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UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

Woodway USA, Inc. Plaintiff, v. LifeCORE Fitness, Inc. d/b/a Assault Fitness, Defendant.	Case No. 22-cv-492-JO-BLM **CLAIM CONSTRUCTION BRIEF OF DEFENDANT, LIFECORE FITNESS, INC.**

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I. INTRODUCTION

Plaintiff ("Woodway") alleges that defendant ("LifeCore") infringes the following patents (collectively the "Asserted Patents") and the following claims of those patents (collectively the "Asserted Claims"):

- 9,039,580 (the "'580 Patent," ECF 34-2), claims 1, 2, 3, 5, 6, 10, and 25
- 10,561,884 (the "'884 Patent," ECF 34-3), claims 30-34, 37-54, 57, and 59
- 10,799,745 (the "'745 Patent," ECF 34-4), claims 1, 4, 7-12, 14, 17, 18, and 20-26
- 11,465,005 (the "'005 Patent," ECF 34-5), claims 1-4, 6-13, 15, 16)

The parties disagree on the proper construction of six claim limitations.

II. THE PATENT SUBJECT MATTER

The Asserted Patents are based on the same patent application and have identical specifications. In general, they relate to exercise treadmills having a continuous belt that can be driven, at least in part, by a user walking, jogging, or running on a running surface of the belt.

Using the '580 Patent as an example and with reference to the Figures 2, 4, and 5 (annotated versions of which are reproduced below), the Asserted Patents describe a manual treadmill 10 having a front and rear shaft assemblies 44 and 46 coupled to a frame 40. (ECF 34-2, 5:48-55.) The front shaft assembly 44 includes two front running belt pulleys 62 mounted to a shaft 64 and the rear shaft assembly 46 includes two rear running belt pulleys 66 mounted to a shaft 68. (ECF 34-2, 6:1-6.) A continuous running belt 16 is disposed about the front and rear running belt pulleys 62, 66 in a "generally non-planar" (*i.e.*, curved) configuration and is supported in-between the belt pulleys 62, 66 by bearing rails 200 having a number of rotatable bearings 208. (ECF 34-2, 6:6-10, 6:64-66; 12:41-66, 13:37-39.) The "rotation of the front and rear running belt pulleys 62, 66 causes the shafts 64, 68 to rotate in the same direction." (ECF 34-2, 6:10-14.)

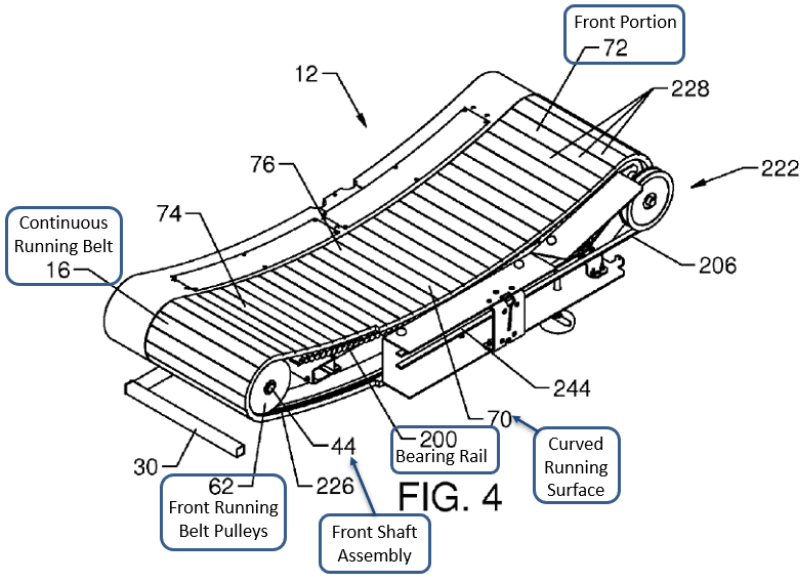

FIG. 4

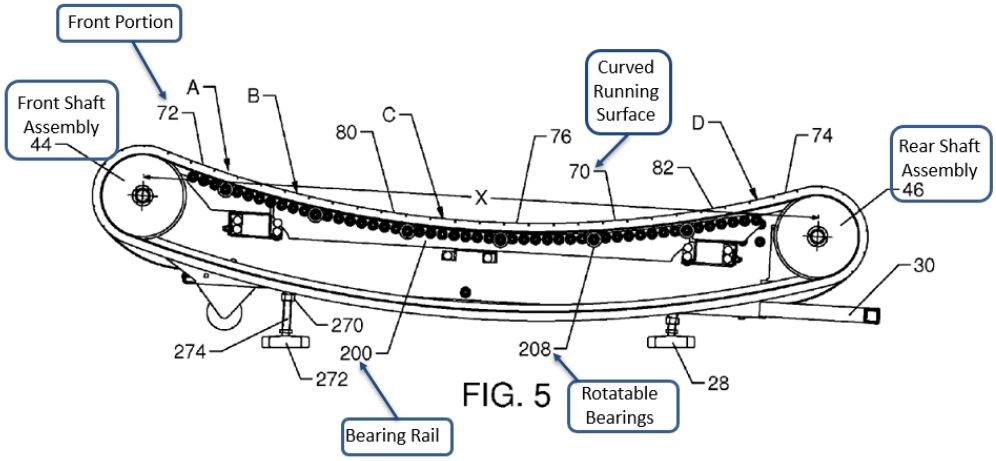

FIG. 5

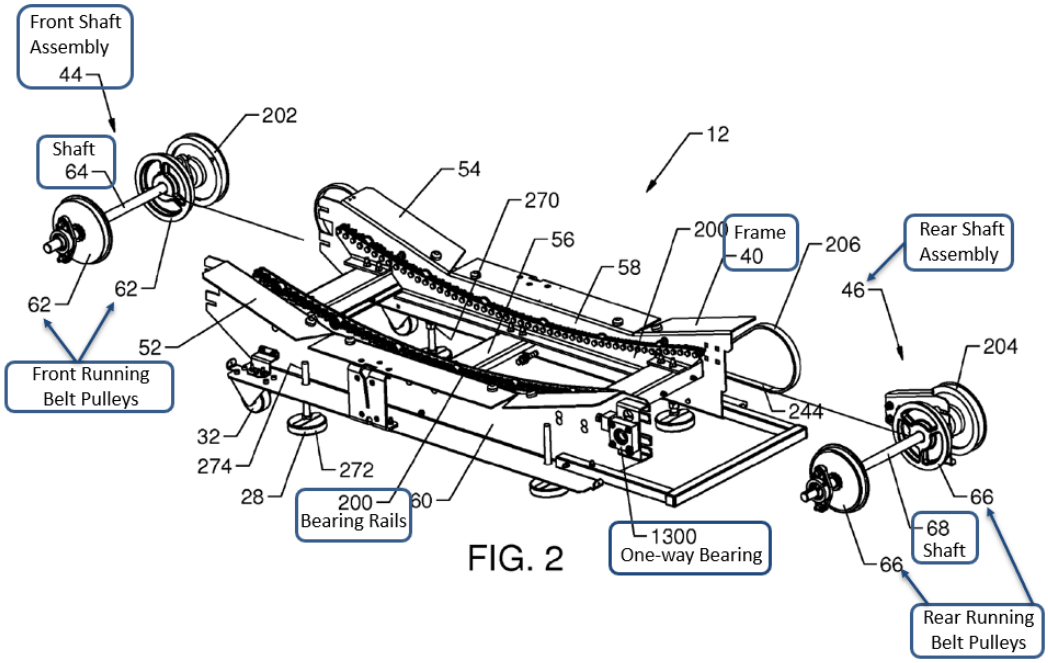

FIG. 2

The curved running surface 70 is described as allowing a user to "control the speed of the treadmill 10 by the relative placement of her weight-bearing foot . . .," *i.e.*, by "positioning her . . . foot vertically higher on the front portion 72 . . . of the running belt 16, gravity will exert a greater . . . force on the running belt 16 [and the] rotational speed of the running belt 16 . . . is increased." (ECF 34-2, 8:41-65.)

The Asserted Patents also describe that because "the running belt is capable of rotating forward," this "can create safety concerns," *e.g.*, when a user mounts the treadmill, "the running belt 16 may move forward and cause them to loose [sic] their footing, resulting in an injury . . .." (ECF 34-2, 26:65-27:6.) The Asserted Patents then describe "safety devices [that] may be used with the treadmill 10 to help prevent undesirable forward rotation of the running belt 16." (ECF 34-2, 27:7-9.)

The only two safety devices described in any detail are one way bearing assemblies 1300 and 1500. Each is described identically as follows:

> The one-way bearing assembly 1300 [or 1500] comprises a housing 1302 [or 1502] which supports an inner ring 1304 [1504] that cooperates with the rear shaft 68 and supports an outer ring 1306 [or 1506] fixed relative to the housing 1302 [or 1502]. A plurality of sprags (not shown) are disposed between the inner ring 1304 [or 1504] and the outer ring 1306 [or 1506]. The sprags are asymmetric, and, thus, provide for motion in one direction and prevent rotation in the opposite direction.
>
> ***
>
> [W]hen the running belt 16 is moving rearward, rotating in the clockwise direction, the rear shaft 68 similarly rotates in the clockwise direction. The inner ring 1304 [or 1504] of the one-way bearing assembly 1300 [or 1500] rotates with rotational velocity corresponding to the rotational velocity of the rear shaft 68. . .. If a force is applied by the user to the running belt 16 that urges the rear shaft 68 to rotate counterclockwise [*i.e.*, in a forward direction], the one-way bearing assembly 1300 [or 1500] provides a counter force, **preventing** the counterclockwise rotation of the rear shaft 68 and the forward rotation of the running belt 16. Specifically, as the rear shaft 68 begins to move counterclockwise . . .[t]he sprags become wedged between the inner ring 1304 [or 1504] and the outer ring 1306 [or 1506], **preventing** the counterclockwise rotation of the inner ring. . ..

(ECF 34-2, 27:18-25; 27:42-58; 28:9-16; 28:65-29:15 (emphasis added).)

The Asserted Patents then describe other safety devices as follows:

> Other safety devices to help **prevent undesirable forward rotation of the running belt 16** may include cam locking systems, which may be particularly well-suited for use in conjunction with track systems 700, 800, and 900. Also, taper locks, a user operated pin system, or a band brake system with a lever may be utilized.

(ECF 34-2, 29:23-28 (emphasis added).)

III. OVERALL CLAIM CONSTRUCTION LAW

"[C]laims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted). The Court must construe the claims through the lens of a "person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Id.* at 1313. "[H]ow a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." *Id.*

To determine the meaning of claim terms, Courts start by considering the intrinsic evidence, *i.e.*, the claims, specification, and prosecution history. *Id.* at 1313-1314. While "generally of less significance," "courts are permitted to consider extrinsic evidence (*e.g.*, expert testimony, dictionaries, treatises)." *Id.* at 1317. However, as noted in *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1332, n.1 (2001):

> Dictionaries, which are a form of extrinsic evidence, hold a special place and may sometimes be considered along with the intrinsic evidence. *Cybor* [*Corp. v. FAS Techs., Inc.*,] 138 F.3d [1448,] 1459 [(Fed.Cir.1998) (en banc)]; *Vitronic*s [*Corp. v. Conceptronic, Inc.*,] 90 F.3d 1576,] 1584 n. 6, [(Fed.Cir.1996)] (stating that, although technically extrinsic evidence, the court is free to consult dictionaries at any time to help determine the meaning of claim terms, "so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents").

IV. ANALYSIS

A. The Prosecution History, Patent Specification, And Claims Dictate That *"substantially prevent[]"* Should Be Construed To Mean "Prevent Any Movement After Allowing No Or Minimal Movement"

Asserted independent claims require a "*safety device*," "*first and second safety race elements*," or "*first and second elements*" that "*substantially prevent[]*" the treadmill belt from moving in one direction. Specifically, independent claims 1 and 25 of the '580 patent (ECF 34-2) recite the following:

> *1. . . . a running belt . . . disposed about the front shaft and the rear shaft, . . .*
> *a safety device . . . structured to* ***substantially prevent*** *rotation of at least one of the front shaft and the rear shaft in a first rotational direction while permitting rotation . . . in a second rotational direction. . ..*
>
> *25. . . . . permitting movement of the running belt in a first direction; and* ***substantially preventing*** *movement of the running belt in a second direction opposite the first direction.*

Independent claims 30, 37, and 50 of the '884 patent recite:

> 30. . . . *wherein the running belt and one of the . . . elements of the safety device freely rotate in a first direction of rotation. . ., but . . .* ***substantially prevents*** *rotation in a second direction of rotation. . ..*
>
> 37 & 50. . . . *wherein one of the . . . rotatable elements of the safety device and the running belt freely rotate . . . in a first direction . . ., however, in a second direction of rotation, opposite the first direction . . ., interference between the safety device and at least one of the . . . rotatable element[s]* ***substantially prevents*** *rotation of the running belt . . ..*

Independent claims 1, 10, 18, and 21 of the '745 patent (ECF 34-4) recite:

> *1, 10 & 21. . . . a safety device coupled to the running belt, . . . wherein the safety device includes a first safety race element and a second safety race element, . . .*
> *wherein one of the . . . safety race elements and the running belt freely rotates in a first direction . . ., however, in a second direction of*

> *rotation, opposite the first direction of rotation, the one of the . . . safety race elements is substantially prevented from rotation relative to the frame to* ***substantially prevent*** *rotation of the running belt . . ..*
>
> *18. . . . permitting rotation of . . . the running belt in a first direction of rotation; and* ***substantially preventing*** *rotation of the running belt in a second direction . . ..*

Independent claims 1, 9 and 15 of the '005 patent (ECF 34-5) recite:

> *1.. . . a safety device coupled to the frame and the running belt, the safety device having a first element and a second element, . . .*
> *wherein one of the . . . elements of the safety device and the running belt freely rotate in a first direction of rotation . . ., however, in a second direction of rotation, opposite the first direction . . ., the one of the . . . elements is substantially prevented from rotation . . . to* ***substantially prevent*** *or resist rotation of the running belt. . ..*
>
> *9. . . . a first element and a second element, both of which are coupled to the running belt . . .*
> *wherein one of the . . .elements and the running belt freely rotate in a first direction of rotation . . ., however, in a second direction of rotation, opposite the first direction of rotation, the one of the . . .elements is substantially prevented from rotation . . . to* ***substantially prevent*** *or resist rotation of the running belt. . ..*
>
> *15 . . . a safety device coupled to . . . the running belt, the safety device having an element adapted for rotation relative to the frame in a first direction . . ., however, in a second direction of rotation, opposite the first direction of rotation, the element is substantially prevented from rotation . . . to* ***substantially prevent*** *or resist rotation of the running belt. . ..*

Woodway asserts that "*substantially prevent[]*" should be construed to mean "entirely/largely/mostly/generally though not necessarily entirely." However, the prosecution history, the specification, and the claim language dictate that "*substantially prevent[]*" must be construed to mean "prevent any movement after allowing no or minimal movement."

1. The Prosecution History Dictates LifeCore's Construction

During prosecution of the '884 Patent application, Woodway disavowed the construction it is now asserting. Specifically, claim 1 was rejected based on a prior art U.S. Patent No. 5,492,517 to Bostic ("Bostic," Ex. 1[1]). The USPTO's position was that Bostic "teaches . . . a safety device coupled to at least one of the front shaft and the rear shaft, wherein the safety device is structured to restrict movement of the at least one of the running belt, the front shaft, and the rear shaft in a first rotational direction while permitting movement of the at least one of the running belt, the front shaft, and the rear shaft in a second rotational direction opposite the first rotational direction . . .." (Ex. 2, 07-19-2018 Office Action, p.2, (emphasis added).) The USPTO further posited that "Bostic teaches the safety device comprises a one-way bearing," a "braking system . . . configured to selectively resist the rotational movement of the running belt" and which "utilizes friction to apply a variable amount of force to resist the rotational movement of the running belt (column 3 lines 27-33)." (*Id.* at p. 3, *see also* p. 6 (emphasis added).)

In response, Woodway amended claim 1 and added the following language: "*in a second direction of rotation, the safety device substantially prevents rotation of the portion of the safety device, the running belt and the at least one of the front shaft and rear shaft*." (Ex. 3, 10-18-2018 Amendment, p. 2 (emphasis added).) Woodway also added claim 31, 38, and 51 (which later became asserted claims 30, 37, and 50[2]) with the same "*substantially prevents*" requirement. (*Id*., pp. 7-11.)

Woodway asserted that Bostic did not teach these "*substantially prevents*" limitations because "**the one-way clutch of Bostic does not provide for rotation in only one direction**. The Bostic one-way clutch freewheels in one direction and **transmit[s] torque [i.e., merely resists] in the other direction. As a result, the**

[1] Yellow highlighting to this and other exhibits has been added.

[2] Claim 17 was cancelled during prosecution (See Ex. 4 , 04-22-2019 Amendment, pp. 5, 14) which eventually led to the renumbering of the claims.

treadmill belt of Bostic is free to move in both directions." (*Id.*, p.15, (emphasis added).) In other words, Woodway asserted that while the Bostic one-way clutch resists movement in one direction via the torque it imposes——as explained by the USPTO—Bostic does not disclose a safety device that "*substantially prevents*" rotation of the belt in one direction because the belt can still rotate in that direction, albeit while being resisted.

A "patentee is held to what he declares during the prosecution of his patent," *i.e.*, Woodway cannot have it both ways. *Gillespie v. Dywidag Systems Intern., USA*, 501 F.3d 1285, 1291 (Fed. Cir. 2007).

Here, in order to obtain the '884 Patent, Woodway asserted during prosecution that a treadmill that "*substantially prevents*" rotation of the belt in one direction does not encompass treadmills that resist, but still allow, movement of the belt in that one direction. Accordingly, Woodway disclaimed, and cannot now assert, that the term may encompass treadmills that "largely/mostly/generally though not necessarily entirely" prevent movement of the belt in that one direction. *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017) (Claims cannot be "argued one way in order to maintain their patentability and in a different way against accused infringers."); *Purdue Pharma L.P. v. Endo Pharmaceuticals Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006) (Prosecution disclaimer often occurs "when the patentee explicitly characterizes an aspect of his invention in a specific manner to overcome prior art."): *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) ("The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.").[3]

[3] Even when prosecution history statements do not result in a disclaimer, they may still inform the meaning of the claim language by demonstrating how the inventor understood the invention. *See Shire Dev., LLC v. Watson Pharm., Inc.*, 787 F.3d 1359, 1366 (Fed. Cir. 2015) (explaining that prosecution history statements "do inform the claim construction," even when they "do not rise to the level of unmistakable disavowal").

Moreover, this disclaimer of claim scope applies to all patents related to the '884 Patent, *i.e.*, the '580, '745, and '005 Patents. *See, e.g., Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1343 (Fed. Cir. 2015) ("A statement made during prosecution of related patents may be properly considered in construing a term common to those patents, regardless of whether the statement pre- or post-dates the issuance of the particular patent at issue.").

Accordingly, the only reasonable construction of "*substantially prevent[]*" as to all of the Asserted Patents is that it prevents any movement of the belt after allowing no or minimal movement.

2. The Claims Also Dictate LifeCore's Construction

LifeCore's construction is further dictated by claim differentiation, *i.e.*, the rule that "when an applicant uses different terms in a claim, it is permissible to infer that he intended his choice of different terms to reflect a differentiation in the meaning of those terms." *Ivera Medical Corp. v. Excelsior Medical Corp*., 2013 WL 12205718, *5 (S.D. Ca. 2013) (citing *Innova/Pure Water Inc. v. Safari Water Filtration Systems*, Inc., 381 F.3d 111, 1119 (Fed. Cir. 2004)).

In the '005 Patent, Woodway claimed "*substantially prevent* *or resist*—not just "*substantially prevent.*" By adding "*resist*," it can be inferred that "*substantially prevent*" means something different. However, because "*resist*" encompasses Woodway's construction—something that "largely/mostly/generally though not necessarily entirely" opposes rotation—Woodway's proposed construction would eliminate any difference between "*substantially prevent"* and *"resist."* To avoid that outcome one of ordinary skill would recognize that "*substantially prevent*" must mean—as supported by the prosecution history (as explained above) and specification (as explained below)—something that prevents any movement of the belt after allowing no or minimal movement—*i.e.*, LifeCore's construction.

3. The Specification Supports LifeCore's Construction

While it is improper to limit patent claims to the embodiments disclosed in the patent specification,[4] such disclosures can still be instructive. *Profectus Technology LLC v. Huawei Technologies Co.*, 823 F.3d 1375, 1380–81 (Fed. Cir. 2016) (Affirming construction of "*mountable*" to require "having a feature for mounting" where every disclosed embodiment included a "mounting" feature"); *Poly-America, L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1137 (Fed. Cir. 2016) (Holding construction of "*short seal*" to require inward extension did not improperly import a limitation from the specification where "[e]very embodiment described in the specification has inwardly extended short seals and every section of the specification indicates the importance of inwardly extended short seals.").

In the present case, as explained in Section II of this brief (THE PATENT SUBJECT MATTER), the only embodiments disclosed have safety devices that prevent any movement of the belt after allowing no or minimal movement. Moreover, the specification explicitly states the importance of this feature to user safety. Accordingly, based on the prosecution history disclaimer, claim term differentiation, and the patent specification, the only reasonable construction of "*substantially prevent[]*" is that it prevents any movement of the belt after allowing no or minimal movement.

4. To Hold Otherwise Would Mean The Asserted Claims Are Indefinite

If "*substantially prevent[]*" was interpreted mean "not necessarily entirely," as asserted by Woodway, there would be no objective way to measure how much resistance would be required before a safety device "*substantially prevents*" movement—*i.e.*, the claims would not "inform those skilled in the art about the

[4] *See, e.g.*, *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

scope of the invention with reasonable certainty" and would be indefinite. *See, e.g.*, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014).

To analyze indefiniteness, Courts "must determine whether the patent's specification supplies some standard for measuring the scope of the phrase." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005). There is no standard in the Asserted Patents as to the construction of "*substantially prevent[]*" asserted by Woodway because they only disclose safety devices that **prevent any movement** of the belt after allowing no or minimal movement.

Datamize is illustrative. The *Datamize* patent claims required items to be presented on a screen in a "desired uniform and aesthetically pleasing look and feel . . .." *Id.* at 1344–1345. The patentee argued this meant a person must simply "intend to create an 'aesthetically pleasing' interface screen." *Id.* at 1349. The Federal Circuit rejected this, holding that "the scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention." *Id.* at 1350.

If "*substantially prevent[]*" was interpreted mean "not necessarily entirely" as asserted by Woodway, one of skill in the art would have no objective way of determining how much or how little resistance would be required to meet or avoid this limitation thereby rendering the term to be impermissibly indefinite. *See, e.g.*, *Nautilus*, 572 U.S. at 908-10 ("[A] patent must be precise enough to afford clear notice of what is claimed, thereby 'appris[ing] the public of what is still open to them.'"); *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1364 (Fed. Cir. 2018) (finding the term "minimal redundancy" indefinite where the specification did not describe "*how much* is minimal") (emphasis in original).

B. The '580 Patent *"safety device"* Limitation Is A Means-Plus-Function Limitation That Must Be Construed As Requiring The Structures Identified In The Specification For Carrying Out The "*safety*" Function

Part of the claim construction analysis includes determining whether claim language triggers 35 U.S.C. §112, para. (f) [para. 6][5]—otherwise known as "means-plus-function" claiming. *See, e.g., Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1345 (Fed. Cir. 2015). Means-plus-function claiming occurs when a patentee expresses a claim element by its function rather than by structure that performs that function. *Id.* at 1347; *see also Diebold Nixdorf, Inc. v. Int'l Trade Comm'n*, 899 F.3d 1291, 1297 (Fed. Cir. 2018) ("The standard by which we determine whether §112, para. 6 applies 'is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.' [*Williamson*, 792 F.3d] at 1349.") The result of means-plus-function claiming is that the claim term is limited in scope to structure described in the specification that corresponds to the claimed function. *Williamson*, 792 F.3d at 1348.

A party seeking construction under §112(f) must demonstrate that the claim recites a "function [of a claim term] without reciting sufficient structure for performing that function.'" *Id*. Although there is a general presumption that a term does not invoke §112(f) if the claim language does not use the term "means"—as in the present case—this presumption is not strong, and is rebuttable. *Id*.

For instance, even if a claim does not use "means" (for performing a function) type language, generic terms such as "mechanism," "element," or "device" (for performing a function) may have the same effect because they do not connote sufficiently definite structure. *Id.* at 1350 (citation omitted). Generic placeholders like "device" are called "nonce" words—and connote no more structure than merely

[5] Citations to §112 in this brief refer to the pre-"America Invents Act" version of the statute, which was in effect at the time the '580 patent application was filed.

reciting the term "means" for performing the claimed function. *Id*. Therefore, such terms may invoke §112(f). *Id*

In this case, claim 1 of the '580 patent (ECF 34-2) recites the following:

> 1. . . . *a safety device coupled to at least one of the front shaft and the rear shaft,*
> *wherein the safety device is structured to substantially prevent rotation of at least one of the front shaft and the rear shaft in a first rotational direction while permitting rotation of the at least one of the front shaft and the rear shaft in a second rotational direction opposite the first . . ..*

While the claim recites a "*safety device coupled to at least one of the front shaft and the rear shaft,*" the claim does not recite any "*safety device*" structure. It merely recites a function ("*to substantially prevent rotation of at least one of the front shaft and the rear shaft*") together with a generic or nonce word ("*device*") that provides no guidance as to what the "*device*" structure is. The word "*safety*" does not add any structure, but instead simply recites part of the function of the "*device*."

Accordingly, "*safety device*" must be interpreted as a mean-plus-function limitation. *Id.* at 1350 ("Generic terms. . .and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word 'means' because they 'typically do not connote sufficiently definite structure . . ..'"); *Robert Bosch, LLC v. Snap-On, Inc.*, 769 F.3d 1094, 1099-1102 (Fed. Cir 2014) ("Program recognition device" and "program loading device" held to be means plus function limitations).

"In construing a means-plus-function limitation, a court must identify both the claimed function and the corresponding structure in the written description for performing that function." *Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1350 (Fed. Cir. 2003). "Structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001).

The "*safety*" function of the "*device*" is recited in the claim as being "*to substantially prevent rotation of at least one of the front shaft and the rear shaft in a first rotational direction while permitting rotation . . . in a second rotational direction . . ..*" This safety function is explained in the specification (ECF 34-2, PageID.565-566, 26:65-27:9) as follows:

> While it is generally desirable for the running belt 16 to be moved rearward, the running belt is capable of rotating forward. Forward rotation of the running belt can create safety concerns. For example, if a user were to mount the treadmill by placing her weight bearing foot at a location (e.g., location D shown in FIG. 5) along the rear portion 74 of the running surface 70, the running belt 16 may move forward and cause them to loose their footing, resulting in an injury or simply an unpleasant user experience.
>
> A number of safety devices may be used with the treadmill 10 to help prevent undesirable forward rotation of the running belt 16.

As discussed in Section II of this brief (THE PATENT SUBJECT MATTER), the specification identifies in detail the structure needed to fulfill this function as being one-way bearing assemblies having inner and outer rings and sprags. The specification also mentions the following structures (ECF 34-2, 29:23-28):

> Other safety devices to help prevent undesirable forward rotation of the running belt 16 may include cam locking systems, which may be particularly well-suited for use in conjunction with track systems 700, 800, and 900. Also, taper locks, a user operated pin system, or a band brake system with a lever may be utilized.

Accordingly, "*safety device*" is a means-plus-function claim limitation that must be construed under 35 U.S.C. §112 as requiring these corresponding structures that are identified in the specification. *Williamson,* 792 F.3d at 1348. Otherwise, one of ordinary skill in the art would not be able to determine the scope of this limitation. *See Greenberg v. Ethicon Endo–Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed.Cir.1996) ("What is important is ... that the term, as the name for structure, has a reasonably well understood meaning in the art.").

C. The '884, '745, and '005 *"safety device"* Limitations

As to the "*safety device*" limitation, the '884, '745, and '005 Patent claims suffer the same issue as the '580 Patent claims. However, while those claims do add some structure, the added structure confirms that, like the '580 Patent, they should be limited to the one-way bearing assemblies having the inner and outer rings and sprags described in the specification. (*e.g.*, "*the safety device having a first rotatable element and a second rotatable element*" ('884 Patent, ECF 34-3, claims 30, 37, 50); "*the safety device includes a first safety race element and a second safety race element*" ('745 Patent, ECF 34-4, claims 1, 21) "*the safety device having a first element and a second element"* or *"the safety device having an element adapted for rotation[and] includes another element . . . wherein [one] substantially surrounds the other* ('005 Patent, ECF 34-5, claims 1, 15).)

D. As Established By Extrinsic Sources Cited By Both Woodway and LifeCore, The Term *"shaft"* Should Be Construed To Mean "a rotating element used to transmit power from one part to another"

The term "*shaft*" is used in the Asserted Claims to denote the following:

(1) a "*front shaft*" and "*rear shaft*" upon which the running "*belt*" is supported by or disposed around, rotation of which is controlled by a "*safety device.*" ('580 Patent, ECF 34-2, claim 1; '884 Patent, ECF 34-3, claims 30 and 37, dependent claims 39-43),

(2) a "*front shaft*" and "*rear shaft*" upon which a "*front running belt pulley*" and a "*front running belt pulley*" is "*support[ed],*" which in turn support the "*running belt,*" the rotation of which is controlled by a "*safety device.*" ('884 Patent, ECF 34-3, claims 52-53 read together with independent claim 50 from which they depend; '005 Patent, ECF 34-5, claims 2-3 together with independent claim 1 from which they depend.)

(3) a *"rotatable element compris[ing] at least one of a "front rotatable shaft" . . . and a rear rotatable shaft"* of a "*rotatable element*" upon which a *"running*

belt" is "*at least partially supported*, the rotation of which is controlled by a "*safety device*." acting upon the "front shaft" or "rear shaft" ('745 Patent, ECF 34-4, claim 23 together with claim 21 from which it depends.)

Woodway asserts that "*shaft*" as used in these claims should be construed to mean a "hollow or solid element/part/rod/tube/member/piece." (ECF 43, PageID.1040.) LifeCore asserts it should be construed to mean "a rotating element used to transmit power from one part to another."

The subject matter at issue is a mechanical treadmill. Accordingly, this claim term should be interpreted in light of "how a person of ordinary skill in the art [of mechanical design/engineering] understands [the] claim term. . .. *Phillips*. at 1313. As explained earlier, "[d]ictionaries, which are a form of extrinsic evidence, hold a special place and may sometimes be considered" to resolve construction issues. *Interactive Gift*, 256 F.3d at 1332, n.1 (2001). This is especially true when, as here,

> a written instrument uses "technical words or phrases not commonly understood," [in which case] those words may give rise to a factual dispute. If so, extrinsic evidence may help to "establish a usage of trade or locality."

Teva Pharm. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 326 (2015) (citation omitted.); *see also Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999) ("[It] is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field.").

In the present case, to resolve the construction dispute, LifeCore has cited seven different engineering-related sources—**all** supporting LifeCore's construction. (Identified at ECF 43, PageID.1040-1041, and collected together as Ex. 5, *see highlighting* of Bates Nos. LCF002135, 2157, 2178, 2182, 2195, 2203, 2241, 2243.)

Woodway cites five engineering-related and dictionary sources, the first four of which, as listed and quoted by Woodway below (ECF 43, PageID.1040-1041, emphasis added), **support** LifeCore's construction:

- DICTIONARY OF MECHANICAL ENGINEERING (1999) at 346 ("shaft A spindle revolving in bearings and carrying pulleys, gear wheels, etc., for the transmission of power." (Emphasis added));
- THE AMERICAN HERITAGE COLLEGE DICTIONARY (4th ed. 2004) at 1272 ("shaft. . .4. . .c. A long, generally cylindrical bar that rotates and transmits power, as the drive shaft of an engine." (Emphasis added).);
- WEBSTER'S II NEW COLLEGE DICTIONARY (3rd ed. 2005) at 1037 ("shaft. . .10. A long usu. Cylindrical bar, esp. one that rotates and transmits power." (Emphasis added).)
- MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS (5th ed., 1994) at 804 ("shaft [Mech Eng] A cylindrical piece of metal used to carry rotating machine parts, such as pulleys and gears, to transmit power or motion. . .." (Emphasis added).)

The fifth source cited by Woodway, does not use the word "power," but in reference to "rotating machinery" provides that a "shaft" is "[t]hat part of a rotor that carries other rotating members and that is supported by bearings in which it can rotate" (emphasis added)—*i.e.*, the shaft carries and transmits power to other rotating members. (ECF 43, PageID.1041, quoting from IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS (3rd ed. 1984) at 829).

As explained above, this is exactly how the Asserted Patents claim the "*shaft*"—as a member that supports and transmits power between the "*shaft*" and other rotating members such as a "*front running belt pulley*," a "*front running belt pulley*," and the continuous running "*belt.*"

Given that fact that all extrinsic sources cited by both Woodway and LifeCore support LifeCore's construction, the dispute regarding this technical term can be

easily resolved. "Shaft" should be construed to mean "a rotating element used to transmit power from one part to another."

E. The "first element and a second element" / "first and second elements" Terms Should Be Construed To Mean "Annular-Shaped Components"

Claims 1 and 9 of the '005 Patent (ECF 34-5) require the "*safety device*" to have a "*first element*" and a "*second element*." Relevant claim language is below:

> *1.. . . 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;*
> *wherein one of the first and second elements of the safety device . . . freely rotate in a first direction of rotation . . ., however, in a second direction of rotation, opposite the first direction of rotation, the one of the first and second elements is substantially prevented from rotation . . ..*
>
> *9.. . . a first element and a second element, . . . wherein the first element substantially surrounds the second element or the second element substantially surrounds the first element;*
> *wherein one of the first and second elements . . . freely rotate in a first direction of rotation . . ., however, in a second direction of rotation, opposite the first direction of rotation, the one of the first and second elements is substantially prevented from rotation . . ...*

Claim 15 likewise requires the "*safety device*" to have two *elements*, an "*element*" and "*another element*." The relevant claim language is quoted below:

> *15. . . . the safety device having an element adapted for rotation relative to the frame in a first direction . . ., however, in a second direction of rotation, opposite the first direction of rotation, the element is substantially prevented from rotation . . .; and*
> *wherein the safety device includes another element, wherein one of the element and the another element substantially surrounds the other of the element and the another element.*

While these claims require the "*safety device*" to have two "*elements*"—one that "*surround[s]*" the other and that one can "*rotate*"—they offer no guidance to one of ordinary skill as to what each "*element*" is.

Based on the claim language itself, LifeCore submits that the proper construction of the term "*element*"—the only construction that would be apparent to one of ordinary skill in the art –is that it is an annular (*i.e.*, donut)-shaped component. This construction is necessitated by the claim language, which requires that the elements surround and be able to rotate relative to each other. The only way the elements can do both is if they are annular-shaped. If such surrounding elements had any other shape, they would not be able to rotate relative to each other.

Further, this is the only construction that would be apparent to one of ordinary skill in the art reading the specification. As set forth in Section II of this brief (THE PATENT SUBJECT MATTER), the specification describes only two *safety devices* in detail. In both, the annular-shaped outer ring 1306 or 1506 is the only component described as surrounding another component, the annular-shaped inner ring 1304 or 1504 which is described as being able to rotate relative to the outer ring.

Woodway does not offer an alternative construction, but instead cites four sources which offer the following definitions of "*element*": (1) member or component; (2) a fundamental, essential, or irreducible constituent of a composite entity; (3) a unit of assembly; and (4) component. (ECF 43, PageID.1045-1047.) However, these definitions are no less ambiguous than "*element*," provide no guidance on what would constitute an "*element*," and only reinforce the need to construe "*element*."

Moreover, by relying on these definitions, Woodway is acknowledging that these "*element*" terms are means plus function terms. More specifically, while the claims recite two "*elements*" that "*surround*" and can "*rotate*" relative to each other, the claims do not provide any guidance to one of ordinary skill as to the structure of each "*element.*" They merely recite a resulting function ("*substantially prevented from rotation*") together with a generic or nonce word ("*element*") that provides no guidance as to what "*element*" structure provides the function. In such case, "*element*" must be interpreted under §112(f) as a mean-plus-function claim

limitation. *See, e.g., Williamson*, 792 F.3d at 1349-50 ("[N]once words that reflect nothing more than verbal constructs [are] tantamount to using the word 'means' because they 'typically do not connote sufficiently definite structure . . .'"); *Mas-Hamilton Group v. LaGard, Inc*., 156 F.3d 1206, 1214 (Fed. Cir. 1998) ("If we accepted La Gard's argument that we should not apply section 112, ¶ 6, a 'moving element' could be any device that can cause the lever to move.")

Thus, if the Court accepts the dictionary definitions provided by Woodway, the Court would have to interpret "*element*" as means plus function term under §112, which would limit "*element*" to the means disclosed in the specification. *See Northrop Grumman,* 325 F.3d at 1350. As noted, the only means disclosed in the specification are annular-shaped rings that surround and rotate about each other. As a result, under a means plus function analysis, the ultimate interpretation would be the same—that the *"elements*" are limited to annular-shaped components.

Accordingly, the Court should adopt LifeCore's proposed construction and interpret the terms "*first element*" and "*second element,*" and "*element*" and "another *element,*" to be annular-shaped components.

F. "race element" Should Be construed To Mean "An Annular-Shaped Component Separated From Another Annular-Shaped Component By Rolling Elements Such That They Can Rotate Relative To Each Other."

Claims 1, 4, 10, 12, 18, 21, and 25 of the '745 Patent (ECF 34-4) include the term "*race element*." Pertinent portions of these claims are quoted below:

> *1.. . . the safety device includes a first safety race element and a second safety race element, wherein at least one of the first and second safety race elements is adapted for rotation . . ., and wherein one of the first and second safety race elements substantially surrounds the other of the one of the first and second safety race elements;*
> *wherein one of the first and second safety race elements . . . freely rotates in a first direction of rotation. . ., 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 . . ..

4. The treadmill of claim 1, wherein the first and second safety race elements of the safety device at least partly form a one-way bearing.

10.. . . a first safety race element and a second safety race element. . ., wherein at least one of the first and second safety race elements is adapted for rotation . . ., and wherein one of the first and second safety race elements substantially surrounds the other . . .;
wherein one of the first and second safety race elements . . .freely rotate in a first direction of rotation . . ., 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. . ..

12. The treadmill of claim 10, wherein the first and second safety race elements of the safety device at least partly form a one-way bearing.

18.. . . providing a first safety race element . . .and a second safety race element . . ., wherein at least one of the first and second safety elements is adapted for rotation . . ., and wherein one of the first and second safety race elements substantially surrounds the other . . .;
permitting rotation of one of the first and second safety race elements . . . in a first direction of rotation; and substantially preventing rotation of the running belt in a second direction, opposite the first direction, by, at least in part, the one of the first and second safety race elements

21.. . . the safety device includes a first safety race element and a second safety race element, wherein at least one of the first and second safety race elements is adapted for rotation . . ., and wherein one of the first and second safety race elements substantially surrounds the other. . .;
wherein one of the first and second safety race elements . . . freely rotates in a first direction of rotation relative to the frame, however, in a second direction of rotation, opposite the first direction of rotation, the one of the first and safety race elements is substantially prevented from rotation. . ..

25. The treadmill of claim 21, wherein the first and second safety race elements of the safety device at least partly form a one-way bearing.

As can be seen from the language above, the "*race elements*" of the '745 Patent are similar to the "*elements*" of the '005 Patent in that one "*surround[s]*" the other and one can "*rotate*." Thus, at a minimum the race elements must be annular-shaped for the same reasons described above for the "*first element*" and "*second element*."

The only question remaining is what makes the "*race elements*" of the '745 Patent different than the "*elements*" of the '005 Patent. Unfortunately, the specification is no help because it does not use the term "*race element*" anywhere. Thus, in addition to the preceding "*element*" analysis, "it is necessary to consult extrinsic evidence to confirm the meaning of "*race element*."

Fortunately, "*race*" is a commonly used term when discussing bearings. As explained in an excerpt from An Introduction to Mechanical Engineering, a roller bearing comprises four parts; an inner race and an outer race, together with rolling elements (*i.e.*, balls, cylinders or cones), and a separator that prevents the rolling elements from rubbing against one another. (Ex. 6, LCF002150.) As also explained in Engineering Choice, a bearing may "consist[] of a row of balls as rolling elements. They are trapped between two annulus-shaped metal pieces . . . known as races," an "inner race" and an "outer race." (Ex. 7, LCF002209, *see also* LCF002206, 2214.)

In other words, the plain and ordinary meaning of "*race element*" in this context is an annular-shaped component that is separated from another annular-shaped component by rotating elements, such that the components can rotate relative to each other. In conformance with this ordinary meaning, LifeCore posits that "*race element*" should be construed to mean "an annular-shaped component separated from another annular-shaped component by rolling elements such that they can rotate relative to each other."

Woodway asserts an incomplete version of LifeCore's proposed construction, *i.e.*, "one of the inner and outer rings of a bearing." However, as understood in the art, a "*race element*" is more than just a ring. For example, two rotating rings that

frictionally engage along their circumferences would meet Woodway's construction, but are not "*race elements.*" Such inner and outer "*race element*" rings necessarily (1) are annular-shaped, (2) are separated by rolling elements, and (3) can move relative to each other. LifeCORE's proposed construction is more accurate because it better describes the relationship between the race elements—and should be adopted.

G. Claims of the '884 Patent Requiring "interference between the safety device and at least one of the first rotatable element and the second rotatable element" Are Indefinite And Therefore Invalid

Claims of the '884 Patent require a "*safety device having a first rotatable element and a second rotatable element."* The same claims then illogically recite that "*interference between the safety device and one of the first and second rotatable elements*"—*i.e.*, interference between a claim element and itself—"*substantially prevents*," or results in "*substantially preventing*," "*rotation"* of *"one of the first and second rotatable elements.*" The pertinent claim language is quoted below.

> *30.. . . the safety device having a first rotatable element and a second rotatable element, . . .;*
> *wherein . . . interference between the safety device and at least one of the first and second rotatable elements substantially prevents rotation in a second direction of rotation, opposite the first direction of rotation, of the running belt and the one of the first and second rotatable elements relative to the other of the one of the first and second rotatable elements.*
>
> *37.. . .the safety device having a first rotatable element and a second rotatable element, . . .;*
> *wherein . . . interference between the safety device and at least one of the first rotatable element and the second rotatable element substantially prevents rotation of the running belt and the one of the first and second rotatable elements relative to the other of the one of the first and second rotatable elements.*
>
> *50.. . . the safety device having a first rotatable element and a second rotatable element . . .;*

> *wherein . . . interference between the safety device and at least one of the first rotatable element and the second rotatable element substantially prevents rotation of the one of the first and second rotatable elements of the safety device and the running belt relative to the frame.*
>
> *57.. . . the safety device having a first rotatable element and a second rotatable element . . . ;*
> *permitting rotation of one of the first and second rotatable elements of the safety device and the running belt in a first direction of rotation; and substantially preventing rotation in a second direction, opposite the first direction, of the running belt and the one of the first and second rotatable elements by interference between the safety device and at least one of the first rotatable element and the second rotatable element.*

However, to be valid patent claims must be definite. 35 U.S.C. §112, ¶ 2 ("The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter . . . [of the] invention."). "[A] patent must be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them." *Nautilus, Inc. v. BioSig Instruments, Inc.*, 572 U.S. 898, 909 (2014) (internal quotation marks, bracketing, and citation omitted). "Otherwise there would be '[a] zone of uncertainty which [competitors could] enter only at the risk of infringement claims.'" *Id*. at 909-10 (citation omitted).

In the present case, the '884 Patent first requires a "*safety device having a first rotatable element and a second rotatable element"* and then requires "*interference between the safety device and one of the first and second rotatable elements*." However, claiming that an element interferes with an element of itself is nonsensical and renders these patent claim indefinite and invalid.[6] *See Synchronoss Technologies, Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1366-67 (Fed. Cir. 2021)

[6] Note, LifeCore has raised this indefiniteness/invalidity argument at this claim construction juncture because the term was included as a claim construction issue. LifeCore reserves the right to raise additional invalidity assertions involving indefiniteness as to other claims and terms, such as claim 25 of the '580 Patent.

(Holding that the asserted claims in the patent in question were indefinite as a matter of law under §112 because they described an impossibility: that the "digital media file contain[ed] a directory of digital media files."); *Trs. Of Columbia Univ. v. Symantec Corp*., 811 F.3d 1359, 1367(Fed. Cir. 2016) (holding claims indefinite that were "nonsensical in the way a claim to extracting orange juice from apples would be").

V. CONCLUSION

For the reasons set forth, LifeCore requests this Court to adopt the claim constructions proposed by LifeCore.

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Respectfully Submitted,

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