\* Many of the images contained herein show a disassembled representative Infringing Product in order to depict various elements of the Infringing Product. The disassembled Infringing Product has not been altered, modified, or otherwise changed relative to the assold Infringing Product. The serial number of the Infringing Product is M1701BK0024, which is shown in the picture below.



The '005 Patent	Assau	ult Fitness AirRunner ("the Infringing Product")
1. A manually powered treadmill comprising:	A "manually powered treadmill" is literally the infringing product.  The pictured Assault Fitness AirRunner is described in the Assault AirRunner Marketing Brochure, as a "completely manual [treadmill], with no electrical consumption." See, e.g., AirRunner The Premier Elite Fitness Running Machine Brochure at p. 2 (2017).  See also, e.g., LCF000017 ("The Assault AirRunner completely redefines the manual treadmill"), LCF000678 (labeling the treadmill as a "Manual Treadmill"), LCF001832 (model described as "AirRunner Manual Treadmill"),	ASSAUT TITNESS
	LCF001866 (the "Assault	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	AirRunner Warning Label" states "This treadmill is manually operated").	
a frame;	A "frame" is literally present in the Infringing Product.  As shown, the manually powered treadmill includes a frame [1].  See also, e.g., LCF001762 (identifying part no. 501 as "Main Frame"), and (titled "01 – Base Frame (Welded Together).pdf").	

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
at least one front running belt pulley coupled to the frame;	A "front running belt pulley coupled to the frame" is literally present in the Infringing Product.  As shown, at least one front running belt pulley [6] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another Such joining may be achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the front running belt pulley [6] may be coupled to the frame [1] directly or indirectly through an intermediate member (e.g., via support element [16]).  See also, e.g., LCF000166 (illustrating part no. 511-A "Front Roller," and part no. 511-A "Front Roller Assembly" which is shown to include a pulley coupled to the frame) and LCF002475 (illustrating the "Front Roller Subassembly" includes two pulleys).	

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	

### The '005 Patent

### at least one rear running belt pulley coupled to the frame and spaced a distance from the at least one front running

belt pulley;

### Assault Fitness AirRunner ("the Infringing Product")

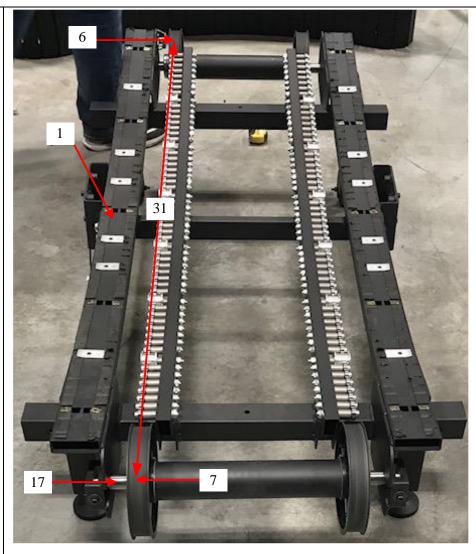
A "rear running belt pulley coupled to the frame" and "spaced a distance from the at least one front running belt pulley" is literally present in the Infringing Product.

As shown, at least one rear running belt pulley [7] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another .... Such joining may be achieved with the two members or the two members and any additional intermediate members." *See* '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.

Thus, the rear running belt pulley [7] may be coupled to the frame [1] directly or indirectly through an intermediate member (e.g., via support element [17]).

As also shown, the rear running belt pulley [7] is spaced a distance [31] from the at least one front running belt pulley [6].

See also, e.g., LCF000166 (illustrating part no. 512\* "Rear



The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
	Roller," and part no. 512-A "Rear Roller Assembly" which is shown to include a pulley coupled to the frame) and LCF002470 (titled "03c – Rear Roller Assembly.pdf" and illustrating at least one pulley as part of the "Rear Roller Assembly").	7
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;	A "running belt at least partially supported by at least one of the at least one of front running belt pulley and the at least one rear running belt pulley" where "the running belt includes a running surface, at least a portion which is curved" is literally present in the Infringing Product.  As shown, running belt [11] includes a curved running surface [12]. The running belt [11] is supported by the at least one of the at least one front running belt pulley [6] and the at least one rear running belt pulley [7]. While the third picture only shows the front running belt pulley [6] supporting the running belt [11], a corresponding configuration is provided for the	12 11 SSS 11 6

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
	rear running belt pulley [7] and the running belt [11].  See also, e.g., LCF000013 (describing the treadmill as including "a slat belt running surface"), LCF000795 (under "Proposed Product Features" "Slatted belt construction: allows for curved running surface" and under "Frame" "Shall be designed to support a curved running surface,"), LCF000895 (under "Low Impact" "The contoured design"), LCF02133 (with "Belt Design" described as "Contoured").	

### The '005 Patent

a safety device coupled to the frame and the running belt, the safety device having a first element and a second element,

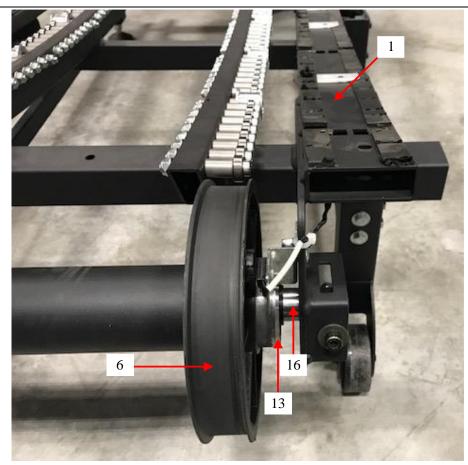
the first element substantially surrounding the second element or the second element substantially surrounding the first element

### Assault Fitness AirRunner ("the Infringing Product")

A "safety device coupled to the frame and the running belt" and 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" is literally present in the Infringing Product.

The Court construed the term "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." *See* Dkt. 59 at 23.

The Court construed the terms "first element" and "second element" (and all related terms) as means-plus-function terms. See Dkt. 59 at 30. The claimed function is "wherein one of the elements freely rotates in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation. The claimed structure is



The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
	the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506.  The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and accomplishes the claimed function.  As shown, a safety device [13] is coupled to the frame [1] and the running belt [11]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature Such joining may be achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the safety device [13] may be coupled to the frame [1] and the running belt [11] directly or indirectly through an intermediate member (e.g.,	13 6 13 0 14B 15B

The '005 Patent	Assault Fitne	ss AirRunner ("the Infringing Product")	
	coupled to the frame [1] via		
	support element [16] and to the		
	running belt [11] via the front		
	running belt pulley [6]).		
	The safety device [13] includes a		
	one-way bearing assembly. See		
	LCF001767 (at row 75		
	"BEARING, ONE-WAY") and		
	LCF002474 (describing the		
	included One-Way Clutch		
	Bearing as "i.e., the safety		
	device"). Specifically, the safety		
	device [13] includes an Altra		
	Industrial Motion brand		
	Combined Bearing/Freewheel		
	type CSK 25 PP "sprag type		
	freewheel[]." Altra Industrial		
	Motion, Overrunning Clutches		
	and Backstops at p. 16 (2017).		
	The CSK 25 PP has "both [an]		
	inner and outer race." <i>Id.</i> at p. 4.		
	See also LCF001867 ("The belt		
	moves freely in only one		
	direction.") Thus, the safety		
	device 13 "restricts rotation to		
	allow for only one rotational		
	direction of movement."		
	The Court construed the terms		
	"first element" and "second		
	element" (and all related terms)		
	as means-plus-function terms.		
	See Dkt. 59 at 30. The claimed		

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	function is "wherein one of the	
	elements freely rotates in a first	
	direction of rotation relative to	
	the frame while being	
	substantially prevented from	
	rotating in a second direction of	
	rotation relative to the frame,	
	opposite the first direction of	
	rotation. The claimed structure is	
	the inner ring 1304 and outer	
	ring 1306 or inner ring 1504 and	
	outer ring 1506.	
	The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and accomplishes the claimed function.	
	The safety device [13] includes a first element [14B] ( <i>i.e.</i> , the "outer race") and a second element [15B] ( <i>i.e.</i> , the "inner	
	race"). The first element [14B]	
	substantially surrounds the	
	second element [15B].	

### The '005 Patent

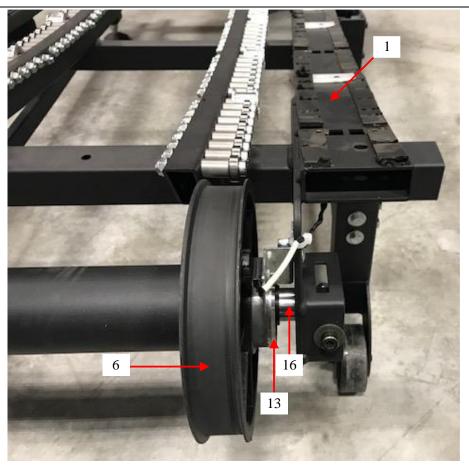
wherein one of the first and second elements of the safety device and the running belt freely rotate in a first direction of rotation relative to the frame,

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 relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame.

### Assault Fitness AirRunner ("the Infringing Product")

"[O]ne 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" and "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 relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame" is literally present in the Infringing Product.

The Court construed the terms "first element" and "second element" (and all related terms) as means-plus-function terms. See Dkt. 59 at 30. The claimed function is "wherein one of the elements freely rotates in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation. The claimed structure is the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506.



The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
	The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and accomplishes the claimed function.  The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety device [13] includes an Altra Industrial Motion brand Combined Bearing/Freewheel type CSK 25 PP "sprag type freewheel[]." Altra Industrial Motion, Overrunning Clutches and Backstops at p. 16 (2017). The CSK 25 PP has "both [an] inner and outer race," and "locking elements are positioned between [the] outer and [the] inner race which effect engaging and disengaging." Id. at p. 4.  As such, the CSK 25 PP "allows rotation in one direction only The freewheel prevents reverse rotation if the drive is	6 13 CSK2SB 13 13 13 15B

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	disconnected [i.e., disengaged] " Id. at p. 3. See also LCF001867 ("The belt moves freely in only one direction.") Thus, the safety device 13 "restricts rotation to allow for only one rotational direction of movement."	
	Because the safety device [13] is coupled to the running belt [11] via first element [14B] and the front running belt pulley [6], and the safety device [13] "allows rotation in one direction only," (id.), the first element [14B] and the running belt [11] are freely rotatable in a first direction around the second element [15B] relative to the frame [1].	
	However, in a second direction of rotation opposite the first direction of rotation, because the safety device [13] "prevents reverse rotation," id., the safety device [13] is structured to "substantially prevent or resist rotation of" the first element [14B] and the running belt [11] relative to the frame [1].	
	The first element [14B] and the second element [15B] therefore perform the identical function as	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	the terms "first element" and "second element." The first element [14B] rotates freely in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation.	
	The first element [14B] and the second element [15B] have a substantially identical structure to the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506 of the '005 Patent. See FIG. 36 of the '005 Patent.	
	Finally, the first element [14B] and the second element [15B] perform the claimed function with substantially the same result as the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506 of the '005 Patent. One of the first element [14B] and the second element [15B] rotates, while the other of the first element [14B] and the second element [15B] is fixed relative to the frame to allow,	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	[14B] and the second element [15B] allow for only one rotational direction of movement or resist rotation in one direction of rotation.	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
The '005 Patent  2. The manually powered treadmill of claim 1,  further comprising a front shaft coupled to the frame, the front shaft being adapted to support the at least one front running belt pulley.	The manually powered treadmill having a "front shaft coupled to the frame," that is "adapted to support the at least one front running belt pulley," is literally present in the Infringing Product.  The Court adopted the plain and ordinary meaning of the term "shaft."  As shown, a front shaft [4] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another Such joining may be achieved with the two members or the two members and any additional intermediate members." <i>See</i> '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the front shaft [4] may be coupled to the frame [1] directly	alt Fitness AirRunner ("the Infringing Product")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	See also, e.g., LCF000166 (Part nos. 511* "Front Roller," 511-A "Front Roller Assembly"), and LCF002475 (illustrating the "Front Roller Subassembly" and the front shaft [4], referred to by as the "Front Roller Tube" supporting two pulleys).	

### The '005 Patent

# 3. The manually powered treadmill of claim 2,

further comprising a rear shaft coupled to the frame, the rear shaft being adapted to support the at least one rear running belt pulley.

### **Assault Fitness AirRunner ("the Infringing Product")**

The manually powered treadmill having a "rear shaft coupled to the frame" that is "adapted to support the at least one rear running belt pulley" is literally present in the Infringing Product.

The Court adopted the plain and ordinary meaning of the term "shaft."

As shown, a rear shaft [5] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another .... Such joining may be achieved with the two members or the two members and any additional intermediate members." *See* '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.

Thus, the rear shaft [5] may be coupled to the frame [1] directly or indirectly through an intermediate member (*e.g.*, via support element [17]).



The '005 Patent	Assau	ult Fitness AirRunner ("the Infringing Product")
4. The manually powered treadmill of claim 1, wherein the first and second elements of the safety device at least partly form a one-way bearing.	As also shown, the rear shaft [5] supports the rear running belt pulley [7].  See also, e.g., LCF000166 (part nos. 512* "Rear Roller," 512-A "Rear Roller Assembly), and LCF002470 (illustrating the "Rear Roller Subassembly" and the rear shaft [5], referred to by as the "Rear Roller Tube" supporting two pulleys).  The "first and second elements of the safety device," forming a "one-way bearing," is literally present in the Infringing Product.  The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety device [13] includes an Altra	alt Fitness AirRunner ("the Infringing Product")
	and is a "self-contained ball	

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assau	llt Fitness AirRunner ("the Infringing Product")
	bearing unit[]." <i>Id.</i> at p. 9.  Specifically, the safety device [13] includes a CSK 25 PP "sprag type freewheel[] integrated into a 62series ball bearing[]" <i>Id.</i> at p. 16 (emphasis added). The CSK 25 PP "allows rotation in one direction only The freewheel prevents reverse rotation" <i>Id.</i> at p. 3.  As shown, the safety device [13] formed by the first element [14B] and the second element [15B] is a one-way bearing — that is a "self-contained ball bearing unit[]," <i>id.</i> at p. 9 (emphasis added), which "allows rotation in one direction only The freewheel prevents reverse rotation," <i>id.</i> at p. 3. Thus, the safety device is a bearing that allows rotation in only one direction, hence a one-way bearing.	13 14B 15B

### The '005 Patent

## Assault Fitness AirRunner ("the Infringing Product")

6. The manually powered treadmill of claim 1,

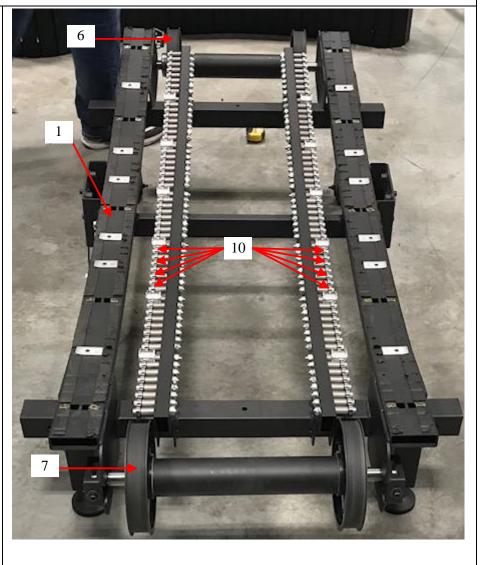
further comprising a plurality of bearings coupled to the frame, at least one bearing of the plurality of bearings configured to at least partially support the running belt. A "plurality of bearings coupled to the frame" and "at least on bearing of the plurality of bearings configured to at least partially support the running belt" is literally present in the Infringing Product.

As shown, a plurality of bearings [10] are coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature .... Such joining may be achieved with the two members or the two members and any additional intermediate members." *See* '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.

Thus, the plurality of bearings [10] may be coupled to the frame [1] directly or indirectly through an intermediate member.

Therefore and as shown, the plurality of bearings [10] is coupled to the frame [1].

As also shown, the running belt [11] is at least partially



The '005 Patent	Assaul	t Fitness AirRunner ("the Infringing Product")
	supported by at least one of the plurality of bearings [10].  See also, e.g., LCF000166 (part no. 545* "Belt Support Bearing" and 545-A "Belt Support Bearing Assembly" which correspond to a plurality of bearings [10]), LCF001993 (under "Specifications" "Running Belt Support: 12 Guide Pulleys; 100 Cartridge Bearings"), LCF002133 (under "Components" "Drive System" listed "100 Precision Ball Bearings w/ 12 Roller Guides"), LCF002467 (titled "03 – Base Frame with Bearings – Guide Pulleys – Rollers.pdf" showing a plurality of bearings coupled to the frame).	

The '005 Patent	Assau	ult Fitness AirRunner ("the Infringing Product")
7. The manually powered treadmill of claim 1,  further comprising a rearwardly extending handle coupled to the frame.	A "rearwardly extending handle coupled to the frame" is literally present in the Infringing Product.  As shown, the manually powered treadmill includes a rearwardly extending handrail [22] that is coupled to the frame [1].  See also, e.g., LCF000168 ("Assembly Step Two: Handrail Installation," describes the process for attaching a handrail to the frame), LCF000228 ("Always grasp the handrail before mounting or dismounting the treadmill,"), LCF000914 (Part No. 504-A "Handrail Assembly").	

The '005 Patent	Assau	ult Fitness AirRunner ("the Infringing Product")
8. The manually powered treadmill of claim 1, wherein the running belt includes at least one slat.	A "running belt" including "at least one slat" is literally present in the Infringing Product.  As shown, the running belt [11] includes at least one slat [33].  See also, e.g., LCF000013 (describing the treadmill as including "a slat belt running surface"), LCF000795 (under "Proposed Product Features" "Slatted belt construction: allows for curved running surface"), and LCF001762 (listing part no. 521* "Running Belt – Single Slat" and 521-A "Running Belt – Single Slat with Fixing Hardware").	33 SSANTALIANNESS

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
9. A treadmill, comprising:	A "treadmill" is literally the infringing product.  The pictured Assault Fitness AirRunner is described in the Assault AirRunner Marketing Brochure, as "one of the lightest weight treadmills." See, e.g., AirRunner The Premier Elite Fitness Running Machine Brochure at p. 2 (2017).  See also, e.g., LCF000017 ("The Assault AirRunner completely redefines the manual treadmill"), LCF000678 (labeling the treadmill as a "Manual Treadmill"), LCF001832 (model described as "AirRunner Manual Treadmill"), LCF001866 (the "Assault AirRunner Warning Label" states "This treadmill is manually operated.").	ASSAUCT TINESS

The '005 Patent	Assault Fitn	ness AirRunner ("the Infringing Product")
a frame;	A "frame" is literally present in the Infringing Product.	
	As shown, the treadmill includes a frame [1].	ESS.
	See also, e.g., LCF001762 (identifying part no. 501 as "Main Frame") and LCF002465 (titled "01 – Base Frame (Welded Together).pdf").	ASSAMUATETY.

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
a rotatable element coupled to the frame;	At least one "rotatable element coupled to the frame" is literally present in the Infringing Product.  As shown, the at least one rotatable element can be the front running belt pulley [6], the rear running belt pulley [7], and/or the plurality of bearings [10], among potentially other components, each of which are coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature Such joining may be achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, Il. 22-27; Dkt. 59 at 8, n.1.  Thus, the rotatable element (i.e., the front running belt pulley [6], the rear running belt pulley [6], and/or the plurality of bearings [10], as an example) may be coupled to the frame [1] directly or indirectly through an intermediate member. Therefore	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	and as shown, the rotatable element ( <i>i.e.</i> , the front running belt pulley [6], the rear running belt pulley [7], and/or the plurality of bearings [10], as an example) is coupled to the frame [1].	
	See also, e.g., LCF000166 (illustrating part no. 511* "Front Roller," part no. 511-A "Front Roller Assembly," part no. 512* "Rear Roller," and part no. 512- A "Rear Roller Assembly", each of which are rotatably coupled to the frame), LCF002470 (illustrating the "Rear Roller Subassembly"), and LCF002475 (illustrating the Front Roller Subassembly), LCF000166 (part no. 545* "Belt Support Bearing" and 545-A "Belt Support Bearing Assembly" which correspond to a plurality of	
	bearings [10]), and LCF002467 (titled "03 – Base Frame with Bearings – Guide Pulleys – Rollers.pdf" showing a plurality of bearings coupled to the frame).	

### The '005 Patent

### a running belt at least partially supported by the rotatable element, wherein the running belt includes a running surface, at least a portion of

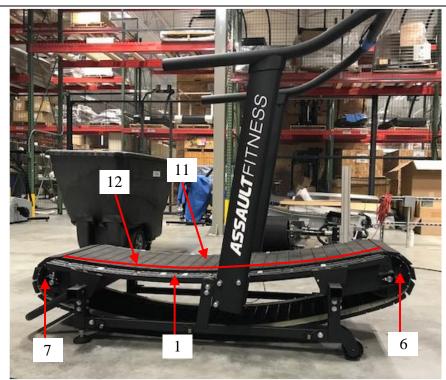
which is curved; and

## Assault Fitness AirRunner ("the Infringing Product")

A "running belt at least partially supported by the rotatable element" where "the running belt includes a running surface, at least a portion which is curved" is literally present in the Infringing Product.

As shown, a running belt [11] includes a curved running surface [12]. The running belt [11] is at least partially supported by the front running belt pulley [6], the rear running belt pulley [7], and the plurality of bearings [10]. While the third picture only shows the front running belt pulley [6] and the plurality of bearings [10] supporting the running belt [11], a corresponding configuration is provided for the rear running belt pulley [7] and the running belt [11].

See also, e.g., LCF000013 (describing the treadmill as including "...a slat belt running surface..."), LCF000795 (under "Proposed Product Features" "Slatted belt construction: allows for curved running surface" and under "Frame" "Shall be designed to support a curved



Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	running surface,"), LCF000895 (under "Low Impact" "The contoured design"), LCF02133 (with "Belt Design" described as "Contoured").	7
		10

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
a first element and a second element, both of which are coupled to the running belt, and  wherein the first element substantially surrounds the second element or the second element substantially surrounds the first element;	A "first element and a second element" "coupled to the running belt" where "the first element substantially surrounds the second element or the second element substantially surrounds the first element" is literally present in the Infringing Product.  The Court construed the terms "first element" and "second element" (and all related terms) as means-plus-function terms. See Dkt. 59 at 30. The claimed function is "wherein one of the elements freely rotates in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation. The claimed structure is the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506.  The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and	6

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	accomplishes the claimed function.  As shown, a safety device [13] is coupled to the frame [1] and the running belt [11]. The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety device [13] includes an Altra Industrial Motion brand Combined Bearing/Freewheel type CSK 25 PP "sprag type freewheel[]." See, e.g., Altra Industrial Motion, Overrunning Clutches and Backstops at p. 16 (2017). The CSK 25 PP has "both [an] inner and outer race." Id. at p. 4.  Therefore, the safety device [13] includes a first element [14B] (i.e., the "outer race", comparable to the outer ring 1306 or the outer ring 1506) and a second element [15B] (i.e., the "inner race", comparable to the inner ring 1504), both of which are coupled to the frame [1]. As defined in	13 6 11 6 12 13 13 13 13 13 14B 15B

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature Such joining may be achieved with the two members or the two members and any additional intermediate members." <i>See</i> '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the first element [14B] and the second element [15B] may be coupled to the frame [1] directly or indirectly through an intermediate member ( <i>e.g.</i> , via support element [16]).  As also shown, the first element [14B] substantially surrounds the second element [15B].	13 14B 15B

### The '005 Patent

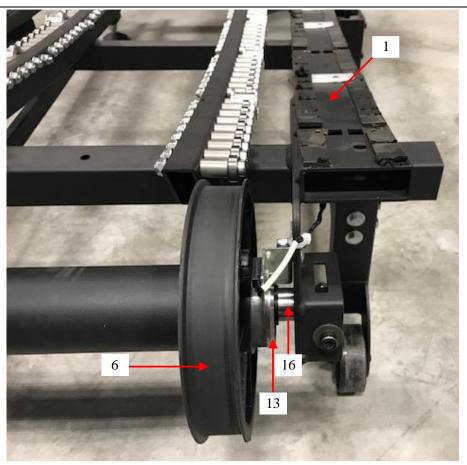
wherein one of the first and second elements and the running belt freely rotate in a first direction of rotation relative to the frame.

however, in a second direction of rotation, opposite the first direction of rotation, the one of the first and second elements is substantially prevented from rotation relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame.

### Assault Fitness AirRunner ("the Infringing Product")

"[O]ne 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" and "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 relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame" is literally present in the Infringing Product.

The Court construed the terms "first element" and "second element" (and all related terms) as means-plus-function terms. See Dkt. 59 at 30. The claimed function is "wherein one of the elements freely rotates in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation. The claimed structure is the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506.



The '005 Patent	Assault	t Fitness AirRunner ("the Infringing Product")
	The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and accomplishes the claimed function.  The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety device [13] includes an Altra Industrial Motion brand Combined Bearing/Freewheel type CSK 25 PP "sprag type freewheel[]." See, e.g., Altra Industrial Motion, Overrunning Clutches and Backstops at p. 16 (2017). The CSK 25 PP has "both [an] inner and outer race," and "locking elements are positioned between [the] outer and [the] inner race which effect engaging and disengaging." Id. at p. 4.  As such, the CSK 25 PP "allows rotation in one direction only The freewheel prevents reverse	6 13 14B 15B 13B

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	rotation if the drive is disconnected [i.e., disengaged]" Id. at p. 3.Because the safety device [13] is coupled to the running belt [11] via the front running belt pulley [6] and the safety device [13] "allows rotation in one direction only," id., the first element [14B] and the running belt [11] are freely	
	rotatable in a first direction around the second element [15B] relative to the frame [1].  However, in a second direction of rotation opposite the first direction of rotation, because the safety device [13] "prevents reverse rotation," id. at p. 3,	
	the safety device [13] is structured to "substantially prevent or resist rotation of" the first element [14B] and the running belt [11] relative to the frame [1].	
	The first element [14B] and the second element [15B] therefore perform the identical function as the terms "first element" and "second element." The first element [14B] rotates freely in a first direction of rotation relative to the frame while being	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation.	
	The first element [14B] and the second element [15B] have a substantially identical structure to the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506 of the '005 Patent. See FIG. 36 of the '005 Patent.	
	Finally, the first element [14B] and the second element [15B] perform the claimed function with substantially the same result as the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506 of the '005  Patent. One of the first element [14B] and the second element [15B] rotates, while the other of the first element [14B] and the second element [15B] is fixed relative to the frame to allow, and together the first element [14B] and the second element [15B] allow for only one rotational direction of movement	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
10. The treadmill of claim 9, wherein only one of the first and second elements is freely rotatable relative to the frame.	"[O]nly one of the first and second elements is freely rotatable relative to the frame," is literally present in the Infringing Product.  As shown, the second element [15B] is fixed to the support element [16], and the first element [14B] freely rotates relative to the frame [1].  See also, e.g., LCF002474 ("illustrating the "One-Way Clutch Bearing (i.e., Safety Device)" is coupled to the "Front Shaft" i.e., support element [16] and the "Front Shaft Key" locks the second element [15B] to the "Front Shaft" i.e., support element [16]).	

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")
	6 14B 16

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
		6 13 14B 15B
11. The treadmill of claim 9, wherein the treadmill is non-motorized.	A "treadmill" that is "non-motorized" is literally the Infringing Product.  The pictured Assault Fitness AirRunner is described in the Assault AirRunner Marketing Brochure, as a "completely manual [treadmill], with no electrical consumption." See, e.g., AirRunner The Premier Elite Fitness Running Machine Brochure at p. 2 (2017).  See also, e.g., LCF000017 ("The Assault AirRunner completely redefines the manual treadmill"), LCF000678 (labeling the treadmill as a "Manual Treadmill"), LCF001832 (model described as "AirRunner Manual Treadmill"), LCF001866 (the "Assault AirRunner Warning Label"	ASSAUCT FILLNESS ASSAUCT FILLNESS

Appendix D – Claim Chart for U.S. Patent No. 11,465,005 ("the '005 Patent")

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	states "This treadmill is manually operated.").	
12. The treadmill of claim 9, wherein the first and second elements at least partly form a one-way bearing.	The "first and second elements," forming a "one-way bearing," is literally present in the Infringing Product.  The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety device [13] includes an Altra Industrial Motion brand type CSK 25 PP. The CSK 25 PP has "both [an] inner and outer race," see, e.g., Altra Industrial Motion, Overrunning Clutches and Backstops at p. 4 (2017), and is a "self-contained ball bearing unit[]." Id. at p. 9 (emphasis added). Specifically, the safety device [13] is a CSK 25 PP "sprag type freewheel[] integrated into a 62series ball bearing[]" Id. at p. 16 (emphasis added). The CSK 25 PP "allows rotation in one direction only The freewheel	6

The '005 Patent	Assau	Assault Fitness AirRunner ("the Infringing Product")	
	prevents reverse rotation" <i>Id.</i> at p. 3.		
	As shown, the safety device [13] formed by the first element [14B] and the second element [15B] is a one-way bearing — that is a "self-contained ball bearing unit[]," id. at p. 9 (emphasis added), which "allows rotation in one direction only		
	The freewheel prevents reverse rotation " <i>Id.</i> at p. 3. Thus, the safety device is a bearing that		
	allows rotation in only one direction, hence a one-way bearing.		

#### The '005 Patent

#### 13. The treadmill of claim 9,

further comprising a plurality of bearings coupled to the frame, at least one bearing of the plurality of bearings configured to at least partially support the running belt.

#### Assault Fitness AirRunner ("the Infringing Product")

A "plurality of bearings coupled to the frame" and "at least on bearing of the plurality of bearings configured to at least partially support the running belt" is literally present in the Infringing Product.

As shown, a plurality of bearings [10] are coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature .... Such joining may be achieved with the two members or the two members and any additional intermediate members." *See* '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.

Thus, the plurality of bearings [10] may be coupled to the frame [1] directly or indirectly through an intermediate member.

Therefore and as shown, the plurality of bearings [10] is coupled to the frame [1].

As also shown, the running belt [11] is at least partially



The '005 Patent	Assau	It Fitness AirRunner ("the Infringing Product")
	supported by at least one of the plurality of bearings [10].  See also, e.g., LCF000166 (part no. 545* "Belt Support Bearing" and 545-A "Belt Support Bearing Assembly" which correspond to a plurality of bearings [10]), LCF001993 (under "Specifications" "Running Belt Support: 12 Guide Pulleys; 100 Cartridge Bearings"), LCF002133 (under "Components" "Drive System" listed "100 Precision Ball Bearings w/ 12 Roller Guides"), LCF002467 (titled "03 – Base Frame with Bearings – Guide Pulleys – Rollers.pdf" showing a plurality of bearings coupled to the frame).	

The '005 Patent	Assaul	t Fitness AirRunner ("the Infringing Product")
15. A manually powered treadmill, comprising:	A "manually powered treadmill" is literally the infringing product.  The pictured Assault Fitness AirRunner is described in the Assault AirRunner Marketing Brochure as a "completely manual [treadmill], with no electrical consumption." See, e.g., AirRunner The Premier Elite Fitness Running Machine Brochure at p. 2 (2017).  See also, e.g., LCF000017 ("The Assault AirRunner completely redefines the manual treadmill"), LCF000678 (labeling the treadmill as a "Manual Treadmill"), LCF001832 (model described as "AirRunner Manual Treadmill"), LCF001866 (the "Assault AirRunner Warning Label" states "This treadmill is manually operated").	ASSAULT FILMESS

The '005 Patent	Assault Fitn	ess AirRunner ("the Infringing Product")
The '005 Patent a frame;	A "frame" is literally present in the Infringing Product.  As shown, the treadmill includes a frame [1].  See also, e.g., LCF001762 (identifying part no. 501 as "Main Frame"), and (titled "01 – Base Frame (Welded Together).pdf").	ess AirRunner ("the Infringing Product")

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
at least one front running belt pulley coupled to the frame;	A "front running belt pulley coupled to the frame" is literally present in the Infringing Product.  As shown, at least one front running belt pulley [6] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another Such joining may be achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the front running belt pulley [6] may be coupled to the frame [1] directly or indirectly through an intermediate member (e.g., via support element [16]).  See also, e.g., LCF000166 (illustrating part no. 511* "Front Roller," and part no. 511-A "Front Roller Assembly" which is shown to include a pulley coupled to the frame) and LCF002475 (illustrating the "Front Roller Subassembly" includes two pulleys).	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
at least one rear running belt pulley coupled to the frame and spaced a distance from the at least one front running belt pulley;	A "rear running belt pulley coupled to the frame" and "spaced a distance from the at least one front running belt pulley" is literally present in the Infringing Product.  As shown, at least one rear running belt pulley [7] is coupled to the frame [1]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another Such joining may be achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the rear running belt pulley [7] may be coupled to the frame [1] directly or indirectly through an intermediate member (e.g., via support element [17]).  As also shown, the rear running belt pulley [7] is spaced a distance [31] from the at least one front running belt pulley [6].	

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
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; and	See also, e.g., LCF000166 (illustrating part no. 512* "Rear Roller," and part no. 512-A "Rear Roller Assembly" which is shown to include a pulley coupled to the frame) and LCF002470 (titled "03c – Rear Roller Assembly.pdf" and illustrating at least one pulley as part of the "Rear Roller Assembly").  A "running belt at least partially supported by at least one of the at least one of front running belt pulley and the at least one rear running belt includes a running surface, at least a portion which is curved" is literally present in the Infringing Product.  As shown, running belt [11] includes a curved running surface [12]. The running belt [11] is supported by the at least one of the at least one front running belt pulley [6] and the at least one rear running belt pulley [7]. While the third picture only shows the front running belt pulley [6] supporting the running belt [11], a corresponding configuration is provided for the	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	rear running belt pulley [7] and the running belt [11].  See also, e.g., LCF000013 (describing the treadmill as including "a slat belt running surface"), LCF000795 (under "Proposed Product Features" "Slatted belt construction: allows for curved running surface" and under "Frame" "Shall be designed to support a curved running surface,"), LCF000895 (under "Low Impact" "The contoured design"), LCF02133 (with "Belt Design" described as "Contoured").	6 11

#### The '005 Patent

a safety device coupled to the frame and the running belt, the safety device having an element adapted for rotation relative to the frame in a first direction of rotation relative to the frame,

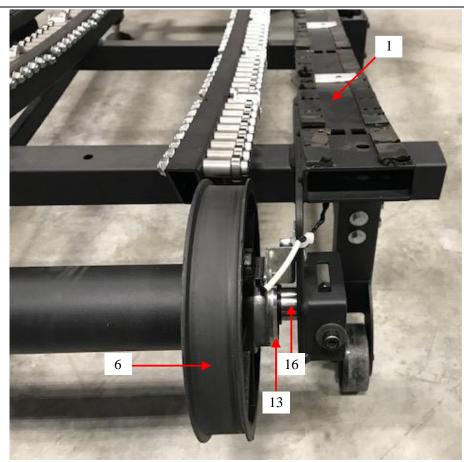
however, in a second direction of rotation, opposite the first direction of rotation, the element is substantially prevented from rotation relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame; and

### Assault Fitness AirRunner ("the Infringing Product")

A "safety device coupled to the frame and the running belt" and having "an element adapted for rotation relative to the frame in a first direction of rotation relative to the frame" however "in a second direction of rotation, opposite the first direction of rotation, the element is substantially prevented from rotation relative to the frame to substantially prevent or resist rotation of the running belt relative to the frame" is literally present in the Infringing Product.

The Court construed the term "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."

As shown, a safety device [13] is coupled to the frame [1] and the running belt [11]. As defined in the specification, and construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature .... Such joining may be



The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
The '005 Patent	achieved with the two members or the two members and any additional intermediate members." See '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.  Thus, the safety device [13] may be coupled to the frame [1] and the running belt [11] directly or indirectly through an intermediate member (e.g., coupled to the frame [1] via support element [16] and to the running belt [11] via the front running belt pulley [6]).  The safety device [13] includes a one-way bearing assembly. See LCF001767 (at row 75 "BEARING, ONE-WAY") and LCF002474 (describing the included One-Way Clutch Bearing as "i.e., the safety device"). Specifically, the safety	alt Fitness AirRunner ("the Infringing Product")
	device [13] includes an Altra Industrial Motion brand Combined Bearing/Freewheel type CSK 25 PP "sprag type freewheel[]." See, e.g., Altra Industrial Motion, Overrunning Clutches and Backstops at p. 16 (2017). The CSK 25 PP has "both [an] inner and outer race,"	14C

The '005 Patent	Assau	alt Fitness AirRunner ("the Infringing Product")
	and "locking elements are positioned between [the] outer	
	and [the] inner race which effect	
	engaging and disengaging." <i>Id</i> .	
	at p. 4. As such, the CSK 25 PP	
	"allows rotation in one direction	
	only The freewheel prevents	
	reverse rotation if the drive is	
	disconnected [i.e., disengaged]	
	" <i>Id.</i> at p. 3. <i>See also</i>	
	LCF001867 ("The belt moves	
	freely in only one direction.")	
	Thus, the safety device 13	
	"restricts rotation to allow for	
	only one rotational direction of	
	movement."	
	The Court construed the terms	
	"first element" and "second	
	element" (and all related terms	
	such as "element") as means-	
	plus-function terms. See Dkt. 59	
	at 30. The claimed function is	
	"wherein one of the elements	
	freely rotates in a first direction	
	of rotation relative to the frame	
	while being substantially	
	prevented from rotating in a	
	second direction of rotation	
	relative to the frame, opposite	
	the first direction of rotation.	
	The claimed structure is the	
	inner ring 1304 and outer ring	

The '005 Patent	Assaul	t Fitness AirRunner ("the Infringing Product")
	1306 or inner ring 1504 and outer ring 1506.	
	The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and accomplishes the claimed function.	
	The safety device [13] includes an element [14C] ( <i>i.e.</i> , the "outer race", comparable to the outer ring 1306 or the outer ring 1506). Because the safety device [13] is coupled to the running belt [11] via the front running belt pulley [6] and the safety device [13] "allows rotation in one direction only," <i>id.</i> , the element [14C] is adapted for rotation relative to the frame [1] in a first direction relative to the frame [1].	
	However, in a second direction of rotation opposite the first direction of rotation, because the safety device [13] "prevents reverse rotation," <i>id.</i> at p. 3, the safety device [13] is structured to substantially prevent the element [14C] from	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")
	rotation relative to the frame "to substantially prevent or resist rotation of the running belt [11] relative to the frame [1]."
	The element [14C] has the identical function as the claimed "element." The element [14C] rotates freely in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation.
	The element [14C] has a substantially identical structure to the outer ring 1306 or the outer ring 1506 of the '005 Patent. See FIG. 36 of the '005 Patent.
	Finally, the element [14C] performs the claimed function with substantially the same result as the outer ring 1306 or the outer ring 1506 of the '005 Patent. The second element [14C] is part of the structure which allows for only one rotational direction of movement or resist rotation in one direction of rotation.

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
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.	A "safety device" includes "another element" where "one of the element and the another element substantially surrounds the other of the element and the another element" is literally present in the Infringing Product.  The Court construed the terms "first element" and "second element" (and all related terms such as "element") as means- plus-function terms. The claimed function is "wherein one of the elements freely rotates in a first direction of rotation relative to the frame while being substantially prevented from rotating in a second direction of rotation relative to the frame, opposite the first direction of rotation. The claimed structure is the inner ring 1304 and outer ring 1306 or inner ring 1504 and outer ring 1506.  The Infringing Product meets the means-plus-function limitation. The Infringing Product contains at least one of the identified corresponding structures (or their equivalents) and	6 13 13 13 13 13 13 13 13 13 13 13 13 13

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	accomplishes the claimed	
	function.	
	The safety device [13] includes a	
	one-way bearing assembly. See	
	LCF001767 (at row 75	
	"BEARING, ONE-WAY") and	
	LCF002474 (describing the	
	included One-Way Clutch	
	Bearing as "i.e., the safety	
	device"). Specifically, the safety	
	device [13] includes an Altra	
	Industrial Motion brand	
	Combined Bearing/Freewheel	
	type CSK 25 PP "sprag type	
	freewheel[]." See, e.g., Altra	
	Industrial Motion, Overrunning	
	Clutches and Backstops at p. 16	
	(2017). The CSK 25 PP has	
	"both [an] inner and outer race,"	
	and "locking elements are	
	positioned between [the] outer	
	and [the] inner race which effect	
	engaging and disengaging." Id.	
	at p. 4. As such, the CSK 25 PP	
	"allows rotation in one direction	
	only The freewheel prevents	
	reverse rotation if the drive is	
	disconnected [i.e., disengaged]	
	" Id. at p. 3. See also	
	LCF001867 ("The belt moves	
	freely in only one direction.")	
	Thus, the safety device 13	

The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	"restricts rotation to allow for only one rotational direction of movement."	
	The safety device [13] includes an element [14C] ( <i>i.e.</i> , the "outer race") and another element [15C] ( <i>i.e.</i> , the "inner race"). As shown, the element [14C] substantially surrounds the another element [15C].	
	The element [15C] has the identical function as the claimed "another element." The element [15C] is fixed relative to the frame and substantially surrounded by the element [14C].	
	The element [15C] has a substantially identical structure to the inner ring 1304 or the inner ring 1504 of the '005 Patent. See FIG. 36 of the '005 Patent.	
	Finally, the element [15C] performs the claimed function with substantially the same result as the inner ring 1304 or the inner ring 1504 of the '005 Patent. The second element [15C] is part of the structure	

The '005 Patent	Assau	lt Fitness AirRunner ("the Infringing Product")
	which allows for only one rotational direction of movement or resist rotation in one direction of rotation.	

The '005 Patent
16. The manually powered treadmill of claim 15,
further comprising a plural of bearings coupled to the

frame, wherein at least one

bearing in the plurality of

bearings at least partially supports the running belt.

A "plurality of bearings coupled to the frame" and "at least on bearing of the plurality of bearings configured to at least partially support the running belt" is literally present in the

Infringing Product.

As shown, a plurality of bearings [10] are coupled to the frame [1]. As defined in the specification, and as construed by the Court, "the term 'coupled' means the joining of two members directly or indirectly to one another. Such joining may be stationary or moveable in nature .... Such joining may be achieved with the two members or the two members and any additional intermediate members." *See* '005 Patent at col. 32, ll. 22-27; Dkt. 59 at 8, n.1.

Thus, the plurality of bearings [10] may be coupled to the frame [1] directly or indirectly through an intermediate member.

Therefore and as shown, the plurality of bearings [10] is coupled to the frame [1].

As also shown, the running belt [11] is at least partially

### Assault Fitness AirRunner ("the Infringing Product")



The '005 Patent	Assault Fitness AirRunner ("the Infringing Product")	
	supported by at least one of the plurality of bearings [10].	
	See also, e.g., LCF000166 (part no. 545* "Belt Support Bearing" and 545-A "Belt Support Bearing Assembly" which correspond to a plurality of bearings [10]), LCF001993 (under "Specifications" "Running Belt Support: 12 Guide Pulleys; 100 Cartridge Bearings"), LCF002133 (under "Components" "Drive System" listed "100 Precision Ball Bearings w/ 12 Roller Guides"), LCF002467 (titled "03 – Base Frame with Bearings – Guide Pulleys – Rollers.pdf" showing a plurality of bearings coupled to the frame).	