Furthermore, as shown in the excerpts from Flusser above, some known lines of broguing did not extend into the claimed regions through which the claimed line of broguing would run (i.e., the knitted upper lateral and medial metatarsal regions). Rather, at least some lines of broguing remain only

in the toe region. *See* EX1007, 13. Neither Petitioners nor Dr. Adanur provide any rationale for why a POSITA would have been motivated to modify Dua'256's to specifically include a line of broguing that is adjacent the boundary line between the first and second areas, the latter of which extends into the knitted upper lateral and medial metatarsal regions, rather than a line of broguing that is only located in the toe region, consistent with Dua'256's disclosure.

Third, as discussed in greater detail below, Dr. Adanur ignores the structural and functional changes to Dua'256's upper that would result from the inclusion of the claimed line of broguing adjacent the boundary line in Dua'256's upper. As noted above, because the boundary line is between the first and second areas, the latter of which extends into the knitted upper lateral and medial metatarsal regions, the boundary line—and therefore the adjacent line of broguing—must similarly extend into the knitted upper lateral and medial metatarsal regions. Indeed, the "tubes," "collar," and "toe" central to the upper shown in Figure 6 of Dua'256 would intersect with the line of broguing in Dr. Adanur's proposed modifications, suggesting at a minimum, that further adjustment to Dua'256's upper would be necessary to achieve the claimed upper of the '262 Patent. But neither Dr. Adanur nor Petitioners explain any such adjustments or why there would have been a reasonable expectation of success.

That Dr. Adanur and Petitioners fail to show the asserted Dua references disclose a pattern (much less the claimed line of broguing adjacent the boundary line between the first area and second area) spanning the claimed regions of the upper's knitted element confirms that Dr. Adanur and Petitioners use improper hindsight. As explained above, the "apertures" of Dua'256 identified by Dr. Adanur ***are specific to one region of the upper only***. Indeed, Patent Owner made a similar argument distinguishing another Dua reference during prosecution. *See* EX1002, 134 (explaining during prosecution of the '511 Patent that "[t]he patterns of Dua['011] are isolated and segmented rather than the lines of broguing…which extend from the lateral metatarsal region into the toe region and into the medial metatarsal region."). Thus, Petitioners clearly looked to the inventor's own disclosure in the '262 Patent—a knitted element being formed of a unitary one-piece construction during a knitting process with broguing extending from the lateral and medial metatarsal region into the lateral and medial ball and upper toe—to lead to their conclusion on obviousness, which is improper hindsight. *Otsuka Pharm. Co. v. Sandoz, Inc.*, 678 F.3d 1280, 1296 (Fed. Cir. 2012).

Therefore, Dua'256, alone or in combination with Dua'762 or Dua'288, does not teach, suggest or otherwise motivate limitation [1.a.vi], and fails to render obvious claim 1.

(3) [1.c]: "the first and second areas being knitted during the knitting step"

Petitioners assert that "Dua discloses the first and second areas being knitted during the knitting step," citing Dua'256's disclosure of "a flat knitting process may form knitted component 40 to have, for example, [] various knit types that impart different properties to separate areas of upper 30." Pet., 44. However, limitation [1.c] requires the first and second areas (*i.e*. the first area of jersey stitch knit in the upper toe region and the second area of the pointelle stitch knit in the upper lateral and medial metatarsal regions) to be knitted during the knitting step. As explained above, none of the asserted Dua references disclose, teach, or suggest "a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions." §VIII.A.1.a.(1). Thus, for the same reasons as for limitation [1.a.iv], Petitioners fail to show that limitations [1.c] is disclosed or rendered obvious by Dua'256, alone or in combination with Dua'762 or Dua'288. Therefore, Dua'256, alone or in combination with Dua'762 or Dua'288 fails to render obvious claim 1.

b. <u>*Claim 7*</u>

(1) [7.f.i]: "the knitted element comprising a first area of a jersey stitch knit and a second area of a pointelle stitch knit, the first area being at least in the knitted upper toe region, the second area being at least in

the knitted upper lateral and medial metatarsal regions"

Petitioners assert that limitation [7.f.i] "recites substantively the same features in nearly identical language" as [1.a.iv], and asserts this limitation is met for the same reasons as limitation [1.a.iv]. Pet., 57. However, for the same reasons as for limitation [1.a.iv], Petitioners fail to show that limitation [7.f.i] is disclosed or rendered obvious by Dua'256, alone or in combination with Dua'762 or Dua'288. §VIII.A.1.a.(1). Therefore, Dua'256, alone or in combination with Dua'762 or Dua'288 fails to render obvious claim 7.

(2) [7.c.iii]: "a line of broguing;"

[7.f.iii]: "the boundary line being adjacent the line of broguing"

Petitioners assert that limitations [7.c.iii] and [7.f.i] "recite[] the same substantive features (i.e., "a line of broguing" (7.c.iii]) being adjacent "the boundary line" as [1.a.vi], and asserts this limitation is met for the same reasons as limitation [1.a.vi]. Pet., 56. However, for the same reasons as for limitation [1.a.vi], Petitioners fail to show that limitations [7.c.iii] and [7.f.i] are disclosed or rendered obvious by Dua'256, alone or in combination with Dua'762 or Dua'288. §VIII.A.1.a.(3). Therefore, Dua'256, alone or in combination with Dua'762 or Dua'288 fails to render obvious claim 7.

c. *Remaining Challenged Claims*

Petitioners fail to show that Dua'256, alone or in combination with Dua'762, or Dua'288, renders obvious dependent claims 2-6 or 8-13 for at least the same reasons as with independent claims 1 and 7, from which the dependent claims depend. Patent Owner reserves the right to address additional limitations of the dependent claims should IPR be instituted.

2. The Petition Fails to Establish a Motivation to Modify Dua'256 in View of Dua'762 Or Dua'288 to Arrive at the Missing Claim Limitations With a Reasonable Expectation of Success.

For a patent claim comprising several elements, obviousness cannot be shown "merely by demonstrating that each of its elements was, independently known in the prior art." *KSR*, 550 U.S. at 418. Rather, at the time of the invention, there must have been an "apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* Of course, such a reason cannot be provided by the very patent whose claims are being challenged at obvious. *Id.* at 421; *see also Cheese Sys.*, 725 F.3d at 1352; *Metalcraft*, 848 F.3d at 1367.

Petitioners allege a POSITA would have been motivated to combine Dua'762's purported teaching of "textile elements and uppers" with "[Dua'256]'s textile element/upper," including, for example, "[Dua]'762's teaching of "varying yarn types and knit structures used in each section, and disposed in 'complex patterns.'" Pet., 27. However, the only purported motivation to combine Dua'762

with Dua'256 described in the Petition are that: (1) Dua'256 incorporates Dua'762 by reference, and (2) the combination would purportedly "advantageously prevent 'the ends of yarns' from being 'exposed, thereby decreasing the possibility of unraveling between sections' and 'material waste is reduced.'" *Id*., 27-28.

Both alleged motivations to combine are insufficient to result in the claimed invention. Dua'256 purports to incorporate Dua'762 for its "examples of knitted components for footwear uppers that have areas with different knit types to impart different properties" (EX1004, [0022]). Dua'256 does not reference Dua'762 for its alleged teaching of any "complex pattern," much less the claimed broguing patterns. Similarly, the purported advantage of including Dua'762's "varied yarn types and knit structures are [that] 'seamlessly join[ed]'" has nothing to do with a pattern, much less the specific claimed broguing patterns that Petitioners assert to be motivated by Dua'762. Indeed, Petitioners provide no reasoning why a POSITA would have been motivated to select a broguing pattern at all, especially where these patterns had traditionally been used only in formal leather shoes. *See* EX1007, 13-15.

Finally, despite acknowledging the requirement that there must be a "reasonable expectation of success" in the proposed combination, Petitioners do nothing more than conclude, without support, that the combination "would predictably work and provide the expected results." Pet., 29 (citing EX1003, ¶108).

Indeed, the Petition cites only Dr. Adanur's declaration that merely repeats Petitioners' arguments without providing any additional reasoning or analysis. *Id.* (citing EX1003, ¶108). Neither Petitioners nor their expert show or otherwise explain how the apertures that the Petitioner proposes to add within the region of the tubes could be done within impacting the performance of the tubes. This is insufficient to establish a reasonable expectation of success. *Cf. Xerox Corp. v. Bytemark*, IPR2022-00624, Paper 9 (P.T.A.B. Aug. 24, 2022) (precedential) (denying institution where expert merely restates conclusory positions advanced in petition); *Initiative for Medicines*, IPR2018-00390, Paper 7 at 14-15 (denying institution where, "by way of evidentiary support, the Petition directs us only to opinion testimony of [its expert], which merely repeats verbatim the conclusory statements set forth in the Petition, without providing any factual analysis or citing any supporting objective proof.…[this] inadequately supported opinion on the question of obviousness 'is entitled to little or no weight'"); *ActiveVideo Networks, Inc. v. Verizon Comm'cns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (rejecting invalidity defense where accused infringer's expert testimony was "generic and bears no relation to any specific combination of prior art elements" and "fails to explain why a [POSITA] would have combined the elements from specific references *in the way the claimed invention* does") (emphasis in original); *In re Kahn*, 441 F.3d at 988 ("[R]ejections on obviousness grounds cannot be sustained by mere

conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.").

A POSITA would not have had a reasonable expectation of success in combining Figure 6 of Dua'256 with "broguing" as claimed by the '262 Patent because the specific structural qualities provided by the "tubes" of Dua'256 would be undermined by the proposed combination. Specifically, the embodiment of Dua'256's Figure 6, cited repeatedly in the Petition, contains "tubes 42" which are "hollow structures formed by two overlapping and at least partially coextensive layers of knitted material." Pet., 30; *see also* EX1004, [0024]. As Dua'256 explains, these tubes in the lateral and medial metatarsal regions of the upper's knitted element work in conjunction with the strands 43 serve an integral purpose—to "resist stretch in [the] lacing system." EX1004, [0032]. A POSITA would not have been motivated to combine Figure 6 of Dua'256, including the tubes in the lateral or medial metatarsal regions, specifically used to "resist stretch[ing]," because the claimed line of broguing adjacent the boundary line must extend into "the upper lateral and medial metatarsal regions," which would be incompatible with the tubes in those regions.

The tubes, which are made of "***two overlapping*** and at least partially coextensive ***layers of knitted material,***" would overlap with the lines of broguing, requiring removal of the double-layered knitted material, so the tubes would not

have adequate support from the upper to resist stretching. EX1004, [0024]. A POSITA also would not have been motivated to modify Dua'256 to remove the tubes to incorporate the claimed broguing lines because, without the tubes, the lacing system would be susceptible to stretching, negating this fundamental purpose.

Because Petitioners fail to establish that Dua'256, alone or in combination with Dua'762 and Dua'288, discloses or renders obvious all limitations of claims 1-13, Petitioners fail to establish a reasonable likelihood of unpatentability for Grounds 1-2.

B. Grounds 3-4: Dua'256 in View of Flusser or Dua'256 in View of Dua'762/Dua'288 and Flusser Do Not Render Obvious The Challenged Claims.

Tacitly admitting the failure of Dua'256, alone or in combination with Dua'762 and Dua'288, to disclose or render obvious limitations [1.a.iv] and [1.a.vi], Petitioners argue that further combination with Flusser discloses and/or renders obvious these limitations. But Flusser fails to disclose several of the limitations missing from the asserted Dua references. Furthermore, the Petition fails to establish a motivation to modify Dua'256's knit upper in view of Flusser to arrive at the missing limitations with a reasonable expectation of success.

1. The Combination of Dua'256 and Flusser, Alone or in Further Combination with Dua'762 and Dua'288, Does Not Disclose All Claim Limitations.

a. *Claim 1*

As explained above, the asserted Dua references do not disclose or render obvious: (1) a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions (limitation [1.a.iv]), and (2) a line of broguing adjacent the boundary line (limitation [1.a.vi]). Flusser also does not disclose at least the limitations of independent claim 1 requiring broguing (limitation [1a.vi]) and the claimed regions (*i.e.*, the knitted upper lateral and medial metatarsal regions) the "first and second areas being knitted during the knitting process" where the line of broguing is adjacent the boundary line between the first and second areas (limitation [1.c]). That's because Flusser is directed to a traditional ***leather*** (i.e., not knitted) wingtip shoe where the wingtip pattern and broguing are applied ***in post-processing***. §V.D.

Specifically, Flusser discloses a leather "wing-tip shoe" as one of seven traditional leather or suede shoe styles and describes production of "fine-quality wing-tips" and "brogues" as including a "narrow strip of leather stitched to the shoe upper." EX1007, 11. Flusser further discloses forming broguing in the traditional manner, i.e. by using "punchings" or removal of material. *Id.*, 13; *cf.* EX1047, 20

("Modern brogues haven't borrowed much more than the name from the ancient, style, ***except for the punchings that are known as broguings***.").

Because Flusser is directed only to ***leather*** uppers, Flusser does not disclose that the claimed regions and knit areas are ***knitted*** with the lines of broguing as claimed. Furthermore, both sides' proposed constructions require the claimed "broguing" to be ***knitted***—"holes formed ***during the knitting process***, as opposed to being formed via removal of material (e.g., punching, cutting, etc.)" and "***knit*** holes." EX1034, 2; EX1035, 3-4. This agreed-upon requirement of the term "broguing" is not disclosed in Flusser and further undermines Grounds 3-4 for the reasons discussed below. §VIII.B.2.

b. *Claim 7*

Similarly to independent claim 1, independent claim 7 requires that "the knitted upper toe region being seamlessly knitted with the knitted upper medial and lateral ball regions during the knitting process, the knitted upper medial and lateral ball regions being seamlessly knitted with the knitted upper metatarsal region during the knitting process, the knitted upper metatarsal region being seamlessly knitted with the knitted upper lateral and medial midfoot regions during the knitting process" (limitation [7.b]), and "the first and second areas being knitted during the knitting process" (limitation [7.c]). Petitioners' argument that independent claim 7 is rendered obvious by the combination of Dua'256 and Flusser, alone or in further

combination with Dua'762 or Dua'288, relies solely on their analysis of claims 1-6. *See* Pet., 71. However, as discussed above, the asserted Dua references do not disclose or render obvious these limitations, and Flusser fails to disclose these limitations for the same reasons as discussed above for independent claim 1. §VIII.B.1.a.

c. *Remaining Challenged Claims*

Petitioners fail to show that the combination of Dua'256 and Flusser, alone or in further combination with Dua'762 or Dua'288, renders obvious dependent claims 2-6 or 8-13 for at least the same reasons as independent claims 1 and 7, from which these dependent claims depend. Patent Owner reserves the right to address additional limitations of the dependent claims should IPR be instituted.

2. The Petition Fails to Establish a Motivation to Modify Dua'256 in View of Flusser to Arrive at the Missing Claim Limitations With a Reasonable Expectation of Success.

Despite Flusser's lack of disclosure that the broguing and knit areas are "seamlessly knitted" or "knitted during…the knitting process[or step]," and Flusser's teachings to the contrary that broguing is applied in a separate post-processing step, §VIII.B.1, Petitioners nevertheless argue that "[a] POSITA would have been motivated to apply Flusser's teachings of a dress shoe with a wingtip pattern including lines of broguing, to Dua's patterned knitted upper," Pet., 61-62. This argument again rests on Petitioners' faulty premises that: (1) Dua'256, alone or

in combination with Dua'762, discloses a "patterned knitted upper" that would have motivated the inclusion of broguing, *id.*, and (2) "there were a finite number of standard, well-known dress shoes styles" that would have motivated applying a wingtip pattern with broguing to a knitted upper, when hundreds or more such patterns are possible, *id.*, 62. §VIII.A.1.a.(1).

Furthermore, as discussed above (§VIII.A.2), Petitioners and their expert fail to establish a reasonable expectation of success in modifying Dua'256's knitted upper to include Flusser's wingtip pattern comprising lines of broguing in the claimed regions of the upper's knitted element given the presence of Dua'256's tubes within those regions. Dua'256's tubes are a purportedly novel aspect. *See, e.g.*, EX1004, Abstract, [0004], Cls. 1-17. Yet, Petitioners and their expert completely ignore them. Instead, Petitioners and Dr. Adanur repeat the same conclusion as for Grounds 1-2, without any explanation, that a POSITA "would have had a reasonable expectation of success in doing so because applying the wingtip pattern would involve simply applying Dua's teachings regarding creating a seamlessly knit, patterned upper for 'dress shoes' to form a wingtip patterned dress shoe." *See* Pet., 62-63; EX1003, ¶168.

Neither Petitioners nor their expert explain how such a line of broguing (i.e. holes) could be integrated into the claimed regions of the upper's knitted element at all, much less along with the tubes contained within those regions without impacting

the underlying structure necessary to support the tubes. §V. Moreover, given the clear differences in the methods of manufacture disclosed in Dua'256 (knitting apertures in the toe region) and Flusser (applying or creating the broguing post-processing), there is simply no reason that can be gleaned from the asserted references that the claimed line of broguing could be knitted into Dua'256's upper "predictably" and with "expected results" as Petitioners claim, without support. Pet., 63; EX1003, ¶169. Petitioners' arguments rest purely on their expert's conclusory testimony and should not be accepted. *See Roxane Labs., Inc. v. Novartis AG*, IPR2016-01461, Paper 9 at 10 (P.T.A.B. Feb. 13, 2017) ("Where, as here, the conclusory testimony is the sole basis for establishing that a claim limitation is taught or suggested by the prior art, we find it insufficient to establish a reasonable likelihood of prevailing regarding that claim.").

Indeed, Petitioners' same argument was advanced by the Examiner during prosecution of the '511 Patent and overcome by Patent Owner. *Compare* Pet. 61-63 *with* EX1012, 135; *see also* §III. Like Petitioners here, the Examiner conceded that a similar Dua reference, Dua'011, did not disclose a wingtip pattern but nonetheless argued that incorporating a "wingtip" from Crannell would have been obvious. EX1002, 109. Yet, as Patent Owner explained, "Crannell does not disclose a knit upper but rather only discloses ***a leather upper treated by heat compression and perforation***." *Id*., 135. Patent Owner further explained that Crannell "does not

disclose a ***knitted*** line of broguing extending through multiple shoe regions." *Id.* Thus, Patent Owner explained that a POSITA "would also not modify Dua['011] to have the claimed line of broguing extending in multiple shoe regions" because "the broguing of Crannell is formed in post processing steps including heat embossing and perforating done on separate machines." *Id.* The same arguments apply for Petitioners' combination of Dua'256 with Flusser.

Because Petitioners fail to establish that the combination of Dua'256 and Flusser, alone or in further combination with Dua'762 and Dua'288, discloses or renders obvious all limitations of claims 1-13, Petitioners fail to establish a reasonable likelihood of unpatentability for Grounds 3-4.

C. Grounds 5-6: Dua'256 in View of Litke or Dua'256 in View of Dua'762/Dua'288 and Litke Do Not Render Obvious The Challenged Claims.

As another attempt to gap-fill the missing limitations [1.a.iv] and [1.a.vi] from Dua'256, alone or in combination with Dua'762 and Dua'288, Petitioners argue that further combination with Litke discloses and/or renders obvious those limitations. But Litke fails to disclose several of the limitations missing from the asserted Dua references. Furthermore, the Petition fails to establish a motivation to modify Dua'256's knit upper in view of Litke to arrive at the missing limitations with a reasonable expectation of success.

1. The Combination of Dua'256 and Litke, Alone or in Further Combination with Dua'762 and/or Dua'288, Does Not Disclose All Claim Limitations.

a. *Claim 1*

As explained above, the asserted Dua references do not disclose or render obvious: (1) a first area of a jersey stitch knit being at least in the knitted upper toe region, and a second area of a pointelle stitch knit being at least in the knitted upper lateral and medial metatarsal regions (limitation [1.a.iv]), and (2) a line of broguing adjacent the boundary line (limitation [1.a.vi]). Litke also does not disclose at least the limitations of independent claim 1 requiring broguing (limitation [1a.vi]) and the claimed regions (*i.e.*, the knitted upper lateral and medial metatarsal regions) the "first and second areas being knitted during the knitting process" where the line of broguing is adjacent the boundary line between the first and second areas (limitation [1.c]). That's because Litke merely discloses applying or forming patterns on pre-existing uppers through cutting. §V.E.

Specifically, Litke discloses that a "pattern," like 15*i* in Figure 3, can be "***applied or formed on*** to the materials" of the upper. EX1008, 6:16-18, 21-22. Litke's manufacturing process includes "selecting the appropriate material and ***cutting patterns*** for the shoe corresponding to the upper type chosen by the user." *Id.*, 8:14-19; *see also id.*, 8:29-30 (disclosing "physically cut[ting] the upper material"). This is not the same as the upper ***being seamlessly knitted*** with the

wingtip pattern during the knitting step as required by independent claim 1, and Petitioners do not assert otherwise. *See, e.g.*, Pet., 74-77. Furthermore, both sides' proposed constructions require the claimed "broguing" to be ***knitted***—"holes formed ***during the knitting process***, as opposed to being formed via removal of material (e.g., punching, cutting, etc.)" and "***knit*** holes." EX1034, 2; EX1035, 3-4. This agreed-upon requirement of the term "broguing" is not disclosed in Litke and further undermines Grounds 5-6 for the reasons discussed below. §VIII.C.2.

b. *Claim 7*

Similarly to independent claim 1, independent claim 7 requires that "the knitted upper toe region being seamlessly knitted with the knitted upper medial and lateral ball regions during the knitting process, the knitted upper medial and lateral ball regions being seamlessly knitted with the knitted upper metatarsal region during the knitting process, the knitted upper metatarsal region being seamlessly knitted with the knitted upper lateral and medial midfoot regions during the knitting process" (limitation [7.b]), and "the first and second areas being knitted during the knitting process" (limitation [7.c]). Petitioners assert that independent claim 7 is rendered obvious by the combination of Dua'256 and Litke, alone or in further combination with Dua'762 or Dua'288, and rely solely on their analysis of claims 1-6. *See* Pet., 79. However, as discussed above, the asserted Dua references do not disclose or render obvious these limitations, and Litke fails to disclose these

limitations for the same reasons as discussed above for independent claim 1. §VIII.C.1.a.

c. *Remaining Challenged Claims*

Petitioners fail to show that the combination of Dua'256 and Litke, alone or in combination with Dua'762 or Dua'288, renders obvious dependent claims 2-16, 18, 19, 22, and 23 for at least the same reasons as with independent claims 1 and 7, from which the dependent claims depend. Patent Owner reserves the right to address additional limitations of the dependent claims should IPR be instituted.

2. The Petition Fails To Establish a Motivation to Modify Dua'256 in View of Litke to Arrive at the Missing Claim Limitations With a Reasonable Expectation of Success.

Despite Litke's lack of disclosure that a wingtip pattern or broguing is knitted at all, much less "seamlessly knitted" or "knitted during…the knitting process [or step]," and Litke's teachings to the contrary that any wingtip pattern or broguing is applied in a separate post-processing step, §VIII.C.1, Petitioners nevertheless argue that "[a] POSITA would have been motivated to apply Litke's teachings of the lines of broguing 15i (shown in Fig. 3) to Dua's seamlessly knitted, ***patterned*** upper," Pet., 73-74. As with Petitioners' other grounds, this argument again rests on Petitioners' same faulty premises that: (1) Dua'256, alone or in combination with Dua'762, discloses a "seamlessly knitted, ***patterned*** upper" and "complex patterns" that would have motivated the inclusion of a wingtip pattern, *id.*, and (2) "the popular,

well-known wingtip shoe design" would have motivated applying a wingtip pattern with broguing to a knitted upper when hundreds or more such patterns are possible, *id.* §§VIII.A.1.a.(1), VIII.B.2.

Furthermore, as discussed above (§VIII.A.2), Petitioners and their expert fail to establish a reasonable expectation of success in modifying Dua'256 knitted upper to include Litke's wingtip pattern or line of broguing in the claimed regions of the upper's knitted element given the presence of Dua'256's tubes within those regions. Indeed, Petitioners' motivation to apply Litke's teaching to Dua'256 merely concludes, like with Flusser, that the combination "would achieve the 'desired properties' of a well-known design" and "would predictably work and provide the expected results." Pet., 73-74. Petitioners' expert merely repeats the same conclusions verbatim without any discussion of why that would be so with a reasonable expectation of success. EX1003, ¶¶199-200. Again, Petitioners' arguments rest purely on their expert's conclusory testimony and should not be accepted. *See Roxane Labs*, IPR2016-01461, Paper 9 at 10.

Like the combination of Dua'256 and Flusser, the combination of Dua'256 and Litke is similar to the combination of Dua'011 and Crannell that was overcome by Patent Owner during prosecution. §VIII.B.2. Patent Owner's same arguments made during prosecution similarly apply to Litke, because Litke's "pattern on the upper" is "applied or formed on the materials" of the upper ***after*** the upper is made,

like in Crannell. *See* EX1008, 6:16-25; *see also id*., 8:2-5 ("The manufacturing facilities, which operate to create the customized shoes, generally comprise ***different machines operated in a series for making shoes***."), 8:20-30 (disclosing "physically ***cut[ting]*** the upper material" for the custom shoe). Indeed, seeing this post-manufacturing customization as "an advantage," Litke touts its ability to "punch patterns [such as custom indicia or logos] into the outer layer material." EX1008, 6:55-57.

Because Petitioners fail to establish that the combination of Dua'256 and Litke, alone or in further combination with Dua'762 and Dua'288, discloses or renders obvious all limitations of claims 1-13, Petitioners fail to establish a reasonable likelihood of unpatentability for Grounds 5-6.

IX. CONCLUSION

For at least the foregoing reasons, Patent Owner respectfully requests that institution of IPR be denied.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), we certify that an electronic copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** along with any accompanying exhibits was served on Petitioner's counsel of record at the following addresses:

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CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count under §§ 42.24(a)(1) and 42.24(b)(1) for the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** totals 12,317 words based on the word count of the word-processing system used to prepare the paper, which is within the 14,000 word limit allotted by rule.

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