

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNDER ARMOUR, INC.,
Petitioner,

v.

ATHALONZ, LLC,
Patent Owner.

Case IPR2024-00639
Patent No. 11,375,768

PATENT OWNER'S SUR-REPLY

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Docket Control Order (Dkt. 35) in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2002	United States District Court Judicial Case Profiles, as of December 2023
2003	Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2004	Exhibit N ('768 Patent Invalidity Chart Based on Won) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2005	Exhibit O ('768 Patent Invalidity Chart Based on Umezawa) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2006	Exhibit P ('768 Patent Invalidity Chart Based on Norton) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2007	Exhibit U ('768 Patent Obviousness Chart) to Under Armour's Invalidity Contentions in <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2008	Declaration of Mr. Timothy Markison in Support of Patent Owner's Response Regarding U.S. Patent No. 11,375,768
2009	CV of Mr. Timothy Markison
2010	Transcript of the 12/19/24 Deposition of Mr. Grant Delgatty in IPR2024-00636, IPR2024-00637, IPR2024-00638, IPR2024-00639, and IPR2024-00640

Exhibit	Description
2011	Excerpts from Holt, Serway & Faughin, Physics (1st ed. 2002)
2012	Presentation Titled “Athletic Positioning Shoe: Presentation to Under Armour, August 22, 2013”
2013	Under Armour Responsive Claim Construction Brief, <i>Athalonz LLC v. Under Armour, Inc.</i> , No. 2:23-cv-00193-JRG (E.D. Tex.)
2014	Excerpts from <i>Merriam-Webster’s Ninth New Collegiate Dictionary</i> (9 th Ed., 1988) (definition of “surface”)
2015	RESERVED
2016	RESERVED
2017	RESERVED
2018	RESERVED
2019	RESERVED
2020	Illustration, “Foot Supination and Pronation”
2021	Declaration of Stephen P. Bosco
2022	Transcript of the 5/13/25 Deposition of Mr. Grant Delgatty in IPR2024-00636, IPR2024-00637, IPR2024-00638, IPR2024-00639, and IPR2024-00640

Petitioner's Reply runs from its Petition contentions, relying instead on improper new arguments and evidence in attempting to salvage its hindsight-biased, cherry-picked unpatentability theories. Even if considered, these new arguments fail on the merits. Indeed, the Reply shows that Petitioner's theories hinge on (1) ignoring key arguments and evidence and rewriting its own proposed construction [Umezawa], (2) treating a reference whose only disclosed advantage over the prior art is use of a single-material design as teaching a multi-material design [Norton], and (3) rewriting references such that "down" really means up and a "surface" can be anything [Won].

I. CLAIM CONSTRUCTION

A. The Board Should Ignore Petitioner's Belated, Improper Claim Construction Evidence And New Unpatentability Theories.

Petitioner's unpatentability theories rely on an express construction of the terms "first material" and "second material" under which these two separately claimed materials can be identical (the "Same Material Construction"). *See* POR, 15-19; Petition, 25 n.1. Yet Petitioner chose not to support the Same Material Construction with any intrinsic evidence whatsoever. Petitioner's only justification for its express construction was its (incorrect) assertion that Patent Owner was "apparent[ly]" applying it for infringement purposes. *See* Petition, 25 n.1; POR, 16-17.

Petitioner’s Reply, however, includes pages of belatedly submitted intrinsic evidence and related argument in support of Petitioner’s express construction. Reply, 1-3.¹ This new evidence and argument in a reply brief is plainly improper. Patent Owner therefore requests that it be stricken and accorded no weight.

The rules are clear—Petitioners “***must***” disclose, in the Petition, the evidentiary support for any express construction proffered. *See* CTPG, 44 (“If a petitioner believes that a claim term requires an express construction, the ***petitioner must include*** a statement identifying a proposed construction of the particular term and ***where the intrinsic and/or extrinsic evidence supports that meaning.***”)²; *see also Samsung Elecs. Am., Inc. v. Cobblestone Wireless, LLC*, IPR2024-00319, Paper 16 at 23 (P.T.A.B. June 24, 2024). It is equally well-settled that Petitioner reply briefs are not a proper vehicle for arguments and evidence that could have been included in the Petition. CTPG, 73 (“***Petitioner may not submit new evidence or argument in reply that it could have presented earlier...***”).

Here, Petitioner relied on an express construction for all unpatentability grounds but withheld the intrinsic evidence it now contends supports that

¹ With the Board’s permission, Petitioner identified the specific improper evidence that should be stricken. *See* Paper 18.

² All emphasis added unless noted.

construction. This was both procedurally improper and highly prejudicial to Patent Owner, denying it the opportunity to address Petitioner's evidence in either the POPR or the POR, and forcing it to respond in the far more limited confines of a sur-reply (without expert support).

Petitioner attempts to explain away its tardiness based on its alleged subjective belief that “the parties agreed that the ‘first material’ in the heel and the ‘second material’ in the forefoot could be the same or different materials.” Reply, 1. But Patent Owner never stated or suggested in any proceeding that it agreed with Petitioner's construction, and Petitioner itself recognized that Patent Owner had taken no position on the construction. *See* Pet., 25 n.1 (characterizing Patent Owner's position as “apparent”). Petitioner simply manufactured agreement where none was present and made the strategic decision not to support its atextual express construction—despite awareness of its weaknesses.³ This calculated decision to pursue a broad construction in this proceeding (under the pretext that it was merely applying Patent Owner's “apparent” construction), gave Petitioner maximum flexibility to argue in district court that the narrower construction was actually

³ The Board recognized Petitioner's discomfort with its own construction, noting in the Institution Decision that there was “apparent agreement that the ‘first’ and ‘second’ materials, as claimed, are indeed different in some manner.” ID, 13.

correct. The Board should not reward this gamesmanship and should limit Petitioner to the claim construction evidence and argument it included in the Petition.

For similar reasons, the Board should also refuse to consider Petitioner's new unpatentability theories based on a construction of "first" and "second" material that requires the two materials to be different. *See* Paper 18 (identifying improper reply arguments). These arguments are wholly absent from the Petition, *see* POR, 22, as Petitioner itself implicitly acknowledges. Paper 20.

Petitioner justifies its new reply theories as a permissible response to Patent Owner's construction. Reply, 14 n.1. But the CTPG is clear— "[r]espond,' ...does not mean proceed in a new direction with a new approach as compared to the positions taken in a prior filing." CTPG, 74. Here, Petitioner has introduced a "new direction" and "new approach" by proffering new unpatentability theories under a construction it knew of but chose not to address in the Petition.

Axonics, Inc. v. Medtronic, Inc., 75 F.4th 1374 (Fed. Cir. 2023), is not to the contrary. There, the Federal Circuit held that "where a patent owner in an IPR *first proposes* a claim construction in a patent owner response, a petitioner must be given the opportunity in its reply to argue and present evidence of anticipation or obviousness under the new construction." *Id.* at 1384. But here Patent Owner did not "first propose" the relevant construction in its POR, it proposed it in its POPR—to which Petitioner never requested a Reply. Further, Patent Owner's proposed

construction was not “new” even then. Instead, Petitioner acknowledged and contemplated the construction in the Petition, to such a degree that the Board understood Petitioner to believe that it was the correct one. *See* ID, 13.

By withholding its unpatentability theories under this construction until its Reply, Petitioner denied Patent Owner the opportunity to respond to them in its POR or to rebut them with expert evidence. *See* 37 C.F.R. § 42.23(b). This violation of PTAB rules is exactly the type of “sandbagging” and “gamesmanship” that the Federal Circuit decried in *Axonics*. 75 F.4th at 1384. Petitioner’s new theories under a construction that it knew of but chose not to address amount to an impermissible amendment to the Petition. The Board should strike these improper reply arguments.

B. Petitioner’s New Claim Construction Evidence Is Unpersuasive.

Even if the Board considers Petitioner’s new claim construction evidence, the Board should reject it and apply the correct construction it already adopted in the Institution Decision, under which the claimed “first” and “second” materials must be different in some way. ID, 13.

Petitioner’s primary new argument is claim differentiation based on claim 6. But the Federal Circuit has long recognized that claim differentiation is a weak claim construction canon. *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1337 (Fed. Cir. 2011) (“the doctrine of claim differentiation is not a conclusive basis for construing claims”); *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1332

(Fed. Cir. 2009). Regardless, there is no claim differentiation issue with Patent Owner’s construction. Claim 6 only specifies that the first and second materials “be constructed of the same one or more materials”—not that they be *the same in all respects*. Claim 6 does not, for example, require that the two materials have the same density, compressibility, or be constructed of the same proportion of the one or more materials. Since claim 6 does not require that the first and second materials be identical, there is no suggestion that such embodiments are within the scope of claim 1. Claim differentiation provides no support for Petitioner’s position.

Petitioner’s specification-based arguments are similarly unpersuasive. Petitioner asserts that the specification does not expressly describe the first and second materials as different, but that is wrong—it does so by separately identifying them as different materials. Tellingly, the specification never says the two materials can be the same. Petitioner’s reliance on Figure 43 is misplaced—the relevant specification language simply describes a first compressible material that “may be more compressible” than a second material—nothing in that description suggests that they can be identical. EX1001, 17:60-62.

Figure 93 provides no support for Petitioner’s argument. Athalonz merely cited it as an example of a material with a gradient compression factor (POR, 4); the related specification language stating that “[t]he integrated sole 10 and insole 12 is

comprised of one or more materials” shows that the patentee knew how to distinguish between a single material and plurality of materials. EX1001, 27:53-57.

Here, the fact remains that the patentee expressly claimed two distinct materials. Case law is clear that such distinctly claimed components must be different in some way. *See* ID, 12-13; POR, 16 (citing cases). Petitioner’s effort to distinguish these cases (Reply, 3) is unavailing—the claimed materials are directly claimed components, not “attributes.”

Finally, Petitioner’s reliance on Athalonz’s infringement contentions fails for multiple reasons. First, infringement contentions are extrinsic evidence of little probative value in comparison to the compelling intrinsic evidence here. *See Ocado Grp. PLC v. AutoStore Tech. AS*, PGR2021-00038, 2021 WL 3412974, at *13 (P.T.A.B. Aug. 4, 2021). Second, there is no inconsistency between the patentee’s infringement and invalidity positions—Patent Owner is advocating for precisely the same construction in district court as it is here. EX2013, 19-22. Finally, Petitioner has not shown that the single shoe it references (of the dozens that are accused) in fact has identical materials in the heel and forefoot. Contrary to Petitioner’s assertion that Mr. Markison “admitted at deposition” that “the heel and the forefoot are made

of the same material” (Reply, 3)⁴, Mr. Markison merely testified that the cross sections he saw (on an unfamiliar Under Armour blueprint that he repeatedly testified he could not see well enough to read) had certain hash marks. EX1023, 215:6-217:12.

II. PETITIONER’S ATTACKS ON MR. MARKISON ARE UNFOUNDED

Petitioner’s Reply makes unsupported, ad hominem attacks on Patent Owner’s expert, claiming that Mr. Markison’s opinions should be afforded “little, if any, weight” (Reply, 6) due to his alleged bias and position at Athalonz. Petitioner’s attacks are unfounded, but highlight Petitioner’s goal to have the Board ignore Mr. Markison’s opinions—which logically and properly interpret the art in view of the law and point out the issues with Petitioner’s hindsight-driven arguments—rather than consider them on the merits. The Board should weigh the expert testimony in this case as it would any other. *See* CTPG, 35 (citing *Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (“The Board has broad discretion to assign weight to be accorded expert testimony.”)).

Importantly, Petitioner has not challenged Mr. Markison’s expert qualifications. Mr. Markison has 13 years of experience designing, developing, and

⁴ This is the first of many unfortunate instances of Petitioner exaggerating, twisting, or outright mischaracterizing Mr. Markison’s testimony.

manufacturing athletic shoes, EX2008 ¶¶44, far exceeding Petitioner’s proposed level of skill in the art, *id.* ¶40. Mr. Markison is also a named inventor on the challenged patents and their prosecuting attorney, as well as the CEO of Athalonz, but this strengthens his qualifications, rather than diminishing them. He invented and wrote these patents and has been working directly on making products embodying the patents since the formation of Athalonz, providing him unique and powerful insight into the prior art, the scope of the claims, and the knowledge of a POSITA that will assist the Board. EX2008 ¶¶17-29.

Mr. Markison’s opinions are based on extensive facts and data and are the product of reliable principles and methods. *See* CTPG, 35. He spent 300-500 hours drafting his declarations across the five IPRs. EX1023, 25:13-26:17. Petitioner asserts Mr. Markison has a financial interest in the proceeding, but that interest is far-removed—it would require IPR and district court victories, success on appeal, collection of a verdict, and then Athalonz deciding to pay out shareholders before he ever receives a dime.⁵ Moreover, Petitioner’s claims of bias ignore Mr. Markison’s testimony under oath explaining how he is duty-bound as a patent attorney to be

⁵ In contrast, Petitioner’s expert is being paid \$400/hour to parrot invalidity theories from the Petition and has spent significantly less time than Mr. Markison working on these proceedings. EX2010, 15:17-17:12; EX2022, 8:3-13.

ethical and truthful, and stating that he is rendering an objective opinion from the viewpoint of a POSITA. EX2008 ¶¶2, 30; EX1023, 230:3-231:9.

Petitioner’s argument essentially states that any employee-expert should be discredited, but that is directly contrary to law. *Sw. Constr. Corp. v. West*, 82 F.3d 435 (Fed. Cir. 1996) (“[T]hat an expert witness was an employee of a party does not disqualify his testimony, but would merely be a factor to be taken into consideration...” (citation omitted)). While the Board is free to consider his employment status in weighing his testimony, it should not prejudge its determination by handicapping Mr. Markison’s opinions at the outset. *Iriusrisk, Inc. v. Threatmodeler Software Inc.*, IPR2023-00821, 2024 WL 4795022, at *16 n.9 (P.T.A.B. Nov. 14, 2024) (“[W]e assess the credibility of both parties’ experts based on the plausibility of and support for their testimony, and weigh such testimony accordingly”) (citation omitted)); *Draftkings Inc. v. Ag 18, LLC*, IPR2022-01448, 2024 WL 1080011, at *46 (P.T.A.B. Mar. 12, 2024) (refusing to disregard expert and instead “evaluat[ing] each of his assertions on their own”).

The Board should also consider the purpose of AIA proceedings in promoting fairness and efficiency and allowing “each party to determine the preferred manner of putting forward its case.” CTPG, 2. Athalonz is a two-person operating company that has yet to turn a profit, trying to compete in the marketplace against multi-billion-dollar juggernauts like Petitioner based on the protections afforded by its

patents. *See* EX1031 ¶¶1-44; EX1023, 18:5-16. Athalonz does not have the resources to pay an “independent” expert tens or hundreds of thousands of dollars, simply to defend the patents it already spent years of time and effort obtaining from the PTO. It would be fundamentally unfair to small patent owners to discredit Mr. Markison’s testimony just because Athalonz cannot afford a hired gun.

Finally, given Petitioner’s direct attacks on his credibility and the importance of his testimony, Patent Owner believes it would be helpful to the Board to hear Mr. Markison’s testimony live and have its own opportunity to ask questions. *See* CTPG, 85. While Patent Owner understands that live expert testimony is uncommon, this case is different and exactly the type of case where it is appropriate—Petitioner has lodged a direct attack on Mr. Markison’s credibility as a witness, rather than simply disputing the merits of his expert opinions.

III. PETITIONER’S NEW ARGUMENTS REGARDING “CONVENTIONAL” SHOES ARE IMPROPER AND IRRELEVANT

Recognizing deficiencies in the Petition, Petitioner relies on improper new reply evidence from Mr. Delgatty to salvage his opinions regarding “conventional” shoes. Specifically, Mr. Delgatty cut apart and photographed seven pairs of shoes to support his conclusory opinion that it was “conventional” to have heel platforms that are substantially uniform in height around the perimeter and thicker in the heel than the forefoot. EX1022 ¶¶3-9. These photographs and opinions are procedurally

improper—Mr. Delgatty failed to include any such cutaways in his original declaration and admitted that without them, it was impossible to know what features these allegedly “conventional” shoes had. EX2010, 32:10-22, 35:7-36:8, 38:19-39:2 (agreeing you cannot determine a shoe’s interior dimensions based on exterior photographs); EX2022, 11:6-13:1 (agreeing he created new cutouts because of issues with original declarations). Moreover, Mr. Delgatty included at least three physical new shoes that he did not even photograph the *exterior* of before. *Compare* EX1022 ¶¶5, 6, 9, with EX1022 ¶¶47-52. Mr. Delgatty’s photographs are also deficient on the merits, at least because Petitioner 1) fails to prove any of the shoes are prior art; 2) does not assert any of these shoes as prior art in the Petition; and 3) includes no measurements or annotations that actually show that the cutaways have the specific dimensions Petitioner claims they do.⁶ Remarkably, Mr. Delgatty even admitted that the forefoot sole material “closest to the heel” of the “conventional” Footjoy golf shoe he pictured in his original declaration “looks relatively similar” to the forefoot sole material “closest to the toe”— which is directly contrary to his

⁶ This is in striking contrast to Patent Owner’s district court infringement contentions, which contain detailed measurements and analysis to show how Under Armour and Athalonz’s shoes fall within the scope of the claims. *See* EX1025; EX1036.

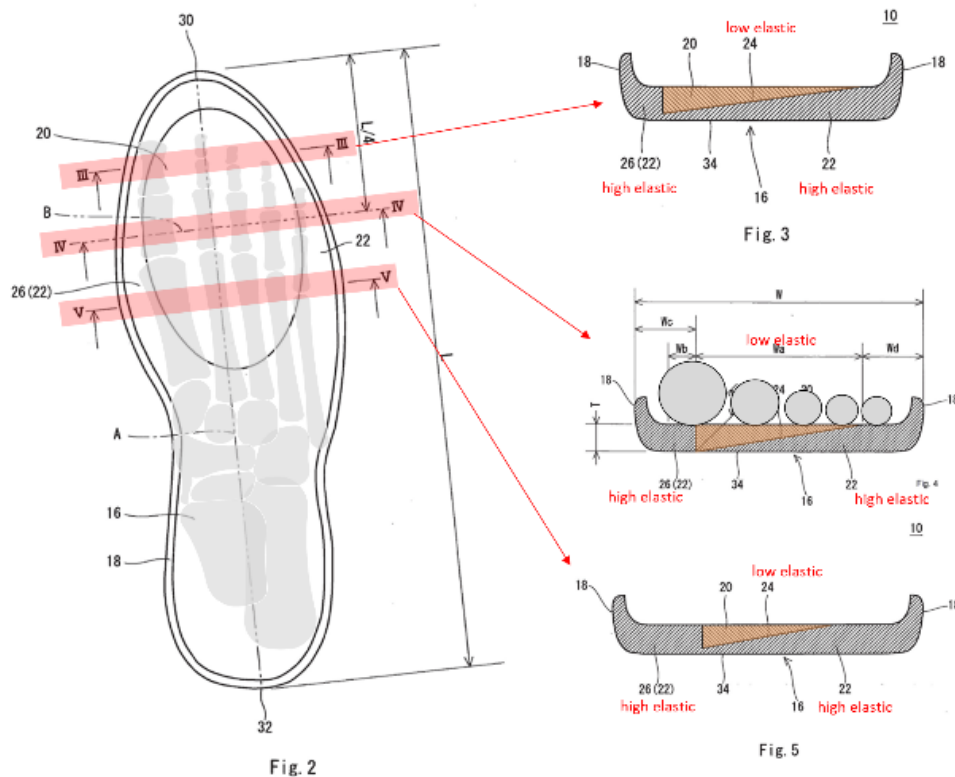
opinions regarding the characteristics of conventional shoes EX2022, 28:8-29:7. Further, he also admitted that his new pictures not only lack both measurements and camera angle information, but that pictures of key cutout views were missing. EX2022, 13:2-15:8. These repeated omissions create a reasonable inference that the withheld data does not support his opinions.

IV. GROUNDS 1 AND 2

Limitation 1.4. Petitioner’s Reply arguments regarding Umezawa are an exercise in misdirection. It is flatly untrue that “[t]he Board has already considered and rejected Athalonz’s arguments regarding this ground.” Reply, 9. Athalonz’s core Umezawa POR argument was that it does not disclose a “gradient compression factor” under Petitioner’s own construction of the term. POR, §VII.C.1. That argument was not included in the POPR, and the Board has not considered it.

It is no surprise that Petitioner seeks to conceal this argument and conflate it with a distinct argument pertaining to different claim language—it dooms Grounds 1 and 2. Petitioner’s construction of “gradient compression factor”—which the Board adopted in the ID (ID, 11)—requires that the forefoot platform be “‘increasingly less compressible’ *from the inner edge to the outer edge* of the

forefoot platform.” Petition, 18.⁷ As Athalonz explained at length in the POR, however, Umezawa teaches that there is no net change in compressibility from the inner to the outer edge of the forefoot because the more compressible “low elastic part 20” that Petitioner relies on is wholly surrounded by “inner high elastic part 26” and outer “high elastic part 22,” as illustrated below:



⁷ As noted in the POR, Athalonz does not dispute this construction for the limited purpose of this IPR.

EX1006, Figs 2-5 (combined and annotated); POR 33-39; EX2008 ¶¶114-118. Consequently, Umezawa cannot possibly disclose a forefoot platform with the required “gradient compression factor” under Petitioner’s own construction.

Petitioner has no meaningful rejoinder to this argument. Instead, Petitioner addresses it only in a footnote, confusingly asserting (without support) that “[a] POSITA would understand that the proposed construction requiring that the forefoot platform be ‘increasingly less compressible’ does not change the position at which the claimed compressibility is measured and *does not require that the gradient extend to the ‘edges’ of the forefoot*, but rather that the forefoot platform gets increasingly less compressible as you move from the inside to the outside between those measurement positions.” Reply, 9 n.5.

This is a wholesale rewrite of Petitioner’s construction, and an effective admission that Umezawa does not disclose a “gradient compression factor” under a plain reading of its own construction. Further, Petitioner injects ambiguity into the analysis by adding new terms like “measuring points” that have no foundation in the patent. The Board should reject Petitioner’s effort to construe its own construction and hold Petitioner to the plain meaning of the construction that it offered and the Board already adopted.

Petitioner’s attempts to reconstruct its Umezawa grounds also ignore crucial aspects of Umezawa’s disclosure. As previously explained, Umezawa discloses that

“inner high elastic part 26” is a key part of the invention because “[a] large amount of force is transferred from the foot to the ground through this inner high elastic part 26,” and “[e]ven if the body weight of a golf player is applied to the bottom part 6, the inner high elastic part 26 is not deformed so much.” POR, 36-37 (quoting EX1006, ¶¶0039, 0062); EX2008 ¶¶117-118, 185-187. Consequently, “inner high elastic part 26 contributes to generation of great head speed.” EX1006, ¶0039.

Remarkably, Petitioner’s Reply *never addresses* these crucial disclosures, which confirm beyond reasonable question that Umezawa’s “inner high elastic part 26” supports the foot⁸ and plays a crucial role in the transfer of force that is core to the stated advantages of Umezawa’s design. Because low elastic part 20 is bounded on both the inner and outer sides by at least 3mm (and preferably more) of less compressible material, Umezawa cannot possibly satisfy Petitioner’s own construction of “gradient compression factor.” EX2008 ¶¶117-118, 185-187.⁹

⁸ Petitioner effectively concedes as much, admitting that in Umezawa’s Figure 2 “the big and small toes” fall only partially on low elastic part 20. Reply, 10.

⁹ The same evidence establishing Umezawa lacks a gradient compression factor under Petitioner’s construction also shows that Umezawa does not disclose greater compressibility “near” the inner edge than “near” the outer edge. *See* POR, 39; EX2008, ¶¶184, 189.

Limitations 1.3 and 1.5. Petitioner’s reply arguments regarding the height of Umezawa’s heel and thickness of its forefoot platform (Reply, 12-14) fail to cure foundational defects in Petitioner’s theory. Specifically, as explained in the POR and Mr. Markison’s declaration, Umezawa never discloses heel height, much less discloses that the height is substantially uniform around the perimeter, nor does it disclose that the forefoot platform is thicker proximal to the heel than near the toe. POR, §VII.C.2-3; EX2008 ¶¶191-207. Petitioner’s strained theories for these limitations are irreconcilable—on the one hand (for limitation 1.3) Petitioner extrapolates that Umezawa’s *heel* must have uniform height around the perimeter because the insole in the *forefoot platform* has uniform thickness, while on the other (for limitation 1.5) it argues that the forefoot platform itself is not uniformly thick after all. Nothing in the Reply credibly resolves this contradiction.

Ultimately, Petitioner admits that its contentions for these limitations hinge on a generic reference in Umezawa to “known” outsoles and insoles (Reply, 12-13). This is a pure inherency argument—without an inherency analysis. Regardless, neither Mr. Delgatty’s original opinions regarding conventional shoes, nor his improper new reply evidence, come close to establishing that these features were conventional. To the contrary, both his pictures of the exteriors of shoes and his new reply cutaways refute the notion that there was anything conventional about those designs. *See* POR §VII.B; EX1002 ¶¶3-9 (depicting shoes with no appreciable

difference in sole thickness between front and rear of forefoot); *supra* §IV; EX2022, EX2022, 28:8-29:7.

Ground 2. Petitioner’s Reply confirms the weakness of its original contentions while doing nothing to preserve them. As explained in the POR, both the figures and written description of Gallas establish that its heel platform has a pronounced downward slope that results in a non-uniform height—the very thing the Umezawa-Gallas combination was predicated on avoiding. POR, 8-9, 41-43; EX2008 ¶200; EX1020, Fig. 2, ¶¶17, 21.

Petitioner grasps at straws in focusing on Gallas’ statement that the heel “may” taper. Reply, 13. The word “may” appears 139 times in Gallas and precedes virtually every description of a feature of the invention. Under Petitioner’s unreasonable reading of the term every aspect and advantage of the invention would be optional. *Accord McBryde v. United States*, 299 F.3d 1357, 1362 (Fed. Cir. 2002) (the word “may” not necessarily “discretionary”). Contrary to Petitioner’s misleading characterization of his testimony (Reply, 13), moreover, Mr. Markison directly rejected the notion that “may” in this context meant that heel taper was optional. EX1023, 81:9-11(“Q. Do you agree that it also suggests that it may not taper towards the Front Portion 108? *A. No.*”). There is simply no disclosure in Gallas of a non-tapered heel. Gallas’s indisputably tapered, slanting heel is not

substantially uniform in height under any reasonable interpretation of the claim language.

V. GROUND 3

Limitation 1.4. Even if the Board reaches Petitioner’s improper new multi-material arguments, they fail on the merits. As explained in the POR, using two different materials for the forefoot and heel platform would be contrary to Norton’s teachings about the advantages of single-material construction—an advantage that Petitioner and Mr. Delgatty touted as the basis for its Norton-Won combination. *See* POR, 46-48. Petitioner never reconciles its own repeated reliance on Norton’s teaching of the advantages of a single material design, with its contrary new theory that a POSITA would understand Norton to teach that different materials can be used in the heel and forefoot.

Nor does Petitioner meaningfully rebut Patent Owner’s argument that Norton teaches away from a multi-material design. Norton does not merely “express[] a general preference” for a single material design as Petitioner suggests (Reply, 17-18), it affirmatively criticizes the “severe disadvantages[s]” of multi-material designs and highlights the “high expenditure” necessitated by the “complex forming of two materials to be interconnected.” EX.1007, 2:54-67, 3:9-13; EX2008 ¶¶120-121; *see also* EX2022, 49:17-50:10 (Mr. Delgatty admitting that Norton identified “Giese’s shoe of having two different materials of two different densities to be

something that could be improved on”). This is classic teaching away—as Petitioner’s own cited authority demonstrates. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (“[A] prior art reference is said to teach away from the claimed invention if a skilled artisan...would be *discouraged from following the path set out in the reference*, or would be *led in a direction divergent from the path that was taken in the claim.*” (cleaned up)).

Norton’s teaching away is even more apparent in the context of claim 5. Here, Petitioner takes the remarkable position that a POSITA would replace Norton’s single-material sole with a “dual-material forefoot like that in Talarico ’911” (Reply, 18), even though Norton identifies Talarico ’911’s dual-material forefoot as a prime example of a multi-material design that has “severe disadvantage[s]” including “increased labor consumption” and “interconnection problems.” EX1007, 2:20-38, 54-67. In short, Petitioner’s position is that a POSITA would be motivated to replace Norton’s single-material forefoot with the very prior art dual-material design that Norton expressly criticizes and purports to improve upon. This position is untenable and Mr. Delgatty’s support for it (EX1022, ¶25) only further undermines his credibility.

Limitations 1.3 and 1.5. Petitioner’s reliance on “conventional” designs is misplaced for the reasons already discussed. *See supra*, §IV, POR, §VII.B. Further, the Board should not accept Petitioner’s attempt to recharacterize its obviousness

combination based on Giese, Mathews, and “Athalonz’s admitted prior art” as intended merely “to illustrate a POSITA’s knowledge.” Reply, 17 & n.10. The Petition unambiguously presents an obviousness combination based on “admitted prior art, Giese and Matthews” as an alternative to a theory based on Norton and a POSITA’s knowledge alone. Pet., 45. This stunted obviousness ground lacks the minimum requirements of a viable obviousness theory. POR, 50, 53. Further, Petitioner’s express reliance on “Applicant’s admitted prior art” as part of the basis for this ground is improper and justification for refusing to consider it. *See Qualcomm Inc. v. Apple Inc.*, No. 2023-1208, 2025 WL 1174161, at *9 (Fed. Cir. Apr. 23, 2025) (refusing to consider ground because “express statements by [Petitioner] that AAPA was part of the basis of Ground” constituted “a violation of [35 USC] § 311(b)”).

VI. GROUND 4

Limitation 1.4. Petitioner’s argument here is literally that “down” means “up.” EX1022, ¶29 (Mr. Delgatty insisting that “[w]hen Won states that the spikes on the inside part of the shoe are ‘pressed down,’ a POSITA would understand that to mean the spikes are pressed into the compressible sole material”); Reply, 20; EX2022, 55:9-10 (“If the shoe is *upside down*, you would then press downward into the sole material.”). In fact, Won states that “the spikes fitted on the part of the soft surface are pressed *down*” while “spikes formed on the hard surface remain the same

position so that the sole is tilted toward the soft surface.” EX1005, 4:52-57. Thus Won’s ostensible principle of operation is that only the spikes on the soft surface penetrate the ground, generating tilt by altering the position of the whole shoe relative to the ground. EX2008, ¶140.

Petitioner’s attempt to conjure a disclosure of compression in the forefoot based on new theories regarding how a POSITA would read Won’s limited disclosure (Reply, 19-20) only underscore that Won in fact never discloses compression of the forefoot platform. Petitioner again mischaracterizes Mr. Markison’s testimony in asserting that he “acknowledged that it can be either Won’s sole or midsole that is constructed of the softer forefoot material.” Reply, 19. In fact, he testified exactly the opposite. EX1023, 20:13-21:1 (“Q. Do you agree that the Juan [sic] reference describes either the sole or the midsole as being made of two different materials? A. *No*... It’s just referring to the surfaces. *Not the materials of the sole or the midsole.*”). The only “soft” material Won describes or depicts is the exterior “surface” of the shoe, which even Mr. Delgatty admits is part of the “outsole” to which “the spikes are fixed.” EX2010, 116:19-117:13.

Further, since Petitioner admits that Won’s express teachings as written “would not work” (Reply, 20), Petitioner’s proposed Won-Norton combination results in an inoperative device—which a POSITA would have no motivation to construct. *See McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 (Fed. Cir.

2001) (“If references taken in combination would produce a ‘seemingly inoperative device,’ we have held that such references teach away from the combination and thus cannot serve as predicates for a *prima facie* case of obviousness.”). Petitioner’s “bodily incorporat[ion]” case law (Reply, 21) is not to the contrary and does not relieve Petitioner of the obligation to establish that a POSITA would be motivated to combine the references with a reasonable expectation of success in doing so—which Petitioner has not done.

Further, Petitioner’s new multi-material arguments (Reply 18-21) are inconsistent with its own statements regarding the motivation to combine Won and Norton. Petitioner’s proposed Norton-Won combination is predicated on the argument that a POSITA would credit Norton’s teaching that a “single material sole” overcomes the “‘severe disadvantage’ associated with connecting two different materials of different densities together,” and for that reason would be motivated to replace Won’s multi-material design with Norton’s single-material design. Petition, 48-50 (citing EX1007, 1:63-2:50, 2:54-67, 3:9-24, Figs 11A-11C); POR, 59. Petitioner’s Reply has no explanation for this internal incoherence. Nor does it explain how, for claim 1, a POSITA would be motivated to replace Won’s multi-material design based on Norton’s single-material teachings, but then for claim 5, revert back to the multi-material forefoot design—when eliminating multiple

materials was the reason for the combination in the first place. Pet. 61-62. Petitioner's shifting, self-refuting motivations to combine are simply not credible.

Ultimately, Petitioner cannot provide a credible motivation for a POSITA to apply Norton's teaching regarding a single material sole element—which Norton says is intended to reduce injuries associated with running (EX1007, 1:22-46)—to the exterior surface of Won's spiked golf shoe. Nor does Petitioner provide any basis for concluding that a POSITA would have a reasonable expectation of success in doing so. Instead, Petitioner and Mr. Delgatty offer hindsight and conclusory justifications that amount to little more than an argument that POSITA would find it obvious replace any insole, midsole, or outsole component or feature in any shoe with any other. *See* EX1022 ¶¶39-40. This does not come close to meeting Petitioner's burden to prove obviousness.

Limitations 1.3 and 1.5. Nothing in the Reply changes the analysis for these limitations. Petitioner relies heavily on Mr. Delgatty's conventional shoe analysis, but that fails as discussed above. *See supra*, §IV; POR, §VII.B. Won's generalized schematic diagrams are wholly insufficient to show specific measurable dimensions and to the extent Won's Figs. 6 and 7 teach anything about forefoot thickness in conventional golf shoes, they teach that it was uniform—which is wholly consistent with Mr. Delgatty's new golf shoe pictures and his testimony. EX1022, ¶8; POR §VII.E.3; EX2008, ¶¶265-268; EX2022, 28:8-29:7. Contrary to Petitioner's

argument otherwise (Reply, 23), nothing in Won’s description of this prior art shoe is probative of the *thickness* of the forefoot section (which Won depicts as uniform) as opposed to its orientation with respect to the heel. EX1008, 1:46-53.

VII. GROUNDS 5 AND 6

As explained in the POR, both of these grounds suffer from the same fundamental defects as the Won-Norton ground, in that Petitioner never explains how the proposed combination could be operable given Won’s stated principle of operation. POR, 66. Petitioners arguments all hinge on fundamentally altering Won so that “down” means up, and Won’s exterior “surface” can instead be any part of the sole, and thus fail for the reasons discussed above. *See supra* §VI; Reply, 24-25; Pet. 62-63 (stating that Ground 5 is “similar to Ground 4”).

VIII. SECONDARY CONSIDERATIONS

Mr. Delgatty’s reply declaration parrots arguments in the Reply—almost word-for-word—with no expert analysis. *Compare* Reply 25-26 with EX1022 ¶¶48-51. His testimony is not based on “scientific, technical, or other specialized knowledge” and is thus not helpful to the Board. *See* CTPG, 34 (citing Fed. R. Evid. 702(a)). Further, Petitioner ignores that none of its prior art was ever used in commercial products and it failed to solve industry needs—even though some of it is almost 40 years old. EX2008 ¶¶277-278. This demonstrates a long-felt need for the patented invention. *Volvo Penta of the Ams., LLC v. Brunswick Corp.*, 81 F.4th

1202, 1214-15 (Fed. Cir. 2023) (finding long-felt need where prior art attempted unsuccessfully to solve same problem as patent owner's product).

As to copying, Petitioner's claims about an absence of technical analysis of Petitioner's products in the record are belied by Athalonz's district court infringement contentions with hundreds of pages of detail, which Petitioner itself put in the record. *See* EX1025. Direct evidence of copying is not required, *Medtronic, Inc. v. Teleflex Innovations S.a.r.l.*, 70 F.4th 1331, 1340 (Fed. Cir. 2023), and here there is ample, unrebutted circumstantial evidence of copying based on Under Armour's exposure to Athalonz's patents and its subsequent infringement. EX2008 ¶¶279-286; EX2012.

Dated: May 21, 2025

Respectfully submitted,

/Connor Houghton/
Connor Houghton
Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that Patent Owner's Sur-Reply consists of 5,583 words, excluding the table of contents, certificate of service, this certificate of compliance, or table of exhibits. The Sur-Reply complies with the type-volume limitation of 5,600 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare this paper (Microsoft Word).

Dated: May 21, 2025

/Connor Houghton/
Connor Houghton
Counsel for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on May 21, 2025
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