

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIFECORE FITNESS, LLC d/b/a
ASSAULT FITNESS,

Petitioner,

v.

WOODWAY USA, INC.

Patent Owner.

IPR2024-00083
U.S. Patent No. 11,465,005

PATENT OWNER'S RESPONSE

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2001	<i>Reserved</i>
2002	Minute Entry for Claim Construction Hearing, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM, Dkt. 57 (S.D. Cal.)
2003	<i>Reserved</i>
2004	U.S. Patent No. 5,709,632 to Socwell
2005	Redline Comparison of Specifications for U.S. Patent Nos. 5,709,632 and 5,897,461
2006	U.S. Patent No. 8,986,169 to Bayerlein, <i>et al.</i>
2007	U.S. Patent No. 9,039,580 to Bayerlein, <i>et al.</i>
2008	Opening Expert Report of Dr. Robert Giachetti, <i>Chapco Inc. v. Woodway USA, Inc.</i> , C.A. No. 3:15-cv-01665 (JCH), Dkt. 216-1 (D. Conn.)
2009	Declaration of Robert Giachetti, <i>Chapco Inc. v. Woodway USA, Inc.</i> , C.A. No. 3:15-cv-01665, Dkt. 88-2 (JCH) (D. Conn.)
2010	<i>Reserved</i>
2011	U.S. Patent No. 7,115,073 to Nizamuddin
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2015	Defendant's Second Amended Invalidity Contentions and Associated Claim Charts, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM (S.D. Cal.)
2016	Declaration of Kadie M. Jelenchick
2017	Declaration of Sarah E. Rieger
2018	Declaration of Dr. Kim Blair
2019	<i>Curriculum vitae</i> of Dr. Kim Blair
2020	Declaration of Eric A. Weber
2021	Additional Excerpts from Neil Sclater and Nicholas P. Chironis, <i>Mechanisms & Mechanical Devices Sourcebook</i> , Third Ed., (McGraw-Hill 2001) ("Sclater")
2022	January 10, 2024 Deposition Transcript of Robert Giachetti (IPR2023-00836, U.S. Patent No. 9,039,580)
2023	January 10, 2024 Deposition Transcript of Robert Giachetti (IPR2023-00849, U.S. Patent No. 10,799,745)
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2028	Woodway Non-Motorized Treadmills User Manual
2029	Altra Industrial Motion Product Brochure
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2031	Press Release, Woodway USA, Inc., Woodway Debuts Speedboard at IHRSA Show (March 20, 2009) (on file with author)
2032	Woodway's Confidential Sales and Cost Data for CURVE Line of Treadmills From Woodway's Fiscal Years 2010 through 2024.
2033	Woodway's Confidential Sales and Placement Data for the CURVE Legacy Treadmill From Woodway's Fiscal Year 2009
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2035	Video: Woodway CURVE® Treadmill With Safety Device
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2037	<i>Patents</i> , WOODWAY.COM, http://www.woodway.com/support/patents (last visited Jan. 29, 2024)
2038	Confidential List Price and Cost Information for the CURVE Line of Treadmills From Woodway's Fiscal Year 2008 through Dec. 31, 2023
2039	<i>Shop</i> , WOODWAY.COM, http://www.woodway.com/shop (last visited Jan. 23, 2024)
2040	<i>Treadmills</i> , ASSAULTFITNESS.COM, http://assaultfitness.com/collections/treadmills (last visited January 23, 2024)
2041	Search Results for Assault Air Runner for Sale Online, http://google.com (search "Assault Air Runner treadmill"; then follow "shopping" icon)
2042	<i>Chapco, Inc. and Samsara Fitness, LLC v. Woodway USA, Inc.</i> , Case No. 3:13-cv-1665 (JCH), Dkt. 144 (D. Conn. Sept. 26, 2017)

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2043	Letter from Richard J. McKenna, Foley & Lardner LLP, to Christopher Kelly, Gym Store, Inc. (Oct. 21, 2014) (on file with author)
2044	March 2, 2017 Expert Report of Kim B. Blair, Ph.D., <i>Chapco, Inc. and Samsara Fitness, LLC v. Woodway USA, Inc.</i> , Case No. 3:15-cv-1665 (JCH) (D. Conn.)
2045	Lisa Malosky, HEALTH & FITNESS SPORTS MAGAZINE, February 2010
2046	ATHLETIC BUSINESS, March 2010
2047	Press Release, Woodway USA, Inc., Woodway CURVE Featured on NBC's The Biggest Loser (Dec. 29, 2010) (on file with author)
2048	Kelsey Cannon, <i>The Hardest 20-Minute Workout of Your Life</i> , MEN'S HEALTH, Mar. 4, 2014, https://www.menshealth.com/fitness/a19536030/instafit-harder-sprint-workout/ (last visited Jan. 30, 2024)
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2051	11Alive, <i>Megaformer workout combines curved Woodway treadmill for new workout</i> , YOUTUBE (Mar. 5, 2019), https://www.youtube.com/watch?v=QqlJIwsBRlc .
2052	Roy M. Wallack, <i>Treadmills, Ellipticals Tap Into Natural Power</i> , L.A. TIMES (Nov. 16, 2009), https://www.latimes.com/health/la-he-gear16-2009nov16-story.html (last visited Jan. 30, 2024)

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2054	GOVERNMENT RECREATION & FITNESS, May 2020
2055	Rachel Bachman, <i>Treadmills Unplugged: A Gym Workout Powered by Your Feet</i> , WALL STREET JOURNAL (July 6, 2015), http://www.wsj.com/articles/treadmills-unplugged-a-gym-workout-powered-by-your-feet-1436202306 .
2056	Rachel Zabonick-Chonko, <i>Treadmills Are Making a Comeback</i> , CLUB SOLUTIONS, Dec. 11, 2014, https://clubsolutionsmagazine.com/2014/12/treadmills-making-comeback/ (last visited Jan. 29, 2024)
2057	Press Release, FIBO, FIBO Jubilee With Many Innovations: Nominees Announces For FIBO INNOVATION AWARDS (Apr. 14, 2010) (on file with Woodway)
2058	<i>Treadmills</i> , TRUEFORMRUNNER.COM, https://trueformrunner.com/collections/treadmills-1/products/trueform-trainer (last visited Jan. 30, 2024)
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2063	<i>Shop, Sprintbok Treadmill</i> , WATERROWER.COM, http://www.waterrower.com/us/collection/nohrd-sprintbok (last visited Jan. 29, 2024)
2064	<i>Shop By Brand, Cascade Ultra Runner Plus Treadmill</i> , FITDIRECT.COM, https://fitdir.com/cascade-ultra-runner-plus-treadmill/ (last visited Jan. 29, 2024)
2065	<i>Cardio</i> , TRUGRIT-FITNESS.COM, https://trugrit-fitness.com/collections/cardio/products/grit-runner-curved-manual-treadmill (last visited Jan. 29, 2024)
2066	Woodway Infringement Contentions (’580 Patent), <i>Samsara TrueForm Runner, Chapco, Inc. and Samsara Fitness, LLC v. Woodway USA, Inc.</i> , Case No. 3:15-cv-1665 (JCH) (D. Conn.)
2067	Woodway’s Infringement Contentions (’580 Patent), <i>Assault Air Runner, Woodway USA, Inc. v. LifeCORE Fitness, Inc. d/b/a Assault</i> , Case No. 3:22-cv-00492-JP (BLM) (S.D. Cal.)
2068	Woodway Infringement Contentions (’884 Patent), <i>Assault Air Runner, Woodway USA, Inc. v. LifeCORE Fitness, Inc. d/b/a Assault</i> , Case No. 3:22-cv-00492-JP (BLM) (S.D. Cal.)
2069	Woodway Infringement Contentions (’745 Patent), <i>Assault Air Runner, Woodway USA, Inc. v. LifeCORE Fitness, Inc. d/b/a Assault</i> , Case No. 3:22-cv-00492-JP (BLM) (S.D. Cal.)
2070	Woodway Infringement Contentions (’005 Patent), <i>Assault Air Runner, Woodway USA, Inc. v. LifeCORE Fitness, Inc. d/b/a Assault</i> , Case No. 3:22-cv-00492-JP (BLM) (S.D. Cal.)
2071	Owner’s Manual, Assault Air Runner Manual Treadmill

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2072	Marketing Material, Assault Air Runner
2073	Proposed Protective Order
2074	Proposed Protective Order Redline
2075	LifeCore Fitness, LLC Certificate of Conversion and Certificate of Formation
2076	Order Setting Deadlines, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM, Dkt. 63 (S.D. Cal.)
2077	Order Granting in Part and Denying in Part Defendant's Motion to Stay, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM, Dkt. 73 (S.D. Cal.)
2078	Woodway USA, Inc.'s First Amended and Supplemental Disclosure of Asserted Claims and Infringement Contentions (Redacted), <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM (S.D. Cal.)
2079	Transcript of Hearing on Motion to Stay, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM (S.D. Cal.)
2080	Woodway USA, Inc.'s Opposition to LifeCORE Fitness, Inc.'s Motion to Stay Litigation Pending <i>Inter Partes</i> Review, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM, Dkt. 66 (S.D. Cal.)
2081	Defendant's Memorandum and Points of Authority in Support of Motion to Stay Litigation Pending <i>Inter Partes</i> Review, <i>Woodway USA, Inc. v. LifeCORE Fitness, Inc.</i> , Case No. 3:22-cv-00492-JO-BLM, Dkt. 60-1 (S.D. Cal.)
2082	July 30, 2024 Deposition Transcript of Robert Giachetti (IPR2024-00083, U.S. Patent No. 11,465,005)

Exhibit No.	Exhibit
2083	Woodway CURVE Treadmill Claim Chart ('005 Patent)

I. INTRODUCTION

Woodway USA, Inc. (“Patent Owner” or “Woodway”) submits this Response to the Petition for *inter partes* review (“IPR”) of Claims 1-4, 6-13, 15-16 (“Challenged Claims”) of U.S. Patent No. 11,465,005 (“the ’005 Patent”), filed by LifeCORE Fitness, Inc. (now LifeCORE Fitness, LLC), d/b/a Assault Fitness (“Petitioner”).

In 2009, Woodway introduced its first manual, motorless treadmill with a curved running surface under the brand name CURVE. A key structural feature of the CURVE treadmill was to harness the force of gravity acting on the user based upon the user’s relative position on the running surface for inducing rotation of the running belt. The CURVE treadmill was an immediate commercial success, and since the 2009 launch, Woodway has introduced additional models and sizes in the CURVE product line, continuously improving on its manual treadmill technology each time.

While the concept of a manual, motorless treadmill has been in the public domain for centuries, before Woodway, no one had been able to solve the problem of how to handle the unpredictable rotation of the running belt for such a device, particularly when implementing a curved running surface in which both the front and rear portions of the running belt running surface are positioned vertically higher than the central portion of the running belt. As Patent Owner’s expert Dr. Kim Blair

explains, one of the critical challenges with a curved, motorless treadmill is to ensure the safety of the user. EX2018, ¶¶32-33. In order for a curved, motorless treadmill to function as intended, it requires free rolling or rotation of the running belt. *Id.* However, this necessarily means that, without intervention, the running belt may move in the forward and backward direction when a user is trying to mount or dismount the treadmill. *Id.* Because it is common for a user to enter the treadmill from the rear, when a user steps on the rear portion of the running surface of the treadmill which is curved upward, the user's weight may cause the belt to unexpectedly rotate forward (the opposite of the normal direction of rotation of the running belt). *Id.* Depending on how quickly and where the user mounts the treadmill, this may create an extreme safety hazard as unpredictable belt movement may startle the user, create a temporary feeling of loss of control, or even cause a user to fall. *Id.*

The Challenged Claims of the '005 Patent are directed to solving this problem. *Id.*, ¶¶34-38. Each claim is directed to a "manually powered treadmill" or a method of providing such a device. EX1001, Claims 1-17. These claims combined and improved on a variety of features to create a novel device that solved – for the first time – the problems with curved, manual treadmills that had previously plagued the industry. While Petitioner now asserts that the claimed devices and method were obvious over the prior art, the reality is that no device disclosed all of the novel

features described in the Challenged Claims, nor would a person of ordinary skill in the art (“POSA”) been motivated to combine such features to create the claimed device/method. *See* §IV, *infra*. Indeed, as described in further detail below, even the prior art Petitioner cites fails to disclose key features of the Challenged Claims, which is fatal to Petitioner’s challenge.

Additionally, the non-obviousness of the Challenged Claims is also supported by the significant commercial success of Woodway’s CURVE treadmills, including numerous iterations that not only practice the Challenged Claims but are coextensive with them. The praise these treadmills have received (both in the form of industry recognition and industry awards), the failure of others to develop comparable products, and other secondary considerations, including the commercial success of the copiers and infringers, including Petitioner, further demonstrate the non-obviousness of the claimed invention. *See* §V, *infra*.

In short, there is no basis for Petitioner’s conclusory assertions that a POSA would have found the inventions described in the Challenged Claims obvious. To the contrary, the record demonstrates both that key features of the Challenged Claims are simply absent from the prior art and that, even if all elements were present, a POSA would not have been motivated to combine the various prior art references Petitioner cites to arrive at the claimed inventions.

II. LEVEL OF ORDINARY SKILL IN THE ART

In contrast to Petitioner's proposal (Petition, 4), Patent Owner contends that a person of ordinary skill in the art of the '005 Patent would be a person with a bachelor of science degree in mechanical engineering or at least two years of experience in the treadmill industry, including experience and knowledge of the design, construction, testing, and operation of manual treadmills. EX2018, ¶¶61-66. Unlike Petitioner's proposal, the level of ordinary skill in the art as articulated by Patent Owner would not exclude certain of the inventors of the '005 Patent and is more consistent with the language of the claims. Indeed, Petitioner's expert, Dr. Giachetti, effectively admitted that his and Petitioner's definition – which expressly requires a bachelor of science degree – would not encompass the inventors who lack such formal credentials. EX2082, 27:7-19. Rather, the definition would need to be modified at least to allow for comparable “life experience,” which Petitioner's current definition simply does not allow. *See id.* (speculating that inventors may “have some sort of life experience that gives them the knowledge that the Bachelor's Degree provides”).

Dr. Blair is an individual of at least ordinary skill in the art under either standard, and the analysis throughout this Response would not change whether Petitioner or Patent Owner's level of ordinary skill in the art was adopted.

III. CLAIM CONSTRUCTION

Claim terms are generally given their ordinary and customary meaning, which is the meaning the term would have to a POSA at the time of invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). “[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.” *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Petitioner identifies two terms for construction – “substantially prevent[]” and “safety device.” Since the Petition was filed, however, each of these terms have been construed by the district court in *Woodway USA, Inc. v. LifeCORE Fitness, Inc.*, Case No. 3:22-cv-00492-JO-BLM (S.D. Cal.) (“Parallel Litigation”). EX1033, 10-17, 17-25. The Board should adopt and apply the constructions provided in the Parallel Litigation, which are discussed in further detail below.

A. “substantially prevents”

The district court construed “substantially prevents” to mean “restricts rotation to allow for only one rotational direction of movement.” EX1033, 16. In doing so, the court construed the term to exclude any significant “bi-directional movement” that the Applicant disavowed during prosecution while still allowing for some “degree of possible movement in the second rotational direction (the possibility of an initial swing back of the treadmill) before the safety device function

locks in to allow for movement in one direction.” *Id.*, 15-16. The district court’s construction of “substantially prevents” should be adopted for the reasons stated in the district court’s claim construction order. *Id.*, 10-17.

B. “safety device”

For purposes of the ’005 Patent, the district court construed “safety device” as “a device that includes the elements recited and restricts rotation to allow for only one rotational direction of movement or resists rotation in one direction of rotation.” *Id.*, 23. The district court’s construction of “safety device” should be adopted for the reasons stated in the district court’s claim construction order. *Id.*, 22-25.

IV. PETITIONER FAILS TO ESTABLISH UNPATENTABILITY OF ANY CHALLENGED CLAIM

Petitioner asserts only obviousness grounds in the Petition, thus conceding that no single reference discloses all elements of the Challenged Claims. With no anticipatory references, Petitioner instead attempts to cobble together multiple disparate references, arbitrarily selecting various elements of those references until it arrives at something that superficially resembles the Challenged Claims. However, Petitioner fails to meet its burden of establishing that any of the claims would be obvious, including by failing to show an adequate motivation to combine or modify, in each ground. Instead, Petitioner relies on conclusory arguments that are fraught with hindsight bias and ignore key structural aspects of the asserted references.

Accordingly, the Petition should be rejected, and the patentability of the challenged claims should be upheld.

A. The Cited Prior Art Does Not Disclose All Elements of the Challenged Claims

1. Socwell does not disclose “a plurality of bearings” (Claims 6, 13, 16)

Petitioner relies on U.S. Patent No. 5,897,461 to Socwell (“Socwell”) for certain limitations in Ground 1. Petitioner analogizes the “bearings” of Claims 6, 13, and 16 to the curved deck 56 and roller 98 of Socwell. Petition, 59-61. This analogy is flawed.

In the '005 Patent, the “plurality of bearings” is only described and depicted as lying below and supporting the running belt 16. For example, the '005 specification teaches that “[t]he running belt 16 contacts and *is supported in part by the bearings 208* of the bearing rails....” EX1001, 11:39-40 (emphasis added). This requires the bearings 208 to be positioned below the running belt 16. EX2018, ¶¶72-73. While the '005 specification does teach that certain elements may be positioned above or in line with running belt 16 to ensure that the running surface corresponds to the curved shape of the top profile 210 (EX1001, 11:47-50), this is accomplished either by using a heavier running belt that is pulled down through the force of gravity (*id.*, 13:13-52) or implementing some kind of running belt retention or breaking system. While several different exemplary braking systems are described in the

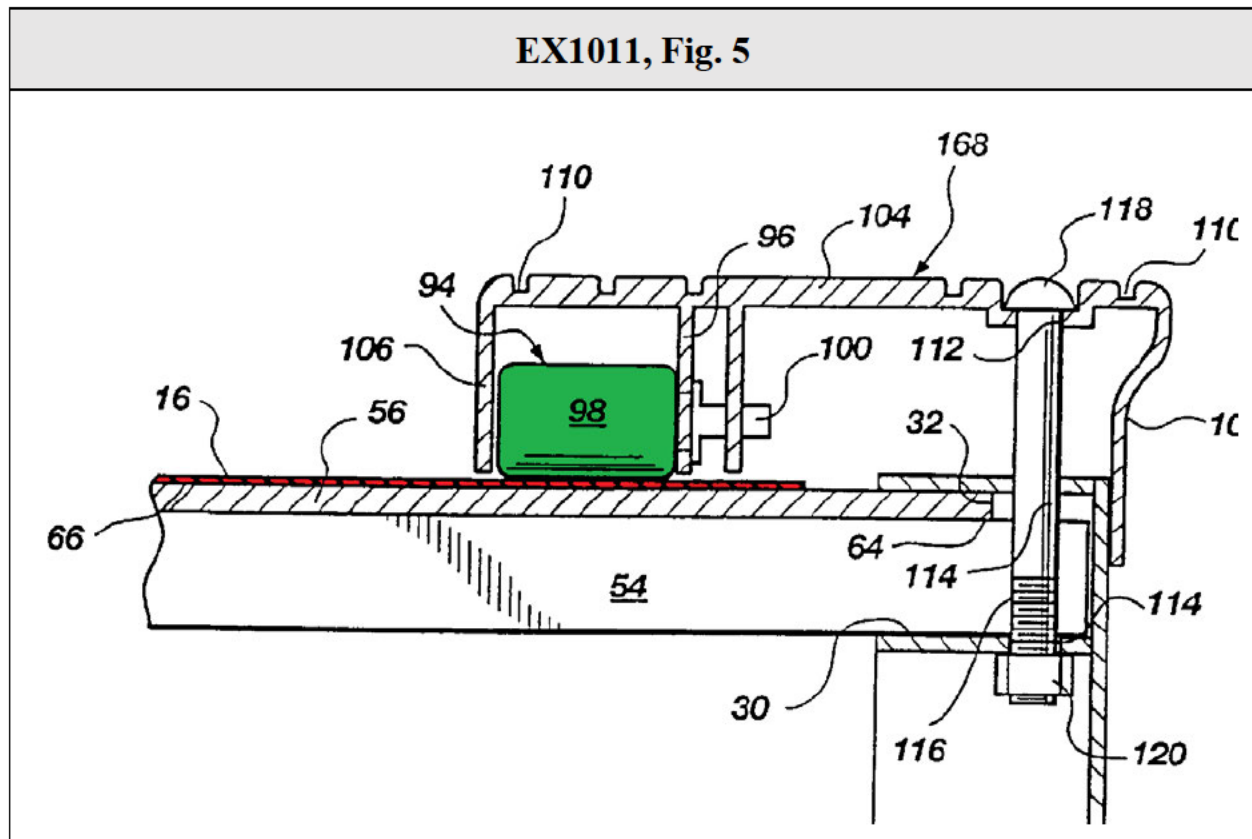
patent, none describe the use of “bearings” to exert downward forces on the belt and hold it in its preferred shape. Even when roller assemblies are used, these structures are consistently referred to as “rollers” or “wheels,” never as “bearings.” *E.g., id.*, 22:32-23:25, 23:43-24:13, 24:28-25:14, 26:4-13; EX2018, ¶¶74-80. In fact, Petitioner’s expert admitted during his deposition that he was unaware of even a single instance in which the ’005 Patent specification actually referred to such roller or wheel assemblies as “bearings,” even as he tried to argue that such rollers were “bearings” under his improperly broad interpretation of the term.¹ EX2023, 44:6-51:13, 52:9-53:1 (“Q. Are you aware of any instance in which those rollers are referred to as bearings? A. Not as I sit here.”)

A POSA would therefore understand the ’005 specification to require a relative, weight-bearing relationship between the running belt and the plurality of bearings, such that, for a structure to constitute a plurality of bearings, it must support

¹ The referenced testimony occurred in connection with combined depositions for three earlier-filed IPRs: IPR2023-00836, IPR2023-00843, IPR2023-00849. Petitioner’s counsel agreed to allow the use of the transcripts from these depositions in the instant action, and Dr. Giachetti testified during his deposition in this proceeding that his opinions in each proceeding should be similar if similar terms are addressed. EX2082, 84:3-17.

the running belt either directly or indirectly and must bear some or all of the weight of the running belt. EX2018, ¶¶73-80. Simply being a “roller” that contacts or is attached to the running belt is not enough to make something a “bearing,” particularly when the ’005 Patent specification uses the term “bearing” and “roller” in distinct and different contexts. *Id.*

As described in Socwell, neither belt securing assembly 94 nor rollers 98 constitute “bearings” as that term is used in the ’005 Patent. Socwell discloses a belt securing assembly 94 where, “[p]referably, the belt securing assemblies 94 provide a means for substantially conforming the inherent flexible nature of the belt 16 to the arcuate configuration....” EX1011, 10:9-12. “[T]he belt securing assembly 94 comprises a roller 98 having an axle 100 which rotatably engages a mounting bracket 96.” *Id.*, 10:18-20. Importantly, the following excerpt of Socwell Figure 5 clearly shows roller 98 and belt securing assembly 94 (both green) positioned vertically *above* running belt 16 (red):



EX1011, Fig. 5 (annotations added); EX2018, ¶¶81-83.

Due to the position of roller 98 and belt securing assembly 94, the running belt 16 does not rest on roller 98 or belt securing assembly 94, and neither roller 98 nor belt securing assembly 94 supports any of running belt 16's weight. Thus, roller 98 and belt securing assembly 94 do not constitute "bearings" as that term is used in the '005 Patent. EX2018, ¶84.

Further, the modifications to belt securing assembly 94 needed to place roller 98 below belt 16 would render belt securing assembly 94 inoperable for its articulated intended purpose of holding belt 16 in an arcuate configuration. EX2018, ¶¶85-86. Notably, belt securing assembly 94 accomplishes this by "being

substantially flush with the *upper surface* 66 of the deck 56.” EX1011, 10:5-9 (emphasis added). Modifications including placing roller 98 below deck 56 or between deck 56 and belt 16 would result in roller 98 being unable to exert a downward force on belt 16 to hold the belt in the arcuate configuration. EX2018, ¶¶86-87.

Thus, neither belt securing assembly 94 nor roller 98 constitute or could be modified to constitute one or more “bearings.” As such, of the structures Petitioner identifies for the “plurality of bearings” element, only one – deck 56 – can arguably constitute a “bearing.” EX2018, ¶¶88-89. But by reciting a *plurality* of bearings, the claims make clear that there must be more than one physically distinct structure that constitutes a bearing for the claims to be met. *See August Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1286 (Fed. Cir. 2011) (“A plurality of wafers means more than one physically distinct wafer.”). Here, because Socwell discloses only a single deck 56, and thus at most a single bearing, Socwell cannot meet the “plurality of bearings” element required by all challenged claims.

2. Petitioner fails to establish that Tollkien discloses “a running belt...wherein the running belt includes a running surface, at least a portion of which is curved” (Ground 2, All Claims)

In Ground 2, Petitioner relies on German Patent No. DE19922822B4 to Tollkien (“Tollkien”) for the majority of limitations, including the requirement in all independent challenged claims for “a running belt...wherein the running belt

includes a running surface, at least a portion of which is curved.” Petition, 78-80; *see also* EX1001, Claims 1, 9, 15. As Dr. Blair explains, a POSA would understand the term “running surface” to refer to a surface of the “running belt” that a runner’s feet would normally make contact with when the user is running on the treadmill. EX2018, ¶92. With respect to the claim limitation, Petitioner and Dr. Giachetti identify Tollkien’s belt 12 (first embodiment) and Tollkien’s belt 30 (second embodiment) as the claimed “running belt.” Petition, 79; EX1003, ¶¶271-274, 326, 355. However, Petitioner and Dr. Giachetti do not point to any portion of the supposed running belt in Tollkien for the “running surface” element. Rather, both point to a series of cross members that are attached to either belt 12 or belt 30. *Id.* But such cross members are not “include[d]” in the running belt as required by the claims; rather, they are separate structures, as evidenced by the fact that they must be *riveted to* either belt 12 or belt 30. EX1031, ¶[0018] (“The running surface is formed by cross members 10 that are transverse to the direction of movement, which are *attached with rivets 6* to a continuous belt 12.”); EX2018, ¶¶93-95; *see also* EX2082, 42:16-23 (Dr. Giachetti testifying that he understands the cross members in Tollkien’s second embodiment to be similarly riveted to belt 30).

Where a claim limitation requires that one structure “include” another, the latter must be a component or portion of the other; it cannot be a structurally separate element. Thus, the “running surface” recited in the Challenged Claims must be a

component or portion of the structure identified as the “running belt” that “includes a running surface.” Here, however, Petitioner identifies two separate structural components – Tollkien’s belt 12/30 and Tollkien’s cross members – as the running belt and the running surface, respectively. The fact that these structures are physically distinct is emphasized by Tollkien’s own description of the cross members being *riveted to* the belt. If the cross members were part of (i.e., included in) the belt, there would be no need to rivet the two structures together. Under such circumstances, a POSA would not understand the identified running belt to “include” the cross members Petitioner identifies as the running surface. EX2018, ¶¶94-96.

Other tribunals have reached similar conclusions when considering claim terms that use variations of the word “include.” For example, in *Pehr v. Rubbermaid, Inc.*, a federal district court considered the claim element “a resilient and elongate latch tongue *including pawl means* forming a recess thereacross,” and was tasked with construing the term “including.” 87 F.Supp.2d 1222, 1230 (D. Kan. 2000) (emphasis added). Giving the term its plain and ordinary meaning, the court concluded that the use of the word “including” meant that the term “require[ed] both the upper and lower portions of the pawl means to be contained by, and therefore to comprise, as a part of the whole, the tongue structure...” *Id.* When applying this to the products accused of infringement, the court concluded that the accused products could not infringe because the lower pawl means in those products was part of a

separate structure – the latch block – not the latch tongue as required by the claims.
Id. at 1233-34.

Just as the latch tongue in the accused products in *Pehr* did not “include” the lower pawl means, the structure Petitioner identifies as the “running belt” in Tollkien does not “include” the cross members that Petitioner identifies as the “running surface.” The Petition does not offer any explanation that would require a different conclusion, nor does it identify any alternative structures in Tollkien that could meet either the “running belt” or the “running surface” limitations. Accordingly, Petitioner fails to meet its burden of showing that Tollkien discloses “a running belt...wherein the running belt includes a running surface, at least a portion of which is curved.”

3. Tollkien does not disclose “a front [or rear] shaft coupled to frame, the front [or rear] shaft being adapted to support the at least one front [or rear] running belt pulley” (Claims 2-3)

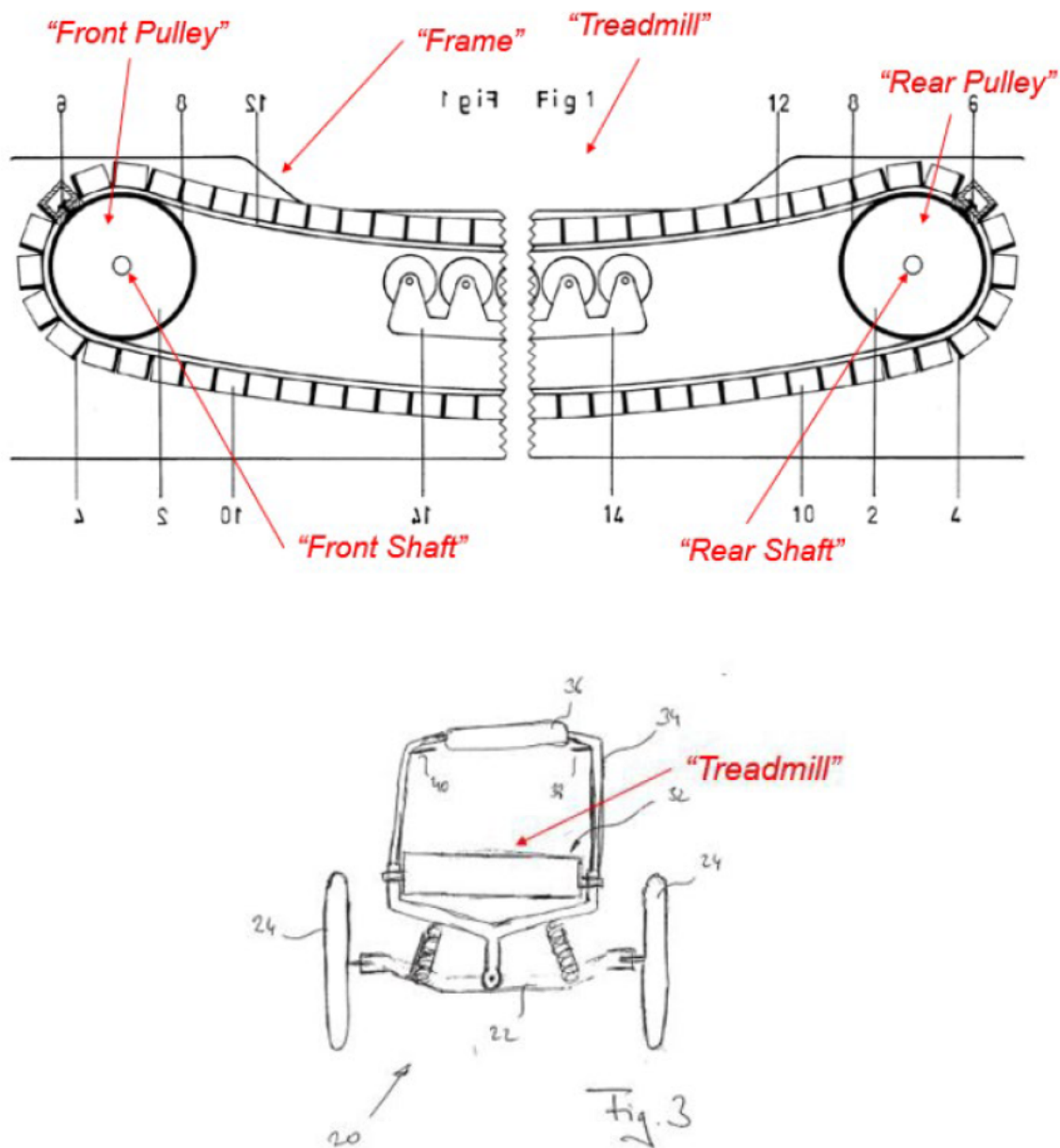
In Ground 2, Petitioner relies on Tollkien for the requirements in Claims 2-3 that the claimed treadmill further comprise “a front shaft coupled to frame, the front shaft being adapted to support the at least one front running belt pulley” (Claim 2) and “a rear shaft coupled to frame, the rear shaft being adapted to support the at least one rear running belt pulley” (Claim 3). Petition, 89-91. However, Petitioner provides no support for the proposition that Tollkien expressly discloses a front or rear shaft that supports the identified front or rear pulley. Rather, this assertion is

premised purely on a conclusory interpretation of Tollkien's figures, and specifically on a small circle on the roller 2 depicted in Figure 1 and the supposed disclosure of "holes" and a "front shaft" in Figure 3 that even Petitioner's own annotations to Figure 3 do not specifically identify. *Id.*; *see also* EX1003, ¶300. Neither these figures nor the associated written description provided in Tollkien expressly identify any shafts whatsoever, and a citation to Dr. Giachetti's declaration, which simply repeats the same bald assertion without any further explanation, analysis, or citation provides no further discussion. *Compare* Petition, 90-91 *with* EX1003, ¶300; EX2018, ¶¶98-107.

Tollkien's lack of disclosure is apparent from Petitioner's own paltry arguments regarding Claims 2-3. The entirety of Petitioner's arguments regarding the alleged existence of a front shaft and a rear shaft in Tollkien is reproduced below:

Petition, 90-91
Tollkien also discloses, in Figure 1, a shaft (" <i>front shaft</i> ") extending through the center of the front roller 2 (" <i>front pulley</i> ") and a shaft (" <i>rear shaft</i> ") extending through the center of the rear roller 2. (Ex.1031, Fig.1.) In Figure 3, Tollkien illustrates the shaft extending from opposing ends of the roller 32 and through holes formed in the frame to couple the roller to the frame for support. (Ex.1031, Fig.3; Ex.1003, ¶¶300-301.)

Petition, 90-91



Ex.1031, Figs. 1 and 3 (Annotated)

As seen above, the Petition's arguments are based entirely on Figures 1 and 3 and the assertion that (1) a small circle on the structures petitioner identifies as the

first and rear pulleys in Figure 1 constitute “shafts,” and (2) at least one of these “shafts” can be seen in Figure 3, which is unlabeled in that figure. These identifications, however, are not supported by the written text in Tollkien. Tollkien itself does not include any callouts for the identified structures in its figures, nor does it offer any apparent description of these supposed structures. EX2018, ¶¶100-102. The Petition also never explains why a POSA would understand the identified structures to constitute “a front [or rear] shaft coupled to frame, the front [or rear] shaft being adapted to support the at least one front [or rear] running belt pulley.” Indeed, as Dr. Blair explains, these structures could just as easily be interpreted as non-shaft structures, such as a ball-type joint or another alternative rotational coupling. EX2018, ¶101.

Dr. Blair’s review of Tollkien confirms that none of the structures described in Tollkien constitute a “a front [or rear] shaft coupled to frame, the front [or rear] shaft being adapted to support the at least one front [or rear] running belt pulley.” EX2018, ¶¶99-103. And while Dr. Giachetti’s declaration purports to identify such structures, during his deposition, the only structure Dr. Giachetti could identify as a “shaft” within Tollkien’s written description is roller 2 – i.e., the structure that he claims constitutes a pulley within the meaning of Claims 2-3, **not** the shaft – and he eventually admitted that the word “shaft” or any recognizable synonym does not

appear in the English translation of the reference on which he relied.² EX2082, 52:8-53:7, 67:25-68:12; EX1003, ¶300.

Moreover, while his testimony rapidly descended into evasive responses, Dr. Giachetti eventually explained that he believed a POSA would understand Tollkien to have a “shaft” solely because it allegedly describes a “roller assembly” rather than just a standalone “roller,” and that a POSA would inherently understand a “roller

² Dr. Giachetti’s first instinct when questioned about the express teachings of Tollkien was to stress that he does not speak German (the original language of Tollkien) and to dispute the adequacy of the translation on which he and Petitioner relied. EX2082, 61:13-17, 65:8-66:2, 67:25-68:7. Rather than support Petitioner’s arguments based on the English translation of Tollkien, Dr. Giachetti’s testimony calls into question the credibility of the entire translation. *Hamamatsu Photonics K.K. v. Semicpas PTE Ltd.*, IPR2017-02110, Paper 35 (PTAB Mar. 18, 2019) (noting that, where Petitioner’s technical witness claimed a word in a Japanese language reference may have been mistranslated by Petitioner’s translator, “[r]ather than supporting Petitioner’s position, this apparent inconsistency between Petitioner’s witnesses calls into question the credibility of Petitioner’s own translation of the reference”). By extension, Dr. Giachetti also calls into question the adequacy of Petitioner’s Ground 2, which relies on the faulty translation.

assembly” to include a shaft. EX2082, 61:18-24. There are two significant problems with this argument.

First, the only instance Dr. Giachetti could identify where Tollkien uses the term “roller assembly” is in connection with a *prior art patent* describing an entirely different invention, the structure of which is unknown. *Id.*, 62:6-63:10. This usage of “roller assembly” says nothing on its own about the structure of Tollkien’s rollers. EX2018, ¶¶104-105. Indeed, despite Dr. Giachetti’s bald assertions to the contrary, the fact that Tollkien describes the prior art as having a “roller assembly” but its own purported invention as simply having “rollers” actually suggests that Tollkien’s “roller 2” is *not* a “roller assembly.” After all, “[t]he general presumption that different terms have different meanings remains.” *Chi. Bd. Options Exch., Inc. v. Int’l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012). Had Tollkien intended to describe “roller 2” as a “roller assembly,” it could have done so. It did not, and as such, roller 2 should not be considered a “roller assembly” with the features Dr. Giachetti’s ascribes to such a structure.

Second, the only alleged support Dr. Giachetti could offer for the idea that Tollkien contains a “roller assembly” was a description of Tollkien’s rollers 2 having a *rubber coating*, which Dr. Giachetti stated, in conclusory fashion, means “there are multiple elements to roller 2, so that puts it under the umbrella of an assembly.” EX2082, 63:11-65:2. The existence of a rubber coating on the rollers has no impact

whatsoever on whether the rollers are supported by one or more shafts. EX2018, ¶106. Indeed, even Dr. Giachetti seems to understand this point. *See* EX2082, 64:20-24 (“Q. So am I to understand your testimony to mean that because Tollkien describes roller 2 as having a rubber coating, roller 2 must also have a shaft? A. I don’t think I said that.”).

Tollkien at a minimum does not *expressly* disclose either a front “shaft” or a rear “shaft” as required by Claims 2-3. And, Petitioner and Dr. Giachetti each fail to provide any evidence or explanation *why* a POSA would understand Tollkien’s figures and other disclosures to necessarily disclose a “shaft.” As the Board has previously found – and the Federal Circuit affirmed – a Petitioner cannot carry its burden without explaining some basis for finding that a POSA would understand the prior art in the manner asserted or providing some evidence of why a POSA would understand the relevant teachings as necessarily disclosing the claimed elements, as inherency requires. *Microsoft Corp. v. Biscotti Inc.*, IPR2014-01459, Paper 49, 17-18 (PTAB Mar. 17, 2016), *aff’d*, 878 F.3d 1052 (Fed. Cir. 2017).

Here, neither the Petition nor Dr. Giachetti’s supporting declaration provide any such evidence or explanation. Rather, with nothing but Dr. Giachetti’s *ipse dixit* testimony that merely parrots the Petition to support its assertions, Petitioner cannot meet its burden to show that Tollkien discloses the limitations of Claims 2-3 under any standard. Such scant “evidence” is entitled to no weight. *Xerox Corp. v.*

Bytemark, Inc., IPR2022-00624, Paper 9, 15 (PTAB Aug. 24, 2022) (precedential) (“We have reviewed this excerpt from Dr. Jones’ declaration and note that it merely repeats, *verbatim*, the conclusory assertion for which it is offered to support....Dr. Jones does not cite to any additional supporting evidence or provide any technical reasoning to support his statement. Thus, the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight.”); 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

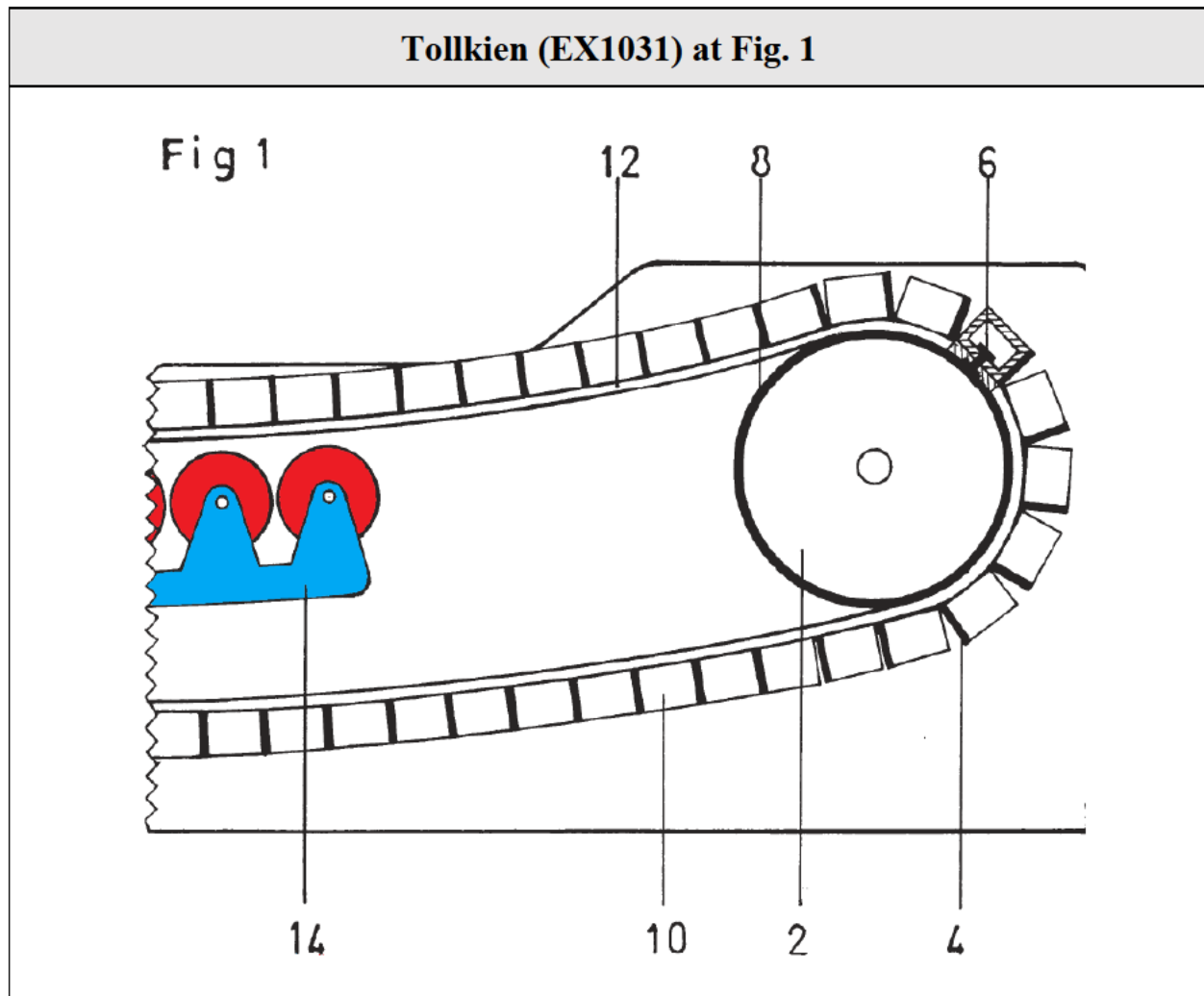
Accordingly, Petitioner has failed to carry its burden, and its argument regarding Claims 2-3 in Ground 2 – whether characterized as based on an express disclosure or an inherent disclosure – must fail.

4. Petitioner fails to establish that Tollkien discloses “a plurality of bearings coupled to the frame” (Claims 6, 13, 16)

In Ground 2, Petitioner also relies on Tollkien for the requirement in Claims 6, 13, 16 that the claimed treadmill further comprise “a plurality of bearings coupled to the frame....” Petition, 93-95. Specifically, both Petitioner and Dr. Giachetti identify portions of runners 14 as the claimed “plurality of bearings” and assert that a POSA “would have understood that the runners 14 are mounted and fixed to the frame and the bearings are mounted for rotation about the axles and relative to the

frame to provide rolling engagement with the continuous belt 12.” *Id.*; EX1003, ¶¶307-309, 348-49, 363-64. However, neither Petitioner nor Dr. Giachetti provide any support for the proposition that Tollkien discloses that the runners 14 are “mounted and fixed to the frame” or that any portion of the runners 14 constitute “bearings” as that term is used in the ’005 Patent. Rather, this assertion is made in the Petition without any citation to Tollkien itself but rather only a citation to Dr. Giachetti’s declaration, which simply repeats this bald assertion *verbatim* without any further explanation, analysis, or citation. *Compare* Petition, 94-95 with EX1003, ¶308.

A POSA would not understand Tollkien’s runners 14 to meet these claimed criteria. First, as Dr. Blair explains, Tollkien contains no explicit disclosure indicating that a portion of runners 14 are “mounted for rotation” and “provide rolling engagement with continuous belt 12.” EX2018, ¶110. Rather, Tollkien’s sole written disclosure of runners 14 simply states that they are “placed underneath the running surface” and “prevent the belt from bouncing when in use.” *Id.*, EX1031, ¶[0020]. Nothing in this disclosure suggests rotation or rolling engagement with the belt. Indeed, as shown in the following annotated figure, there is a conspicuous space between the belt and the round elements of runners 14 (red):



EX2018, ¶111. Accordingly, a POSA would understand runners 14 to function more like bumpers that are separated some distance from the belt to prevent excessive bouncing, not as Petitioner contends as “bearings” that are in constant, rolling engagement the belt. *Id.*, ¶¶112-113.

Moreover, there is also no meaningful support for the bald assertion that runners 14 are coupled to the frame. Indeed, during his deposition, Dr. Giachetti was unable to identify any express disclosure – written or pictorial – indicating that

Tollkien's runners 14 are coupled to the frame rather than to some other component of the treadmill. EX2082, 71:13-74:16. Rather, Dr. Giachetti admitted that "there could be a ton of different ways that [the runners 14 are] attached and *it's not specified* because the POSA can pick." *Id.*, 73:23-74:3 (emphasis added). As Dr. Blair explains in further detail, this lack of specificity is pervasive in Tollkien and means that the runners 14 could be coupled to any of a number of structures besides the frame, such as to the front and rear pulleys. EX2018, ¶¶114-116.

Thus, as with the "shaft" limitations of Claims 2-3, it is clear that Tollkien does not *expressly* disclose that runners 14 – and by extension the structures Petitioner identifies as the plurality of bearings – are "coupled to the frame." *Id.*, ¶117. At most, Petitioner identifies figures and purported POSA knowledge that would *inherently* disclose this claim limitation. But again, the Petition itself fails to provide any evidence *why* a POSA would understand the figures and other disclosures at issue to necessarily disclose that the alleged plurality of bearings are "coupled to the frame," thus failing to provide adequate evidence or explanation to enable Petitioner to meet its burden. *See Microsoft*, Paper 49 at 17-18. Like its "shaft" arguments, the Petition's arguments regarding Tollkien's alleged disclosure of a "plurality of bearings coupled to the frame" – whether characterized as based on an express disclosure or an inherent disclosure – must fail.

Additionally, to the extent Dr. Giachetti's testimony is read to mean that it would have been obvious for a POSA *to try* attaching Tollkien's runners 14 to the frame rather than to some other component of the device, this must also fail. This is *not* what Petitioner argues in its Petition. Rather, Petitioner asserts that a POSA considering Tollkien "would have understood that the runners 14 *are mounted and fixed to the frame.*"³ Petition, 94. That is, the Petition asserts that Tollkien's disclosures are sufficient for a POSA to conclude that runners 14 are *necessarily* coupled to the frame, not that it would simply be obvious for a POSA *to try* such a configuration. Petitioner cannot change its position now. Because "the Petition does not set forth an 'obvious to try' theory," instead asserting that POSA would have understood Tollkien to teach "that the runners 14 are mounted and fixed to the frame," "[i]t would be unfair to Patent Owner to allow Petitioner to now switch mid-stream to an 'obvious to try' rationale."⁴ *ZTE (USA) Inc. v. Fundamental Innovation Sys. Int'l LLC*, IPR2018-00111, Paper 62, 21 (PTAB May 3, 2019) (citing *Wasica*

³ As with most other arguments in the Petition, Dr. Giachetti's Declaration simply repeats this assertion *verbatim*, without any further analysis or support. EX1003, ¶308. Such unsupported and undeveloped testimony is entitled to little to no weight. 37 C.F.R. § 42.65(a).

⁴ Any such argument regarding "shafts" should similarly be rejected.

Fin. GmbH v. Continental Auto. Sys., Inc., 853 F.3d 1272, 1286-87 (Fed. Cir. 2017); *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016)); Petition, 94. To the extent Petitioner tries to assert an “obvious to try” argument in Reply, this argument must be rejected.

Finally, Petitioner’s failure to show where Tollkien discloses that runners 14 are coupled to the frame is fatal to Ground 2’s arguments regarding Claims 6, 13, and 16. With nothing but Dr. Giachetti’s *ipse dixit* testimony that merely parrots the Petition to support its assertions, Petitioner cannot meet its burden to show that Tollkien discloses the limitations of Claims 6, 13, and 16. *Xerox*, Paper 9 at 15; 37 C.F.R. § 42.65(a).

B. Petitioner Fails to Demonstrate Motivation to Combine or Likelihood of Success

1. A POSA Would Not Have Been Motivated to Combine Magid with Socwell. (Ground 1)

In Ground 1, Petitioner argues it would have been obvious to combine the “unidirectional control means 6, 6” (which Petitioner analogizes to the “safety device” recited in each independent claim) of U.S. Patent No. 5,538,489 to Magid (“Magid”) with Socwell. *E.g.*, Petition, 20-26. However, for the reasons described below, a POSA would not combine the teachings of Magid with that of Socwell as modified by Petitioner. EX2018, ¶¶118-142.

A POSA would immediately recognize that, unlike Socwell, Magid focuses on a two-belt therapeutic walker device. Indeed, the primary object of Magid is to provide two independently moving belts for therapeutic purposes, not a single belt. EX1012, 1:46-52; *see also id.*, Fig. 1 (showing a “prior art” single-belt treadmill, indicating an intent to move away from a single-belt device); EX2018, ¶119. Thus, Magid teaches two flat, parallel belts that “move independently when treaded by the left and right feet of the user, thereby preventing the action of the user’s left foot from influencing the action of his right foot and vice-versa...” EX1012, 5:19-27. If a single belt were utilized, the key feature of “preventing the action of the user’s left foot from influencing the action of his right foot and vice-versa” would be lost. *Id.*; EX2018, ¶¶120-122.

Socwell, however, is focused solely on single-belt exercise treadmill—the precise kind of device Magid rejects—and is not specifically directed to therapeutic use. For example, every embodiment of Socwell discloses only a single belt 16 that provides a running surface. *See generally* EX1011; EX2018, ¶¶123-125. Socwell is directed to a non-therapeutic “exercise treadmill()” that is suitable for recreational running and other purely recreational purposes. *See, e.g.*, EX1011, 1:10-12; 3:46-52 (“This invention relates to exercise treadmills and, more particularly, to novel systems and methods for providing a curved deck treadmill.”); *see also* EX2018, ¶126. In view of Magid’s teachings regarding the criticality of a two-belt design in

which the walking belts are positioned parallel to one another and of ensuring that the device is capable of therapeutic use, a POSA would not have been motivated to look to and combine Magid's teachings with a single-belt exercise device, such as that taught in Socwell. EX2018, ¶127.

Indeed, the Socwell device would have no need for the purported safety device disclosed in Magid, particularly because the purpose of Magid's walking device is fundamentally different from that of the treadmill described in Socwell. Magid's walker device is specifically intended for therapeutic use by "people with uncoordinated feet movement, such as small children, physically handicapped people and old people...." EX1012, 1:30-35, 5:52-55. With a flat/uniplanar walking surface, Magid's walker device would be relatively easy and appropriate to use for therapeutic purposes. However, those with "uncoordinated feet movement" face a heightened risk if one of the Magid's two walking belts moves in the opposite direction from that intended during use. EX2018, ¶¶128-129. Such people are particularly prone to falls because they have a limited balancing capabilities and, as even Dr. Giachetti admits, "a person that has issues balancing is more precarious than a person who is what we would consider able-bodied." EX2023, 81:13-22.

Thus, Magid requires some kind of control means to prevent one of the belts from moving in the opposite direction *while the other remains stationary or moves in the correct direction* during normal use. EX2018, ¶130. Without such a control

means in Magid, the user's feet could move in opposite directions while in contact with their respective belts, potentially causing significant injury to the user. *Id.*, ¶¶129-130.

That same motivation is not present in the single-belt design of Socwell, however. In a single-belt design, it is not possible for the user's feet to move in opposite directions while both are in contact with the belt. EX2018, ¶131. A POSA therefore would have recognized that there was no need for the control means of Magid to be incorporated into Socwell. *Id.* Moreover and more generally, a curved running surface like that of Socwell would be inherently difficult to adapt and inappropriate for therapeutic use. *Id.*, ¶¶132-135. Accordingly, a POSA would not recognize the teachings of Magid to be necessary or even compatible with that of Socwell.

Thus, the prior art teaches away from Petitioner's proposed combination. Socwell addresses the disadvantage of "having to grasp a handle to keep centered on the treadmill" when a user begins to jog or run on prior art exercise treadmills as it "may severely interfere with one's natural body motion and further abdicate the inherent physical advantages of the exercise routine." EX1011, 2:61-67. Thus, Magid, a therapeutic "walker apparatus," teaches away from a single belt, non-planar, or multi-planar exercise treadmill. EX1012, 1:17. At the very least, a reader

of Magid would be discouraged from combining it with elements of Socwell, particularly where those references criticize the features emphasized in Magid.

Rather, when looking to improve or modify a curved or multi-planar treadmill like that described in Socwell, a POSA would examine the teachings of other treadmills having curved or multi-planar running surfaces, not a narrow-use walker device with a flat or uniplanar surface, such as in Magid. EX2018, ¶136. This is because the design and engineering requirements of a treadmill having a curved running surface differ from those of a treadmill with a flat or uniplanar running surface. *Id.*, ¶¶137-142. Design and engineering requirements would urge a POSA to avoid combining the teachings of Socwell or other non-planar or multi-planar treadmills with Magid, particularly given Magid's express teaching away from a single-belt treadmill. *Id.*

Accordingly, a POSA would not be motivated to combine the curved running surface of Socwell with the flat, uniplanar walking device of Magid because the thus-modified piece of equipment would be unsuited for the references' intended purposes.

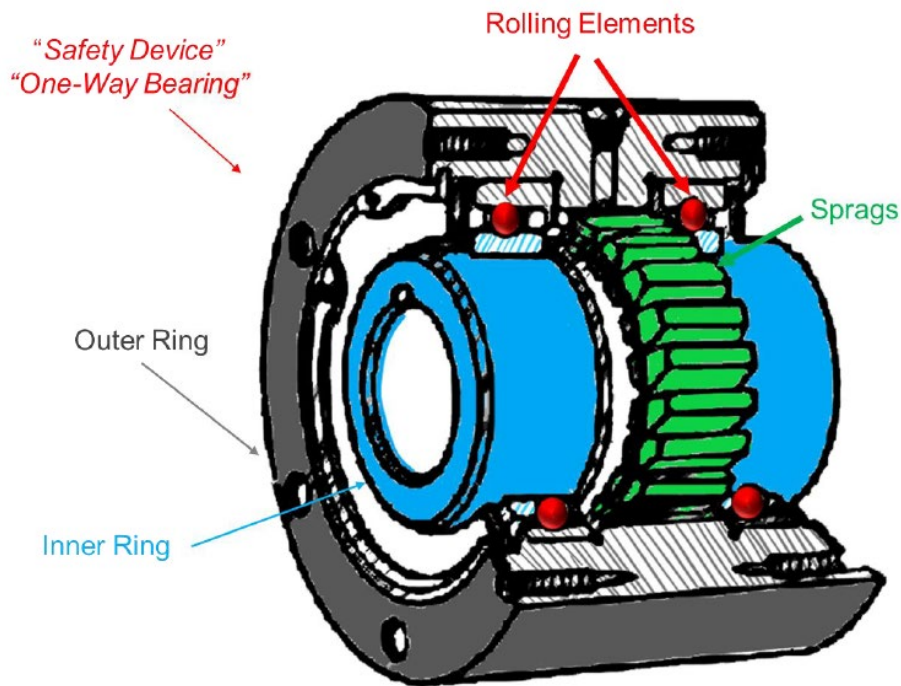
2. Petitioner's Obviousness Arguments Regarding Sclater Rely on Improper Hindsight (Ground 1)

The obviousness arguments underlying Ground 1 should also be rejected because Petitioner's motivation to combine arguments are fraught with hindsight

bias. In essence, Petitioner's asserted motivations to combine amount to little more than just picking and choosing aspects of alleged prior art to attempt to satisfy the claim elements, which is not the law of obviousness. *See InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (finding hindsight bias where expert testimony "primarily consisted of conclusory references to [the] belief that one of ordinary skill in the art *could* combine these references, not that they *would* have been motivated to do so") (original emphasis); *Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1367 (Fed. Cir. 2017) ("[W]e cannot allow hindsight bias to be the thread that stitches together prior art patches into something that is the claimed invention.").

This is particularly apparent with respect to Petitioner's arguments regarding Neil Sclater and Nicholas P. Chironis, *Mechanisms & Mechanical Devices Sourcebook* (3d ed. 2001) ("Sclater"). Ground 1 argues that a POSA would have been motivated to combine Magid's purported teachings of a ratchet-type control means to Socwell to meet the Challenged Claims' requirement for a "safety device." *E.g.*, Petition, 26-32, 42-45, 49-58, 62-65. However, Petitioner then summarily argues that a POSA would immediately discard Magid's ratchet-type control means and replace it with a specific one-way bearing assembly described in Sclater. *E.g.*, *id.*, 30, 42-43, 51-52.

Specifically, Petitioner relies on the specific sprag-type clutch shown below:



Petition, 31 (annotations added by Petitioner).

However, even assuming *arguendo* for Ground 1 that a POSA would have been motivated to incorporate Magid's control means into the devices of Socwell—as explained above, she would not – Petitioner does not adequately explain why a POSA would have been specifically motivated to select the mechanism Petitioner relies on, rather than one of the dozens of other options Sclater present. As Petitioner acknowledges, Sclater “contains drawings and descriptions of ***more than 2000 different mechanisms and mechanical devices*** that have proven themselves in modern products, machines, and systems.” Petition, 27 (quoting EX1017, 24) (emphasis added). More specifically, although Petitioner omits much of the book from its Exhibit 1017, opting instead to provide only sporadic excerpts from the

“Coupling, Clutching, and Braking Devices” chapter, even the limited excerpts Petitioner included identify *dozens* of mechanisms and devices, including at least twenty different types of clutches. *See generally* EX1017.

In Ground 1, the Petitioner purports to provide reasons why a POSA would have been motivated to select the specific sprag-type clutch Petitioner relies on, but the features that Petitioner identifies as the sole motivation for using a sprag-type clutch – “reduced noise and improved durability” (Petition, 26) – are *not* ascribed to the specific clutch Petitioner identifies. EX2018, ¶¶144-152.

With respect to “reduced noise,” while Sclater states generally that a “friction-type clutch is quieter,” it identifies at least six different friction-type clutches – *e.g.*, plate clutches, cone clutches, expanding shoe clutches, cam and roller clutches, expanding shoe centrifugal clutches, and mercury gland clutches – which are not limited to the sprag-type clutch Petitioner actually relies on. EX1017, 302-03, 316. Any one of these alternative devices would function just as well as – if not better than – the sprag-type clutch Petitioner cites, at least when considering the alleged motivations to combine recited in the Petition. EX2018, ¶¶146-148.

Dr. Giachetti admitted during his deposition that he never conducted any analysis of how the noise of a ratchet-and-pawl clutch compares to the noise generated by the multitude of other components of a treadmill, despite volunteering an entire list of mechanical and environmental factors that can affect the amount of

noise a treadmill makes. EX2023, 102:23-107:10. Rather, he testified that he came to the problem “preloaded with how quiet a belt on rollers is” and decided that he “didn’t have to” conduct any kind of analysis comparing the sound of Magid’s ratchet-and-pawl clutch to the sound made by the rest of the treadmill. *Id.*, 102:23-103:13.

This omission, and Petitioner’s omission of the vast majority of Sclater’s full disclosure, is even more jarring when one considers Dr. Giachetti’s testimony as to *why* he believes a POSA would consider a ratchet-and-pawl clutch too noisy. Specifically, Dr. Giachetti testified that, based on his untested assumptions, a ratchet-and-pawl clutch would cause an unsuitable amount of noise because “[e]very time the pawl strikes the ratchet gear, there is going to be a – a pinging sound or a clicking sound.” EX2023, 106:9-20; *see also* EX1003, ¶272 (“The pawl is spring-loaded to engage each gear tooth of the ratchet and it makes an audible ‘click’ when colliding with the gear tooth root after overrunning or passing over each tooth.”). But this overlooks the fact that the “pinging” or “clicking” sound Dr. Giachetti cites would only occur in a ratchet-and-pawl clutch that uses teeth.⁵ EX2018, ¶¶147-148.

⁵ Indeed, other portions of Dr. Giachetti’s testimony also suggests that he assumed a ratchet-and-pawl device must have teeth. *See, e.g.*, EX2023, 99:16-100:4

In reality, there are many different kinds of ratchet-and-pawl clutches in the art, many of which do *not* have teeth. Indeed, one of the pages of Sclater that Petitioner intentionally omitted from its Exhibit 1017 expressly describes “[r]atchets with springs, rollers, and other devices” but “no teeth.” EX2021, 124. Neither Dr. Giachetti nor Petitioner even acknowledge these teachings, despite Dr. Giachetti testifying during his deposition that a POSA would have been aware of the mechanical components described in Sclater even without consulting the text. EX2024, 110:12-25.

Thus, neither Dr. Giachetti nor Petitioner have offered any explanation as to why a POSA would opt to replace Magid’s ratchet-and-pawl unidirectional control means with a completely different kind of clutch rather than using one of the known alternative ratchet-and-pawl clutches that lack the feature that causes the purportedly undesirable “pinging” or “clicking” sound Dr. Giachetti describes. A POSA would be far more likely to look to these alternate ratchet-and-pawl clutches, particularly when Magid – the reference Petitioner relies on – expressly discloses their use to ensure unidirectional movement in a walker device. *See* EX2018, ¶148, ¶151. Opting instead to incorporate a completely different kind of clutch, such as a sprag-type

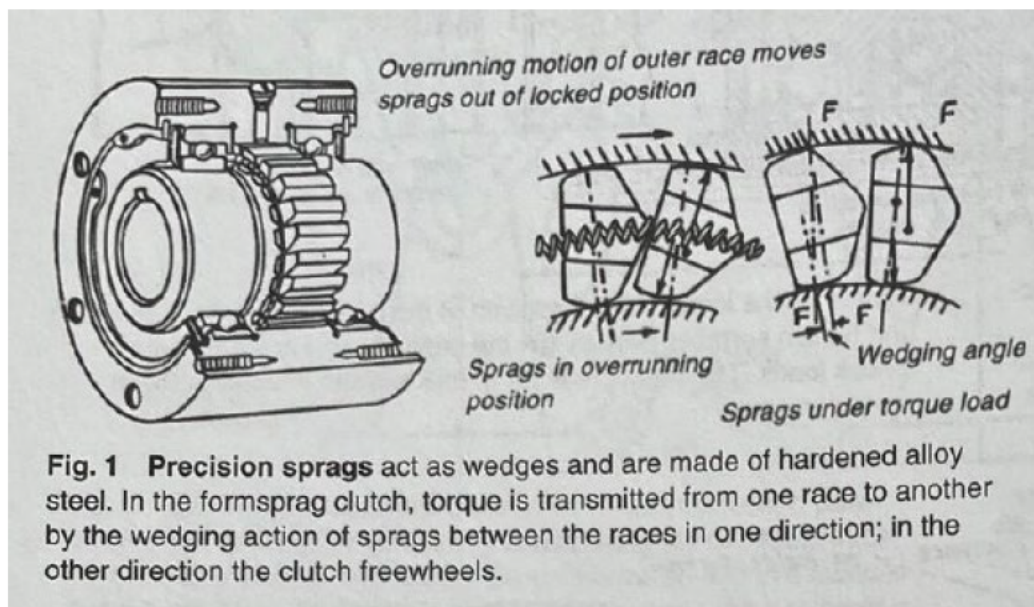
(testifying that “you’re dependent on that pawl being able to lock into the teeth on the ratchet” when using a ratchet-and-pawl in overspeed conditions).

clutch, would entail significant engineering considerations, including the ones expressly outlined in Sclater itself, as discussed *infra. Id.*, ¶¶152-154.

Thus, one is left with nothing by Dr. Giachetti's *ipse dixit* to support the idea that Magid's ratchet-and-pawl unidirectional control means would have produced any meaningful noise at all and that a POSA would have any motivation to replace it with a purportedly quieter option. This is not enough to support a finding of obviousness. *See TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1362-63 (Fed. Cir. 2019) (reversing Board's obviousness determination where expert testimony characterizing the prior art was "[u]ntethered to any supporting evidence").

As for "durability," Sclater does not make any statements regarding the general durability of sprag-type clutches relative to other options, let alone the durability of the specific clutch relied on by Petitioner. *See generally* EX1017. Indeed, Sclater has very little to say about the mechanism Petitioner identifies at all. The following is Sclater's entire discussion of that particular clutch:

EX1017, 318



See also Petition, 18. The foregoing excerpt is found in a section that also discusses nine other overrunning clutches, *all of which* Sclater explains “allow freewheeling, indexing and backstopping” and “will solve many design problems. EX1017, 318-19. Again, Sclater does not identify any benefits that are specific to the mechanism Petitioner relies on rather than generically applying to any of the dozens of alternatives Sclater also discusses. Indeed, as with the purported “reduced noise and improved durability” motivation, many of the alternative devices would function just as well as or even better than the sprag-type clutch Petitioner cites. EX2018, ¶¶149-150. Indeed, during his deposition, Petitioner’s expert argued that he was not relying on Sclater for any particular sprag-type clutch but rather for some “general” teaching that sprags are included in the category of one-way bearings, without articulating

any opinions or offering an explanation as to why a POSA would actually use any particular sprag. EX2023, 90:3-94:15. Again, Petitioner's arguments amount to little more than saying that a POSA *could* use a sprag-type clutch without actually explaining why a POSA *would* use such a feature, let alone articulating what that feature would even look like in the proposed combination.

Moreover, to the extent Sclater does provide some indication of the factors a POSA would consider when deciding to incorporate any particular sprag or other clutch into a mechanical device, Petitioner's expert admitted during his deposition that he never conducted *any* analysis of these factors as to *any* particular sprag-type clutch. More specifically, when discussing applications of sprag-type clutches, Sclater discloses as follows:

Overrunning sprag clutches transmit torque in one direction and reduce speed, rest, hold, or free-wheel in the reverse direction. Applications include overrunning, back stopping and indexing. **Their selection – similar to other mechanical devices – requires a review of the torque to be transmitted, overrunning speed, type of lubrication, mounting characteristics, environmental conditions, and shock conditions that might be encountered.**

EX1017, 320 (emphasis added). Yet when asked about these factors during his deposition, Dr. Giachetti could point, at most, to generic statements in the “state of the art” section of his declaration indicating that sprag-type clutches in general “meets the torque requirements of most machine applications” (EX2023, 89:8-15),

and comparing the differing “speed” characteristics of ratchet-and-pawl clutches vs. roller-and-friction-type clutches generally (*id.*, 94:16-95:10 (further indicating that he was discussing “speed in general,” not specifically overrunning speed)). Meanwhile, Dr. Giachetti admitted that his declaration never even mentions other factors such as the “type of lubrication” to be used (*id.*, 101:2-8) or the “shock conditions that might be encountered” (*id.*, 101:19-23). Thus, despite the fact that the reference he relies on (Sclater) explicitly states a review of such factors is “require[d]” for a sprag-type clutch to be selected for application, Dr. Giachetti’s declaration contained no actual analysis of these factors for any particular sprag. EX1017, 320. Instead, it relies on generic statements directed to an entire class of clutches without ever conducting even a basic analysis of whether it would be feasible to apply and incorporate any particular clutch in the primary references.

Generic statements like those Petitioner relies on from Sclater cannot support a motivation to combine when they are not specifically tied to the clutch Petitioner argues should be incorporated into the primary reference devices. *See Purdue Pharma L.P. v. Depomed, Inc.*, 643 F. App’x 960, 964-66 (Fed. Cir. 2016) (agreeing that “generic and conclusory statements of interrelated teachings of the prior art” cannot support a finding of motivation to combine). A POSA would readily recognize that the same benefits also apply to the countless other mechanisms and devices that Sclater discloses in equal detail. EX2018, ¶¶145-152. Yet, beyond

Slater itself and equally nonspecific references like Exhibit 1018 (which is apparently an entire catalog of clutches with varying designs and overlapping uses), neither Petitioner nor Dr. Giachetti explain why a POSA would have been motivated to use the specific clutch Petitioner relies on. *See* Petition, 26-32, 43-45, 51-52, 57-58, 62-65; EX1003, ¶¶271-278, 465-472. Without more, it is clear that the only reason Petitioner selected that mechanism is that Petitioner used the limitations of the Challenged Claims as a guide for its obviousness arguments. This is not permissible.

The Federal circuit and the Board have long recognized that Petitioner's approach is improper and a clear example of impermissible hindsight bias. *E.g., In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011) ("Care must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'") (citations omitted); *Purdue Pharma L.P. v. Depomed, Inc.*, 643 F. App'x 960, 966 (Fed. Cir. 2016) ("To the extent that [Petitioner] relies on the problem to be solved to supply the reason to combine the prior art, it failed to demonstrate to the Board that the problem was known in the art or that [Petitioner's] formulation of the problem was derived directly from the prior art, rather than from the challenged claims."); *Metacluster LT, UAB v. Bright Data Ltd.*, IPR2022-00936, Paper 8, 24 (PTAB Dec. 1, 2022) (rejecting motivation to

combine argument where “Petitioner appears to be employing hindsight bias... by using the patent claim limitations as a guide”); *Amazon.com, Inc. v. JumpSport, Inc.*, IPR2018-00715, Paper 8, 38-39 (PTAB Sept. 6, 2018) (rejecting motivation to combine argument given, *inter alia*, “the lack of any discussion of the advantages – if any – of the particular portion of the Katzman design used by Petitioner,” which was indicative of improper hindsight); *see also Duo Security Inc. v. StrikeForce Techs., Inc.*, IPR2017-01064, Paper 7, 24-25 (PTAB Oct. 16, 2017) (rejecting motivation to combine argument where “Petitioner’s vague assertions do not substantiate a reason that would have prompted [a POSA] to combine the specific relevant *element* or *teaching* of [the secondary reference]... with [the primary references] to achieve the invention recited in the challenged claims”) (original emphasis).

Petitioner cannot justify its otherwise arbitrary selection of the specific clutch it references in any other way, particularly when its proposed combination involves first adding (from Magid) a feature lacking from the primary prior art references while assuming that a POSA would find that feature so plainly inadequate that he would immediately replace it in its entirety with a structurally different feature (from Sclater). Under such circumstances, replacing Magid’s control means with the sprag-type clutch of Sclater can hardly be considered a mere “substitution” of known elements as discussed in *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-18 (2007).

After all, Socwell did not disclose *any* comparable one-way bearing element; as such, there was no known element for which Sclater's sprag-type clutch could be "substituted." Under such circumstances, simply saying that sprag-type clutches were generally known in the art cannot possibly be enough to establish motivation to combine.

Because Petitioner plainly used the Challenged Claims as a guide for selecting its asserted prior art, it cannot establish an adequate motivation to combine any specific teachings of Sclater with Socwell or Magid. Because Ground 1 relies on Sclater for elements of every Challenged Claim, this Ground should be rejected.

3. A POSA Would Not Have Been Motivated to Combine Sclater with Tollkien. (Ground 2)

In Ground 2, Petitioner argues it would have been obvious to combine the specific "sprag-type one-way bearing" disclosed in Sclater (which Petitioner analogizes to the "safety device" recited in each independent claim) with the "treadmill for fitness training" disclosed in DE 199 22 822 B4 to Tollkien ("Tollkien"). *E.g.*, Petition, 66-74, 80-84. However, for the reasons described below, a POSA would not combine the teachings of Sclater with that of Tollkien. EX2018, ¶¶156-171.

First, Petitioner and Dr. Giachetti only say that a POSA would recognize a need for a unidirectional control means because of Socwell's alleged teachings that

a curved running surface does not address certain safety concerns. *See* Petition, 69; EX1003, ¶ 243. However, Socwell does not contain any such teachings. Socwell claims a “novel curved deck treadmill which overcome several deficiencies of exercise treadmills of the prior art” namely “injuries sustained as a result of an uncontrolled rotation of the anti-friction rollers engaging the belt.” EX1011, 3:19-22, 1:29-33. Dr. Giachetti even admitted as such that Socwell itself does not expressly identify any safety issues associated with curved running surfaces. EX2023, 55:21-56:1. Rather, Socwell explains that its curved running surface *solves* the safety issues associated with prior art, flat treadmills. EX1011, 3:10-22; EX2018, ¶¶158-162.

Now, however, Petitioner and Dr. Giachetti take a directly contradictory position. Specifically, when discussing Ground 2, Dr. Giachetti asserts – without any supporting citations – that “*Socwell explains* that curved running surfaces *do not* fully address the safety issue of unexpected forward motion of the running belt.” *Id.*, ¶243 (emphasis added). When confronted during his deposition about this statement, he double-downed, repeatedly agreeing with this statement and further testifying, “I think from a holistic perspective it’s an accurate reading of Socwell.” EX2082, 38:16-21. Dr. Giachetti’s position therefore seems to be fluid and dependent on Petitioner’s arguments, even when these new positions contradict other arguments.

Not only is this argument contradicted by Dr. Giachetti's earlier deposition testimony, it is also inconsistent with his declaration in this very proceeding. Indeed, in Ground 1, Dr. Giachetti admits that "Socwell discloses calibrating the rollers and deck to provide optimal frictional resistance of the belt to ensure safety while providing proper resistance for to exercising" and that "Socwell explains that the curved running surface presents a user from falling off the back." EX1003, ¶134. And despite what he later argues in Ground 2, he does not claim in Ground 1 that Socwell itself identifies any safety shortcomings associated with a curved running surface. Rather, Dr. Giachetti opines that Socwell *fails* to take those considerations into account at all. *Id.*, ¶135.

Socwell confirms that it contains no disclosures that could be characterized as recognizing an alleged safety concern associated with a curved running surface. *See generally* EX1011. Its disclosure instead makes clear that the Socwell curved running deck was utilized to minimize safety concerns. EX1011 at 3:10-22, 3:25-60. Yet in Ground 2, in conflict with this disclosure, Petitioner and Dr. Giachetti contend that a POSA would recognize a motivation to combine Tollkien and Sclater. Petition, 66-74; EX1003, ¶¶243-244. Indeed, Dr. Giachetti testifies that "[a] POSA reviewing Tollkien would have been alerted to safety issues associated with curved running surfaces *by reviewing the cited Socwell reference*" and that "[a] POSA would have understood that preventing forward belt motion would solve *this problem*." EX1003,

¶244 (emphasis added); *see also* EX2082, 39:22-40:5 (confirming that he believes this is “an accurate statement”). But Socwell identifies no such “safety issues” and no such “problem.” EX2018, ¶¶161-162. Indeed, a previously mentioned, the teachings that Dr. Giachetti attributes to Socwell in Ground 2 are actually the same alleged “problems” that they assert Socwell *fails* to address in Ground 1. *Compare* EX1003, ¶135 with ¶243; *see also* EX2018, ¶163 (comparing Dr. Giachetti’s Ground 1 and Ground 2 opinions). Thus, Petitioner’s identified motivation to add a safety device of any kind to Tollkien in Ground 2 is based on a false premise and an clear misstatement, if not outright mischaracterization, of the evidence. Accordingly, Petitioner’s motivation to combine arguments with respect to Ground 2 should be rejected.

Even assuming *arguendo* that a POSA would have been motivated to fix the treadmill’s bidirectional movement based on Tollkien – as explained above, she would not – Petitioner does not adequately explain why a POSA would have been motivated to select a sprag-type clutch, let alone the specific sprag-type clutch Petitioner relies upon. The generic theory that “conveyors and treadmills operate the same,” and that some sprag-type clutches have been described for use in exercise equipment applications generally, albeit not in Sclater itself but rather in an exemplary product catalog (Emerson) that is not cited as a reference in Ground 2, and insufficient. Petition, 66, 73-74. But these features are not unique to the

specifically identified sprag-type clutch that Petitioner wants to incorporate. EX2018, ¶¶167-168. As previously discussed, the limited excerpts of Sclater Petitioner provides presents dozens of other options or alternatives to the specific sprag-type clutch Petitioner identifies, including at least twenty different types of clutches. *See* §IV(B)(2), *supra*. As Petitioner acknowledges, Sclater “contains drawings and descriptions of more than 2000 different mechanisms and mechanical devices that have proven themselves in modern products, machines, and systems.” Petition, 66 (quoting EX1017, 24) (emphasis added).

As with Ground 1, the Petition’s purported reasons why a POSA would have been motivated to select the specific sprag-type clutch Petitioner relies on to combine with Tollkien are generic and threadbare. EX2018, ¶¶168-170. Once again, Petitioner does not address any of the factors that Sclater expressly teaches must be considered before a particular sprag-type clutch can be used in a particular application. *See* Petition, 66-74 (omitting any discussion of factors discussed in Sclater); *see also* §IV(B)(2), *supra*. Rather, Petitioner simply asserts that the selected mechanism is known “to permit only unidirectional motion of a conveyer belt,” that “conveyors and treadmills operate the same,” and that some sprag-type clutches have been described for use in exercise equipment applications generally, albeit not in Sclater itself but rather in an exemplary product catalog (Emerson) that is not cited as a reference in Ground 2. Petition, 66, 73-74.

However, these features are not unique to the specifically identified sprag-type clutch. EX2018, ¶¶168-169. Indeed, during his depositions, Petitioner's expert has repeatedly argued that he was not relying on Sclater for any particular sprag-type clutch but rather for some "general" teaching that sprags are included in the category of one-way bearings, without articulating any opinions or offering an explanation as to why a POSA would actually use any particular sprag. EX2023, 90:3-94:15; *see also* EX2082, 109:17-111:2 (testifying that Sclater does not disclose a specific sprag at all; further testifying that Sclater discloses "a particular style of sprag that a POSA *could* implement," but a POSA "*could also* implement a different style and have equally good success") (emphasis added). Again, Petitioner's arguments amount to little more than saying that a POSA *could* use a sprag-type clutch of some kind without actually explaining why a POSA *would* use such a feature, let alone articulating what that feature would even look like in the proposed combination.

Because Ground 2 relies on Sclater for elements of every Challenged Claim, this Ground should be rejected.

V. SECONDARY CONSIDERATIONS DICTATE A FINDING OF NONOBVIOUSNESS

A. Legal Standards

“[O]bjective considerations of non-obviousness must be considered in *every case*,” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016) (emphasis in original), and “can be *the most probative evidence of nonobviousness in the record*, and enables the... court to avert the trap of hindsight.” *Crocs, Inc. v. Int’l Trade Comm’n*, 598 F.3d 1294, 1310 (Fed. Cir. 2010) (emphasis added). Objective considerations may include evidence of “commercial success, industry praise, unexpected results, copying, industry skepticism, licensing, and long-felt but unsolved need.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012).

“[T]here is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product is the invention disclosed and claimed in the patent.” *WBIP*, 829 F.3d at 1328. “The presumption of nexus is rebuttable... [but] a patent challenger cannot successfully rebut the presumption with argument alone—it must present evidence.” *Id.* at 1329. “Where the allegedly obvious patent claim is a combination of prior art elements,... the patent owner can show that it is the claimed combination as a whole

that serves as a nexus for the objective evidence; proof of nexus is not limited to only when objective evidence is tied to the supposedly ‘new’ feature(s).” *Id.* at 1330.

The Board has acknowledged that the validity of patents otherwise facing a *prima facie* case of obviousness may nonetheless be upheld as patentable due to objective indicators of nonobviousness. *See Fox Factory, Inc. v. SRAM, LLC*, Case IPR2017-01440, Paper No. 62 (PTAB Dec. 6, 2018) (finding showing of secondary considerations sufficient to outweigh petitioner’s showing of obviousness).

B. Nexus

Patent Owner manufactures and sells several different models of curved, manual treadmills that practice and are coextensive with the Challenged Claims. These curved, manual treadmills include the following:

- CURVE – The first iteration of what became known as the CURVE treadmill was first offered for sale at the International Health, Racquet & Sportsclub Association (“IHRSA”) trade show in 2009. EX2020, ¶7. At that time, the CURVE treadmill was referred to as the “SpeedBoard” treadmill. *Id.* That CURVE treadmill may now be referred to internally as the “CURVE Legacy.” *Id.* Upon product launch, the CURVE treadmill received numerous awards, including the 2010 FIBO Innovation Award. *Id.*, ¶56; EX2057.
- CURVE XL – The CURVE XL treadmill offers a larger running surface than the CURVE Legacy, but for purposes of determining nexus with the

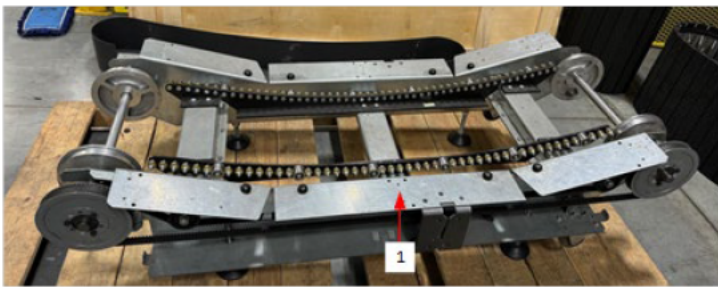
Challenged Claims, is structurally the same as the other CURVE products. EX2018, ¶178.

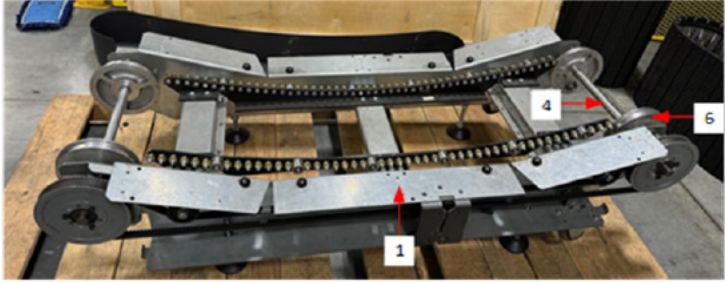
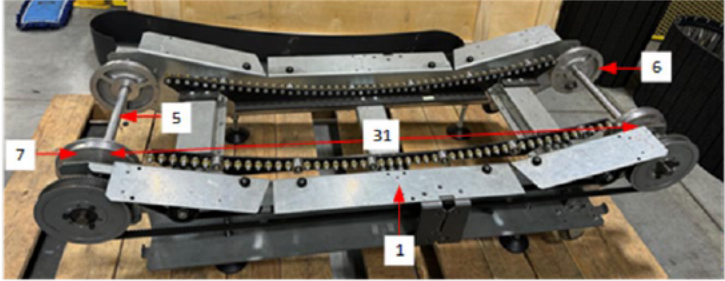
- CURVE LTG – The CURVE LTG treadmill is a lighter duty version of the CURVE Legacy, but for purposes of determining nexus with the Challenged Claims, is structurally the same as the other CURVE products. *Id.*
- CURVE FTG – The CURVE FTG treadmill has different handrails than the CURVE Legacy and added features for providing different levels of resistance, but for purposes of determining nexus with the Challenged Claims, is structurally the same as the other CURVE products. *Id.*
- CURVE 3.0 – The CURVE 3.0 treadmill contains upgraded software and other sophisticated electronics but, for purposes of determining nexus with the Challenged Claims, is structurally the same as the other CURVE products. *Id.*
- CURVE Trainer – The CURVE Trainer has a slightly less steep curve than the CURVE treadmill. *Id.* The CURVE Trainer may provide a quieter and quicker acceleration than the CURVE treadmill but, for purposes of determining nexus with the Challenged Claims, is structurally the same as the other CURVE products. *Id.*
- EcoMill and EcoMill Legacy– The EcoMill and EcoMill Legacy each have an onboard generator system that produces power for the display and a

USB charging station but, for purposes of determining nexus with the Challenged Claims, are structurally the same as the CURVE products. *Id.*

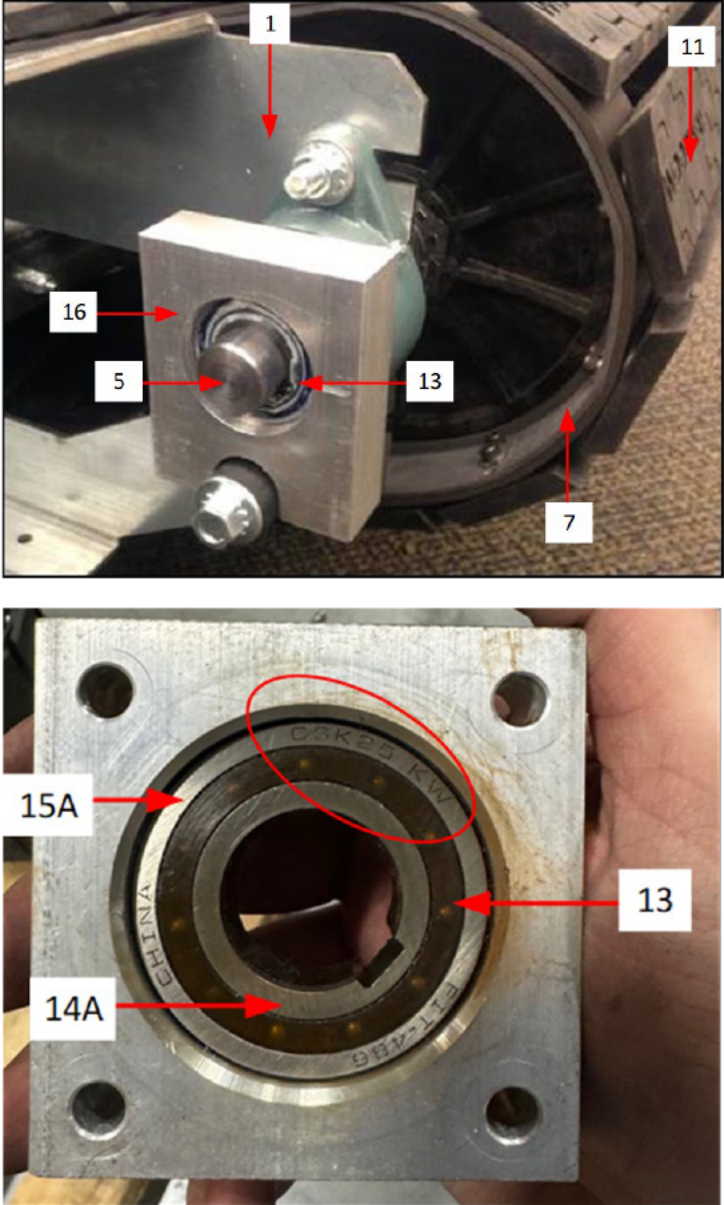
As explained by Dr. Blair and in the exemplary claim chart accompanying his declaration, Patent Owner's curved, manual treadmills, including specifically its CURVE family of products, practice at least Claims 1-4, 6-7, 9-13, 15-16 of the '005 Patent and are coextensive with the patent claims. EX2018, ¶¶176-177; EX2025. For example, the following chart illustrates how Claim 1 of the '005 Patent practices and is coextensive with the CURVE products:

Claim Element	Curve Treadmills
1. A manually powered treadmill, comprising:	The Woodway CURVE treadmill is a “manually powered, non-motorized treadmill.” EX2028, 1, 20.

Claim Element	Curve Treadmills
	
a frame;	The Woodway CURVE includes a frame [1]. EX2028, 33 (referring to “the frame”). 
at least one front running belt pulley coupled to the frame;	The Woodway CURVE includes a front running belt pulley [6] coupled to the frame [1], as the term “coupled” is used in the '005 Patent. EX1001, 32:22-27.

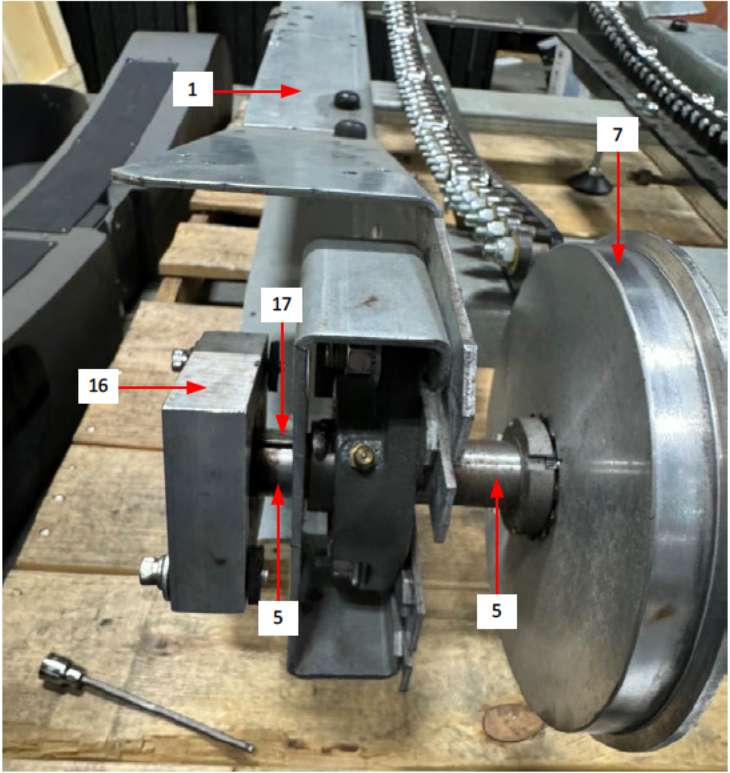
Claim Element	Curve Treadmills
	
at least one rear running belt pulley coupled to the frame and spaced a distance from the at least one front running belt pulley;	The Woodway CURVE includes at least one rear running belt pulley [7] coupled to the frame [1], as the term “coupled” is used in the ’005 Patent. EX1001, 32:22-27. As shown, the at least one rear running belt pulley [7] is spaced a distance [31] from the at least one front running belt pulley [6]. 
a running belt at least partially supported by at least one of the at least one front running belt pulley and the at least one rear running belt pulley, wherein the running belt includes a running surface, at least a portion of which is curved;	As shown, the running belt [11] is supported by both the at least one front running belt pulley [6] and the at least one rear running belt pulley [7]. The running belt [11] follows a curved running surface [12], described in the Woodway User Manual as an “upwardly curved running surface”. EX2028, 31.

Claim Element	Curve Treadmills
	
a safety device coupled to the frame and the running belt, the safety device having a first element and a second element, the first element substantially surrounding the second element or the second element substantially surrounding the first element;	As shown in the first image, a safety device [13] is coupled to the frame [1] and the running belt [11], as the term “coupled” is used in the ’005 Patent. EX1001, 32:22-27. The safety device [13] includes a “one-way bearing.” EX2028, 117. Specifically, as identified in the second image, safety device [13] includes a CSK25 one-way bearing. The type CSK25 one-way bearing is a “sprag type freewheel[.]” EX2029, 16. The CSK25 “has both [an] inner [14A] and outer [15A] race.” <i>Id.</i>, 4. Therefore, the safety device [13] includes a first safety race element [14A] (i.e., the “inner race”) and a second safety race element [15A] (i.e., the “outer race”). The second safety race element [15A] substantially surrounds the first safety race element [14A].

Claim Element	Curve Treadmills
	
wherein one of the first and second elements of the safety device and the running belt freely rotate in a first direction of rotation relative to the frame	The safety device [13] includes a “one-way bearing.” EX2028, 117. Specifically, as identified in the first image, safety device [13] includes a CSK25 one-way bearing. The type CSK25 one-way bearing is a “sprag type freewheel[.]” EX2028, 16. The CSK25 “has both [an] inner [14A] and outer [15A] race” and “locking elements[] positioned between [the] outer and

Claim Element	Curve Treadmills
however in a second direction of rotation, opposite the first direction of rotation, the one of the first and second safety race elements is substantially prevented from rotation relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame.	[the] inner race which effect engaging and disengaging.” <i>Id.</i>, 4. As such, the CSK25 “allows rotation in one direction only....The freewill prevents reverse rotation if the drive is disconnected [i.e., disengaged]....” <i>Id.</i>, 3. Because the first safety race element [14A] of the safety device [13] is coupled to the rear shaft [5] and therefore the rear running belt pulley [7], and the rear running belt pulley [7] is engaged with the running belt [11], and because the safety device [13] “allows rotation in one direction only,” (<i>id.</i>), the first safety race element [14A] and the running belt [11] are freely rotatable in the allowed one direction – i.e., a first direction – relative to the frame [1]. However, in a second direction of rotation opposite the first direction of rotation, “engagement ... [occurs] according to the relative motion of the” first and second safety race elements [14A] and [15A], (<i>id.</i>, 5), to substantially “prevent[] [a] reverse rotation,” (<i>id.</i>, 3), of the first safety race element [14A], and therefore the running belt [11], relative to the frame [1].

Claim Element	Curve Treadmills
	The table contains two photographs of a mechanical assembly, likely a treadmill roller, with various components labeled with callouts. The top photograph shows a front view of a square metal housing with four mounting holes. A central circular opening contains a roller assembly. Callout 13 points to the outer ring of the roller, which has 'CHINA' and 'CCK25 KW' inscribed on it. Callout 14A points to the inner ring of the roller. Callout 15A points to the roller's surface. A red circle highlights a specific area on the outer ring. The bottom photograph shows a side view of the same assembly. Callout 16 points to the top of the housing. Callout 13 points to the side of the roller. Callout 18 points to a small component inside the roller assembly. Callout 15A points to the roller's surface. Callout 14A points to the inner ring. Callout 19 points to a component at the bottom of the roller assembly. Callout 17 points to a component on the right side of the roller assembly. Callout 5 points to a component at the bottom right of the roller assembly.

Claim Element	Curve Treadmills
	 A photograph of a mechanical assembly, likely a treadmill component, with numbered callouts 1, 5, 7, 16, and 17 pointing to specific parts. The assembly is mounted on a wooden surface. Callout 1 points to a horizontal metal bar at the top. Callout 7 points to a large, circular, metallic pulley or wheel on the right. Callout 16 points to a vertical metal plate or bracket in the center. Callout 17 points to a small, dark, cylindrical component near the center. Callout 5 points to a horizontal shaft or axle passing through the assembly, with two arrows pointing to different locations along the shaft.

EX2083, 1-13; *see also id.*, 13-52 (discussing other Challenged Claims).

Accordingly, there is a presumption of nexus between Patent Owner's CURVE line of treadmills and the Challenged Claims. *WBIP*, 829 F.3d at 1328.

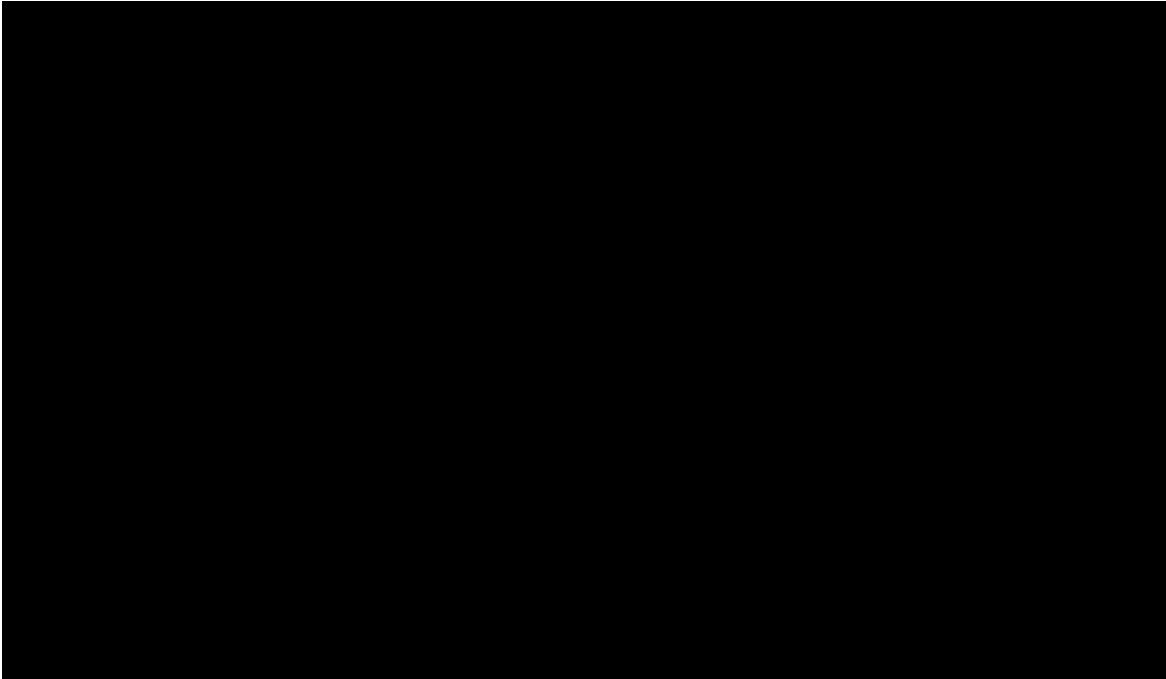
C. Commercial Success

Commercial success is strong evidence of non-obviousness. *See WBIP*, 829 F.3d at 1337. Here, because the evidence demonstrates that Patent Owner's CURVE treadmills are the invention disclosed and claimed in the '005 Patent, there is a presumption that the commercial success is due to the patented invention. *See Polaris Indus. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1073 (Fed. Cir. 2018) ("Because

the evidence submitted by Polaris demonstrates these vehicles are ‘the invention disclosed and claimed in the patent,’ we presume that any commercial success of these products is due to the patented invention.”).

Since the launch, Patent Owner’s curved, manual treadmills have seen massive commercial success. For example, from March 2009 through December 2023, Patent Owner sold or provided nearly [REDACTED] curved, manual treadmills. EX2020, ¶¶17-31. Using average sales price, this results in sales of nearly [REDACTED] [REDACTED] for that same time period. *Id.*, ¶31. Indeed, Patent Owner’s products became the gold standard for high-end treadmills, and for the time period through 2017, Patent Owner enjoyed 100% of the market share for curved, manual treadmills. *Id.*, ¶¶17, 22-29. This changed briefly in 2014, when competitors including Samsara Fitness began to introduce copycat curved treadmills into the market, but Patent Owner’s 100% market share was restored when Samsara took a license following three years of litigation. *Id.*, ¶¶22-23.

Even with the entry of copycats in the market, Patent Owner’s sales increased steadily and significantly until 2017, as can be seen in the following figure:



Id., ¶¶18, 22-32. However, in 2017, Petitioner introduced another copycat treadmill – the Assault AirRunner – into the market. As is evident from Figure 1 above, this heavily impacted Patent Owner's sales, and since the release of the Assault AirRunner, there have been numerous occasions when Patent Owner has lost bids and sales to Petitioner for curved, manual treadmills. *Id.*, ¶29. Nonetheless, Petitioner's incursion into the manual curved treadmill market is also indicative of the commercial success of the claimed invention as the Assault AirRunner infringes the claims of the '005 Patent. *See* EX2067, EX2068, EX2069, EX2070 (Patent Owner's infringement contentions from Parallel Litigation); *see also Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1130 (Fed. Cir.

2000) (“Our case law provides that the success of an infringing product is considered to be evidence of the commercial success of the claimed invention.”).

Moreover, despite the impact of the Assault AirRunner, Patent Owner continued to see substantial sales of its CURVE line of treadmills. For example, in 2018, Patent Owner still sold [REDACTED] units of CURVE line treadmills, significantly more than the [REDACTED] units it sold when the CURVE Legacy was first introduced. *See* EX2032, EX2033. Moreover, if one considers all sales of CURVE line treadmills from their introduction in 2009 through December 2023, Patent Owner’s sales increased [REDACTED] over this period this period, even when Patent Owner was forced to share the market with copycats and other infringers. *See id.*

Notably, these sales figures do not account for additional sales of other products that are coextensive with the same Challenged Claims and are attributed to licensees or infringers of the ’005 Patent, the inclusion of which further underscores the commercial success of the claimed inventions. Patent Owner intends to submit data regarding such sales for the Board’s consideration once it is able to obtain the necessary authorization from third parties and after it moves for and obtains highly relevant discovery from Petitioner. In particular, information regarding substantial sales of Petitioner’s own infringing products was produced to Patent Owner in the Parallel Litigation. Petitioner, however, has refused Patent Owner’s request to cooperate on discovery and permit use of such data in this proceeding (with the

appropriate confidentiality designation under the parties' agreed-upon Proposed Protective Order) despite the fact that such evidence is highly relevant to secondary consideration issues. Patent Owner intends to move promptly for discovery of this sales information and for leave to include such information as necessary in its Sur-Reply.

The commercial success of Patent Owner's products was based on the key features of the claimed invention. EX2020, ¶¶34-41. With the exception of the aforementioned copycats and infringers, Patent Owner's competitors, on the other hand, focused on fundamentally different treadmill designs and did not offer any manual curved treadmills at all. *See* EX2020, ¶¶17, 35 (indicating that Woodway was the first to offer a commercial, manual curved treadmill). The commercial success of Patent Owner's products, including the CURVE family of products, thus weighs heavily in favor of nonobviousness.

D. Industry Praise

Industry praise is further evidence that the invention is not obvious and provides "probative and cogent evidence that one of ordinary skill in the art would not have reasonably expected [the invention would be successful]." *Institut Pasteur v. Focarino*, 738 F.3d 1337, 1347 (Fed. Cir. 2013). Because the claimed invention presented such an unconventional, yet successful, manual treadmill, it should not be

a surprise that the CURVE line of treadmills garnered significant attention and praise in the industry.

In 2010, the CURVE Legacy was nominated for an Innovation Award by FIBO—the leading international trade show for fitness, wellness and health. EX2020, ¶56; EX2057. Additionally, as summarized in the accompanying declaration of Eric Weber, Patent Owner's Director of Sales and Marketing, Patent Owner's CURVE line of treadmills received almost immediate industry and media attention and praise. Treadmills within the CURVE line have been featured in industry publications such as Health and Fitness Sports Magazine, Athletic Business, Government Recreation & Fitness, and Club Solutions Magazine, as well as in mainstream media publications like Men's Health, the Los Angeles Times, South Carolina's Post and Courier, the Wall Street Journal, and the New York Times. EX2020, ¶¶43-55. Several of these publications praised the CURVE treadmills for their innovative design and their unique ability to improve a runner's form or to enable those who otherwise could not use more conventional treadmills to run recreationally. EX2045, 5; EX2046, 3, 5; EX2052, 1.

Industry praise for the invention claimed in the '005 Patent, which has been widespread since Patent Owner first introduced the CURVE line of treadmills, is undeniable and overwhelming. Accordingly, industry praise also weighs in favor of nonobviousness.

E. Copying

“Copying may indeed be another form of flattering praise for inventive features, and thus evidence of copying tends to show nonobviousness.” *WBIP*, 829 F.3d at 1336 (internal quotations and citation omitted). Copying exists when “the evidence fails to persuade [the tribunal] that th[e] similarity between the parties’ respective products is either a coincidence or the result of independent creation.” *Intri-Plex Techs. Inc. v. Saint-Gobain Performance Plastics Rencol Ltd.*, IPR2014-00309, Paper 83, 41 (PTAB Mar. 23, 2015). “Evidence of access and substantial similarity *is* evidence of copying.” *Medtronic, Inc. v. Teleflex Innovations S.A.R.L.*, 70 F.^{4th} 1331, 1340 (Fed. Cir. 2023) (original emphasis).

As Mr. Weber recounts, a number of companies (including Petitioner) have launched products that not only infringe the patents covering Patent Owner’s CURVE line of treadmills but are also close copies of the then-existing products within the CURVE line. EX2020, ¶¶57-68. As previously discussed, after Patent Owner introduced the CURVE Legacy in 2009, it enjoyed 100% of the market in curved, manual treadmills, with no competitors offering anything even resembling Patent Owner’s products. That changed, however, in 2014 when Samsara Fitness introduced the Trueform Runner. As shown below, Samsara Fitness’s Trueform Runner was substantially similar to the CURVE Legacy:



EX2058, 1; EX2018, ¶43; EX2020, ¶¶57-58. Patent Owner sued Samsara Fitness for patent infringement and the litigation proceeded until 2018 when, following an infringement determination by the court, Samsara Fitness agreed to take a license to the asserted patents – a license that includes the '005 Patent. *See* EX2020, ¶¶23, 58-59 (discussing Samsara infringement finding and license to related '580 Patent).

Patent Owner also observed Petitioner's Assault AirRunner at the 2017 IHRSA tradeshow and determined that the Assault AirRunner was also substantially similar to Woodway's CURVE line of treadmills, as shown below:



EX2067, 1; EX2018, ¶43; EX2020, ¶¶57, 64.

As for the AirRunner, there is no doubt that Assault had access to the CURVE treadmills and that its AirRunner copycat is substantially similar to Patent Owner's products, as shown above and in the cited exhibits. At the time of its introduction, Woodway's line of CURVE treadmills had been in market for more than seven years. *Compare* EX2020, ¶17 (CURVE line introduced in 2009) *with* ¶64 (AirRunner displayed in 2017). Assault had access to the CURVE treadmill at tradeshow, and CURVE treadmills were also available for purchase through Woodway's website or through an authorized dealers or distributors. *Id.*, ¶67. The CURVE treadmill had also been featured in widely disseminated trade publications and newspapers, further emphasizing Assault's access to CURVE line. *Id.*, ¶68. Petitioner's own documents also confirm that Petitioner had access to the CURVE

– Petitioner's draft owner's manual – a manual that Assault's co-CEO never identified as confidential – specifically copies content from the user manual for the CURVE line of treadmills. EX2071; EX2020, ¶65.

The foregoing evidence of substantial similarity between Petitioner's products and the CURVE line (which are coextensive with the '005 Patent claims, as discussed), coupled with significant evidence of access culminating in evidence that Petitioner not only had access to but directly copied the manual associated with the CURVE line, is more than adequate to show copying. As the Federal Circuit has consistently held, "[e]vidence of access and substantial similarity *is* evidence of copying." *Medtronic, Inc. v. Teleflex Innovations S.A.R.L.*, 70 F.4th 1331, 1340 (Fed. Cir. 2023) (original emphasis).

This pattern of copying provides further strong evidence that the invention claimed in the '005 Patent and other patents covering the CURVE line of treadmills were nonobvious.

F. Failure of Others

Before the priority date of the '005 Patent, no one had successfully commercialized a curved, manual treadmill. EX2020, ¶¶17, 35. Even then, until others in the industry started to copy Patent Owner's CURVE products, Patent Owner was the only provider of curved, manual treadmills in the market. *Id.*, ¶22.

Accordingly, the “failure of others” factor also weighs heavily in favor of nonobviousness.

G. Passage of Time Between Publication of the Prior Art and the Invention

In this case, the length of time between the cited prior art references and the patent also “speaks volumes to the nonobviousness” of the claimed invention. *See Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1359 (Fed. Cir. 2013) (“The intervening time between the prior art's teaching of the components and the eventual preparation of a successful composition speaks volumes to the nonobviousness of the [challenged] patent.”). Petitioner identifies an earliest possible priority date of March 17, 2009 for the '005 Patent. Petition, 3. The patent references cited in the Petition, on the other hand, were published no later than July 1996 (Magid), April 1999 (Socwell), July 2004 (Tollkien), respectively. EX1012, 1; EX1011, 1; EX1031, 1. Thus, at a minimum, five years passed between the time the latest primary reference (Tollkien) was published and the time of invention, and more than a decade passed between the time the earliest primary reference (Socwell) was published and the time of invention. EX2018, ¶¶182-183. Such significant passage of time before the time of invention, particularly in the face of the failure of others to develop anything resembling the claimed invention in the interim, weighs in favor of nonobviousness. *See Leo Pharm.*, 726 F.3d at 1359 (finding that passage of twenty-

two years and fourteen years, respectively, between publication of prior art and invention weighed in favor of nonobviousness).

VI. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board uphold the patentability of all challenged claims.

Dated: August 13, 2024

By: /R.J. McKenna/
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CERTIFICATE OF COMPLAINT

This Preliminary Patent Owner Response complies with the type-volume limitations required by 27 C.F.R. §42.24. The word count in this paper totals 13,387 words. Patent Owner has relied upon the word count feature of Microsoft Word.

Dated: August 13, 2024

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S RESPONSE** was served on August 13, 2024, by email to Petitioner's counsel of record:

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